



*Your Reliable Power Partner*  
Standard Switching Power Supply Manufacturer



2017 May  
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## ■AC/DC Enclosed

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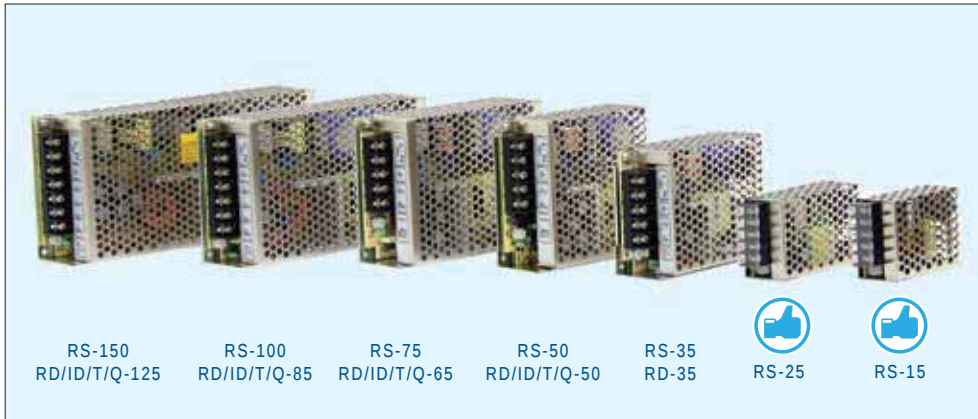
|              |                                                |     |
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| Type                 | Series                | Model No.                                        | Page  |
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| AC/DC Enclosed       | Medical               | MSP-100 / 200 / 300 / 450 / 600                  | 6     |
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| Type                 | Series             | Model No.                                        | Page  |
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|                      |                    | EPP-100 / 150 / 200 / 300 / 400                  | 53    |
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|                      |                    | GST40A / 60A / 90A / 120A                        | 59    |
|                      |                    | GST160A / 220A / 280A                            | 60    |
| Battery Charger      | Portable           | ENP-120 / 180 / 240 / 360                        | 72    |
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|  |                                    |  |                             |
|--|------------------------------------|--|-----------------------------|
|  | : New Announced                    |  | : Coming Soon               |
|  | : New Product within 2 Years       |  | : Supplementary Information |
|  | : The Premium Series               |  |                             |
|  | : The Best Cost-Performance Series |  |                             |

# Enclosed-G3 Series High Reliability Compact



## ■ Features

- No load power consumption <0.5W (RS-15~75)
- All using 105°C long life electrolytic capacitors
- Protections: Short circuit / Overload / Over voltage / Over Temp. (RS-15)
- Meet EMS EN50082-2/EN61000-6-2 heavy industry level (35~150W)
- Withstand 300VAC surge input for 5 sec.
- High operating temperature up to 70°C
- Withstand 5G vibration test
- Miniature size
- Long life and high reliability
- LED indicator for power on
- Suitable for critical applications
- 3 years warranty

## ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



(RS-15, 25, 50 only)

| Model No.                | RS-15                                                                                                                      | RS-25                                                      | RS-35<br>RD-35                                                          | RS-50<br>RD / ID / T / Q-50 | RS-75<br>RD / ID / T / Q-65 | RS-100<br>RD / ID / T / Q-85 | RS-150<br>RD / ID / T / Q-125 |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------|-----------------------------|------------------------------|-------------------------------|
| AC input voltage range   | 85~264VAC, 120~370VDC                                                                                                      | 88~264VAC, 125~373VDC                                      |                                                                         |                             |                             |                              | 115 / 230VAC by switch        |
| AC inrush current (max.) | Cold start, 65A at 230VAC                                                                                                  | 30A at 230VAC                                              | 36A at 230VAC                                                           | 33A at 230VAC               | 40A at 230VAC               |                              |                               |
| DC adjustment range      | ±10% by potentiometer for single output; CH1 -5%~+10% by potentiometer for multiple output                                 |                                                            |                                                                         |                             |                             |                              |                               |
| Overload protection      | >105%, hiccup mode                                                                                                         | 110%~180%                                                  | 110%~150% hiccup mode, auto-recovery (150% ~190% for RID-125-1205/2405) |                             |                             |                              |                               |
| Over voltage protection  | 115%~135%, shut off                                                                                                        | 115%~135% rated output voltage, hiccup mode, auto-recovery |                                                                         |                             |                             |                              |                               |
| Withstand voltage        | I/P - O/P: 3kVAC, I/P - FG: 1.5kVAC, O/P - FG: 0.5kVAC, 1 minute                                                           |                                                            |                                                                         |                             |                             |                              |                               |
| Working temperature      | -20~+70°C                                                                                                                  |                                                            | -25~+70°C (refer to the derating curve for different models)            |                             |                             |                              |                               |
| Vibration                | 10~500Hz, 5G 10min. /1 cycle, period for 60 min. each along X, Y, Z axes                                                   |                                                            |                                                                         |                             |                             |                              |                               |
| Safety standards         | UL60950-1, TUV EN60950-1, CCC GB4943(RS-15, 25, 50 only) approved                                                          |                                                            |                                                                         |                             |                             |                              |                               |
| EMC standards            | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2) (35~150W); GB9254 for RS-15, 25, 50 only |                                                            |                                                                         |                             |                             |                              |                               |
| Connection               | Terminal block for input and output                                                                                        |                                                            |                                                                         |                             |                             |                              |                               |
| Dimension (LxWxH)(mm)    | 62.5x 51x 28                                                                                                               | 78x 51x 28                                                 | 99x 82x 36                                                              | 99x 97x 36                  | 129x 97x 38                 | 159x 97x 38                  | 199x 98x 38                   |
| Case No.                 | 971A                                                                                                                       | 931A                                                       | 932A                                                                    | 905B                        | 903                         | 901C                         | 902A                          |
| Packing                  | 108pcs /15.0kg                                                                                                             | 60pcs /13.0kg                                              | 45pcs /14.0kg                                                           | 45pcs /19.5kg               | 30pcs /13.3kg               | 24pcs /15.4kg                | 20pcs /15kg                   |

## ■ 15W — Single Output

| Model No. | Output        | Tol. | R&N   | Effi. |
|-----------|---------------|------|-------|-------|
| RS-15-3.3 | 3.3V, 0~3.0A  | ±3%  | 80mV  | 72%   |
| RS-15-5   | 5V, 0~3.0A    | ±2%  | 80mV  | 77%   |
| RS-15-12  | 12V, 0~1.3A   | ±1%  | 120mV | 81%   |
| RS-15-15  | 15V, 0~1.0A   | ±1%  | 120mV | 81%   |
| RS-15-24  | 24V, 0~0.625A | ±1%  | 200mV | 82%   |
| RS-15-48  | 48V, 0~0.313A | ±1%  | 200mV | 82%   |

|          |             |     |       |       |
|----------|-------------|-----|-------|-------|
| RS-50-15 | 15V, 0~3.4A | ±1% | 120mV | 86.0% |
| RS-50-24 | 24V, 0~2.2A | ±1% | 120mV | 88.0% |
| RS-50-48 | 48V, 0~1.1A | ±1% | 200mV | 89.0% |

## ■ 75W — Single Output

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| RS-75-3.3 | 3.3V, 0~15A | ±3%  | 80mV  | 75.0% |
| RS-75-5   | 5V, 0~12A   | ±2%  | 80mV  | 79.0% |
| RS-75-12  | 12V, 0~6.0A | ±1%  | 120mV | 84.5% |
| RS-75-15  | 15V, 0~5.0A | ±1%  | 120mV | 86.0% |
| RS-75-24  | 24V, 0~3.2A | ±1%  | 120mV | 88.5% |
| RS-75-48  | 48V, 0~1.6A | ±1%  | 200mV | 89.5% |

## ■ 100W — Single Output

| Model No.  | Output      | Tol. | R&N   | Effi. |
|------------|-------------|------|-------|-------|
| RS-100-3.3 | 3.3V, 0~20A | ±3%  | 80mV  | 74%   |
| RS-100-5   | 5V, 0~16A   | ±2%  | 80mV  | 77%   |
| RS-100-12  | 12V, 0~8.5A | ±1%  | 120mV | 81%   |
| RS-100-15  | 15V, 0~7.0A | ±1%  | 120mV | 82%   |
| RS-100-24  | 24V, 0~4.5A | ±1%  | 120mV | 84%   |
| RS-100-48  | 48V, 0~2.3A | ±1%  | 200mV | 84%   |

## ■ 150W — Single Output

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| RS-150-3.3 | 3.3V, 0~30A  | ±3%  | 80mV  | 74%   |
| RS-150-5   | 5V, 0~26A    | ±2%  | 80mV  | 78%   |
| RS-150-12  | 12V, 0~12.5A | ±1%  | 120mV | 83%   |
| RS-150-15  | 15V, 0~10A   | ±1%  | 120mV | 84%   |
| RS-150-24  | 24V, 0~6.5A  | ±1%  | 120mV | 86%   |
| RS-150-48  | 48V, 0~3.3A  | ±1%  | 200mV | 87%   |

## ■ 25W — Single Output

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| RS-25-3.3 | 3.3V, 0~6.0A | ±3%  | 80mV  | 73.5% |
| RS-25-5   | 5V, 0~5.0A   | ±2%  | 80mV  | 78.5% |
| RS-25-12  | 12V, 0~2.1A  | ±1%  | 120mV | 81.5% |
| RS-25-15  | 15V, 0~1.7A  | ±1%  | 120mV | 83.5% |
| RS-25-24  | 24V, 0~1.1A  | ±1%  | 120mV | 86.0% |
| RS-25-48  | 48V, 0~0.57A | ±1%  | 200mV | 85.0% |

## ■ 35W — Single Output

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| RS-35-3.3 | 3.3V, 0~7.0A | ±3%  | 80mV  | 76.5% |
| RS-35-5   | 5V, 0~7.0A   | ±2%  | 80mV  | 80.5% |
| RS-35-12  | 12V, 0~3.0A  | ±1%  | 120mV | 84.5% |
| RS-35-15  | 15V, 0~2.4A  | ±1%  | 120mV | 86.0% |
| RS-35-24  | 24V, 0~1.5A  | ±1%  | 120mV | 88.0% |
| RS-35-48  | 48V, 0~0.8A  | ±1%  | 200mV | 88.5% |

## ■ 50W — Single Output

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| RS-50-3.3 | 3.3V, 0~10A | ±3%  | 80mV  | 78.0% |
| RS-50-5   | 5V, 0~10A   | ±2%  | 80mV  | 83.0% |
| RS-50-12  | 12V, 0~4.2A | ±1%  | 120mV | 84.5% |

# Enclosed-G3 Series



## 35W — Dual Output

| Model No. | Output            | Tol. | R&N   | Effi. | Max. |
|-----------|-------------------|------|-------|-------|------|
| RD-35A    | 5V, 0.3~4.0A      | ±2%  | 80mV  | 79%   | 32W  |
|           | 12V, 0.2~1.0A     | ±6%  | 120mV |       |      |
| RD-35B    | 5V, 0.3~4.0A      | ±2%  | 80mV  | 82%   | 35W  |
|           | 24V, 0.2~1.3A     | ±5%  | 120mV |       |      |
| RD-3513   | 13.5V, 0.3~2.0A   | ±4%  | 120mV | 80%   | 35W  |
|           | -13.5V, 0.2~0.57A | ±4%  | 120mV |       |      |

## 50W — Dual Output (Output isolated for RID-50A/B)

| Model No. | Output        | Tol.     | R&N   | Effi. | Max. |
|-----------|---------------|----------|-------|-------|------|
| RD-50A    | 5V, 0.3~6.0A  | ±2%      | 80mV  | 79%   | 54W  |
|           | 12V, 0.3~3.0A | ±7%      | 120mV |       |      |
| RD-50B    | 5V, 0.3~6.0A  | ±2%      | 80mV  | 80%   | 54W  |
|           | 24V, 0.2~2.0A | +8%, -4% | 120mV |       |      |

## 65W — Dual Output (Output isolated for RID-65A/B)

| Model No. | Output        | Tol.     | R&N   | Effi. | Max. |
|-----------|---------------|----------|-------|-------|------|
| RD-65A    | 5V, 0.3~8.0A  | ±2%      | 80mV  | 79%   | 66W  |
|           | 12V, 0.2~4.0A | ±6%      | 120mV |       |      |
| RD-65B    | 5V, 0.3~8.0A  | ±2%      | 80mV  | 78%   | 68W  |
|           | 24V, 0.2~3.0A | +4%, -6% | 150mV |       |      |

## 85W — Dual Output (Output isolated for RID-85A/B)

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| RD-85A    | 5V, 2.0~10A   | ±2%  | 80mV  | 78%   | 88W  |
|           | 12V, 0.3~5.0A | ±5%  | 120mV |       |      |
| RD-85B    | 5V, 2.0~10A   | ±2%  | 80mV  | 80%   | 88W  |
|           | 24V, 0.3~2.5A | ±5%  | 120mV |       |      |

## 125W — Dual Output

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| RD-125A   | 5V, 2.0~15A   | ±5%  | 80mV  | 82%   | 131W |
|           | 12V, 0.5~10A  | ±7%  | 120mV |       |      |
| RD-125B   | 5V, 2.0~10A   | ±5%  | 80mV  | 85%   | 133W |
|           | 24V, 0.4~5.0A | ±7%  | 120mV |       |      |

## 125W — Dual Output (Output isolated for RID-125)

| Model No.    | Output         | Tol.     | R&N   | Effi. | Max. |
|--------------|----------------|----------|-------|-------|------|
| RD-125-1224  | 12V, 1.0~7.0A  | ±2%      | 120mV | 85%   | 133W |
|              | 24V, 0.4~5.0A  | +8%, -5% | 200mV |       |      |
| RD-125-2412  | 24V, 0.5~5.0A  | ±2%      | 200mV | 85%   | 133W |
|              | 12V, 1.0~7.0A  | ±10%     | 120mV |       |      |
| RD-125-1248  | 12V, 1.0~7.0A  | ±2%      | 120mV | 86%   | 138W |
|              | 48V, 0.2~2.5A  | +8%, -5% | 240mV |       |      |
| RD-125-4812  | 48V, 0.3~2.5A  | ±2%      | 240mV | 86%   | 138W |
|              | 12V, 1.0~7.0A  | ±10%     | 120mV |       |      |
| RD-125-2448  | 24V, 0.5~4.0A  | ±1%      | 200mV | 86%   | 144W |
|              | 48V, 0.2~2.5A  | ±4%      | 240mV |       |      |
| RD-125-4824  | 48V, 0.3~2.5A  | ±1%      | 240mV | 86%   | 144W |
|              | 24V, 0.5~4.0A  | ±8%      | 240mV |       |      |
| RID-125-1205 | 12V, 2.0~10.5A | ±2%      | 120mV | 80%   | 125W |
|              | 5V, 0.0~3.0A   | ±3%      | 80mV  |       |      |
| RID-125-2405 | 24V, 2.0~5.3A  | ±2%      | 120mV | 83%   | 125W |
|              | 5V, 0.0~3.0A   | ±3%      | 80mV  |       |      |

## 50W — Quad Output (RT-50 without -5V or -12V output)

| Model No. | Output         | Tol.     | R&N   | Effi. | Max. |
|-----------|----------------|----------|-------|-------|------|
| RQ-50B    | 5V, 0.5~6.0A   | ±2%      | 80mV  | 74%   | 46W  |
|           | 12V, 0.2~1.5A  | ±6%      | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±3%      | 100mV |       |      |
|           | -12V, 0.0~1.0A | ±3%      | 80mV  |       |      |
| RQ-50C    | 5V, 0.5~6.0A   | ±2%      | 80mV  | 75%   | 50W  |
|           | 15V, 0.2~1.5A  | ±6%      | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±3%      | 100mV |       |      |
|           | -15V, 0.0~1.0A | ±3%      | 80mV  |       |      |
| RQ-50D    | 5V, 0.5~6.0A   | ±2%      | 80mV  | 79%   | 53W  |
|           | 12V, 0.2~1.5A  | ±6%      | 120mV |       |      |
|           | 24V, 0.1~1.0A  | +7%, -5% | 180mV |       |      |
|           | -12V, 0.0~1.0A | ±3%      | 80mV  |       |      |

## 65W — Quad Output (RT-65 without -5V or -12V output)

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| RQ-65B    | 5V, 0.5~8.0A   | ±2%       | 80mV  | 76%   | 63W  |
|           | 12V, 0.2~3.0A  | +9%, -5%  | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±5%       | 80mV  |       |      |
|           | -12V, 0.0~1.0A | ±5%       | 80mV  |       |      |
| RQ-65C    | 5V, 0.5~8.0A   | ±2%       | 80mV  | 76%   | 65W  |
|           | 15V, 0.2~3.0A  | +10%, -4% | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±5%       | 80mV  |       |      |
|           | -15V, 0.0~1.0A | ±5%       | 80mV  |       |      |
| RQ-65D    | 5V, 0.5~8.0A   | ±2%       | 80mV  | 78%   | 68W  |
|           | 12V, 0.2~3.0A  | ±6%       | 120mV |       |      |
|           | 24V, 0.1~1.5A  | ±8%       | 180mV |       |      |
|           | -12V, 0.0~1.0A | ±5%       | 80mV  |       |      |

## 85W — Quad Output (RT-85 without -5V or -12V output)

| Model No. | Output         | Tol.     | R&N   | Effi. | Max. |
|-----------|----------------|----------|-------|-------|------|
| RQ-85B    | 5V, 2.0~10A    | ±2%      | 80mV  | 76%   | 81W  |
|           | 12V, 0.3~4.0A  | +7%, -3% | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±8%      | 100mV |       |      |
|           | -12V, 0.0~1.0A | ±5%      | 80mV  |       |      |
| RQ-85C    | 5V, 2.0~10A    | ±2%      | 80mV  | 77%   | 83W  |
|           | 15V, 0.3~4.0A  | +3%, -7% | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±8%      | 100mV |       |      |
|           | -15V, 0.0~1.0A | ±5%      | 80mV  |       |      |
| RQ-85D    | 5V, 2.0~10A    | ±2%      | 80mV  | 78%   | 84W  |
|           | 12V, 0.3~4.0A  | +7%, -3% | 120mV |       |      |
|           | 24V, 0.1~1.5A  | ±8%      | 150mV |       |      |
|           | -12V, 0.0~1.0A | ±5%      | 80mV  |       |      |

## 125W — Quad Output (RT-125 without -5V or -12V output)

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| RQ-125B   | 5V, 2.0~12A    | ±2%       | 80mV  | 79%   | 120W |
|           | 12V, 0.5~4.5A  | +8%, -3%  | 120mV |       |      |
|           | -5V, 0.1~1.0A  | +6%, -10% | 80mV  |       |      |
|           | -12V, 0.0~1.0A | ±5%       | 80mV  |       |      |
| RQ-125C   | 5V, 2.0~12A    | ±2%       | 80mV  | 80%   | 123W |
|           | 15V, 0.5~4.0A  | +8%, -3%  | 120mV |       |      |
|           | -5V, 0.1~1.0A  | +6%, -10% | 80mV  |       |      |
|           | -15V, 0.0~1.0A | ±5%       | 80mV  |       |      |
| RQ-125D   | 5V, 2.0~12A    | ±2%       | 80mV  | 82%   | 124W |
|           | 12V, 0.5~4.0A  | +8%, -3%  | 120mV |       |      |
|           | 24V, 0.1~2.5A  | ±8%       | 150mV |       |      |
|           | -12V, 0.0~1.0A | ±5%       | 80mV  |       |      |



LRS-100

LRS-75

LRS-35/50

### Features

- No load power consumption <0.2W for 35W/50W; <0.3W for 75W/100W
- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Ultra compact and 1U low profile
- Withstand 5G vibration test
- High operating temperature up to 70°C
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Compliance to IEC/EN60335-1(PD3) and IEC/EN61558-1,-2-16 for household appliances
- Operating altitude up to 5000 meters
- High efficiency, long life and high reliability
- LED indicator for power on
- Low cost
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | LRS-35                                                                                    | LRS-50 | LRS-75        | LRS-100                       |
|--------------------------|-------|-------------------------------------------------------------------------------------------|--------|---------------|-------------------------------|
| AC input voltage range   |       | 85~264VAC ; 120~370VDC                                                                    |        |               |                               |
| AC inrush current (max.) |       | Cold start, 45A at 230VAC                                                                 |        | 50A at 230VAC |                               |
| DC adjustment range      |       | ±10% by potentiometer                                                                     |        |               |                               |
| Overload protection      | Range | 110%~150%                                                                                 |        |               |                               |
|                          | Type  | Hiccup mode, auto-recovery                                                                |        |               |                               |
| Over voltage protection  | Range | 115%~135% rated output voltage                                                            |        |               |                               |
|                          | Type  | Shut down o/p voltage, re-power on to recover                                             |        |               |                               |
| Withstand voltage        |       | I/P-O/P: 3.75kVAC, I/P-FG: 2kVAC, O/P-FG: 1.25kVAC, 1 minute                              |        |               |                               |
| Working temperature      |       | -30~+70°C (refer to output derating curve)                                                |        |               |                               |
| Safety standards         |       | UL60950-1, IEC/EN60950-1, IEC/EN61558-1, EN61558-2-16, IEC/EN60335-1, CCC GB4943 approved |        |               |                               |
| EMC standards            |       | EN55032 class B, EN55014, EN61000-3-2, 3, EN61000-4,2,3,4,5,6,8,11, GB9254                |        |               |                               |
| Connection               |       | 5P/9.5mm pitch terminal block                                                             |        |               | 7P/9.5mm pitch terminal block |
| Dimension (LxWxH) (mm)   |       | 99x 82x 30                                                                                |        | 99x 97x 30    | 129x 97x 30                   |

### 35W LRS-35

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| LRS-35-5  | 5V, 0~7A    | ±2%  | 80mV  | 82.0% |
| LRS-35-12 | 12V, 0~3A   | ±1%  | 120mV | 86.0% |
| LRS-35-15 | 15V, 0~2.4A | ±1%  | 120mV | 86.0% |
| LRS-35-24 | 24V, 0~1.5A | ±1%  | 150mV | 88.0% |
| LRS-35-36 | 36V, 0~1A   | ±1%  | 200mV | 88.0% |
| LRS-35-48 | 48V, 0~0.8A | ±1%  | 200mV | 89.0% |

### 75W LRS-75

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| LRS-75-5  | 5V, 0~14A   | ±2%  | 100mV | 86.5% |
| LRS-75-12 | 12V, 0~6A   | ±1%  | 120mV | 89.0% |
| LRS-75-15 | 15V, 0~5A   | ±1%  | 120mV | 89.0% |
| LRS-75-24 | 24V, 0~3.2A | ±1%  | 150mV | 90.0% |
| LRS-75-36 | 36V, 0~2.1A | ±1%  | 200mV | 91.5% |
| LRS-75-48 | 48V, 0~1.6A | ±1%  | 200mV | 91.5% |

### 50W LRS-50

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| LRS-50-3.3 | 3.3V, 0~10A  | ±3%  | 80mV  | 80.0% |
| LRS-50-5   | 5V, 0~10A    | ±2%  | 80mV  | 83.0% |
| LRS-50-12  | 12V, 0~4.2A  | ±1%  | 120mV | 86.0% |
| LRS-50-15  | 15V, 0~3.4A  | ±1%  | 120mV | 88.0% |
| LRS-50-24  | 24V, 0~2.2A  | ±1%  | 150mV | 88.0% |
| LRS-50-36  | 36V, 0~1.45A | ±1%  | 200mV | 89.0% |
| LRS-50-48  | 48V, 0~1.1A  | ±1%  | 200mV | 90.0% |

### 100W LRS-100

| Model No.   | Output      | Tol. | R&N   | Effi. |
|-------------|-------------|------|-------|-------|
| LRS-100-3.3 | 3.3V, 0~20A | ±3%  | 100mV | 84.5% |
| LRS-100-5   | 5V, 0~18A   | ±2%  | 100mV | 86.0% |
| LRS-100-12  | 12V, 0~8.5A | ±1%  | 120mV | 88.0% |
| LRS-100-15  | 15V, 0~7A   | ±1%  | 120mV | 88.5% |
| LRS-100-24  | 24V, 0~4.5A | ±1%  | 150mV | 90.0% |
| LRS-100-36  | 36V, 0~2.8A | ±1%  | 200mV | 90.5% |
| LRS-100-48  | 48V, 0~2.3A | ±1%  | 200mV | 91.0% |



LRS-350

LRS-200

LRS-150/LRS-150F

### Features

- No load power consumption <0.5W for 150W; <0.75W for 200W/350W
- AC input selectable by switch (LRS-150F Universal AC input / Full range)
- Withstand 300VAC surge input for 5 seconds
- Ultra compact and 1U low profile
- Withstand 5G vibration test
- High operating temperature up to 70°C
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Cooling by free air convection (150W/200W); forced air cooling by built-in DC fan (350W)
- Compliance to IEC/EN60335-1(PD3) and IEC/EN61558-1,-2-16 for household appliances (150W)
- Operating altitude up to 5000 meters
- LED indicator for power on
- High efficiency, long life and high reliability
- Low cost
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.               |       | LRS-150F                                                                                  | LRS-150                | LRS-200                                        | LRS-350 |
|-------------------------|-------|-------------------------------------------------------------------------------------------|------------------------|------------------------------------------------|---------|
| AC input voltage range  |       | 85~264VAC; 120~370VDC                                                                     | 115 / 230VAC by switch |                                                |         |
| AC inrush current(max.) |       | Cold start, 60A at 230VAC                                                                 |                        |                                                |         |
| DC adjustment range     |       | ±10% by potentiometer                                                                     |                        |                                                |         |
| Overload protection     | Range | 110%~140%                                                                                 |                        |                                                |         |
|                         | Type  | Hiccup mode, auto-recovery                                                                |                        |                                                |         |
| Over voltage protection | Range | 115%~145% rated output voltage                                                            |                        |                                                |         |
|                         | Type  | Shut down o/p voltage, re-power on to recover                                             |                        |                                                |         |
| Withstand voltage       |       | I/P-O/P: 3.75kVAC, I/P-FG: 2kVAC, O/P-FG: 1.25kVAC                                        |                        | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC |         |
| Working temperature     |       | -30~+70°C                                                                                 |                        | -25~+70°C (refer to output derating curve)     |         |
| Safety standards        |       | UL60950-1, IEC/EN60950-1, IEC/EN61558-1, EN61558-2-16, IEC/EN60335-1, CCC GB4943 approved |                        | UL60950-1 approved                             |         |
| EMC standards           |       | EN55032 class B, EN55014, EN61000-3-2(120W), 3, EN61000-4-2,3,4,5,6,8,11, GB9254          |                        | Design refer to EN55032 class A                |         |
| Connection              |       | 7P/9.5mm pitch terminal block                                                             |                        | 9P/9.5mm pitch terminal block                  |         |
| Dimension (LxWxH) (mm)  |       | 159x 97x 30                                                                               |                        | 215x 115x 30                                   |         |

### LRS-150 Series



| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| LRS-150-12 | 12V, 0~12.5A | ±1%  | 150mV | 87.5% |
| LRS-150-15 | 15V, 0~10A   | ±1%  | 150mV | 88.5% |
| LRS-150-24 | 24V, 0~6.5A  | ±1%  | 200mV | 89.0% |
| LRS-150-36 | 36V, 0~4.3A  | ±1%  | 200mV | 89.0% |
| LRS-150-48 | 48V, 0~3.3A  | ±1%  | 200mV | 90.0% |

### LRS-200 Series



| Model No.   | Output      | Tol.  | R&N   | Effi. |
|-------------|-------------|-------|-------|-------|
| LRS-200-3.3 | 3.3V, 0~40A | ±3%   | 150mV | 83.0% |
| LRS-200-4.2 | 4.2V, 0~40A | ±4%   | 150mV | 86.0% |
| LRS-200-5   | 5V, 0~40A   | ±3%   | 150mV | 87.0% |
| LRS-200-12  | 12V, 0~17A  | ±1.5% | 150mV | 87.5% |
| LRS-200-15  | 15V, 0~14A  | ±1%   | 150mV | 88.0% |
| LRS-200-24  | 24V, 0~8.8A | ±1%   | 150mV | 89.5% |
| LRS-200-36  | 36V, 0~5.9A | ±1%   | 200mV | 89.5% |
| LRS-200-48  | 48V, 0~4.4A | ±1%   | 200mV | 90.0% |

### LRS-150F Series



| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| LRS-150F-5  | 5V, 0~22A    | ±2%  | 100mV | 85.0% |
| LRS-150F-12 | 12V, 0~12.5A | ±1%  | 150mV | 87.5% |
| LRS-150F-15 | 15V, 0~10A   | ±1%  | 150mV | 89.0% |
| LRS-150F-24 | 24V, 0~6.5A  | ±1%  | 200mV | 89.0% |
| LRS-150F-36 | 36V, 0~4.3A  | ±1%  | 200mV | 89.0% |
| LRS-150F-48 | 48V, 0~3.3A  | ±1%  | 200mV | 90.0% |

### LRS-350 Series



| Model No.   | Output       | Tol.  | R&N   | Effi. |
|-------------|--------------|-------|-------|-------|
| LRS-350-3.3 | 3.3V, 0~60A  | ±4%   | 150mV | 79.5% |
| LRS-350-4.2 | 4.2V, 0~60A  | ±4%   | 150mV | 81.5% |
| LRS-350-5   | 5V, 0~60A    | ±3%   | 150mV | 83.5% |
| LRS-350-12  | 12V, 0~29A   | ±1.5% | 150mV | 85.0% |
| LRS-350-15  | 15V, 0~23.2A | ±1%   | 150mV | 86.0% |
| LRS-350-24  | 24V, 0~14.6A | ±1%   | 150mV | 88.0% |
| LRS-350-36  | 36V, 0~9.7A  | ±1%   | 200mV | 88.5% |
| LRS-350-48  | 48V, 0~7.3A  | ±1%   | 200mV | 89.0% |



### Features

- AC input selectable by switch (SE-600/1000)  
AC input 180~264VAC only (SE-1500)
- Protections:  
Short circuit / Overload / Over voltage /  
Over temperature
- Forced air cooling by built-in DC fan
- Built-in remote sense function
- DC OK, remote ON/OFF control (SE-1000/1500)
- LED indicator for power on
- 2 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | SE-450                                                   | SE-600                                                                             | SE-1000                                        | SE-1500                                          |
|--------------------------|-------|----------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|--------------------------------------------------|
| AC input voltage range   |       | 115/230VAC by switch                                     |                                                                                    |                                                | 180~264VAC                                       |
| AC inrush current (max.) |       | Cold start, 55A at 230VAC                                | Cold start, 60A at 230VAC                                                          | Cold start, 55A at 230VAC                      | Cold start, 60A at 230VAC                        |
| DC adjustment range      |       | ±10% rated output voltage                                |                                                                                    |                                                |                                                  |
| Overload protection      | Range | 105%~150%                                                | 105%~125%                                                                          |                                                |                                                  |
|                          | Type  | Shut down o/p voltage, re-power on to recover            |                                                                                    |                                                |                                                  |
| Over voltage protection  |       | 115%~145%                                                | 115%~140% Shut down o/p voltage, re-power on to recover                            |                                                |                                                  |
| Withstand voltage        |       | I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC         |                                                                                    | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC | I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC |
| Working temperature      |       | -10~+60°C                                                | -20~+60°C (refer to output derating curve)                                         |                                                | -20~+70°C                                        |
| Safety standards         |       | UL60950-1 approved                                       |                                                                                    |                                                |                                                  |
| EMC standards            |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 | Design refer to EN55032 class B                                                    |                                                |                                                  |
| Connection               |       | 9P/11mm pitch terminal block with cover                  | Terminal block with cover for input and output (SE-1000/1500: bus bars for output) |                                                |                                                  |
| Dimension (LxWxH)(mm)    |       | 225x 124x 50                                             | 247x 127x 63.5                                                                     | 278x 127x 63.5                                 | 278x 177.8x 63.5                                 |
| Case No.                 |       | 986A                                                     | 926A                                                                               | 935B                                           | 982A                                             |
| Packing                  |       | 12pcs / 16kg                                             | 6pcs / 13.4kg                                                                      | 6pcs / 16kg                                    | 4pcs / 14.2kg                                    |

### 450W SE-450

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| SE-450-3.3 | 3.3V, 0~75A  | ±3%   | 200mV | 74%   |
| SE-450-5   | 5V, 0~75A    | ±3%   | 200mV | 78%   |
| SE-450-12  | 12V, 0~37.5A | ±1%   | 200mV | 83%   |
| SE-450-15  | 15V, 0~30A   | ±1%   | 200mV | 84%   |
| SE-450-24  | 24V, 0~18.8A | ±1.5% | 200mV | 86%   |
| SE-450-36  | 36V, 0~12.5A | ±1%   | 200mV | 86%   |
| SE-450-48  | 48V, 0~9.4A  | ±1%   | 200mV | 88%   |

### 1000W SE-1000

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| SE-1000-5  | 5V, 0~150A   | ±1%  | 150mV | 81%   |
| SE-1000-9  | 9V, 0~100A   | ±1%  | 150mV | 84%   |
| SE-1000-12 | 12V, 0~83.3A | ±1%  | 150mV | 85%   |
| SE-1000-15 | 15V, 0~66.7A | ±1%  | 150mV | 86%   |
| SE-1000-24 | 24V, 0~41.7A | ±1%  | 200mV | 88%   |
| SE-1000-48 | 48V, 0~20.8A | ±1%  | 200mV | 89%   |

### 600W SE-600

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| SE-600-5  | 5V, 0~100A   | ±2%  | 150mV | 78%   |
| SE-600-12 | 12V, 0~50A   | ±1%  | 150mV | 83%   |
| SE-600-15 | 15V, 0~40A   | ±1%  | 150mV | 84%   |
| SE-600-24 | 24V, 0~25A   | ±1%  | 150mV | 87%   |
| SE-600-27 | 27V, 0~22.2A | ±1%  | 150mV | 87%   |
| SE-600-36 | 36V, 0~16.6A | ±1%  | 200mV | 87%   |
| SE-600-48 | 48V, 0~12.5A | ±1%  | 200mV | 88%   |

### 1500W SE-1500

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| SE-1500-5  | 5V, 0~300A   | ±2%  | 150mV | 81%   |
| SE-1500-12 | 12V, 0~125A  | ±1%  | 150mV | 85%   |
| SE-1500-15 | 15V, 0~100A  | ±1%  | 150mV | 85%   |
| SE-1500-24 | 24V, 0~62.5A | ±1%  | 150mV | 87%   |
| SE-1500-27 | 27V, 0~55.6A | ±1%  | 150mV | 88%   |
| SE-1500-48 | 48V, 0~31.3A | ±1%  | 150mV | 89%   |



MSP-600

MSP-450

MSP-300

MSP-200

MSP-100

### Features

- Universal AC input / Full range
- **Medical safety approved (2xMOOP)**
- Withstand 300VAC surge input for 5 seconds
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- 1U low profile (MSP-100/200/300/450)
- Built-in constant current limiting circuit
- Built-in remote sense function (MSP-200/300/450/600)
- No load power consumption <0.5W (<0.6W for MSP-450 ; <0.8W for MSP-600)
- Built-in current sharing (MSP-600-24/36/48)
- Built-in remote ON/OFF control
- Built-in 5V/0.3A standby output (MSP-200/300/450/600)
- Built-in DC OK signal (MSP-300/450/600)
- LED indicator for power on
- **5 years warranty**

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | MSP-100                                                               | MSP-200                                    | MSP-300                                   | MSP-450                                          | MSP-600                   |
|--------------------------|-------|-----------------------------------------------------------------------|--------------------------------------------|-------------------------------------------|--------------------------------------------------|---------------------------|
| AC input voltage range   |       | 85~264VAC; 120~370VDC                                                 |                                            |                                           |                                                  |                           |
| Leakage current          |       | <300μA                                                                |                                            | <450μA                                    | <300μA                                           |                           |
| AC inrush current (max.) |       | Cold start, 65A at 230VAC                                             | Cold start, 70A at 230VAC                  |                                           |                                                  | Cold start, 80A at 230VAC |
| DC adjustment range      |       | ±15% rated output voltage                                             |                                            |                                           |                                                  |                           |
| Overload protection      | Range | 105%~135%                                                             |                                            |                                           |                                                  |                           |
|                          | Type  | Constant current limiting, auto-recovery                              |                                            |                                           |                                                  |                           |
| Over voltage protection  |       | 115%~145%                                                             |                                            |                                           |                                                  |                           |
| Withstand voltage        |       | I/P-O/P: 4kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC, 1 minute              |                                            |                                           |                                                  |                           |
| Working temperature      |       | -40~+60°C                                                             | -40~+70°C (refer to output derating curve) |                                           |                                                  |                           |
| Safety standards         |       | ANSI/AAMI ES60601-1, IEC60601-1 approved                              |                                            |                                           |                                                  |                           |
| EMC standards            |       | EN55011 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3, EN60601-1-2 |                                            |                                           |                                                  |                           |
| Connection               |       | 7P / 9.5mm pitch terminal block with cover                            |                                            | 7P / 11mm pitch terminal block with cover | 3+6P / 10 & 11mm pitch terminal block with cover |                           |
| Dimension (LxWxH)(mm)    |       | 159x 97x 38                                                           | 199x 98x 38                                | 199x 105x 41                              | 218x 105x 41                                     | 218x 105x 63.5            |
| Case No.                 |       | 901I                                                                  | 902E                                       | 980A                                      | 995A                                             | 977A                      |

### 100W MSP-100

| Model No.   | Output        | Tol.         | R&N   | Effi. |
|-------------|---------------|--------------|-------|-------|
| MSP-100-3.3 | 3.3V, 0~20A   | +2.5%, -3.5% | 80mV  | 78.0% |
| MSP-100-5   | 5V, 0~17A     | +2.5%, -3.5% | 80mV  | 83.0% |
| MSP-100-7.5 | 7.5V, 0~13.5A | ±2.5%        | 100mV | 84.0% |
| MSP-100-12  | 12V, 0~8.5A   | ±1.5%        | 120mV | 87.5% |
| MSP-100-15  | 15V, 0~7A     | ±1.5%        | 150mV | 88.0% |
| MSP-100-24  | 24V, 0~4.5A   | ±1.5%        | 150mV | 88.5% |
| MSP-100-36  | 36V, 0~2.9A   | ±1.5%        | 200mV | 89.0% |
| MSP-100-48  | 48V, 0~2.2A   | ±1.5%        | 240mV | 90.0% |

### 200W MSP-200

| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| MSP-200-3.3 | 3.3V, 0~40A   | ±2%  | 80mV  | 80.0% |
| MSP-200-5   | 5V, 0~35A     | ±2%  | 90mV  | 84.0% |
| MSP-200-7.5 | 7.5V, 0~26.7A | ±2%  | 100mV | 86.0% |
| MSP-200-12  | 12V, 0~16.7A  | ±1%  | 120mV | 88.0% |
| MSP-200-15  | 15V, 0~13.4A  | ±1%  | 150mV | 88.0% |
| MSP-200-24  | 24V, 0~8.4A   | ±1%  | 150mV | 88.0% |
| MSP-200-36  | 36V, 0~5.7A   | ±1%  | 250mV | 89.0% |
| MSP-200-48  | 48V, 0~4.3A   | ±1%  | 250mV | 89.0% |

### 300W MSP-300

| Model No.   | Output      | Tol.  | R&N   | Effi. |
|-------------|-------------|-------|-------|-------|
| MSP-300-3.3 | 3.3V, 0~60A | ±2.5% | 80mV  | 80.0% |
| MSP-300-5   | 5V, 0~60A   | ±2%   | 90mV  | 82.0% |
| MSP-300-7.5 | 7.5V, 0~40A | ±2%   | 100mV | 86.0% |
| MSP-300-12  | 12V, 0~27A  | ±1%   | 120mV | 88.0% |

| Model No.  | Output     | Tol. | R&N   | Effi. |
|------------|------------|------|-------|-------|
| MSP-300-15 | 15V, 0~22A | ±1%  | 150mV | 88.0% |
| MSP-300-24 | 24V, 0~14A | ±1%  | 150mV | 87.0% |
| MSP-300-36 | 36V, 0~9A  | ±1%  | 250mV | 88.0% |
| MSP-300-48 | 48V, 0~7A  | ±1%  | 250mV | 89.0% |

### 450W MSP-450

| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| MSP-450-3.3 | 3.3V, 0~90A  | ±2%  | 80mV  | 80.0% |
| MSP-450-5   | 5V, 0~90A    | ±2%  | 80mV  | 83.0% |
| MSP-450-7.5 | 7.5V, 0~60A  | ±2%  | 100mV | 86.5% |
| MSP-450-12  | 12V, 0~37.5A | ±1%  | 120mV | 88.0% |
| MSP-450-15  | 15V, 0~30A   | ±1%  | 150mV | 89.0% |
| MSP-450-24  | 24V, 0~18.8A | ±1%  | 150mV | 88.0% |
| MSP-450-36  | 36V, 0~12.5A | ±1%  | 240mV | 89.0% |
| MSP-450-48  | 48V, 0~9.5A  | ±1%  | 240mV | 89.5% |

### 600W MSP-600

| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| MSP-600-3.3 | 3.3V, 0~120A | ±2%  | 100mV | 78.5% |
| MSP-600-5   | 5V, 0~120A   | ±2%  | 100mV | 82.0% |
| MSP-600-7.5 | 7.5V, 0~80A  | ±2%  | 100mV | 86.0% |
| MSP-600-12  | 12V, 0~53A   | ±1%  | 120mV | 88.0% |
| MSP-600-15  | 15V, 0~43A   | ±1%  | 150mV | 88.0% |
| MSP-600-24  | 24V, 0~27A   | ±1%  | 150mV | 88.0% |
| MSP-600-36  | 36V, 0~17.5A | ±1%  | 200mV | 89.0% |
| MSP-600-48  | 48V, 0~13A   | ±1%  | 240mV | 89.0% |



### Features

- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature (SP-150 / 200 / 240)
- Cooling by free air convection (SP-75 / 100 / 150)
- Forced air cooling by built-in DC fan (SP-200 / 240)
- Optional remote ON/OFF control (SP-75~200)
- Built-in fan speed control (SP-200)
- Built-in fan ON/OFF control (SP-240)
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                | SP-75                                                                         | SP-100                    | SP-150                                     | SP-200                    | SP-240                     |
|--------------------------|-------------------------------------------------------------------------------|---------------------------|--------------------------------------------|---------------------------|----------------------------|
| AC input voltage range   | 85~264VAC; 120~370VDC                                                         |                           |                                            |                           | 88~264VAC; 124~370VDC      |
| AC inrush current (max.) | Cold start, 45A at 230VAC                                                     | Cold start, 35A at 230VAC | Cold start, 45A at 230VAC                  | Cold start, 50A at 230VAC | Cold start, 40A at 230VAC  |
| DC adjustment range      | -5%~+10% rated output voltage                                                 |                           |                                            |                           | ±15% rated output voltage  |
| Overload protection      | Range 105%~150%                                                               |                           |                                            |                           | 105%~135%                  |
|                          | Type Constant current limiting, auto-recovery                                 |                           |                                            |                           | Hiccup mode, auto-recovery |
| Over voltage protection  | Range 115%~135%                                                               |                           |                                            |                           | 120%~150%                  |
|                          | Type Shut off, AC recycle to re-start                                         |                           |                                            |                           |                            |
| Withstand voltage        | I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC, 1 minute                    |                           |                                            |                           |                            |
| Working temperature      | -10~+60°C                                                                     |                           | -10~+55°C                                  | -10~+60°C                 | -20~+70°C                  |
| Safety standards         | UL60950-1, TUV EN60950-1, GB4943(SP-200 only) approved                        |                           |                                            |                           |                            |
| EMC standards            | EN55032 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3, GB9254(SP-200 only) |                           |                                            |                           |                            |
| Connection               | 5P / 9.5mm pitch                                                              |                           | 7P / 9.5mm pitch terminal block with cover |                           |                            |
| Dimension (LxWxH)(mm)    | 179x 97x 33                                                                   | 179x 99x 45               | 199x 99x 50                                | 199x 99x 50               | 190x 93x 50                |
| Case No.                 | 920A                                                                          | 915A                      | 916A                                       | 916B                      | 987A                       |
| Packing                  | 20pcs/12.0kg                                                                  | 20pcs/14.3kg              | 20pcs/16.4kg                               | 20pcs/17.9kg              | 18pcs/15.4kg               |

### 75W SP-75

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| SP-75-3.3  | 3.3V, 0~15A   | ±2%  | 80mV  | 70.0% |
| SP-75-5    | 5V, 0~15A     | ±2%  | 80mV  | 76.0% |
| SP-75-7.5  | 7.5V, 0~10A   | ±2%  | 80mV  | 79.0% |
| SP-75-12   | 12V, 0~6.3A   | ±2%  | 80mV  | 81.0% |
| SP-75-13.5 | 13.5V, 0~5.6A | ±2%  | 80mV  | 82.0% |
| SP-75-15   | 15V, 0~5.0A   | ±2%  | 80mV  | 82.0% |
| SP-75-24   | 24V, 0~3.2A   | ±1%  | 100mV | 83.0% |
| SP-75-27   | 27V, 0~2.8A   | ±1%  | 100mV | 83.0% |
| SP-75-48   | 48V, 0~1.6A   | ±1%  | 100mV | 83.0% |

### 100W SP-100

| Model No.   | Output         | Tol. | R&N   | Effi. |
|-------------|----------------|------|-------|-------|
| SP-100-3.3  | 3.3V, 0~20.0A  | ±2%  | 100mV | 75.0% |
| SP-100-5    | 5V, 0~20.0A    | ±2%  | 100mV | 79.0% |
| SP-100-7.5  | 7.5V, 0~13.5A  | ±2%  | 100mV | 82.0% |
| SP-100-12   | 12V, 0~8.50A   | ±2%  | 100mV | 82.5% |
| SP-100-13.5 | 13.5V, 0~7.50A | ±2%  | 100mV | 83.0% |
| SP-100-15   | 15V, 0~6.70A   | ±2%  | 100mV | 84.0% |
| SP-100-24   | 24V, 0~4.20A   | ±1%  | 150mV | 87.0% |
| SP-100-27   | 27V, 0~3.80A   | ±1%  | 150mV | 86.0% |
| SP-100-48   | 48V, 0~2.10A   | ±1%  | 250mV | 84.0% |

### 150W SP-150

| Model No.   | Output         | Tol. | R&N   | Effi. |
|-------------|----------------|------|-------|-------|
| SP-150-3.3  | 3.3V, 0~30.0A  | ±2%  | 100mV | 73.0% |
| SP-150-5    | 5V, 0~30.0A    | ±2%  | 100mV | 77.5% |
| SP-150-7.5  | 7.5V, 0~20.0A  | ±2%  | 100mV | 81.0% |
| SP-150-12   | 12V, 0~12.5A   | ±2%  | 100mV | 84.0% |
| SP-150-13.5 | 13.5V, 0~11.2A | ±2%  | 100mV | 84.0% |
| SP-150-15   | 15V, 0~10.0A   | ±2%  | 100mV | 85.0% |
| SP-150-24   | 24V, 0~6.30A   | ±1%  | 150mV | 85.0% |
| SP-150-27   | 27V, 0~5.60A   | ±1%  | 150mV | 85.0% |
| SP-150-48   | 48V, 0~3.20A   | ±1%  | 250mV | 85.0% |

### 200W SP-200

| Model No.   | Output         | Tol. | R&N   | Effi. |
|-------------|----------------|------|-------|-------|
| SP-200-3.3  | 3.3V, 0~40.0A  | ±2%  | 100mV | 69.0% |
| SP-200-5    | 5V, 0~40.0A    | ±2%  | 100mV | 76.0% |
| SP-200-7.5  | 7.5V, 0~26.7A  | ±2%  | 100mV | 78.5% |
| SP-200-12   | 12V, 0~16.7A   | ±2%  | 100mV | 84.0% |
| SP-200-13.5 | 13.5V, 0~14.9A | ±2%  | 100mV | 84.0% |
| SP-200-15   | 15V, 0~13.4A   | ±2%  | 100mV | 84.0% |
| SP-200-24   | 24V, 0~8.40A   | ±1%  | 150mV | 85.0% |
| SP-200-27   | 27V, 0~7.50A   | ±1%  | 150mV | 85.0% |
| SP-200-48   | 48V, 0~4.20A   | ±1%  | 250mV | 85.0% |

### 240W SP-240

| Model No.  | Output      | Tol. | R&N   | Effi. |
|------------|-------------|------|-------|-------|
| SP-240-5   | 5V, 0~45A   | ±2%  | 150mV | 79.0% |
| SP-240-7.5 | 7.5V, 0~32A | ±2%  | 150mV | 83.0% |
| SP-240-12  | 12V, 0~20A  | ±1%  | 150mV | 86.0% |
| SP-240-15  | 15V, 0~16A  | ±1%  | 150mV | 86.0% |
| SP-240-24  | 24V, 0~10A  | ±1%  | 150mV | 87.0% |
| SP-240-30  | 30V, 0~8.0A | ±1%  | 150mV | 88.0% |
| SP-240-48  | 48V, 0~5.0A | ±1%  | 150mV | 89.0% |



#### 48hrs delivery—

We keep enough stock for 95% of standard models at our 2400m<sup>2</sup> warehouse. We can arrange prompt delivery within 48hrs.



### ■ Features

- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- Built-in fan speed control (SP-320)
- Built-in remote sense function and ON/OFF control (SP-480/750 & PSP-600)
- Current sharing up to 2400W (3+1) (PSP-600)
- With DC OK signal output (PSP-600)
- With PG/PF signal output (SP-750)
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                | SP-320                                                                                                  | SP-480                                    | PSP-600                                      | SP-750                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------|
| AC input voltage range   | 88~264VAC                                                                                               | 85~264VAC                                 | 88~264VAC                                    | 90~264VAC                                                                      |
| AC inrush current (max.) | Cold start, 40A at 230VAC                                                                               |                                           |                                              | Cold Start, 45A at 230VAC                                                      |
| DC adjustment range      | ±10% rated output voltage                                                                               |                                           |                                              |                                                                                |
| Overload protection      | Range                                                                                                   | 105%~135%                                 | 105%~145%                                    | 105%~135%                                                                      |
|                          | Type                                                                                                    | Hiccup mode, auto-recovery                | Constant current limiting, auto-recovery     | Constant current limiting, auto-recovery                                       |
| Over voltage protection  | 115%~145%                                                                                               | 115%~140%                                 |                                              |                                                                                |
| Withstand voltage        | I/P - O/P: 3kVAC, I/P - FG: 1.5kVAC, O/P - FG: 0.5kVAC(short for SP-480), 1 minute                      |                                           |                                              |                                                                                |
| Working temperature      | -20~+65°C                                                                                               | -20~+60°C                                 |                                              |                                                                                |
| Safety standards         | UL60950-1, TUV EN60950-1 approved; GB4943 approved also for SP-320 (expect for 3.3V/ 5PNC/ 36V)         |                                           |                                              |                                                                                |
| EMC standards            | EN55032 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3, EN61000-6-2(SP-480/750), GB9254 (SP-320 only) |                                           |                                              |                                                                                |
| Connection               | 9P / 9.5mm pitch terminal block with cover                                                              | 9P / 11mm pitch terminal block with cover | 7+8P / 9.5mm pitch terminal block with cover | 5P / 10mm pitch terminal block with cover for input; copper pillars for output |
| Dimension (LxWxH)(mm)    | 215x115x50                                                                                              | 278x127x43                                | 170x120x93                                   | 278x127x63.5                                                                   |
| Case No.                 | 912G                                                                                                    | 929A                                      | 910A                                         | 919A                                                                           |
| Packing                  | 12pcs / 14.0kg                                                                                          | 6pcs / 11.3kg                             | 8pcs / 15.5kg                                | 6pcs / 18.4kg                                                                  |

### ■ SP-320 Series



| Model No.    | Output         | Tol. | R&N   | Effi. |
|--------------|----------------|------|-------|-------|
| *SP-320-3.3  | 3.3V, 0~60.0A  | ±1%  | 150mV | 74%   |
| SP-320-5     | 5V, 0~55.0A    | ±2%  | 150mV | 79%   |
| *SP-320-5PNC | 5V, 0~55.0A    | ±2%  | 150mV | 80%   |
| SP-320-7.5   | 7.5V, 0~40.0A  | ±2%  | 150mV | 83%   |
| SP-320-12    | 12V, 0~25.0A   | ±1%  | 150mV | 86%   |
| SP-320-13.5  | 13.5V, 0~22.0A | ±1%  | 150mV | 86%   |
| SP-320-15    | 15V, 0~20.0A   | ±1%  | 150mV | 86%   |
| SP-320-24    | 24V, 0~13.0A   | ±1%  | 150mV | 87%   |
| SP-320-27    | 27V, 0~11.7A   | ±1%  | 200mV | 88%   |
| *SP-320-36   | 36V, 0~8.80A   | ±1%  | 220mV | 87%   |
| SP-320-48    | 48V, 0~6.70A   | ±1%  | 240mV | 89%   |

\* Without models

❖ SP-320-5PNC with conformal coating and high ambient temperature operation ability is suitable for LED moving sign applications, MOQ required.

### ■ SP-480 Series



| Model No.  | Output      | Tol.  | R&N   | Effi. |
|------------|-------------|-------|-------|-------|
| SP-480-3.3 | 3.3V, 0~85A | ±2.0% | 80mV  | 73%   |
| SP-480-5   | 5V, 0~85A   | ±2.0% | 80mV  | 79%   |
| SP-480-12  | 12V, 0~43A  | ±1.5% | 120mV | 85%   |
| SP-480-15  | 15V, 0~35A  | ±1.5% | 150mV | 85%   |
| SP-480-24  | 24V, 0~22A  | ±1.0% | 150mV | 87%   |
| SP-480-48  | 48V, 0~11A  | ±1.0% | 240mV | 89%   |

### ■ PSP-600 Series



| Model No.    | Output         | Tol. | R&N   | Effi. |
|--------------|----------------|------|-------|-------|
| PSP-600-5    | 5V, 0~80A      | ±2%  | 180mV | 79%   |
| PSP-600-12   | 12V, 0~50A     | ±1%  | 240mV | 84%   |
| PSP-600-13.5 | 13.5V, 0~44.5A | ±1%  | 240mV | 85%   |
| PSP-600-15   | 15V, 0~40A     | ±1%  | 240mV | 85%   |
| PSP-600-24   | 24V, 0~25A     | ±1%  | 240mV | 86%   |
| PSP-600-27   | 27V, 0~22.2A   | ±1%  | 240mV | 86%   |
| PSP-600-48   | 48V, 0~12.5A   | ±1%  | 300mV | 87%   |

### ■ SP-750 Series



| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| SP-750-5  | 5V, 0~120A   | ±2%  | 120mV | 80%   |
| SP-750-12 | 12V, 0~62.5A | ±1%  | 120mV | 85%   |
| SP-750-15 | 15V, 0~50.0A | ±1%  | 120mV | 87%   |
| SP-750-24 | 24V, 0~31.3A | ±1%  | 120mV | 89%   |
| SP-750-27 | 27V, 0~27.8A | ±1%  | 120mV | 89%   |
| SP-750-48 | 48V, 0~15.7A | ±1%  | 120mV | 90%   |



Who can provide you the best services and be a trustworthy partner in the power industry?

— "MEAN WELL" tries to be —



RSP-200

RSP-150

RSP-100

RSP-75

### Features

- Ultra low profile: 30mm
- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature (RSP-100/150/200)
- Cooling by free air convection
- Built-in constant current limiting circuit (RSP-75/100/150)
- Remote ON/OFF control (RSP-75/100/150)
- LED indicator for power on
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | RSP-75                                                                                                      | RSP-100                                    | RSP-150                         | RSP-200                                        |
|--------------------------|-------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------|---------------------------------|------------------------------------------------|
| AC input voltage range   |       | 85~264VAC; 120~370VDC                                                                                       |                                            |                                 | 88~264VAC; 124~370VDC                          |
| AC inrush current (max.) |       | Cold start, 35A at 230VAC                                                                                   | 30A at 230VAC                              | 45A at 230VAC                   | 40A at 230VAC                                  |
| DC adjustment range      |       | -5%~+10% rated output voltage                                                                               |                                            |                                 | ±10% rated output voltage                      |
| Overload protection      | Range | 105%~135%                                                                                                   | 105%~150%                                  |                                 |                                                |
|                          | Type  | Constant current limiting, auto-recovery                                                                    |                                            |                                 | Hiccup mode, auto-recovery                     |
| Over voltage protection  | Range | 110%~135%                                                                                                   |                                            |                                 | 115%~145%                                      |
|                          | Type  | Shut down O/P voltage, re-power on to recover                                                               |                                            |                                 |                                                |
| Withstand voltage        |       | I/P-O/P: 3.75kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                           |                                            |                                 | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC |
| Working temperature      |       | -25~+70°C                                                                                                   | -30~+70°C (refer to output derating curve) |                                 |                                                |
| Safety standards         |       | UL60950-1, TUV EN60950-1, EN61558-1, EN61558-2-16, CCC GB4943 approved; UL62368-1 approved for RSP-150 only |                                            |                                 | UL60950-1, TUV EN60950-1, CCC GB4943 approved  |
| EMC standards            |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, GB9254                                            |                                            |                                 |                                                |
| Connection               |       | 5P / 9.5mm pitch terminal block                                                                             | 7P / 9.5mm pitch terminal block            | 9P / 9.5mm pitch terminal block |                                                |
| Dimension (LxWxH) (mm)   |       | 159x97x30                                                                                                   | 179x99x30                                  | 199x99x30                       | 215x115x30                                     |

### 75W RSP-75

| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| RSP-75-3.3  | 3.3V, 0~15A   | ±2%  | 80mV  | 76.0% |
| RSP-75-5    | 5V, 0~15A     | ±2%  | 80mV  | 82.0% |
| RSP-75-7.5  | 7.5V, 0~10A   | ±2%  | 80mV  | 84.0% |
| RSP-75-12   | 12V, 0~6.3A   | ±2%  | 120mV | 85.0% |
| RSP-75-13.5 | 13.5V, 0~5.6A | ±2%  | 120mV | 85.0% |
| RSP-75-15   | 15V, 0~5A     | ±2%  | 120mV | 86.0% |
| RSP-75-24   | 24V, 0~3.2A   | ±1%  | 120mV | 87.0% |
| RSP-75-27   | 27V, 0~2.8A   | ±1%  | 120mV | 88.0% |
| RSP-75-48   | 48V, 0~1.6A   | ±1%  | 200mV | 89.0% |

### 150W RSP-150

| Model No.    | Output         | Tol. | R&N   | Effi. |
|--------------|----------------|------|-------|-------|
| RSP-150-3.3  | 3.3V, 0~30A    | ±2%  | 100mV | 81.5% |
| RSP-150-5    | 5V, 0~30A      | ±2%  | 100mV | 87.0% |
| RSP-150-7.5  | 7.5V, 0~20A    | ±2%  | 100mV | 88.5% |
| RSP-150-12   | 12V, 0~12.5A   | ±2%  | 100mV | 90.0% |
| RSP-150-13.5 | 13.5V, 0~11.2A | ±2%  | 100mV | 87.5% |
| RSP-150-15   | 15V, 0~10A     | ±2%  | 100mV | 88.5% |
| RSP-150-24   | 24V, 0~6.3A    | ±1%  | 150mV | 89.0% |
| RSP-150-27   | 27V, 0~5.6A    | ±1%  | 150mV | 89.5% |
| RSP-150-48   | 48V, 0~3.2A    | ±1%  | 250mV | 90.0% |

### 100W RSP-100

| Model No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| RSP-100-3.3  | 3.3V, 0~20A   | ±2%  | 100mV | 83.0% |
| RSP-100-5    | 5V, 0~20A     | ±2%  | 100mV | 86.0% |
| RSP-100-7.5  | 7.5V, 0~13.5A | ±2%  | 100mV | 87.0% |
| RSP-100-12   | 12V, 0~8.5A   | ±1%  | 100mV | 86.0% |
| RSP-100-13.5 | 13.5V, 0~7.5A | ±1%  | 100mV | 86.5% |
| RSP-100-15   | 15V, 0~6.7A   | ±1%  | 100mV | 87.0% |
| RSP-100-24   | 24V, 0~4.2A   | ±1%  | 150mV | 87.0% |
| RSP-100-27   | 27V, 0~3.8A   | ±1%  | 150mV | 87.0% |
| RSP-100-48   | 48V, 0~2.1A   | ±1%  | 250mV | 88.0% |

### 200W RSP-200

| Model No.    | Output         | Tol. | R&N   | Effi. |
|--------------|----------------|------|-------|-------|
| RSP-200-2.5  | 2.5V, 0~40A    | ±2%  | 100mV | 79.5% |
| RSP-200-3.3  | 3.3V, 0~40A    | ±2%  | 100mV | 81.5% |
| RSP-200-4    | 4V, 0~40A      | ±2%  | 100mV | 84.0% |
| RSP-200-5    | 5V, 0~40A      | ±2%  | 150mV | 85.5% |
| RSP-200-7.5  | 7.5V, 0~26.7A  | ±2%  | 150mV | 89.0% |
| RSP-200-12   | 12V, 0~16.7A   | ±1%  | 150mV | 89.0% |
| RSP-200-13.5 | 13.5V, 0~14.9A | ±1%  | 150mV | 89.0% |
| RSP-200-15   | 15V, 0~13.4A   | ±1%  | 150mV | 89.5% |
| RSP-200-24   | 24V, 0~8.4A    | ±1%  | 150mV | 89.5% |
| RSP-200-27   | 27V, 0~7.5A    | ±1%  | 200mV | 89.0% |
| RSP-200-36   | 36V, 0~5.56A   | ±1%  | 220mV | 90.0% |
| RSP-200-48   | 48V, 0~4.2A    | ±1%  | 240mV | 90.0% |



RSP-500

RSP-320

### Features

- 1U low profile
- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- Built-in remote sense and ON/OFF control (RSP-500)
- LED indicator for power on
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.               |        | RSP-320                                                                                              | RSP-500                                  |
|-------------------------|--------|------------------------------------------------------------------------------------------------------|------------------------------------------|
| AC input voltage range  |        | 88~264VAC; 124~370VDC                                                                                | 85~264VAC; 120~370VDC                    |
| AC inrush current(max.) |        | Cold start, 40A at 230VAC                                                                            |                                          |
| DC adjustment range     |        | Vo: $\pm 10\%$ by potentiometer                                                                      |                                          |
| Overload protection     | Range  | 105%~135%                                                                                            | 105%~130%                                |
|                         | Type   | Hiccup mode, auto-recovery                                                                           | Constant current limiting, auto-recovery |
| Over voltage protection | Range  | 115%~145%                                                                                            |                                          |
|                         | Type   | Shut down O/P voltage, re-power on to recover                                                        |                                          |
| Withstand voltage       |        | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                       |                                          |
| Working temperature     |        | -30~+70°C (refer to output derating curve)                                                           |                                          |
| Safety standards        |        | UL60950-1, TUV EN60950-1 approved; CCC GB4943 approved for RSP-320 only                              |                                          |
| EMC standards           |        | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2(RSP-500), GB9254(RSP-320 only) |                                          |
| Connection              | Input  | 9P / 9.5mm pitch terminal block                                                                      | 3P / 9.5mm pitch terminal block          |
|                         | Output |                                                                                                      | 6P / 11mm pitch terminal block           |
| Dimension (LxWxH) (mm)  |        | 215x115x30                                                                                           | 230x127x40.5                             |
| Case No.                |        | 207A                                                                                                 | 226A                                     |

### 320W RSP-320

| Model No.    | Output         | Tol.      | R&N   | Effi. |
|--------------|----------------|-----------|-------|-------|
| RSP-320-2.5  | 2.5V, 0~60A    | $\pm 2\%$ | 100mV | 75.5% |
| RSP-320-3.3  | 3.3V, 0~60A    | $\pm 2\%$ | 100mV | 79.5% |
| RSP-320-4    | 4V, 0~60A      | $\pm 2\%$ | 100mV | 81.0% |
| RSP-320-5    | 5V, 0~60A      | $\pm 2\%$ | 150mV | 83.0% |
| *RSP-320-5CC | 5V, 0~60A      | $\pm 2\%$ | 150mV | 83.0% |
| RSP-320-7.5  | 7.5V, 0~40A    | $\pm 2\%$ | 150mV | 88.0% |
| RSP-320-12   | 12V, 0~26.7A   | $\pm 1\%$ | 150mV | 88.0% |
| RSP-320-13.5 | 13.5V, 0~23.8A | $\pm 1\%$ | 150mV | 88.0% |
| RSP-320-15   | 15V, 0~21.4A   | $\pm 1\%$ | 150mV | 88.5% |
| RSP-320-24   | 24V, 0~13.4A   | $\pm 1\%$ | 150mV | 89.0% |
| RSP-320-27   | 27V, 0~11.9A   | $\pm 1\%$ | 200mV | 89.0% |
| RSP-320-36   | 36V, 0~8.9A    | $\pm 1\%$ | 220mV | 89.5% |
| RSP-320-48   | 48V, 0~6.7A    | $\pm 1\%$ | 240mV | 90.0% |

\* RSP-320-5CC with conformal coating is suitable for LED moving sign applications, MOQ required.

### 500W RSP-500

| Model No.   | Output       | Tol.      | R&N   | Effi. |
|-------------|--------------|-----------|-------|-------|
| RSP-500-3.3 | 3.3V, 0~90A  | $\pm 2\%$ | 120mV | 81.0% |
| RSP-500-4   | 4V, 0~90A    | $\pm 2\%$ | 120mV | 83.0% |
| RSP-500-5   | 5V, 0~90A    | $\pm 2\%$ | 150mV | 84.0% |
| RSP-500-12  | 12V, 0~41.7A | $\pm 1\%$ | 150mV | 88.0% |
| RSP-500-15  | 15V, 0~33.4A | $\pm 1\%$ | 150mV | 88.0% |
| RSP-500-24  | 24V, 0~21A   | $\pm 1\%$ | 150mV | 89.0% |
| RSP-500-27  | 27V, 0~18.6A | $\pm 1\%$ | 150mV | 89.5% |
| RSP-500-48  | 48V, 0~10.5A | $\pm 1\%$ | 150mV | 90.5% |



We provide specification, drawing, test report and more information, please visit our website — <http://www.meanwell.com>



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### ■ Features

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Over temperature protection (200~320W built-in, option for 100W and 150W)
- Built-in active PFC function
- Cooling by free air convection (75W / 100W)
- Forced air cooling by built-in DC fan (150W / 200W / 320W)
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                 |       | TP-75                                                         | TP-100                                                                                                        | TP-150<br>QP-150 | QP-200                                      | QP-320                                       |
|---------------------------|-------|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------|----------------------------------------------|
| AC input voltage range    |       | 90~264VAC; 127~370VDC                                         |                                                                                                               |                  |                                             |                                              |
| AC inrush current (max.)  |       | Cold start,<br>20A at 230VAC                                  | Cold start,<br>40A at 230VAC                                                                                  |                  | Cold start,<br>50A at 230VAC                | Cold start,<br>45A at 230VAC                 |
| DC adjustment range       |       | CH1:<br>-5%~+10% rated output voltage                         | CH1: -5%~+10% rated output voltage<br>(CH1&2 for QP-150-3x, QP-150-D/F)                                       |                  | CH1&2:<br>-5%~+10% rated output voltage     |                                              |
| Overload protection       | Range | 105%~150%                                                     |                                                                                                               |                  |                                             |                                              |
|                           | Type  | Hiccup mode, auto-recovery                                    |                                                                                                               |                  | Constant current limiting,<br>auto-recovery | Fold back current limiting,<br>auto-recovery |
| Over voltage protection   |       | CH1: 115%~135%                                                | 115%~135% for CH1 or CH1&2                                                                                    |                  |                                             |                                              |
| Withstand voltage         |       | I/P - O/P: 3kVAC, I/P - FG: 2kVAC, O/P - FG:0.5kVAC, 1 minute |                                                                                                               |                  |                                             |                                              |
| Working temperature       |       | -10~+60°C (refer to output derating curve)                    |                                                                                                               |                  |                                             | -10~+70°C                                    |
| Setup, rise, hold up time |       | 800ms, 60ms, 36ms at full load and 230VAC                     | 800ms, 60ms, 24ms at full load and 230VAC (TP-100/150);<br>800ms, 50ms, 24ms at full load and 230VAC (QP-150) |                  | 800ms, 50ms, 24ms at full load and 230VAC   | 800ms, 50ms, 16ms at full load and 230VAC    |
| Safety standards          |       | UL60950-1, TUV EN60950-1 approved                             |                                                                                                               |                  |                                             |                                              |
| EMC standards             |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11      |                                                                                                               |                  |                                             |                                              |
| Connection                |       | 8P/7.62mm pitch terminal block with cover                     | 9P/7.62mm pitch terminal block with cover                                                                     |                  | 9P/9.5mm pitch terminal block with cover    |                                              |
| Dimension (LxWxH)(mm)     |       | 179x 99x 33                                                   | 199x 99x 50                                                                                                   |                  | 215x 115x 50                                |                                              |
| Case No.                  |       | 920A                                                          | 916A                                                                                                          | 916B             | 912B                                        | 912I                                         |

### ■ 75W — Triple Output

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| TP-75A    | 5V, 1.5~10A    | ±3%  | 100mV | 70%   | 74W  |
|           | 12V, 0.2~4.0A  | ±4%  | 120mV |       |      |
|           | -5V, 0.0~0.6A  | ±8%  | 100mV |       |      |
| TP-75B    | 5V, 1.5~10A    | ±3%  | 100mV | 70%   | 76W  |
|           | 12V, 0.2~4.0A  | ±4%  | 120mV |       |      |
|           | -12V, 0.0~0.6A | ±8%  | 120mV |       |      |
| TP-75C    | 5V, 1.5~10A    | ±3%  | 100mV | 70%   | 75W  |
|           | 15V, 0.2~3.0A  | ±4%  | 120mV |       |      |
|           | -15V, 0.0~0.6A | ±8%  | 120mV |       |      |
| TP-75D    | 5V, 1.5~10A    | ±3%  | 100mV | 70%   | 76W  |
|           | 24V, 0.2~2.5A  | ±4%  | 120mV |       |      |
|           | 12V, 0.0~0.6A  | ±8%  | 120mV |       |      |
| TP-7503   | 5V, 1.5~10A    | ±3%  | 100mV | 70%   | 75W  |
|           | 3.3V, 0.2~8.0A | ±4%  | 50mV  |       |      |
|           | 12V, 0.0~0.6A  | ±8%  | 120mV |       |      |

### ■ 100W — Triple Output

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| TP-100A   | 5V, 3.0~15A    | ±3%       | 100mV | 75%   | 101W |
|           | 12V, 0.4~5.0A  | ±7%       | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±6%       | 100mV |       |      |
| TP-100B   | 5V, 3.0~15A    | ±3%       | 100mV | 78%   | 105W |
|           | 12V, 0.4~5.0A  | ±6%       | 120mV |       |      |
|           | -12V, 0.0~1.0A | ±6%       | 100mV |       |      |
| TP-100C   | 5V, 3.0~15A    | ±3%       | 100mV | 77%   | 104W |
|           | 15V, 0.4~4.0A  | +10%, -6% | 150mV |       |      |
|           | -15V, 0.0~1.0A | ±6%       | 100mV |       |      |
| TP-100D   | 5V, 3.0~15A    | ±3%       | 100mV | 78%   | 105W |
|           | 24V, 0.4~3.0A  | ±8%       | 150mV |       |      |
|           | 12V, 0.0~1.0A  | ±6%       | 100mV |       |      |

## 150W — Triple Output

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| TP-150A   | 5V, 2.0~20A    | ±3%       | 100mV | 75%   | 150W |
|           | 12V, 0.4~7.0A  | ±8%       | 120mV |       |      |
|           | -5V, 0.0~1.0A  | ±6%       | 100mV |       |      |
| TP-150B   | 5V, 2.0~20A    | ±3%       | 100mV | 77%   | 148W |
|           | 12V, 0.4~7.0A  | ±8%       | 120mV |       |      |
|           | -12V, 0.0~1.0A | ±6%       | 100mV |       |      |
| TP-150C   | 5V, 2.0~20A    | ±3%       | 100mV | 77%   | 152W |
|           | 15V, 0.4~6.0A  | +10%, -6% | 150mV |       |      |
|           | -15V, 0.0~1.0A | ±6%       | 100mV |       |      |
| TP-150D   | 5V, 2.0~20A    | ±3%       | 100mV | 78%   | 154W |
|           | 24V, 0.4~4.0A  | ±8%       | 150mV |       |      |
|           | 12V, 0.0~1.0A  | ±6%       | 100mV |       |      |

## 150W — Quad Output

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| QP-150B   | 5V, 3.0~15A    | ±3%       | 100mV | 76%   | 150W |
|           | 12V, 0.4~5.0A  | ±6%       | 150mV |       |      |
|           | -12V, 0.3~2.0A | +10%, -6% | 150mV |       |      |
|           | -5V, 0.0~1.0A  | ±5%       | 100mV |       |      |
| QP-150C   | 5V, 3.0~15A    | ±3%       | 100mV | 77%   | 153W |
|           | 15V, 0.4~4.0A  | +6%, -10% | 150mV |       |      |
|           | -15V, 0.3~2.0A | ±8%       | 150mV |       |      |
|           | -5V, 0.0~1.0A  | ±5%       | 100mV |       |      |
| QP-150D   | 5V, 3.0~15A    | ±3%       | 120mV | 78%   | 150W |
|           | 12V, 0.0~5.0A  | ±3%       | 150mV |       |      |
|           | 24V, 0.4~3.0A  | ±6%       | 200mV |       |      |
|           | -12V, 0.0~1.0A | ±5%       | 150mV |       |      |
| QP-150F   | 5V, 3.0~15A    | ±3%       | 120mV | 78%   | 152W |
|           | 15V, 0.0~5.0A  | ±3%       | 150mV |       |      |
|           | 24V, 0.4~3.0A  | ±6%       | 200mV |       |      |
|           | -15V, 0.0~1.0A | ±5%       | 150mV |       |      |

| Model No. | Output         | Tol.     | R&N   | Effi. | Max. |
|-----------|----------------|----------|-------|-------|------|
| QP-150-3A | 5V, 3.0~15A    | ±3%      | 100mV | 73%   | 146W |
|           | 3.3V, 0.0~15A  | ±3%      | 100mV |       |      |
|           | 12V, 0.4~5.0A  | ±6%      | 150mV |       |      |
|           | -5V, 0.0~1.0A  | ±5%      | 150mV |       |      |
| QP-150-3B | 5V, 3.0~15A    | ±3%      | 100mV | 75%   | 150W |
|           | 3.3V, 0.0~15A  | ±3%      | 100mV |       |      |
|           | 12V, 0.4~5.0A  | ±6%      | 150mV |       |      |
|           | -12V, 0.0~1.0A | ±5%      | 150mV |       |      |
| QP-150-3C | 5V, 3.0~15A    | ±3%      | 100mV | 74%   | 152W |
|           | 3.3V, 0.0~15A  | ±3%      | 100mV |       |      |
|           | 15V, 0.4~5.0A  | +8%, -6% | 150mV |       |      |
|           | -15V, 0.0~1.0A | ±5%      | 150mV |       |      |
| QP-150-3D | 5V, 3.0~15A    | ±3%      | 100mV | 76%   | 150W |
|           | 3.3V, 0.0~15A  | ±3%      | 100mV |       |      |
|           | 24V, 0.3~3.0A  | ±6%      | 150mV |       |      |
|           | -12V, 0.0~1.0A | ±5%      | 150mV |       |      |

## 200W — Quad Output

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| QP-200D   | 5V, 3.0~20A    | ±3%       | 100mV | 75%   | 203W |
|           | 12V, 0.0~7.0A  | ±3%       | 150mV |       |      |
|           | 24V, 0.4~6.0A  | +10%, -6% | 150mV |       |      |
|           | -12V, 0.0~1.0A | ±6%       | 150mV |       |      |
| QP-200F   | 5V, 3.0~20A    | ±3%       | 100mV | 75%   | 203W |
|           | 15V, 0.0~6.0A  | ±3%       | 150mV |       |      |
|           | 24V, 0.4~6.0A  | +10%, -6% | 150mV |       |      |
|           | -15V, 0.0~1.0A | ±6%       | 150mV |       |      |
| QP-200-3A | 5V, 3.0~20A    | ±3%       | 100mV | 72%   | 200W |
|           | 3.3V, 0.0~20A  | ±3%       | 100mV |       |      |
|           | 12V, 0.5~8.0A  | +8%, -10% | 150mV |       |      |
|           | -5V, 0.0~1.0A  | ±6%       | 150mV |       |      |
| QP-200-3B | 5V, 3.0~20A    | ±3%       | 100mV | 72%   | 205W |
|           | 3.3V, 0.0~20A  | ±3%       | 100mV |       |      |
|           | 12V, 0.5~8.0A  | +8%, -10% | 150mV |       |      |
|           | -12V, 0.0~1.0A | ±6%       | 150mV |       |      |
| QP-200-3C | 5V, 3.0~20A    | ±3%       | 100mV | 72%   | 210W |
|           | 3.3V, 0.0~20A  | ±3%       | 100mV |       |      |
|           | 15V, 0.5~7.0A  | +10%, -6% | 150mV |       |      |
|           | -15V, 0.0~1.0A | ±6%       | 150mV |       |      |
| QP-200-3D | 5V, 3.0~20A    | ±3%       | 100mV | 74%   | 204W |
|           | 3.3V, 0.0~20A  | ±3%       | 100mV |       |      |
|           | 24V, 0.4~6.0A  | +10%, -6% | 150mV |       |      |
|           | -12V, 0.0~1.0A | ±6%       | 150mV |       |      |
| QP-200-3E | 5V, 3.0~20A    | ±3%       | 100mV | 74%   | 206W |
|           | 3.3V, 0.0~20A  | ±3%       | 100mV |       |      |
|           | 24V, 0.4~6.0A  | +10%, -6% | 150mV |       |      |
|           | -15V, 0.0~1.0A | ±6%       | 150mV |       |      |

## 320W — Quad Output

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| QP-320D   | 5V, 2.5~20A    | ±3%       | 100mV | 83%   | 316W |
|           | 12V, 0.0~10A   | ±3%       | 150mV |       |      |
|           | 24V, 0.2~5.0A  | +10%, -6% | 150mV |       |      |
|           | -12V, 0.2~2.0A | ±10%      | 150mV |       |      |
| QP-320F   | 5V, 2.5~20A    | ±3%       | 100mV | 83%   | 316W |
|           | 15V, 0.0~10A   | ±3%       | 150mV |       |      |
|           | 24V, 0.2~5.0A  | +10%, -6% | 150mV |       |      |
|           | -15V, 0.2~1.6A | ±10%      | 150mV |       |      |



**Under Development**

**PSPA-1000 Series**  
1000W Rectangular Type  
with PFC

- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- With DC OK signal output
- Built-in remote ON/OFF control & remote sense
- Output models: 12V / 15V / 24V / 48V
- Dimension(LxWxH): 170x 120x 93mm
- 5 years warranty



HRP-200  
HRPG-200

HRP-100  
HRP-150  
HRPG-150

HRP-75

### Features

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Built-in active PFC function
- Protections:
  - Short circuit / Overload / Over voltage /
  - Over temperature (optional for HRP-75 / HRP-100)
- Built-in constant current limiting circuit
- Built-in remote sense function (HRP□-150 / 200)
- No load power consumption<0.5W (except for HRP-150/200)
- Built-in remote ON/OFF control (except for HRP-150 / 200)
- Built-in 5V / 0.3A standby output (HRPG-150 / 200)
- Cooling by free air convection
- 1U low profile
- LED indicator for power on
- 5 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | HRP-75                                                                                     | HRP-100                                  | HRP□-150                  | HRP□-200    |
|--------------------------|-------|--------------------------------------------------------------------------------------------|------------------------------------------|---------------------------|-------------|
| AC input voltage range   |       | 85~264VAC; 120~370VDC                                                                      |                                          |                           |             |
| AC inrush current (max.) |       | Cold start, 65A at 230VAC                                                                  |                                          | Cold start; 70A at 230VAC |             |
| DC adjustment range      |       | -5%~+10% rated output voltage                                                              |                                          | ±15% rated output voltage |             |
| Overload protection      | Range | 105%~135%                                                                                  |                                          |                           |             |
|                          | Type  | Constant current limiting, auto-recovery                                                   |                                          |                           |             |
| Over voltage protection  |       | 115%~145%                                                                                  |                                          |                           |             |
| Withstand voltage        |       | I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC, 1 minute                                 |                                          |                           |             |
| Working temperature      |       | -40~+70°C (refer to output derating curve)                                                 | -40~+60°C                                | -40~+70°C                 |             |
| Safety standards         |       | UL60950-1, TUV EN60950-1 approved                                                          |                                          |                           |             |
| EMC standards            |       | EN55032 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3, EN61000-6-2 heavy industry level |                                          |                           |             |
| Connection               |       | 5P/9.5mm pitch terminal block with cover                                                   | 7P/9.5mm pitch terminal block with cover |                           |             |
| Dimension (LxWxH)(mm)    |       | 129x98x38                                                                                  | 159x97x38                                |                           | 199x 98x 38 |
| Case No.                 |       | 903D                                                                                       | 901I                                     |                           | 902E        |

### 75W HRP-75

| Model No.  | Output      | Tol.  | R&N   | Effi. |
|------------|-------------|-------|-------|-------|
| HRP-75-3.3 | 3.3V, 0~15A | ±2.5% | 80mV  | 77.0% |
| HRP-75-5   | 5V, 0~15A   | ±2.5% | 80mV  | 82.5% |
| HRP-75-7.5 | 7.5V, 0~10A | ±2.5% | 100mV | 84.0% |
| HRP-75-12  | 12V, 0~6.3A | ±1.5% | 120mV | 87.0% |
| HRP-75-15  | 15V, 0~5A   | ±1.5% | 150mV | 88.0% |
| HRP-75-24  | 24V, 0~3.2A | ±1.5% | 150mV | 88.5% |
| HRP-75-36  | 36V, 0~2.1A | ±1.5% | 200mV | 89.0% |
| HRP-75-48  | 48V, 0~1.6A | ±1.5% | 240mV | 89.0% |

### 150W HRP□-150

| Model No.    | Output      | Tol.  | R&N   | Effi. |
|--------------|-------------|-------|-------|-------|
| HRP□-150-3.3 | 3.3V, 0~30A | ±2.5% | 80mV  | 78.5% |
| HRP□-150-5   | 5V, 0~26A   | ±2.5% | 80mV  | 85.0% |
| HRP□-150-7.5 | 7.5V, 0~20A | ±2.5% | 100mV | 87.0% |
| HRP□-150-12  | 12V, 0~13A  | ±1.5% | 120mV | 88.0% |
| HRP□-150-15  | 15V, 0~10A  | ±1.5% | 150mV | 88.0% |
| HRP□-150-24  | 24V, 0~6.5A | ±1.5% | 150mV | 88.0% |
| HRP□-150-36  | 36V, 0~4.3A | ±1.5% | 200mV | 89.0% |
| HRP□-150-48  | 48V, 0~3.3A | ±1.5% | 240mV | 89.0% |

□=blank, G; blank: basic function, G: with 5Vsb & no load <0.5W

### 100W HRP-100

| Model No.   | Output        | Tol.         | R&N   | Effi. |
|-------------|---------------|--------------|-------|-------|
| HRP-100-3.3 | 3.3V, 0~20A   | +2.5%, -3.5% | 80mV  | 78.0% |
| HRP-100-5   | 5V, 0~17A     | ±2.5%        | 80mV  | 83.0% |
| HRP-100-7.5 | 7.5V, 0~13.5A | ±2.5%        | 100mV | 84.0% |
| HRP-100-12  | 12V, 0~8.5A   | ±1.5%        | 120mV | 87.5% |
| HRP-100-15  | 15V, 0~7A     | ±1.5%        | 150mV | 88.0% |
| HRP-100-24  | 24V, 0~4.5A   | ±1.5%        | 150mV | 88.5% |
| HRP-100-36  | 36V, 0~2.9A   | ±1.5%        | 200mV | 89.0% |
| HRP-100-48  | 48V, 0~2.2A   | ±1.5%        | 240mV | 90.0% |

### 200W HRP□-200

| Model No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| HRP□-200-3.3 | 3.3V, 0~40A   | ±2%  | 80mV  | 80.0% |
| HRP□-200-5   | 5V, 0~35A     | ±2%  | 90mV  | 84.0% |
| HRP□-200-7.5 | 7.5V, 0~26.7A | ±2%  | 100mV | 86.0% |
| HRP□-200-12  | 12V, 0~16.7A  | ±1%  | 120mV | 88.0% |
| HRP□-200-15  | 15V, 0~13.4A  | ±1%  | 150mV | 88.0% |
| HRP□-200-24  | 24V, 0~8.4A   | ±1%  | 150mV | 88.0% |
| HRP□-200-36  | 36V, 0~5.7A   | ±1%  | 250mV | 89.0% |
| HRP□-200-48  | 48V, 0~4.3A   | ±1%  | 250mV | 89.0% |

□=blank, G; blank: basic function, G: with 5Vsb & no load <0.5W



HRP-600  
HRPG-600

HRP-450  
HRPG-450

HRP-300  
HRPG-300

### Features

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in constant current limiting circuit
- Built-in remote sense function
- Built-in DC OK signal
- No load power consumption<0.5W (HRPG-300 / 450)  
No load power consumption<0.75W (HRPG-600)
- Built-in remote ON/OFF control & 5V / 0.3A standby output (HRPG series)
- Built-in current sharing (HRPG-600-24 / 36 / 48)
- Forced air cooling by built-in DC fan
- 1U low profile (HRP□-300 / 450)
- 5 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | HRP□-300                                                                                   | HRP□-450                                     | HRP□-600     |
|--------------------------|-------|--------------------------------------------------------------------------------------------|----------------------------------------------|--------------|
| AC input voltage range   |       | 85~264VAC; 120~370VDC                                                                      |                                              |              |
| AC inrush current (max.) |       | Cold start, 70A at 230VAC                                                                  |                                              |              |
| DC adjustment range      |       | ±15% rated output voltage                                                                  |                                              |              |
| Overload Protection      | Range | 105%~135%                                                                                  |                                              |              |
|                          | Type  | Constant current limiting, auto-recovery                                                   |                                              |              |
| Over voltage protection  |       | 115%~145%                                                                                  |                                              |              |
| Withstand voltage        |       | I/P - O/P: 3kVAC, I/P - FG: 1.5kVAC, O/P - FG: 0.5kVAC, 1 minute                           |                                              |              |
| Working temperature      |       | -40~+70°C (refer to output derating curve)                                                 |                                              |              |
| Safety standards         |       | UL60950-1, TUV EN60950-1 approved                                                          |                                              |              |
| EMC standards            |       | EN55032 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3, EN61000-6-2 heavy industry level |                                              |              |
| Connection               |       | 7P/11mm pitch terminal block with cover                                                    | 3+6P/10&11mm pitch terminal block with cover |              |
| Dimension (LxWxH)(mm)    |       | 199x105x41                                                                                 | 218x105x41                                   | 218x105x63.5 |
| Case No.                 |       | 980A                                                                                       | 995A                                         | 977A         |

### 300W HRP□-300

| Model No.    | Output      | Tol.  | R&N   | Effi. |
|--------------|-------------|-------|-------|-------|
| HRP□-300-3.3 | 3.3V, 0~60A | ±2.5% | 80mV  | 80.0% |
| HRP□-300-5   | 5V, 0~60A   | ±2.0% | 90mV  | 82.0% |
| HRP□-300-7.5 | 7.5V, 0~40A | ±2.0% | 100mV | 86.0% |
| HRP□-300-12  | 12V, 0~27A  | ±1.0% | 120mV | 88.0% |
| HRP□-300-15  | 15V, 0~22A  | ±1.0% | 150mV | 88.0% |
| HRP□-300-24  | 24V, 0~14A  | ±1.0% | 150mV | 87.0% |
| HRP□-300-36  | 36V, 0~9A   | ±1.0% | 250mV | 88.0% |
| HRP□-300-48  | 48V, 0~7A   | ±1.0% | 250mV | 89.0% |

□=blank, G; blank: basic function, G: with 5Vsb & no load <0.5W

### 600W HRP□-600

| Model No.    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|
| HRP□-600-3.3 | 3.3V, 0~120A | ±2%  | 100mV | 78.5% |
| HRP□-600-5   | 5V, 0~120A   | ±2%  | 100mV | 82.0% |
| HRP□-600-7.5 | 7.5V, 0~80A  | ±2%  | 100mV | 87.0% |
| HRP□-600-12  | 12V, 0~53A   | ±1%  | 120mV | 88.0% |
| HRP□-600-15  | 15V, 0~43A   | ±1%  | 150mV | 88.0% |
| HRP□-600-24  | 24V, 0~27A   | ±1%  | 150mV | 88.0% |
| HRP□-600-36  | 36V, 0~17.5A | ±1%  | 200mV | 89.0% |
| HRP□-600-48  | 48V, 0~13A   | ±1%  | 240mV | 89.0% |

□=blank, G; blank: basic function, G: with 5Vsb & no load <0.75W

### 450W HRP□-450

| Model No.    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|
| HRP□-450-3.3 | 3.3V, 0~90A  | ±2%  | 80mV  | 80.0% |
| HRP□-450-5   | 5V, 0~90A    | ±2%  | 80mV  | 83.0% |
| HRP□-450-7.5 | 7.5V, 0~60A  | ±2%  | 100mV | 86.5% |
| HRP□-450-12  | 12V, 0~37.5A | ±1%  | 120mV | 88.0% |
| HRP□-450-15  | 15V, 0~30A   | ±1%  | 150mV | 89.0% |
| HRP□-450-24  | 24V, 0~18.8A | ±1%  | 150mV | 88.0% |
| HRP□-450-36  | 36V, 0~12.5A | ±1%  | 240mV | 89.0% |
| HRP□-450-48  | 48V, 0~9.5A  | ±1%  | 240mV | 89.5% |

□=blank, G; blank: basic function, G: with 5Vsb & no load <0.5W

### HRPG-1000 Series

1000W High Reliability with PFC

Under Development

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- No load power consumption <0.75W
- Output models: 12V / 24V / 36V / 48V
- Dimension(LxWxH): 218x 105x 63.5 mm
- 5 years warranty



RSP-2000

RSP-1600

RSP-1000

RSP-750

### Features

- 1U low profile (41mm height only)
- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- High power density up to 25W/in<sup>3</sup> (RSP-1600)
- Output voltage programmable;  
Constant current level  $I_{cc}$  programmable (RSP-750/1600)
- Built-in current sharing up to 4 units (RSP-1000/2000) or 6 units (RSP-1600)
- Built-in remote sense and ON/OFF control
- Built-in auxiliary power, DC OK signal
- OTP alarm signal output (RSP-1600/2000)
- Optional conformal coating
- 5 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |        | RSP-750                                                                                                                                                                                           | RSP-1000                                                                                                                            | RSP-1600                                                                                                                                                                                      | RSP-2000                                                                                                    |
|--------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| AC input voltage range   |        | 90~264VAC; 127~370VDC                                                                                                                                                                             |                                                                                                                                     |                                                                                                                                                                                               | 90~264VAC; 127~320VDC                                                                                       |
| AC inrush current (max.) |        | Cold start, 40A at 230VAC                                                                                                                                                                         |                                                                                                                                     |                                                                                                                                                                                               | Cold start, 50A at 230VAC                                                                                   |
| DC adjustment range      |        | Vo: $\pm 10\%$ by potentiometer, or to 40%~110% of rated output voltage by 2~5.5VDC external control signal<br>$I_{cc}$ : to 40%~110% of rated output current by 2~5.5VDC external control signal | Vo: $\pm 10\%$ by potentiometer, or to 40%~110% of rated output voltage by external resistor or by 2~5.5VDC external control signal | Vo: -1%~+22.5% by potentiometer, or to 40%~125% of rated output voltage by 1~5VDC external control signal<br>$I_{cc}$ : to 20%~100% of rated output current by 1~5VDC external control signal | Vo: $\pm 10\%$ by potentiometer, or to 40%~115% of rated output voltage by 1~4.7VDC external control signal |
| Overload protection      | Range  | 105%~125%                                                                                                                                                                                         | 105%~125%                                                                                                                           | 105%~115%                                                                                                                                                                                     | 105%~125%                                                                                                   |
|                          | Type   | Constant current limiting, auto-recovery                                                                                                                                                          |                                                                                                                                     |                                                                                                                                                                                               | Constant current limiting, shut down o/p voltage after 5 sec., re-power on to recover                       |
| Over voltage protection  | Range  | 115%~145%                                                                                                                                                                                         | 115%~135%                                                                                                                           | 130%~155%                                                                                                                                                                                     | 120%~145%                                                                                                   |
|                          | Type   | Shut down O/P voltage, re-power on to recover                                                                                                                                                     |                                                                                                                                     |                                                                                                                                                                                               |                                                                                                             |
| Withstand voltage        |        | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC (O/P-FG: 1.5kVAC for RSP-1600)                                                                                                                     |                                                                                                                                     |                                                                                                                                                                                               |                                                                                                             |
| Working temperature      |        | -30~+70°C                                                                                                                                                                                         | -20~+60°C                                                                                                                           | -30~+70°C                                                                                                                                                                                     | -35~+70°C                                                                                                   |
| Safety standards         |        | UL60950-1, TUV EN60950-1 approved                                                                                                                                                                 |                                                                                                                                     |                                                                                                                                                                                               |                                                                                                             |
| EMC standards            |        | EN55032 class B for RSP-750, class A for RSP-1000/1600/2000; EN61000-3-2,3; EN61000-4-2,3,4,5,6,8,11                                                                                              |                                                                                                                                     |                                                                                                                                                                                               |                                                                                                             |
| Connection               | Input  | 3P / 10mm pitch terminal block with cover                                                                                                                                                         |                                                                                                                                     |                                                                                                                                                                                               |                                                                                                             |
|                          | Output | M5x12 screw terminal                                                                                                                                                                              |                                                                                                                                     | Bus bars                                                                                                                                                                                      | M5x12 screw terminal                                                                                        |
| Dimension (LxWxH) (mm)   |        | 250x127x41                                                                                                                                                                                        | 295x 127x 41                                                                                                                        | 300x 85x 41                                                                                                                                                                                   | 295x 127x 41                                                                                                |
| Case No.                 |        | 212A                                                                                                                                                                                              | 952B                                                                                                                                | 237B                                                                                                                                                                                          | 952D                                                                                                        |

### 750W

### RSP-750

| Model No.  | Output       | Tol.      | R&N   | Effi. |
|------------|--------------|-----------|-------|-------|
| RSP-750-5  | 5V, 0~100A   | $\pm 2\%$ | 150mV | 82.0% |
| RSP-750-12 | 12V, 0~62.5A | $\pm 1\%$ | 150mV | 87.0% |
| RSP-750-15 | 15V, 0~50A   | $\pm 1\%$ | 150mV | 89.0% |
| RSP-750-24 | 24V, 0~31.3A | $\pm 1\%$ | 150mV | 90.5% |
| RSP-750-27 | 27V, 0~27.8A | $\pm 1\%$ | 150mV | 90.5% |
| RSP-750-48 | 48V, 0~15.7A | $\pm 1\%$ | 150mV | 92.0% |

### 1600W

### NEW RSP-1600

| Model No.   | Output       | Tol.      | R&N   | Effi. |
|-------------|--------------|-----------|-------|-------|
| RSP-1600-12 | 12V, 0~125A  | $\pm 1\%$ | 150mV | 89.0% |
| RSP-1600-24 | 24V, 0~67A   | $\pm 1\%$ | 200mV | 91.5% |
| RSP-1600-27 | 27V, 0~59A   | $\pm 1\%$ | 200mV | 92.0% |
| RSP-1600-36 | 36V, 0~44.5A | $\pm 1\%$ | 250mV | 92.0% |
| RSP-1600-48 | 48V, 0~33.5A | $\pm 1\%$ | 300mV | 93.0% |

### 1000W

### RSP-1000

| Model No.   | Output     | Tol.      | R&N   | Effi. |
|-------------|------------|-----------|-------|-------|
| RSP-1000-12 | 12V, 0~60A | $\pm 1\%$ | 150mV | 83%   |
| RSP-1000-15 | 15V, 0~50A | $\pm 1\%$ | 150mV | 85%   |
| RSP-1000-24 | 24V, 0~40A | $\pm 1\%$ | 150mV | 88%   |
| RSP-1000-27 | 27V, 0~37A | $\pm 1\%$ | 150mV | 88%   |
| RSP-1000-48 | 48V, 0~21A | $\pm 1\%$ | 150mV | 90%   |

### 2000W

### RSP-2000

| Model No.   | Output      | Tol.      | R&N   | Effi. |
|-------------|-------------|-----------|-------|-------|
| RSP-2000-12 | 12V, 0~100A | $\pm 2\%$ | 150mV | 87.0% |
| RSP-2000-24 | 24V, 0~80A  | $\pm 1\%$ | 200mV | 90.5% |
| RSP-2000-48 | 48V, 0~42A  | $\pm 1\%$ | 300mV | 92.0% |



RSP-2400/3000

RSP-1500

### Features

- Universal AC input / Full range (RSP-1500)  
AC input 180~264VAC only (RSP-2400/3000)
- Built-in active PFC function
- Protections:  
Short circuit / Overload / Over voltage /  
Over temperature
- Forced air cooling by built-in DC fan
- Output voltage programmable
- Built-in current sharing up to 4 units (RSP-1500)  
or 3 units (RSP-2400/3000)
- Built-in remote sense and ON/OFF control
- Built-in auxiliary power, DC OK signal
- Optional conformal coating
- 5 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |        | RSP-1500                                                                                                      | RSP-2400                                                                                                                      | RSP-3000 |
|--------------------------|--------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------|
| AC input voltage range   |        | 90~264VAC; 127~370VDC                                                                                         | 180~264VAC; 254~370VDC                                                                                                        |          |
| AC inrush current (max.) |        | Cold start, 60A at 230VAC                                                                                     |                                                                                                                               |          |
| DC adjustment range      |        | Vo: -30%~+10% by potentiometer, or to 70%~100% of rated output voltage by external resistor                   | Vo: ±10% by potentiometer, or to 20%~110% of rated output voltage by 1~5.5VDC external control signal                         |          |
| Overload protection      | Range  | 105%~135%                                                                                                     | 100%~112%                                                                                                                     |          |
|                          | Type   | Constant current limiting, shut off after 5 sec., re-power on to recover                                      | Constant current limiting, shut off after 5 sec., re-power on to recover (can adjust to continuous constant current limiting) |          |
| Over voltage protection  | Range  | 115%~140%                                                                                                     |                                                                                                                               |          |
|                          | Type   | Shut down O/P voltage, re-power on to recover                                                                 |                                                                                                                               |          |
| Withstand voltage        |        | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                                |                                                                                                                               |          |
| Working temperature      |        | -20~+70°C                                                                                                     |                                                                                                                               |          |
| Safety standards         |        | UL60950-1, TUV EN60950-1 approved                                                                             |                                                                                                                               |          |
| EMC standards            |        | EN55032 class B for RSP-1500, class A for RSP-2400/3000; EN61000-3-2,3; EN61000-4-2,3,4,5,6,8,11; EN61000-6-2 |                                                                                                                               |          |
| Connection               | Input  | 3P/13mm pitch terminal block with cover                                                                       |                                                                                                                               |          |
|                          | Output | Bus bars                                                                                                      |                                                                                                                               |          |
| Dimension (LxWxH) (mm)   |        | 278x 127x 83.5                                                                                                | 278x 177.8x 63.5                                                                                                              |          |
| Case No.                 |        | 943A                                                                                                          | 982B                                                                                                                          |          |

### 1500W RSP-1500

| Model No.   | Output      | Tol. | R&N   | Effi. |
|-------------|-------------|------|-------|-------|
| RSP-1500-5  | 5V, 0~240A  | ±2%  | 150mV | 80%   |
| RSP-1500-12 | 12V, 0~125A | ±1%  | 150mV | 87%   |
| RSP-1500-15 | 15V, 0~100A | ±1%  | 150mV | 87%   |
| RSP-1500-24 | 24V, 0~63A  | ±1%  | 150mV | 90%   |
| RSP-1500-27 | 27V, 0~56A  | ±1%  | 150mV | 90%   |
| RSP-1500-48 | 48V, 0~32A  | ±1%  | 200mV | 91%   |

### 2400W RSP-2400

| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| RSP-2400-12 | 12V, 0~166.7A | ±1%  | 150mV | 88.0% |
| RSP-2400-24 | 24V, 0~100A   | ±1%  | 150mV | 90.5% |
| RSP-2400-48 | 48V, 0~50A    | ±1%  | 200mV | 91.5% |

### 3000W RSP-3000

| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| RSP-3000-12 | 12V, 0~200A  | ±1%  | 150mV | 87.5% |
| RSP-3000-24 | 24V, 0~125A  | ±1%  | 150mV | 90.0% |
| RSP-3000-48 | 48V, 0~62.5A | ±1%  | 200mV | 91.5% |



RST-5000



RST-10000

### Features

- 3 $\phi$ 3-wire/ $\Delta$  196~305VAC or 3 $\phi$ 4-wire/ Y 340~530VAC wide input range
- Built-in active PFC function
- High efficiency up to 91%
- Protections:
  - Short circuit / Overload / Over voltage / Over temperature/ Fan alarm
- Forced air cooling by built-in DC fan
- Output voltage and constant current level Icc programmable
- Built-in current sharing up to 20kW (4 units of RST-5000 or 2 units of RST-10000)
- Built-in remote sense and ON/OFF control
- Built-in 12V/0.1A auxiliary power
- Alarm signal output
- 5 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |        | RST-5000                                                                                                                                                                             | RST-10000                                                                                      |
|--------------------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| AC input voltage range   |        | 3 $\phi$ 3-wire/ $\Delta$ 196~305VAC or 3 $\phi$ 4-wire/ Y 340~530VAC                                                                                                                |                                                                                                |
| AC inrush current (max.) |        | Cold start, 75A at 230VAC (3 $\phi$ 3-wire/ $\Delta$ ) or 50A at 400VAC (3 $\phi$ 4-wire/ Y)                                                                                         | Cold start, 150A at 230VAC (3 $\phi$ 3-wire/ $\Delta$ ) or 100A at 400VAC (3 $\phi$ 4-wire/ Y) |
| DC adjustment range      |        | Vo: -2%~+20% by potentiometer or to 20%~120% of rated output voltage by 1~6VDC external control signal<br>Icc: to 20%~100% of rated output current by 1~5VDC external control signal |                                                                                                |
| Overload protection      | Range  | 100%~112%                                                                                                                                                                            |                                                                                                |
|                          | Type   | User adjustable continuous constant current limiting or constant current limiting with delay shutdown after 5 seconds. Re-power on to recover.                                       |                                                                                                |
| Over voltage protection  | Range  | 125%~140%                                                                                                                                                                            |                                                                                                |
|                          | Type   | Shut down O/P voltage, re-power on to recover                                                                                                                                        |                                                                                                |
| Withstand voltage        |        | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                                                                                                       |                                                                                                |
| Working temperature      |        | -30~+70°C (refer to output derating curve)                                                                                                                                           |                                                                                                |
| Safety standards         |        | UL60950-1, TUV EN60950-1 approved                                                                                                                                                    |                                                                                                |
| EMC standards            |        | EN55032 class A, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2                                                                                                                |                                                                                                |
| Connection               | Input  | 6P/13mm pitch terminal block with cover                                                                                                                                              |                                                                                                |
|                          | Output | Bus bars                                                                                                                                                                             |                                                                                                |
| Dimension (LxWxH) (mm)   |        | 460x 211x 83.5                                                                                                                                                                       | 540x 424x 83.5                                                                                 |
| Case No.                 |        | 223A                                                                                                                                                                                 | 234A                                                                                           |
| Packing                  |        | 10kg; 1pcs / 10.1kg / 1.15CUFT                                                                                                                                                       | 23.5kg; 1pcs / 23.5kg / 2.45CUFT                                                               |

### 5000W RST-5000

| Model No.   | Output      | Tol. | R&N   | Effi. |
|-------------|-------------|------|-------|-------|
| RST-5000-24 | 24V, 0~200A | ±1%  | 150mV | 89%   |
| RST-5000-36 | 36V, 0~138A | ±1%  | 200mV | 90%   |
| RST-5000-48 | 48V, 0~105A | ±1%  | 200mV | 91%   |

### 10000W RST-10000

| Model No.    | Output      | Tol. | R&N   | Effi. |
|--------------|-------------|------|-------|-------|
| RST-10000-24 | 24V, 0~400A | ±1%  | 150mV | 89%   |
| RST-10000-36 | 36V, 0~276A | ±1%  | 200mV | 90%   |
| RST-10000-48 | 48V, 0~210A | ±1%  | 200mV | 91%   |



### Features

- Universal AC input / Full range
- Built-in active PFC function
- Protections:
  - Short circuit / Overload / Over voltage / Over temperature
- **Output voltage programmable**
- Forced air cooling by built-in DC fan (except for SPV-150)
- Built-in remote sense and ON/OFF control (SPV-1500)
- Built-in 12V/0.1A auxiliary power and current sharing up to 4500W (SPV-1500)
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | SPV-150                                                                                                   | SPV-300   | SPV-1500                                                                                            |
|--------------------------|-------|-----------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------|
| AC input voltage range   |       | 88~264VAC; 124~370VDC                                                                                     |           | 90~264VAC; 127~370VDC                                                                               |
| AC inrush current (max.) |       | Cold start, 45A at 230VAC                                                                                 |           | Cold start, 60A at 230VAC                                                                           |
| DC adjustment range      |       | Vo: -15%~+10% by potentiometer or to 20%~110% of rated output voltage by 1~5.5VDC external control signal |           | Vo: ±5% by potentiometer or to 20%~110% of rated output voltage by 1~5.5VDC external control signal |
| Overload protection      | Range | 105%~150%                                                                                                 | 105%~135% |                                                                                                     |
|                          | Type  | constant current limiting, auto-recovery                                                                  |           |                                                                                                     |
| Over voltage protection  | Range | 115%~140%                                                                                                 |           | 120%~140%                                                                                           |
|                          | Type  | shut down O/P voltage, re-power on to recover                                                             |           |                                                                                                     |
| Withstand voltage        |       | I/P - O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                          |           |                                                                                                     |
| Working temperature      |       | -20~+65°C                                                                                                 |           | -20~+70°C                                                                                           |
| Safety standards         |       | UL60950-1, TUV EN60950-1 approved                                                                         |           |                                                                                                     |
| EMC standards            |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11                                                  |           |                                                                                                     |
| Dimension (LxWxH) (mm)   |       | 215x 115x 50                                                                                              |           | 278x 127x 83.5                                                                                      |
| Case No.                 |       | 912L                                                                                                      | 912G      | 943A                                                                                                |
| Packing                  |       | 1.1kg ; 12pcs / 14kg / 0.92CUFT                                                                           |           | 3.0kg ; 4pcs / 13kg / 1.19CUFT                                                                      |

### 150W SPV-150

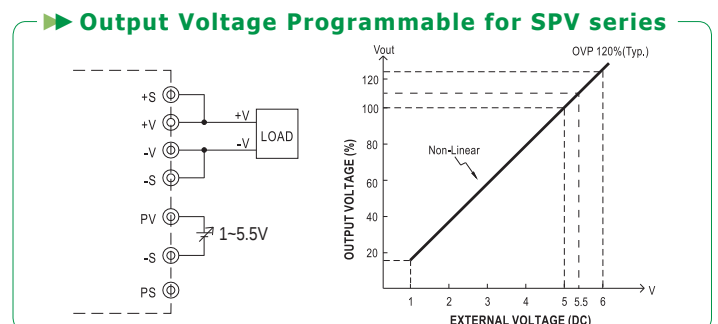
| Model No.  | Output        | Tol.      | R&N   | Effi. |
|------------|---------------|-----------|-------|-------|
| SPV-150-12 | 12V, 0~12.5A  | $\pm 1\%$ | 150mV | 82%   |
| SPV-150-24 | 24V, 0~6.25A  | $\pm 1\%$ | 150mV | 83%   |
| SPV-150-48 | 48V, 0~3.125A | $\pm 1\%$ | 240mV | 83%   |

### 1500W SPV-1500

| Model No.   | Output      | Tol.      | R&N   | Effi. |
|-------------|-------------|-----------|-------|-------|
| SPV-1500-12 | 12V, 0~125A | $\pm 1\%$ | 150mV | 86.5% |
| SPV-1500-24 | 24V, 0~63A  | $\pm 1\%$ | 150mV | 90.0% |
| SPV-1500-48 | 48V, 0~32A  | $\pm 1\%$ | 200mV | 90.0% |

### 300W SPV-300

| Model No.  | Output       | Tol.      | R&N   | Effi. |
|------------|--------------|-----------|-------|-------|
| SPV-300-12 | 12V, 0~25A   | $\pm 1\%$ | 150mV | 83.5% |
| SPV-300-24 | 24V, 0~12.5A | $\pm 1\%$ | 150mV | 85.0% |
| SPV-300-48 | 48V, 0~6.25A | $\pm 1\%$ | 240mV | 86.5% |



# Enclosed U-bracket-PFC 200~500W Slim Type



## ■ Features

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Slim width and low profile(26mm, 31mm)
- Built-in active PFC function
- 150% peak load capacity(100ms)
- Fanless design, cooling by free air convection
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Optional DC OK active signal and redundant function for UHP-200/350/500R
- LED indicator for power on
- 3 years warranty

## ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                |       | UHP-200                                                                     | UHP-350                                  | UHP-500                                      |
|--------------------------|-------|-----------------------------------------------------------------------------|------------------------------------------|----------------------------------------------|
| AC input voltage range   |       | 90~264VAC; 127~370VDC                                                       |                                          |                                              |
| AC inrush current (max.) |       | Cold start, 40A at 115VAC, 80A at 230VAC                                    | Cold start, 30A at 115VAC, 60A at 230VAC |                                              |
| DC adjustment range      |       | ±10% rated output voltage                                                   |                                          |                                              |
| Overload protection      | Range | 110%~140%                                                                   |                                          |                                              |
|                          | Type  | Hiccup mode, auto-recovery                                                  |                                          |                                              |
| Over voltage protection  | Range | 110%~140%                                                                   |                                          |                                              |
|                          | Type  | Shut down O/P voltage, re-power on to recover                               |                                          |                                              |
| Withstand voltage        |       | I/P - O/P: 3.75kVAC, I/P - FG: 2kVAC, O/P - FG: 1.25kVAC, 1 minute          |                                          |                                              |
| Working temperature      |       | -30~+70°C (refer to output derating curve)                                  |                                          |                                              |
| Vibration                |       | 10~500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes                  |                                          |                                              |
| Safety standards         |       | Design refer to EN60335-1, EN61558-2-16, EN60950-1, UL60950-1, GB4943       |                                          | Design refer to EN60950-1, UL60950-1, GB4943 |
| EMC standards            |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, GB9254, GB17625.1 |                                          |                                              |
| Dimension (LxWxH)(mm)    |       | 194x 55x 26                                                                 | 220x 62x 31                              | 233x 81x 31                                  |

## ■ UHP-200 Series



UL/CUL/TUV/CCC/CB/CE pending

| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| UHP-200-3.3 | 3.3V, 0~40A  | ±2%  | 150mV | 89%   |
| UHP-200-4.2 | 4.2V, 0~40A  | ±2%  | 150mV | 89%   |
| UHP-200-5   | 5V, 0~40A    | ±2%  | 200mV | 90%   |
| UHP-200-12  | 12V, 0~16.7A | ±1%  | 200mV | 91%   |
| UHP-200-15  | 15V, 0~13.4A | ±1%  | 200mV | 92%   |
| UHP-200-24  | 24V, 0~8.4A  | ±1%  | 240mV | 93%   |
| UHP-200-36  | 36V, 0~5.6A  | ±1%  | 240mV | 93%   |
| UHP-200-48  | 48V, 0~4.2A  | ±1%  | 240mV | 94%   |

## ■ UHP-350 Series



UL/CUL/TUV/CCC/CB/CE pending

| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| UHP-350-3.3 | 3.3V, 0~60A  | ±2%  | 150mV | 89%   |
| UHP-350-4.2 | 4.2V, 0~60A  | ±2%  | 150mV | 89%   |
| UHP-350-5   | 5V, 0~60A    | ±2%  | 200mV | 90%   |
| UHP-350-12  | 12V, 0~29.2A | ±1%  | 200mV | 91%   |
| UHP-350-15  | 15V, 0~23.4A | ±1%  | 200mV | 92%   |
| UHP-350-24  | 24V, 0~14.6A | ±1%  | 240mV | 94%   |
| UHP-350-36  | 36V, 0~9.75A | ±1%  | 240mV | 94%   |
| UHP-350-48  | 48V, 0~7.3A  | ±1%  | 240mV | 95%   |

## ■ UHP-500 Series



UL/CUL/TUV/CCC/CB/CE pending

| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| UHP-500-4.2 | 4.2V, 0~90A   | ±2%  | 100mV | 89%   |
| UHP-500-5   | 5V, 0~90A     | ±2%  | 100mV | 90%   |
| UHP-500-12  | 12V, 0~41.7A  | ±1%  | 120mV | 92%   |
| UHP-500-15  | 15V, 0~33.4A  | ±1%  | 150mV | 92%   |
| UHP-500-24  | 24V, 0~20.9A  | ±1%  | 150mV | 94%   |
| UHP-500-36  | 36V, 0~13.9A  | ±1%  | 240mV | 94%   |
| UHP-500-48  | 48V, 0~10.45A | ±1%  | 240mV | 95%   |

## UHP-750/1000 Series

750W&1000W Slim Type Power Supply

Under Development

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Built-in active PFC function
- Fanless design, cooling by free air convection
- Protections: Short circuit / Overload / Over voltage / Over temperature

- 1U low profile
- Design refer to IEC/EN/UL62368-1
- Output models: 12V / 24V / 48V
- Dimension(LxWxH):  
237x 89x 41mm (UHP-750), 240x 100x 41mm (UHP-1000)
- 5 years warranty





### ■ Features

- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Output wattage:
  - USP-150: 150W convection
  - USP-225: 150W convection, 225W with 18CFM forced air
  - USP-350: 300W convection, 350W with 23.5CFM forced air
  - USP-500: 400W convection, 500W with 23.5CFM forced air
- U-bracket low profile: 33mm(USP-150); 38mm(USP-225/350); 41mm(USP-500)
- Built-in remote ON/OFF control, remote sense, DC OK signal (USP-500)
- **Optional current sharing(1+1) for USP-500-24/48**
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                |       | USP-150                                                          | USP-225                                  | USP-350                                   | USP-500                                       |
|--------------------------|-------|------------------------------------------------------------------|------------------------------------------|-------------------------------------------|-----------------------------------------------|
| AC input voltage range   |       | 90~295VAC; 127~417VDC                                            |                                          | 90~264VAC; 127~370VDC                     |                                               |
| AC inrush current (max.) |       | Cold start, 65A at 230VAC                                        | 15A at 115VAC,<br>35A at 230VAC          | 22A at 115VAC,<br>44A at 230VAC           | 30A at 115VAC,<br>50A at 230VAC               |
| DC adjustment range      |       | ±10% rated output voltage                                        |                                          |                                           |                                               |
| Overload protection      | Range | 110%~160%                                                        | 105%~150%                                | 105%~130%                                 |                                               |
|                          | Type  | Hiccup mode, auto-recovery                                       | Constant current limiting, auto-recovery |                                           | Constant current, shut off after 3 sec.       |
| Over voltage protection  | Range | 110%~135%                                                        | 110%~135%                                | 110%~140%                                 | 115%~135%                                     |
|                          | Type  | Shut off, AC recycle to re-start                                 |                                          | Hiccup mode, auto-recovery                | Shut off, AC recycle to re-start              |
| Withstand voltage        |       | I/P - O/P: 3kVAC, I/P - FG: 1.5kVAC, O/P - FG: 0.5kVAC, 1 minute |                                          |                                           |                                               |
| Working temperature      |       | -30~+65°C                                                        | -20~+65°C                                | -10~+65°C                                 | -20~+70°C                                     |
| Vibration                |       | 10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes       |                                          |                                           |                                               |
| Safety standards         |       | UL60950-1, TUV EN60950-1(except for USP-150) approved            |                                          |                                           |                                               |
| EMC standards            |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11         |                                          |                                           |                                               |
| Connection               |       | JST: SVH-21T-P1.1,<br>4P/7.62mm pitch terminal block             | 20P/2.54mm pitch,<br>Molex 39-29-9206    | 5+9P/2/3.96mm pitch,<br>JST: B5P/B9P/2-VH | 3+8P/8.5mm pitch terminal<br>block with cover |
| Dimension (LxWxH)(mm)    |       | 215x 67.4x 33                                                    | 202x 101.5x 38                           | 235.2x 101.5x 38                          | 254x 127x 41                                  |

### ■ USP-150 Series



| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| USP-150-12 | 12V, 0~12.5A | ±2%  | 100mV | 91.5% |
| USP-150-15 | 15V, 0~10.0A | ±2%  | 150mV | 91.5% |
| USP-150-24 | 24V, 0~6.30A | ±2%  | 150mV | 93.0% |
| USP-150-36 | 36V, 0~4.20A | ±2%  | 250mV | 93.0% |
| USP-150-48 | 48V, 0~3.20A | ±2%  | 250mV | 93.0% |

### ■ USP-225 Series



| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| USP-225-3.3 | 3.3V, 0~40.0A | ±2%  | 100mV | 72%   |
| USP-225-5   | 5V, 0~40.0A   | ±2%  | 100mV | 77%   |
| USP-225-12  | 12V, 0~18.7A  | ±2%  | 100mV | 83%   |
| USP-225-15  | 15V, 0~15.0A  | ±2%  | 100mV | 84%   |
| USP-225-24  | 24V, 0~9.40A  | ±2%  | 150mV | 85%   |
| USP-225-48  | 48V, 0~4.70A  | ±2%  | 250mV | 86%   |

### ■ USP-350 Series



| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| USP-350-3.3 | 3.3V, 0~70.0A | ±2%  | 80mV  | 78%   |
| USP-350-5   | 5V, 0~70.0A   | ±2%  | 80mV  | 84%   |
| USP-350-12  | 12V, 0~29.2A  | ±2%  | 100mV | 88%   |
| USP-350-15  | 15V, 0~23.4A  | ±2%  | 100mV | 88%   |
| USP-350-24  | 24V, 0~14.6A  | ±2%  | 150mV | 88%   |
| USP-350-48  | 48V, 0~7.30A  | ±2%  | 150mV | 89%   |

### ■ USP-500 Series



| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| USP-500-5  | 5V, 0~80.0A  | ±2%  | 80mV  | 85%   |
| USP-500-12 | 12V, 0~42.0A | ±2%  | 100mV | 90%   |
| USP-500-15 | 15V, 0~33.5A | ±2%  | 100mV | 90%   |
| USP-500-24 | 24V, 0~21.0A | ±2%  | 150mV | 89%   |
| USP-500-48 | 48V, 0~10.5A | ±2%  | 150mV | 90%   |

### MSP-1000 Series

1000W High Reliability Medical Grade

Under Development

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Built-in active PFC function
- **Medical grade (2xMOPP level)**
- Current sharing up to 4000W (3+1)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Design refer to ANSI/AAMI ES60601-1, EN60601-1, IEC60601-1
- Output models: 12V / 15V / 24V / 48V
- Dimension(LxWxH): 218x 105x 63.5mm
- **5 years warranty**





### Features

- Universal AC input / Full range
- Installed on DIN rail TS-35 / 7.5 or 15
- Protections: Short circuit / Overload / Over voltage
- No load power consumption <0.75W (<1W for MDR-100)
- LED indicator for power on
- Built-in active PFC and over temp. protection (MDR-100)
- Class I, Div 2 Hazardous Locations T4(MDR-40/60)
- DC OK signal output (MDR-10/20);  
DC OK relay contact (MDR-40/60/100)
- Cooling by free air convection
- DC output voltage adjustable (MDR-20~100)
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                 | MDR-10                                                                                                                                               | MDR-20                                             | MDR-40                                             | MDR-60         | MDR-100            |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------|--------------------|
| AC input voltage range    | 85~264VAC; 120~370VDC                                                                                                                                |                                                    |                                                    |                |                    |
| AC inrush current         | Cold start, 35A at 115VAC, 70A at 230VAC                                                                                                             | Cold start, 20A at 115VAC, 40A at 230VAC           | Cold start, 30A at 115VAC, 60A at 230VAC           |                |                    |
| DC adjustment range       | Fixed                                                                                                                                                | ±10% rated output voltage                          | 0~+20% rated output voltage                        |                |                    |
| Overload protection       | >105% hiccup mode, auto-recovery                                                                                                                     | 105%~160% constant current limiting, auto-recovery | 105%~150% constant current limiting, auto-recovery |                |                    |
| Over voltage protection   | 115%~135% rated output voltage                                                                                                                       |                                                    | 125%~150% rated output voltage                     |                |                    |
| Setup, rise, hold up time | 500ms, 30ms, 120ms                                                                                                                                   | 500ms, 30ms, 50ms                                  |                                                    |                | 3000ms, 50ms, 50ms |
| Withstand voltage         | I/P-O/P:3kVAC, I/P-FG:2kVAC, 1minute                                                                                                                 |                                                    |                                                    |                |                    |
| Working temperature       | -20~+70°C (refer to output derating curve)                                                                                                           |                                                    |                                                    |                | -10~+60°C          |
| DC OK signal              | Open collector                                                                                                                                       |                                                    | Relay contact                                      |                |                    |
| Safety standards          | UL508, TUV EN60950-1 approved; MDR-40/60 also approved for UL60950-1, ANSI/ISA 12.12.01-2013 Class I, Div. 2 Group A, B, C, D Hazardous Locations T4 |                                                    |                                                    |                |                    |
| EMC standards             | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN61000-6-2 heavy industry level (MDR-40/60/100)                                |                                                    |                                                    |                |                    |
| Connection                | I/P: 3 poles, O/P: 3 poles screw DIN terminal                                                                                                        |                                                    | IP: 3 poles, O/P: 6 poles screw DIN terminal       |                |                    |
| Dimension (WxHxD)(mm)     | 22.5x90x100                                                                                                                                          |                                                    | 40x90x100                                          |                | 55x90x100          |
| Packing                   | 72pcs / 13.2kg                                                                                                                                       | 72pcs / 14.7kg                                     | 42pcs / 13.6kg                                     | 42pcs / 14.8kg | 30pcs / 13.6kg     |

### MDR-10 Series



| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| MDR-10-5  | 5V, 0~2.0A   | ±5%  | 80mV  | 77%   |
| MDR-10-12 | 12V, 0~0.84A | ±3%  | 120mV | 81%   |
| MDR-10-15 | 15V, 0~0.67A | ±3%  | 120mV | 81%   |
| MDR-10-24 | 24V, 0~0.42A | ±2%  | 150mV | 84%   |

### MDR-20 Series



| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| MDR-20-5  | 5V, 0~3.0A   | ±2%  | 80mV  | 76%   |
| MDR-20-12 | 12V, 0~1.67A | ±1%  | 120mV | 80%   |
| MDR-20-15 | 15V, 0~1.34A | ±1%  | 120mV | 81%   |
| MDR-20-24 | 24V, 0~1.00A | ±1%  | 150mV | 84%   |

### MDR-40 Series



| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| MDR-40-5  | 5V, 0~6.00A  | ±2%  | 80mV  | 78%   |
| MDR-40-12 | 12V, 0~3.33A | ±1%  | 120mV | 86%   |
| MDR-40-24 | 24V, 0~1.70A | ±1%  | 150mV | 88%   |
| MDR-40-48 | 48V, 0~0.83A | ±1%  | 200mV | 88%   |

### MDR-60 Series



| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| MDR-60-5  | 5V, 0~10.0A  | ±2%  | 80mV  | 78%   |
| MDR-60-12 | 12V, 0~5.00A | ±1%  | 120mV | 86%   |
| MDR-60-24 | 24V, 0~2.50A | ±1%  | 150mV | 88%   |
| MDR-60-48 | 48V, 0~1.25A | ±1%  | 200mV | 87%   |

### MDR-100 Series



| Model No.  | Output      | Tol. | R&N   | Effi. |
|------------|-------------|------|-------|-------|
| MDR-100-12 | 12V, 0~7.5A | ±1%  | 120mV | 83%   |
| MDR-100-24 | 24V, 0~4.0A | ±1%  | 150mV | 86%   |
| MDR-100-48 | 48V, 0~2.0A | ±1%  | 200mV | 87%   |



#### Energy Saving —

We care about energy saving. This logo represents that this model has "low no load power consumption"!



#### To satisfy our customers is our goal —

- High Quality
- Low Cost
- Prompt Delivery
- Best Service



### ■ Features

- **Isolation Class II**
- Universal AC input / Full range (277VAC operational)
- **No load power consumption<0.3W**
- **Compact size with 1SU~4SU width**
- **Class 2 power unit / Pass LPS**  
(Except for HDR-100-xxN)
- Protections: Short circuit / Overload / Over voltage
- Can be installed on DIN rail TS-35 / 7.5 or 15
- Cooling by free air convection
- DC output voltage adjustable
- LED indicator for power on
- Suitable for building automation and control of household appliance
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | HDR-15                                                                                   | HDR-30                            | HDR-60                                        | HDR-100 □                                                                                                                                            |
|--------------------------|-------|------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC input voltage range   |       | 85~264VAC (277VAC operational); 120~370VDC (390VDC operational)                          |                                   |                                               |                                                                                                                                                      |
| AC inrush current (max.) |       | Cold start, 45A at 230VAC                                                                |                                   | Cold start, 60A at 230VAC                     | Cold start, 70A at 230VAC                                                                                                                            |
| DC adjustment range      |       | 5V: 4.5~5.5V,<br>12V: 10.8~13.8V,<br>15V: 13.5~18V,<br>24V: 21.6~29V,<br>48V: 43.2~55.2V |                                   |                                               | HDR-100<br>12V: 12~13V, 15V: 15~17V,<br>24V: 24~25.5V, 48V: 48~48.7V<br>HDR-100-N<br>12V: 12~13.8V, 15V: 13.8~18V,<br>24V: 21.6~29V, 48V: 43.2~55.2V |
| Overload protection      | Range | 110%~145%                                                                                | 105%~160%                         |                                               | HDR-100: 102%~110%;<br>HDR-100-xxN: 105%~150%                                                                                                        |
|                          | Type  | constant current limiting, auto-recovery                                                 |                                   |                                               |                                                                                                                                                      |
| Over voltage protection  | Range | 115%~150% rated output voltage                                                           |                                   |                                               | 125%~155% rated output voltage                                                                                                                       |
|                          | Type  | Shut off, clamp by zener diode                                                           | Shut down, re-power on to recover |                                               |                                                                                                                                                      |
| Withstand voltage        |       | I/P-O/P: 3kVAC                                                                           |                                   |                                               |                                                                                                                                                      |
| Working temperature      |       | -30~+70°C (refer to output load derating curve)                                          |                                   |                                               |                                                                                                                                                      |
| Vibration                |       | 10~500Hz, 2G 10 min./1 cycle, period for 60 min. each along X, Y, Z axes                 |                                   |                                               |                                                                                                                                                      |
| Safety standards         |       | UL60950-1, UL508, TUV <b>EN61558-2-16</b> , IEC60950-1 approved                          |                                   |                                               |                                                                                                                                                      |
| EMC standards            |       | EN55032 class B, EN61000-3-2,3, EN61000-6-2, EN61000-4-2,3,4,5,6,8,11                    |                                   |                                               |                                                                                                                                                      |
| Connection               |       | I/P and O/P: 2 poles screw DIN terminal                                                  |                                   | I/P: 2 poles, O/P: 4 poles screw DIN terminal |                                                                                                                                                      |
| Dimension (WxHxD)(mm)    |       | 17.5x 90x 54.5                                                                           | 35x 90x 54.5                      | 52.5x 90x 54.5                                | 70x 90x 54.5                                                                                                                                         |
| Packing                  |       | 160pcs / 13.5kg                                                                          | 96pcs / 12.5kg                    | 60pcs / 12.4kg                                | 48pcs / 14kg                                                                                                                                         |

### ■ 15W HDR-15

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| HDR-15-5  | 5V, 0~2.40A  | ±2%  | 80mV  | 80%   |
| HDR-15-12 | 12V, 0~1.25A | ±1%  | 120mV | 85%   |
| HDR-15-15 | 15V, 0~1.00A | ±1%  | 120mV | 86.5% |
| HDR-15-24 | 24V, 0~0.63A | ±1%  | 150mV | 86%   |
| HDR-15-48 | 48V, 0~0.32A | ±1%  | 240mV | 87%   |

### ■ 30W HDR-30

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| HDR-30-5  | 5V, 0~3.0A   | ±2%  | 80mV  | 82%   |
| HDR-30-12 | 12V, 0~2.0A  | ±1%  | 120mV | 88%   |
| HDR-30-15 | 15V, 0~2.0A  | ±1%  | 120mV | 89%   |
| HDR-30-24 | 24V, 0~1.5A  | ±1%  | 150mV | 89%   |
| HDR-30-48 | 48V, 0~0.75A | ±1%  | 240mV | 90%   |

### ■ 60W HDR-60

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| HDR-60-5  | 5V, 0~6.5A   | ±2%  | 80mV  | 85%   |
| HDR-60-12 | 12V, 0~4.5A  | ±1%  | 120mV | 88%   |
| HDR-60-15 | 15V, 0~4.0A  | ±1%  | 120mV | 89%   |
| HDR-60-24 | 24V, 0~2.5A  | ±1%  | 150mV | 90%   |
| HDR-60-48 | 48V, 0~1.25A | ±1%  | 240mV | 91%   |

### ■ 100W HDR-100

| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| HDR-100-12  | 12V, 0~7.5A  | ±2%  | 120mV | 88%   |
| HDR-100-12N | 12V, 0~7.1A  | ±2%  | 120mV | 88%   |
| HDR-100-15  | 15V, 0~6.13A | ±1%  | 120mV | 89%   |
| HDR-100-15N | 15V, 0~6.5A  | ±1%  | 120mV | 89%   |
| HDR-100-24  | 24V, 0~3.83A | ±1%  | 150mV | 90%   |
| HDR-100-24N | 24V, 0~4.2A  | ±1%  | 150mV | 90%   |
| HDR-100-48  | 48V, 0~1.92A | ±1%  | 240mV | 90%   |
| HDR-100-48N | 48V, 0~2.1A  | ±1%  | 240mV | 90%   |

HDR-100: 92W max., pass LPS  
HDR-100-xxN: 100W max., non-LPS with a wide output adjustable range



### Features

- **Isolation Class II**
- Universal AC input / Full range
- No load power consumption <1W (DR-100);  
No load power consumption <0.5W (DR-15)
- Protections: Short circuit / Overload /  
Over voltage / Over temp. (DR-100)
- Installed on DIN rail TS-35 / 7.5 or 15
- Cooling by free air convection
- DC output voltage adjustable
- LED indicator for power on
- Suitable for building automation and control of household appliance
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | DR-15  | DR-30                                            | DR-60                        | DR-100  |
|--------------------------|-------|-----------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------|--------------------------------------------------------------------------------------------|
| AC input voltage range   |       | 85~264VAC; 120~370VDC                                                                   |                                                  |                              | 88~264VAC; 124~370VDC                                                                      |
| AC inrush current (max.) |       | Cold start,<br>65A at 230VAC                                                            | Cold start,<br>30A at 230VAC                     | Cold start,<br>36A at 230VAC | Cold start,<br>45A at 230VAC                                                               |
| DC adjustment range      |       | ±10% rated output voltage                                                               |                                                  |                              | 12V: 12~15V, 15V: 15~18V,<br>24V: 24~29V                                                   |
| Overload protection      | Range | 105%~160%                                                                               |                                                  |                              | 105%~135%                                                                                  |
|                          | Type  | constant current limiting, auto-recovery                                                |                                                  |                              |                                                                                            |
| Over voltage protection  | Range | 115%~135% rated output voltage                                                          |                                                  |                              | 125%~155% rated output voltage                                                             |
|                          | Type  | Shut off, clamp by zener diode                                                          | Shut down, re-power on to recover                |                              |                                                                                            |
| Withstand voltage        |       | I/P-O/P: 3kVAC                                                                          |                                                  |                              |                                                                                            |
| Working temperature      |       | -20~+60°C (refer to output load derating curve)                                         |                                                  |                              |                                                                                            |
| Vibration                |       | 10~500Hz, 2G 10 min./1 cycle, period for 60 min. each along X, Y, Z axes                |                                                  |                              |                                                                                            |
| Safety standards         |       | UL60950-1, TUV60950-1 approved                                                          |                                                  |                              |                                                                                            |
| EMC standards            |       | EN55032 class B, EN61000-3-2,3, EN61000-6-2, EN61000-4-2,3,4,5,6,8,11, EN61204-3        |                                                  |                              |                                                                                            |
| Connection               |       | I/P and O/P:<br>2 poles screw DIN terminal                                              | I/P: 2 poles,<br>O/P: 4 poles screw DIN terminal |                              |                                                                                            |
| Dimension (WxHxD)(mm)    |       | 25x93x56                                                                                | 78x93x56                                         |                              | 100x93x56                                                                                  |
| Case No.                 |       | 985A                                                                                    | 918B                                             |                              | 970A                                                                                       |
| Packing                  |       | 140pcs / 15.0kg                                                                         | 48pcs / 14.0kg                                   | 48pcs / 15.4kg               | 36pcs / 13.6kg                                                                             |

### 15W DR-15

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| DR-15-5   | 5V, 0~2.40A  | ±2%  | 80mV  | 77.0% |
| DR-15-12  | 12V, 0~1.25A | ±1%  | 120mV | 84.0% |
| DR-15-15  | 15V, 0~1.00A | ±1%  | 120mV | 83.5% |
| DR-15-24  | 24V, 0~0.63A | ±1%  | 150mV | 85.0% |

### 30W DR-30

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| DR-30-5   | 5V, 0~3.0A  | ±2%  | 80mV  | 74%   |
| DR-30-12  | 12V, 0~2.0A | ±1%  | 120mV | 81%   |
| DR-30-15  | 15V, 0~2.0A | ±1%  | 120mV | 82%   |
| DR-30-24  | 24V, 0~1.5A | ±1%  | 150mV | 83%   |

### 60W DR-60

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| DR-60-5   | 5V, 0~6.5A  | ±2%  | 80mV  | 76%   |
| DR-60-12  | 12V, 0~4.5A | ±1%  | 120mV | 82%   |
| DR-60-15  | 15V, 0~4.0A | ±1%  | 120mV | 83%   |
| DR-60-24  | 24V, 0~2.5A | ±1%  | 150mV | 84%   |

### 100W DR-100

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| DR-100-12 | 12V, 0~7.5A | ±2%  | 120mV | 87%   |
| DR-100-15 | 15V, 0~6.5A | ±1%  | 120mV | 87%   |
| DR-100-24 | 24V, 0~4.2A | ±1%  | 150mV | 89%   |



We provide specification, drawing, test report and more information, please visit our website —

<http://www.meanwell.com>



### Energy Saving —

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### ■ Features

- Universal AC input / Full range (DR-45/75)  
AC input selectable by switch (DR-120)
- Protections: Short circuit / Overload /  
Over voltage / Over temperature
- Cooling by free air convection
- DC output voltage adjustable
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508 (industrial control equipment) listed
- LED indicator for power on
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

|                            |       |                                                                                            |                                       |                                          |
|----------------------------|-------|--------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------------|
| Model No.                  |       | DR-45                                                                                      | DR-75                                 | DR-120                                   |
| AC input voltage range     |       | 85~264VAC                                                                                  |                                       | 90~132 / 180~264VAC selectable by switch |
| AC inrush current (230VAC) |       | 56A                                                                                        | 40A                                   | 40A                                      |
| DC adjustment range        |       | ±10%                                                                                       | 12V: 12~14V, 24V: 24~28V, 48V: 48~53V |                                          |
| Overload protection        |       | 105%~150% constant current limiting, auto-recovery                                         |                                       |                                          |
| Over voltage protection    | Range | 115%~142% rated output voltage                                                             |                                       |                                          |
|                            | Type  | Shut off, AC recycle to re-start                                                           |                                       |                                          |
| Over temp. protection      |       | Shut down output voltage, recovers automatically after temperature goes down               |                                       |                                          |
| Withstand voltage          |       | I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC, 1 minute                                 |                                       |                                          |
| Working temperature        |       | -10~+50°C                                                                                  | -10~+60°C                             |                                          |
| Safety standards           |       | UL508, TUV EN60950-1 approved (UL60950-1 also for DR-120)                                  |                                       |                                          |
| EMC standards              |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 heavy industry level |                                       |                                          |
| Connection                 |       | I/P: 3 poles, O/P: 4 poles screw DIN terminal                                              |                                       |                                          |
| Dimension (WxHxD)(mm)      |       | 78x93x67                                                                                   | 55.5x125.2x100                        | 65.5x125.2x100                           |
| Case No.                   |       | 918A                                                                                       | 923                                   | 921A                                     |
| Packing                    |       | 48pcs / 17.5kg                                                                             | 20pcs / 13.0kg                        | 20pcs / 16.5kg                           |

### ■ DR-45 Series



| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| DR-4505   | 5V, 0~5.0A  | ±2%  | 100mV | 72%   |
| DR-4512   | 12V, 0~3.5A | ±1%  | 200mV | 77%   |
| DR-4515   | 15V, 0~2.8A | ±1%  | 240mV | 77%   |
| DR-4524   | 24V, 0~2.0A | ±1%  | 480mV | 80%   |

### ■ DR-120 Series



| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| DR-120-12 | 12V, 0~10A  | ±2%  | 80mV  | 80%   |
| DR-120-24 | 24V, 0~5.0A | ±1%  | 80mV  | 84%   |
| DR-120-48 | 48V, 0~2.5A | ±1%  | 100mV | 85%   |

### ■ DR-75 Series



| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| DR-75-12  | 12V, 0~6.3A | ±2%  | 100mV | 76%   |
| DR-75-24  | 24V, 0~3.2A | ±1%  | 150mV | 80%   |
| DR-75-48  | 48V, 0~1.6A | ±1%  | 240mV | 81%   |



### Best products also need best service.

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### ■ Features

- Universal AC input / Full range (DRP-240)  
AC input 180~264VAC only (DRP-480)  
AC input selectable by switch (DRP-480S)
- Built-in active PFC function (DRP-240)
- Built-in passive PFC function (480W)
- Protections: Short circuit / Overload /  
Over voltage / Over temperature
- Cooling by free air convection
- DC output voltage adjustable
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508 (industrial control equipment) listed
- LED indicator for power on
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

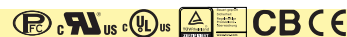
|                            |       |                                                                                                                |               |                     |
|----------------------------|-------|----------------------------------------------------------------------------------------------------------------|---------------|---------------------|
| Model No.                  |       | DRP-240                                                                                                        | DRP-480       | DRP-480S            |
| AC input voltage range     |       | 85~264VAC                                                                                                      | 180~264VAC    | 90~132 / 180~264VAC |
| AC inrush current (230VAC) |       | 45A                                                                                                            | 40A           | 45A                 |
| DC adjustment range        |       | 12V: 12~14V, 24V: 24~28V, 48V: 48~53V                                                                          |               |                     |
| Overload protection        |       | 105%~150% constant current limiting, auto-recovery                                                             |               |                     |
| Over voltage protection    | Range | 30~36V for 24V model, 54~60V for 48V model                                                                     |               |                     |
|                            | Type  | Shut off, AC recycle to re-start                                                                               |               |                     |
| Over temp. protection      |       | Shut down output voltage, recovers automatically after temperature goes down (DRP-240, re-power on to recover) |               |                     |
| Withstand voltage          |       | I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC, 1 minute                                                     |               |                     |
| Working temperature        |       | -10~+70°C                                                                                                      | -20~+70°C     |                     |
| Safety standards           |       | UL508, TUV EN60950-1, UL60950-1 approved                                                                       |               |                     |
| EMC standards              |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 heavy industry level                     |               |                     |
| Connection                 |       | I/P: 3 poles, O/P: 4 poles screw DIN terminal                                                                  |               |                     |
| Dimension (WxHxD)(mm)      |       | 125.5x125.2x100                                                                                                | 227x125.2x100 |                     |
| Case No.                   |       | 922A                                                                                                           | 930           |                     |
| Packing                    |       | 12pcs / 15.5kg                                                                                                 | 6pcs / 15.0kg | 6pcs / 16.6kg       |

### ■ DRP-240 Series



| Model No.  | Output      | Tol. | R&N   | Effi. |
|------------|-------------|------|-------|-------|
| DRP-240-24 | 24V, 0~10A  | ±1%  | 80mV  | 84%   |
| DRP-240-48 | 48V, 0~5.0A | ±1%  | 150mV | 85%   |

### ■ DRP-480S Series



| Model No.   | Output     | Tol. | R&N   | Effi. |
|-------------|------------|------|-------|-------|
| DRP-480S-24 | 24V, 0~20A | ±1%  | 120mV | 89%   |
| DRP-480S-48 | 48V, 0~10A | ±1%  | 120mV | 89%   |

### ■ DRP-480 Series



| Model No.  | Output     | Tol. | R&N   | Effi. |
|------------|------------|------|-------|-------|
| DRP-480-24 | 24V, 0~20A | ±1%  | 120mV | 89%   |
| DRP-480-48 | 48V, 0~10A | ±1%  | 120mV | 89%   |



#### Customer Satisfaction —

Today's effort, tomorrow's reward. Continuously improve CQTS to satisfy customer is our goal.



#### To satisfy our customers is our goal —

- High Quality
- Low Cost
- Prompt Delivery
- Best Service



### ■ Features

- Input 340~550VAC, 3-phase  
(2-phase for DRH-120)
- Protections: Short circuit / Overload /  
Over voltage / Over temperature
- Built-in constant current limiting circuit
- Cooling by free air convection
- DC output voltage adjustable
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508 (industrial control equipment) listed  
(240~960W)
- EN61000-6-2 (EN50082-2) industrial immunity level
- Optional parallel function (1+1) (960W only)
- LED indicator for power on
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                       |       | DRH-120                                                                                               | DRT-240                                            | DRT-480       | DRT-960                                                |
|---------------------------------|-------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------|---------------|--------------------------------------------------------|
| AC input voltage range          |       | 340~550VAC, 2-phase                                                                                   | 340~550VAC, 3-phase (two phase operation possible) |               |                                                        |
| AC inrush current (max.)        |       | Cold start, 50A at 400VAC                                                                             |                                                    |               |                                                        |
| DC adjustment range             |       | 24V: 24~28V, 48V: 48~55V                                                                              |                                                    |               |                                                        |
| Overload protection             | Range | 105%~160%                                                                                             | 105%~150%                                          |               | 105%~125%                                              |
|                                 | Type  | Constant current limiting, auto-recovery                                                              |                                                    |               | Constant current limiting, delay shut off after 3 sec. |
| Over voltage protection         | Range | 24V: 30~36V, 48V: 59~66V                                                                              |                                                    |               |                                                        |
|                                 | Type  | Shut off, AC recycle to re-start                                                                      |                                                    |               |                                                        |
| Over temperature protection     |       | Shut down output voltage, recovers automatically after temperature goes down                          |                                                    |               |                                                        |
| Withstand voltage               |       | I/P - O/P: 3kVAC, I/P - FG: 1.5kVAC, O/P - FG: 0.5kVAC, 1 minute                                      |                                                    |               |                                                        |
| Working temperature             |       | -20~+60°C                                                                                             | -20~+70°C                                          |               | -20~+60°C                                              |
| Safety standards                |       | UL60950-1 approved                                                                                    | UL508, UL60950-1, TUV EN60950-1 approved           |               |                                                        |
| EMC standards                   |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN61000-6-2 heavy industry level |                                                    |               |                                                        |
| Connection (screw DIN terminal) |       | I/P: 3 poles, O/P: 4 poles                                                                            | I/P: 4 poles, O/P: 4 poles                         |               | I/P: 4 poles, O/P: 6 poles                             |
| Dimension (WxHxD)(mm)           |       | 65.5x125.2x100                                                                                        | 125.5x125.2x100                                    | 227x125.2x100 | 276x125.2x100                                          |
| Case No.                        |       | 921A                                                                                                  | 922A                                               | 930A          | 934                                                    |
| Packing                         |       | 20pcs / 16.0kg                                                                                        | 12pcs / 16.6kg                                     | 6pcs / 16.0kg | 4pcs / 14.2kg                                          |

### ■ DRH-120 (2-Phase)



| Model No.  | Output      | Tol. | R&N  | Effi. |
|------------|-------------|------|------|-------|
| DRH-120-24 | 24V, 0~5.0A | ±1%  | 80mV | 85%   |
| DRH-120-48 | 48V, 0~2.5A | ±1%  | 80mV | 86%   |

### ■ DRT-480 (3-Phase)



| Model No.  | Output     | Tol. | R&N  | Effi. |
|------------|------------|------|------|-------|
| DRT-480-24 | 24V, 0~20A | ±1%  | 80mV | 89%   |
| DRT-480-48 | 48V, 0~10A | ±1%  | 80mV | 90%   |

### ■ DRT-240 (3-Phase)



| Model No.  | Output      | Tol. | R&N  | Effi. |
|------------|-------------|------|------|-------|
| DRT-240-24 | 24V, 0~10A  | ±1%  | 80mV | 89%   |
| DRT-240-48 | 48V, 0~5.0A | ±1%  | 80mV | 89%   |

### ■ DRT-960 (3-Phase)



| Model No.  | Output     | Tol. | R&N  | Effi. |
|------------|------------|------|------|-------|
| DRT-960-24 | 24V, 0~40A | ±1%  | 80mV | 91%   |
| DRT-960-48 | 48V, 0~20A | ±1%  | 80mV | 92%   |



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#### 48hrs delivery—

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EDR-75

EDR-120

EDR-150

### Features

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- DC output voltage adjustable
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508 (industrial control equipment) listed
- EN61000-6-2 (EN50082-2) industrial immunity level
- Low cost
- 2 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                       |       | EDR-75                                                                                            | EDR-120          | EDR-150     |
|---------------------------------|-------|---------------------------------------------------------------------------------------------------|------------------|-------------|
| AC input voltage range          |       | 90~264VAC; 127~370VDC                                                                             |                  |             |
| AC inrush current (max.)        |       | Cold start, 35A at 230VAC                                                                         |                  |             |
| DC adjustment range             |       | 12V: 12~14V, 24V: 24~28V, 48V: 48~55V                                                             |                  |             |
| Overload protection             | Range | 105%~130%                                                                                         |                  |             |
|                                 | Type  | Constant current limiting, auto-recovery                                                          |                  |             |
| Over voltage protection         | Range | 12V: 14~17V, 24V: 29~33V, 48V: 56~65V                                                             |                  | 24V: 29~33V |
|                                 | Type  | Shut down o/p voltage, re-power on to recover                                                     |                  |             |
| Over temperature protection     |       | Shut down o/p voltage, re-power on to recover                                                     |                  |             |
| Withstand voltage               |       | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                    |                  |             |
| Working temperature             |       | -20~+60°C (refer to output derating curve)                                                        |                  |             |
| Safety standards                |       | UL508, TUV EN60950-1 approved                                                                     |                  |             |
| EMC standards                   |       | EN55032 classA, EN61000-3-2(125W for EDR-150),3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2(EN50082-2) |                  |             |
| Connection (screw DIN terminal) |       | I/P: 3 poles, O/P: 4 poles                                                                        |                  |             |
| Dimension (WxHxD)(mm)           |       | 32x 125.2x 102                                                                                    | 40x 125.2x 113.5 |             |
| Case No.                        |       | 221B                                                                                              | 992D             |             |

### 75W EDR-75

| Model No. | Output      | Tol.  | R&N   | Effi. |
|-----------|-------------|-------|-------|-------|
| EDR-75-12 | 12V, 0~6.3A | ±2.0% | 80mV  | 85.5% |
| EDR-75-24 | 24V, 0~3.2A | ±1.0% | 120mV | 87.5% |
| EDR-75-48 | 48V, 0~1.6A | ±1.0% | 150mV | 88.5% |

### 120W EDR-120

| Model No.  | Output      | Tol.  | R&N   | Effi. |
|------------|-------------|-------|-------|-------|
| EDR-120-12 | 12V, 0~10A  | ±2.0% | 100mV | 85.0% |
| EDR-120-24 | 24V, 0~5A   | ±1.0% | 120mV | 87.5% |
| EDR-120-48 | 48V, 0~2.5A | ±1.0% | 150mV | 88.5% |

### 150W EDR-150

| Model No.  | Output (230VAC/115VAC) | Tol.  | R&N   | Effi. |
|------------|------------------------|-------|-------|-------|
| EDR-150-24 | 24V, 0~6.5A / 0~5.2A   | ±1.0% | 150mV | 87%   |



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NDR-75

NDR-120

NDR-240

NDR-480

### Features

- Universal AC input / Full range
- Built-in active PFC function(NDR-240/480)
- High efficiency up to 92.5%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- DC output voltage adjustable
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508 (industrial control equipment) listed
- EN61000-6-2 (EN50082-2) industrial immunity level
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                       |       | NDR-75                                                                                      | NDR-120          | NDR-240                              | NDR-480                                                                  |
|---------------------------------|-------|---------------------------------------------------------------------------------------------|------------------|--------------------------------------|--------------------------------------------------------------------------|
| AC input voltage range          |       | 90~264VAC; 127~370VDC                                                                       |                  |                                      |                                                                          |
| AC inrush current (max.)        |       | Cold start, 35A at 230VAC                                                                   |                  |                                      |                                                                          |
| DC adjustment range             |       | 12V: 12~14V, 24V: 24~28V, 48V: 48~55V                                                       |                  |                                      |                                                                          |
| Overload protection             | Range | 105%~130%                                                                                   |                  |                                      |                                                                          |
|                                 | Type  | Constant current limiting, auto-recovery                                                    |                  |                                      | Constant current limiting, shut off after 3 sec., re-power on to recover |
| Over voltage protection         | Range | 12V: 14~17V, 24V: 29~33V, 48V: 56~65V                                                       |                  |                                      |                                                                          |
|                                 | Type  | Shut down o/p voltage, re-power on to recover                                               |                  |                                      |                                                                          |
| Over temperature protection     |       | Shut down o/p voltage, re-power on to recover                                               |                  | Shut down o/p voltage, auto-recovery |                                                                          |
| Withstand voltage               |       | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                              |                  |                                      |                                                                          |
| Working temperature             |       | -20~+70°C (refer to output derating curve)                                                  |                  |                                      |                                                                          |
| Safety standards                |       | UL508, TUV EN60950-1 approved                                                               |                  |                                      |                                                                          |
| EMC standards                   |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2(EN50082-2), EN61204-3 |                  |                                      |                                                                          |
| Connection (screw DIN terminal) |       | I/P: 3 poles, O/P: 4 poles                                                                  |                  |                                      |                                                                          |
| Dimension (WxHxD)(mm)           |       | 32x 125.2x 102                                                                              | 40x 125.2x 113.5 | 63x 125.2x 113.5                     | 85.5x 125.2x 128.5                                                       |
| Case No.                        |       | 221B                                                                                        | 992D             | 979C                                 | 984D                                                                     |
| Packing                         |       | 28pcs / 15.3kg                                                                              | 20pcs / 13kg     | 12pcs / 13kg                         | 8pcs / 15.4kg                                                            |

### NDR-75 Series



| Model No. | Output      | Tol.  | R&N   | Effi. |
|-----------|-------------|-------|-------|-------|
| NDR-75-12 | 12V, 0~6.3A | ±2.0% | 80mV  | 85.5% |
| NDR-75-24 | 24V, 0~3.2A | ±1.0% | 150mV | 88.0% |
| NDR-75-48 | 48V, 0~1.6A | ±1.0% | 240mV | 89.0% |

### NDR-240 Series



| Model No.  | Output     | Tol.  | R&N   | Effi. |
|------------|------------|-------|-------|-------|
| NDR-240-24 | 24V, 0~10A | ±1.0% | 150mV | 88.5% |
| NDR-240-48 | 48V, 0~5A  | ±1.0% | 150mV | 90.0% |

### NDR-120 Series



| Model No.  | Output      | Tol.  | R&N   | Effi. |
|------------|-------------|-------|-------|-------|
| NDR-120-12 | 12V, 0~10A  | ±2.0% | 100mV | 85.5% |
| NDR-120-24 | 24V, 0~5A   | ±1.0% | 120mV | 88.0% |
| NDR-120-48 | 48V, 0~2.5A | ±1.0% | 150mV | 89.0% |

### NDR-480 Series



| Model No.  | Output     | Tol.  | R&N   | Effi. |
|------------|------------|-------|-------|-------|
| NDR-480-24 | 24V, 0~20A | ±1.0% | 150mV | 92.5% |
| NDR-480-48 | 48V, 0~10A | ±1.0% | 150mV | 92.5% |



### Customer Satisfaction —

Today's effort, tomorrow's reward. Continuously improve CQTS to satisfy customer is our goal.



### Products —

- One Stop Shopping
- Total Solution



SDR-75 SDR-120 SDR-240 SDR-480P SDR-960

### Features

- High efficiency up to 94%
- Universal AC input / Full range (SDR-75/120/240/480); AC input 180~264VAC only (SDR-960)
- Built-in active PFC function (SDR-120/240/480/960)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- DC output voltage adjustable
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508(industrial control equipment) approved
- EN61000-6-2(EN50082-2) industrial immunity level
- Built-in DC OK relay contact (except for SDR-75)
- 150% peak load capability (SDR-75/120/240/480) 130% peak load capability (SDR-960)
- Current sharing up to 3840W (7+1) for SDR-480P Current sharing up to 3840W (3+1) for SDR-960
- Comply with GL (SDR-120/240/480)
- Comply with SEMI F47 (SDR-75/120/240/480)
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                       |       | SDR-75                                                                                                                                                                  | SDR-120                                            | SDR-240                                                             | SDR-480□                     | SDR-960                                                                                                                                                                   |
|---------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC input voltage range          |       | 88~264VAC; 124~370VDC                                                                                                                                                   |                                                    |                                                                     | 90~264VAC; 127~370VDC        | 180~264VAC; 254~370VDC                                                                                                                                                    |
| AC inrush current (max.)        |       | Cold start,<br>50A at 230VAC                                                                                                                                            | Cold start,<br>70A at 230VAC                       | Cold start,<br>55A at 230VAC                                        | Cold start,<br>80A at 230VAC | Cold start,<br>50A at 230VAC                                                                                                                                              |
| DC adjustment range             |       | 12V: 12~14V (only for SDR-75/120), 24V: 24~28V, 48V: 48~55V                                                                                                             |                                                    |                                                                     |                              |                                                                                                                                                                           |
| Overload protection             |       | Normally works within 110%~150% rated output power for 3 seconds and then shut down output voltage with auto-recovery (re-power on to recover for SDR-75)               |                                                    |                                                                     |                              | Normally works within 105%~130% rated output power for 3 seconds and then shut down o/p voltage with auto-recovery after 30 seconds if the peak load condition is removed |
|                                 |       | >150% rated power or short circuit, constant current limiting with auto-recovery within 2 seconds and may cause to shut down if over 2 seconds                          |                                                    |                                                                     |                              | Constant current limiting within 130%~150% rated output power for more than 3 seconds and then shut down o/p voltage, re-power on to recover                              |
| Over voltage protection         | Range | 14~17V for 12V model(SDR-75/120), 29~33V for 24V model, 56~65V for 48V model                                                                                            |                                                    |                                                                     |                              |                                                                                                                                                                           |
|                                 | Type  | Shut down o/p voltage, re-power on to recover                                                                                                                           |                                                    | Shut down o/p voltage with auto-recovery, or re-power on to recover |                              |                                                                                                                                                                           |
| Over temperature protection     |       | Re-power on to recover                                                                                                                                                  | Recovers automatically after temperature goes down |                                                                     |                              |                                                                                                                                                                           |
| Withstand voltage               |       | I/P-O/P:3kVAC, I/P-FG:1.5kVAC, O/P-FG:0.5kVAC, O/P-DC OK:0.5kVAC (except for SDR-75)                                                                                    |                                                    |                                                                     |                              |                                                                                                                                                                           |
| Working temperature             |       | -30~+70°C                                                                                                                                                               | -25~+70°C (refer to output derating curve)         |                                                                     |                              | -30~+70°C                                                                                                                                                                 |
| Safety standards                |       | UL508, TUV EN60950-1, GL (SDR-120/240/480) approved                                                                                                                     |                                                    |                                                                     |                              |                                                                                                                                                                           |
| EMC standards                   |       | EN55011(SDR-120/240/480), EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), EN61204-3; SEMI (SDR-75/120/240/480), GL (SDR-120/240/480) |                                                    |                                                                     |                              |                                                                                                                                                                           |
| Connection (screw DIN terminal) |       | I/P: 3 poles, O/P: 4 poles                                                                                                                                              |                                                    | I/P: 3 poles, O/P: 6 poles                                          | I/P: 3 poles, O/P: 8 poles   | I/P:3 poles, O/P: 6 poles                                                                                                                                                 |
| Dimension (WxHxD)(mm)           |       | 32x125.2x102                                                                                                                                                            | 40x125.2x113.5                                     | 63x125.2x113.5                                                      | 85.5x125.2x128.5             | 110x125.2x150                                                                                                                                                             |

### SDR-75 Series



| Model No. | Output      | Tol.  | R&N   | Effi. |
|-----------|-------------|-------|-------|-------|
| SDR-75-12 | 12V, 0~6.3A | ±1.0% | 100mV | 88.5% |
| SDR-75-24 | 24V, 0~3.2A | ±1.0% | 100mV | 89.0% |
| SDR-75-48 | 48V, 0~1.6A | ±1.0% | 120mV | 90.0% |

### SDR-120 Series



| Model No.  | Output      | Tol.  | R&N   | Effi. |
|------------|-------------|-------|-------|-------|
| SDR-120-12 | 12V, 0~10A  | ±1.0% | 100mV | 89.0% |
| SDR-120-24 | 24V, 0~ 5A  | ±1.0% | 100mV | 91.0% |
| SDR-120-48 | 48V, 0~2.5A | ±1.0% | 120mV | 90.5% |

### SDR-240 Series



| Model No.  | Output     | Tol.  | R&N  | Effi. |
|------------|------------|-------|------|-------|
| SDR-240-24 | 24V, 0~10A | ±1.0% | 50mV | 94%   |
| SDR-240-48 | 48V, 0~5A  | ±1.0% | 50mV | 94%   |

### SDR-480 Series



| Model No.   | Output     | Tol.  | R&N   | Effi. |
|-------------|------------|-------|-------|-------|
| SDR-480□-24 | 24V, 0~20A | ±1.2% | 100mV | 94%   |
| SDR-480□-48 | 48V, 0~10A | ±1.0% | 120mV | 94%   |

□ =blank, P ; Blank: basic function, P: with parallel function

### SDR-960 Series



| Model No.  | Output     | Tol.  | R&N   | Effi. |
|------------|------------|-------|-------|-------|
| SDR-960-24 | 24V, 0~40A | ±1.0% | 180mV | 94%   |
| SDR-960-48 | 48V, 0~20A | ±1.0% | 250mV | 94%   |



WDR-120

WDR-240

WDR-480

### Features

- Single and two phase wide input range 180~550VAC
- Built-in active PFC function (WDR-240/480)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- DC output voltage adjustable
- Built-in constant current limiting circuit
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508(industrial control equipment) approved
- EN61000-6-2(EN50082-2) industrial immunity level
- Built-in DC OK relay contact
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                       |       | WDR-120                                                                                                            | WDR-240                                                                                                                                                    | WDR-480                                                                                 |
|---------------------------------|-------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| AC input voltage range          |       | 180~550VAC(single and two phase); 254~780VDC                                                                       |                                                                                                                                                            |                                                                                         |
| AC input current                |       | 0.55A / 400VAC, 1.2A / 230VAC                                                                                      | 1A / 400VAC, 2A / 230VAC                                                                                                                                   | 1.6A / 400VAC, 4A / 230VAC                                                              |
| AC inrush current (max.)        |       | Cold start, 50A at 400VAC                                                                                          |                                                                                                                                                            |                                                                                         |
| DC adjustment range             |       | 12V: 12~15V, 24V: 24~29V, 48V: 48~58V                                                                              | 24V: 24~28V, 48V: 48~55V                                                                                                                                   |                                                                                         |
| Overload protection             |       | 105%~130% rated output power, constant current limiting, auto-recovery                                             | 105%~130% rated output power, constant current limiting, unit will shut down after 3 sec.; auto-recovery after 1 minute if the fault condition is removed. |                                                                                         |
| Over voltage protection         | Range | 16~18V for 12V model (only for WDR-120), 29~33V for 24V model, 56~65V for 48V model                                |                                                                                                                                                            |                                                                                         |
|                                 | Type  | Shut down o/p voltage, auto-recovery                                                                               | Shut down o/p voltage, auto-recovery after 1 minute if the fault condition is removed                                                                      |                                                                                         |
| Setup, rise, hold up time       |       | 2000ms, 70ms, 10ms at full load and 230VAC; 2000ms, 70ms, 50ms at full load and 400VAC                             | 1500ms, 150ms, 18ms at full load and 230VAC; 800ms, 150ms, 18ms at full load and 400VAC                                                                    | 2000ms, 150ms, 16ms at full load and 230VAC; 800ms, 150ms, 18ms at full load and 400VAC |
| Over temp. protection           |       | Shut down output voltage, recovers automatically after temperature goes down                                       |                                                                                                                                                            |                                                                                         |
| Withstand voltage               |       | I/P-O/P:3kVAC, I/P-FG:1.5kVAC, O/P-FG:0.5kVAC, O/P-DC OK:0.5kVAC, 1 minute                                         |                                                                                                                                                            |                                                                                         |
| Isolation resistance            |       | 100MΩ(min.)@500VDC                                                                                                 |                                                                                                                                                            |                                                                                         |
| Working temperature             |       | -25~+70℃ (refer to output derating curve)                                                                          | -30~+70℃ (refer to output derating curve)                                                                                                                  |                                                                                         |
| DC OK signal                    |       | Relay Contact                                                                                                      |                                                                                                                                                            |                                                                                         |
| Leakage current                 |       | <3.5mA at 530VAC                                                                                                   |                                                                                                                                                            |                                                                                         |
| Vibration                       |       | 10~500Hz, 2G 10 minutes / 1 cycle, period of 60 minutes each along X, Y, Z axes                                    |                                                                                                                                                            |                                                                                         |
| Safety standards                |       | UL508 approved ; Design refer to GL                                                                                |                                                                                                                                                            |                                                                                         |
| EMC standards                   |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), EN61204-3, heavy industry level |                                                                                                                                                            |                                                                                         |
| Connection (screw DIN terminal) |       | I/P: 3 poles, O/P: 4 poles                                                                                         | I/P: 3 poles, O/P: 6 poles                                                                                                                                 |                                                                                         |
| Dimension (WxHxD)(mm)           |       | 40x125.2x113.5                                                                                                     | 63x125.2x113.5                                                                                                                                             | 85.5x125.2x128.5                                                                        |
| Packing                         |       | 20pcs / 14kg                                                                                                       | 12pcs / 13.7kg                                                                                                                                             | 8pcs / 14.6kg                                                                           |

### WDR-120 Series



| Model No.  | Output      | Tol.  | R&N   | Effi. |
|------------|-------------|-------|-------|-------|
| WDR-120-12 | 12V, 0~10A  | ±1.5% | 120mV | 89.5% |
| WDR-120-24 | 24V, 0~5A   | ±1.0% | 120mV | 91%   |
| WDR-120-48 | 48V, 0~2.5A | ±1.0% | 150mV | 92%   |

### WDR-240 Series



| Model No.  | Output     | Tol.  | R&N   | Effi. |
|------------|------------|-------|-------|-------|
| WDR-240-24 | 24V, 0~10A | ±1.0% | 150mV | 91%   |
| WDR-240-48 | 48V, 0~5A  | ±1.0% | 150mV | 91%   |

### WDR-480 Series



| Model No.  | Output     | Tol.  | R&N   | Effi. |
|------------|------------|-------|-------|-------|
| WDR-480-24 | 24V, 0~20A | ±1.0% | 100mV | 92%   |
| WDR-480-48 | 48V, 0~10A | ±1.0% | 150mV | 93%   |



### Customer Satisfaction —

Today's effort, tomorrow's reward. Continuously improve CQTS to satisfy customer is our goal.



### To satisfy our customers is our goal —

- High Quality
- Low Cost
- Prompt Delivery
- Best Service



### Features

- 3-phase, 340~550VAC wide range input (2-phase operation possible)
- Width only 110mm for TDR-960; 85.5mm for TDR-480
- Built-in active PFC function
- High efficiency up to 94.5%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- DC output voltage adjustable
- Built-in constant current limiting circuit
- Can be installed on DIN rail TS-35/7.5 or 15
- UL508(industrial control equipment)approved
- EN61000-6-2(EN50082-2) industrial immunity level
- Current sharing up to 3840W(3+1) for TDR-960
- Built-in DC OK relay contact (optional for TDR-480)
- 3 years warranty



(TDR-960 only)



### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                       | TDR-480                                                                                                                  | TDR-960                                       |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| AC input voltage range          | 3-phase 340~550VAC (2-phase operation possible), 480~780VDC                                                              |                                               |
| AC input current (Typ.)         | 0.85A / 400VAC, 0.7A / 500VAC                                                                                            | 2.0A / 400VAC, 1.4A / 500VAC                  |
| AC inrush current (max.)        | Cold start, 50A at 400VAC                                                                                                | Cold start, 60A at 400VAC                     |
| DC adjustment range             | 24V: 24~28V, 48V: 48~55V                                                                                                 |                                               |
| Overload protection             | 105%~130% rated output power, constant current limiting, unit will shut down after 3 sec., re-power on to recover        |                                               |
| Over voltage protection         | Range                                                                                                                    | 29~33V for 24V model, 56~65V for 48V model    |
|                                 | Type                                                                                                                     | Shut down o/p voltage, re-power on to recover |
| Over temperature protection     | Shut down o/p voltage, auto-recovery after temperature goes down                                                         |                                               |
| Withstand voltage               | I/P-O/P:3kVAC I/P-FG:2kVAC O/P-FG:0.5kVAC, O/P-DC OK: 0.5kVAC(TDR-960; optional for TDR-480)                             |                                               |
| Working temperature             | -30~+70°C (refer to output derating curve)                                                                               |                                               |
| Safety standards                | UL508 approved                                                                                                           |                                               |
| EMC standards                   | EN55032 class B, EN55032 class B(TDR-480 only), EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, heavy industry level |                                               |
| Connection (screw DIN terminal) | I/P: 4 poles, O/P: 4 poles                                                                                               | I/P: 4 poles, O/P: 6 poles                    |
| Case No.                        | 984E                                                                                                                     | 214A                                          |
| Dimension (WxHxD)(mm)           | 85.5x 125.2x 128.5                                                                                                       | 110x 125.2x 150                               |

### 480W

### NEW TDR-480

| Model No.  | Output     | Tol.  | R&N   | Effi. |
|------------|------------|-------|-------|-------|
| TDR-480-24 | 24V, 0~20A | ±1.0% | 150mV | 92.5% |
| TDR-480-48 | 48V, 0~10A | ±1.0% | 150mV | 93%   |

### 960W

### TDR-960

| Model No.  | Output     | Tol.  | R&N   | Effi. |
|------------|------------|-------|-------|-------|
| TDR-960-24 | 24V, 0~40A | ±1.0% | 180mV | 94.0% |
| TDR-960-48 | 48V, 0~20A | ±1.0% | 250mV | 94.5% |

**TDR-240 Series**  
240W Slim 3-phase  
High Input Voltage

Under Development

- 3-phase, 340~550VAC wide range input
- Built-in active PFC function
- High efficiency up to 93%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- Can be installed on DIN rail TS-35/7.5 or 15
- Design refer to UL508
- Output models: 24V / 48V
- Dimension(WxHxD): 63x 125.2x 113.5mm
- 3 years warranty



DRA-40

DRA-60

### ■ Features

- Universal AC input / Full range
- **Io can be trimmed 10~100% by 1~10Vdc, PWM signal or resistance**
- Installed on DIN rail TS-35 / 7.5 or 15
- Protections: Short circuit / Overload / Over voltage
- Pass LPS
- Cooling by free air convection
- DC output voltage adjustable
- LED indicator for power on
- Suitable for machine vision inspection system and plant cultivation application
- 3 years warranty



| Model No.                       |       | DRA-40                                                                         | DRA-60 |
|---------------------------------|-------|--------------------------------------------------------------------------------|--------|
| AC input voltage range          |       | 90~264VAC; 127~370VDC                                                          |        |
| AC inrush current (max.)        |       | Cold start, 60A at 230VAC                                                      |        |
| DC adjustment range             |       | 12V: 12~15V, 24V: 24~30V                                                       |        |
| Current adjustment range        |       | 10%~100% rated output current adjustable by 1~10VDCc, PWM signal or resistance |        |
| Overload protection             | Range | 95%~108%                                                                       |        |
|                                 | Type  | Constant current limiting, auto-recovery                                       |        |
| Over voltage protection         |       | 120%~155% rated output power, shut down o/p voltage, re-power on to recover    |        |
| Withstand voltage               |       | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                 |        |
| Working temperature             |       | -30~+70°C (refer to output derating curve)                                     |        |
| Safety standards                |       | UL60950-1, TUV EN60950-1 approved                                              |        |
| EMC standards                   |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3            |        |
| Connection (screw DIN terminal) |       | I/P: 3 poles, O/P: 6 poles screw DIN terminal                                  |        |
| Case No.                        |       | 962A                                                                           |        |
| Dimension (WxHxD)(mm)           |       | 40x 90x 100                                                                    |        |

| 40W       |              | DRA-40 |       |       |
|-----------|--------------|--------|-------|-------|
| Model No. | Output       | Tol.   | R&N   | Effi. |
| DRA-40-12 | 12V, 0~3.34A | ±1.0%  | 120mV | 85%   |
| DRA-40-24 | 24V, 0~1.7A  | ±1.0%  | 150mV | 87%   |

| 60W       |             | DRA-60 |       |       |
|-----------|-------------|--------|-------|-------|
| Model No. | Output      | Tol.   | R&N   | Effi. |
| DRA-60-12 | 12V, 0~5A   | ±1.0%  | 120mV | 85%   |
| DRA-60-24 | 24V, 0~2.5A | ±1.0%  | 150mV | 87%   |



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### To satisfy our customers is our goal —

- High Quality
- Low Cost
- Prompt Delivery
- Best Service

### 20A Power Supply Redundancy Module

- Suitable for redundant operation of 24V system
- Installed on DIN rail TS-35 / 7.5 or 15
- Relay contact signal output and LED indicator for input failure alarm
- Cooling by free air convection
- 3 years warranty



DC input voltage range .....21~28V, 20A max. x 2 channels  
 Reverse voltage ..... 30V  
 DC output current ..... 20A max.  
 DC output voltage drop ..... 0.6V max.  
 Input voltage alarm ..... When input is > 20V(±5%) and <30V(±5%), relay contacts  
 Relay contact rating ..... 30VDC, 1A  
 Working temperature ..... -40~+70°C  
 Safety standard ..... UL508 approved  
 EMC standards ..... EN55032 class B, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... I/P: 4 poles, O/P: 2 poles screw DIN terminal,  
 Single output: 4 poles

| Model No. | Output   | Reverse Voltage | Current  |
|-----------|----------|-----------------|----------|
| DR-RDN20  | 24V, 20A | 30V max.        | 20A max. |

#### ► Feature Description

**DR-RDN20** is a 20A redundancy (decoupling) module for the 24VDC power system. Containing 2 sets of 20A Or-ing diodes with wonderful heat dissipation deployment, DR-RDN20 offers a safe option of 1+1 redundant set-up. Not only perfectly decouple power sources from each other as well as from the load, DR-RDN-20 also provides users monitoring signals for both input channels through the built-in relays.

**DR-UPS40** is a 40A max. DC UPS (battery control) module for the 24VDC power system. Accompany with external batteries, it can back-up up to 40A of current to critical loads for certain period of time depending on the capacity of batteries. With complete monitoring signals / LED indicators for DC BUS OK, Battery Fail, Battery Discharge, and the repeated Battery Test function to check the situation of external batteries, users can customize their own DC UPS system to back up critical loads and capture the status of the whole system easily.

### 40A DC UPS Module

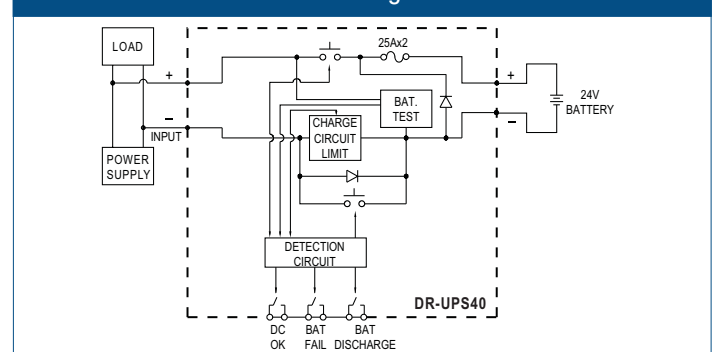
- Battery controller for DIN rail UPS system
- Parallel connected to DC BUS
- Suitable for 24V system up to 40A
- Installed on DIN Rail TS-35 / 7.5 or 15
- Built-in battery test function
- Battery polarity protection
- Relay contact signal output and LED indicator for DC BUS OK, Battery Fail, and Battery Discharge
- Cooling by free air convection
- 3 years warranty



DC input / DC bus ..... 24~29V, 40A max.  
 Battery input voltage ..... 21~29V  
 Battery input Current ..... 0~40A  
 Charge current (typ.) ..... 2A  
 External battery (typ.) ..... 24V, 4AH / 7AH / 12AH  
 DC bus ok ..... Relay status : Short when DC voltage between 21~29V(±3%), relay contacts  
 LED(Green) : DC bus OK : light;  
 DC bus fail : dark  
 Battery fail ..... Relay status : Short when battery failure is observed through the battery test function, relay contacts  
 LED(Red) : Battery over-discharge warning or battery broken: light;  
 Battery OK: dark  
 Battery discharge ..... Relay status : Short when battery in discharge condition, relay contacts  
 LED(Yellow) : Battery discharging: light;  
 Battery is not discharging or discharging current <2A: dark  
 Working temperature ..... -20~+70°C  
 EMC standards ..... EN55032 class B, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... I/P: 2 poles, O/P: 2 poles screw DIN terminal,  
 Single output: 6 poles

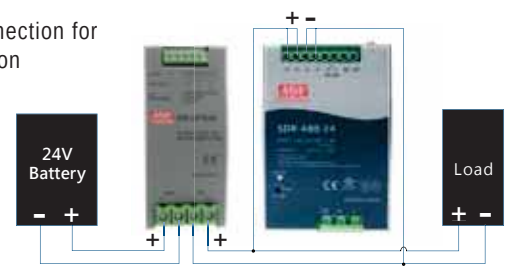
| Model No. | DC BUS Voltage | DC BUS Current |
|-----------|----------------|----------------|
| DR-UPS40  | 24~29V         | 40A max.       |

#### Block Diagram



#### Example of Application

Back up connection for AC interruption



**To satisfy our customers is our goal —**

- High Quality
- Low Cost
- Prompt Delivery
- Best Service



### ■ Features

- EIB / KNX power supply with integrated choke
- Compact size with 3SU(52.5mm) width
- 180~264VAC input
- No load power consumption <0.5W
- 200ms mains failure back-up time
- Button for bus reset on top
- Protections: Short circuit / Overload (short-circuit-proof) / Over voltage
- Cooling by free air convection
- Isolation Class I
- LED indicator for normal operation, bus reset and bus overload
- Installed on DIN rail TS-35/7.5 or 15
- 3 years warranty

| Model No.   | V <sub>out1</sub><br>(with choke) | V <sub>out2</sub><br>(without choke) | I <sub>out</sub><br>(I <sub>1</sub> +I <sub>2</sub> ) | R&N   | Effi. |
|-------------|-----------------------------------|--------------------------------------|-------------------------------------------------------|-------|-------|
| KNX-20E-640 | Bus, 30VDC                        | 30VDC                                | 640mA                                                 | 100mV | 86%   |

### ► KNX-20E Feature Description



The KNX Power Supply KNX-20E is a 640mA power supply with high efficiency and a small footprint of only 3SU (52.5 mm).

The device has a KNX bus choke output and an additional output for ancillary power.

The -30~+70°C wide temperature operating range can meet all kinds of applications. LED indicators are used in case of normal operation, overload conditions and RESET operation. It is perfectly suitable to power up any products labeled with the KNX trademark. With over 30 years of industrial power supply experience, KNX-20E is engineered to be a reliable and safe solution for KNX bus environment.

### ■ Applications

#### KNX-based home, office, building

- Lighting control
- Heating/ventilation & Air Conditioning control
- Shutter/Blind control
- Alarm monitoring
- Energy management & Electricity / Gas / Water metering
- Security systems control
- Automation & remote access control



|                                 |                                                                                                                                                     |                                                                           |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Model No.                       | KNX-20E-640                                                                                                                                         |                                                                           |
| AC input voltage range          | 180~264VAC; 254~370VDC                                                                                                                              |                                                                           |
| AC inrush current (max.)        | Cold start, 40A at 230VAC                                                                                                                           |                                                                           |
| LED indicators                  | ON: Green LED, normal operation, no fault; Reset: Red LED, reset of the KNX bus;<br>I <sub>out</sub> > I <sub>max</sub> : Red LED, KNX bus overload |                                                                           |
| Overload protection             | Range                                                                                                                                               | 205%~235%                                                                 |
|                                 | Type                                                                                                                                                | constant current limiting, auto-recovery after fault condition is removed |
| Over voltage protection         | 110%~115% ; Shut down o/p voltage, re-power on to recover                                                                                           |                                                                           |
| Setup, rise, hold up time       | 1000ms, 50ms, 200ms at 230VAC                                                                                                                       |                                                                           |
| Working temperature             | -30~+70°C (refer to output derating curve)                                                                                                          |                                                                           |
| Safety standards                | EN61558-1, EN61558-2-16 approved                                                                                                                    |                                                                           |
| EMC standards                   | EN50491-5-1, -5-2, -5-3                                                                                                                             |                                                                           |
| Connection (screw DIN terminal) | I/P: 3 poles; O/P: 2 poles screw DIN terminal & 2 KNX bus terminals (black/red)                                                                     |                                                                           |
| Dimension (WxHxD)(mm)           | 52.5x 90x 54.5                                                                                                                                      |                                                                           |

# Green Open Frame

5~30W Medical Miniature Encapsulated Type



## Features

- Universal AC input / Full range
- **Medical safety (2xMOPP)**
- Suitable for BF application with appropriate system consideration
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Extremely low leakage current
- No load power consumption <0.075W
- Isolation Class II
- **-30~+80°C wide range working temperature**
- Withstand 5G vibration test
- Miniature size, high power density
- Fully isolated plastic case
- Pass LPS
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



UL/CUL/TUV/CB/CE pending

| Model No.                 | MPM-05                                                   | MPM-10 | MPM-15         | MPM-20 | MPM-30-x <sup>ST</sup>                                |
|---------------------------|----------------------------------------------------------|--------|----------------|--------|-------------------------------------------------------|
| AC input voltage range    | 80~264VAC                                                |        |                |        |                                                       |
| Leakage current           | <80μA at 264VAC                                          |        |                |        |                                                       |
| AC inrush current (max.)  | Cold start, 25A at 115VAC, 45A at 230VAC                 |        |                |        |                                                       |
| Overload protection       | 105%~160% hiccup mode, auto-recovery                     |        |                |        |                                                       |
| Over voltage protection   | 105%~135% shut down o/p voltage                          |        |                |        |                                                       |
| Setup, rise, hole up time | 1000ms, 30ms, 40ms at 230VAC                             |        |                |        | 500ms, 30ms, 40ms at 230VAC                           |
| Withstand voltage         | I/P-O/P: 4kVAC                                           |        |                |        |                                                       |
| Working temperature       | -30~+80°C (refer to output derating curve)               |        |                |        |                                                       |
| Safety standards          | Design refer to ANSI/AAMI ES60601-1, TUV EN60601-1       |        |                |        |                                                       |
| EMC standards             | EN55011 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 |        |                |        |                                                       |
| Connection                | 4 pins                                                   |        |                |        |                                                       |
| Dimension (LxWxH)(mm)     | 45.7x 25.4x 21.5                                         |        | 52.4x 27.2x 24 |        | PCB mounting: 69.5x 39x 24; Screw I/O: 91x 39.5x 28.5 |

## 5W MPM-05

| Model No.  | Output        | Tol.  | R&N   | Effi. |
|------------|---------------|-------|-------|-------|
| MPM-05-3.3 | 3.3V, 0~1.25A | ±2.5% | 200mV | 70%   |
| MPM-05-5   | 5V, 0~1A      | ±2.5% | 200mV | 76%   |
| MPM-05-12  | 12V, 0~0.42A  | ±2.5% | 200mV | 80%   |
| MPM-05-15  | 15V, 0~0.33A  | ±2.5% | 200mV | 81%   |
| MPM-05-24  | 24V, 0~0.23A  | ±2.5% | 200mV | 82%   |

## 10W MPM-10

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| MPM-10-3.3 | 3.3V, 0~2.5A | ±2.5% | 200mV | 75%   |
| MPM-10-5   | 5V, 0~2A     | ±2.5% | 200mV | 78%   |
| MPM-10-12  | 12V, 0~0.85A | ±2.5% | 200mV | 82%   |
| MPM-10-15  | 15V, 0~0.67A | ±2.5% | 200mV | 82%   |
| MPM-10-24  | 24V, 0~0.42A | ±2.5% | 200mV | 83%   |

## 15W MPM-15

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| MPM-15-3.3 | 3.3V, 0~3.5A | ±2.5% | 200mV | 75%   |
| MPM-15-5   | 5V, 0~3A     | ±2.5% | 200mV | 79%   |
| MPM-15-12  | 12V, 0~1.25A | ±2.5% | 200mV | 84%   |
| MPM-15-15  | 15V, 0~1A    | ±2.5% | 200mV | 84%   |
| MPM-15-24  | 24V, 0~0.63A | ±2.5% | 200mV | 85%   |

## 20W MPM-20

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| MPM-20-3.3 | 3.3V, 0~4.5A | ±2.5% | 200mV | 76%   |
| MPM-20-5   | 5V, 0~4A     | ±2.5% | 200mV | 79%   |
| MPM-20-12  | 12V, 0~1.8A  | ±2.5% | 200mV | 84%   |
| MPM-20-15  | 15V, 0~1.4A  | ±2.5% | 200mV | 84%   |
| MPM-20-24  | 24V, 0~0.9A  | ±2.5% | 200mV | 85%   |

## 30W MPM-30

| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| MPM-30-3.3□ | 3.3V, 0~6A    | ±2%  | 80mV  | 80%   |
| MPM-30-5□   | 5V, 0~6A      | ±2%  | 80mV  | 83%   |
| MPM-30-12□  | 12V, 0~2.5A   | ±2%  | 120mV | 88%   |
| MPM-30-15□  | 15V, 0~2A     | ±2%  | 150mV | 89%   |
| MPM-30-24□  | 24V, 0~1.3A   | ±2%  | 240mV | 89%   |
| MPM-30-48□  | 48V, 0~0.625A | ±2%  | 300mV | 91%   |

□ = Blank, ST;  
Blank: PCB mounting, ST: Screw terminal style



MFM-05/10



MFM-15/20



MFM-30

Coming Soon

### Features

- Universal AC input / Full range
- **Medical safety (2xMOPP)**
- Suitable for BF application with appropriate system consideration
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Extremely low leakage current
- No load power consumption <0.075W
- Isolation Class II
- **-30~+80°C wide range working temperature**
- Miniature size, high power density
- Pass LPS
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



UL/CUL/TUV/CB/CE pending

| Model No.                 | MFM-05                                                   | MFM-10 | MFM-15         | MFM-20 | MFM-30                      |
|---------------------------|----------------------------------------------------------|--------|----------------|--------|-----------------------------|
| AC input voltage range    | 80~264VAC                                                |        |                |        |                             |
| Leakage current           | <80μA at 264VAC                                          |        |                |        |                             |
| AC inrush current (max.)  | Cold start, 25A at 115VAC, 45A at 230VAC                 |        |                |        |                             |
| Overload protection       | 105%~160% hiccup mode, auto-recovery                     |        |                |        | 120%~180%                   |
| Over voltage protection   | 105%~135% shut down o/p voltage                          |        |                |        | 105%~135%                   |
| Setup, rise, hold up time | 1000ms, 30ms, 40ms at 230VAC                             |        |                |        | 500ms, 30ms, 40ms at 230VAC |
| Withstand voltage         | I/P-O/P: 4kVAC                                           |        |                |        |                             |
| Working temperature       | <b>-30~+80°C</b> (refer to output derating curve)        |        |                |        |                             |
| Safety standards          | Design refer to ANSI/AAMI ES60601-1, TUV EN60601-1       |        |                |        |                             |
| EMC standards             | EN55011 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 |        |                |        |                             |
| Connection                | 4 pins                                                   |        |                |        |                             |
| Dimension (LxWxH)(mm)     | 42x 22.3x 16                                             |        | 49x 23.8x 18.5 |        | 65.5x 35x 18.5              |

### 5W MFM-05

| Model No.  | Output        | Tol.  | R&N   | Effi. |
|------------|---------------|-------|-------|-------|
| MFM-05-3.3 | 3.3V, 0~1.25A | ±2.5% | 200mV | 70%   |
| MFM-05-5   | 5V, 0~1A      | ±2.5% | 200mV | 76%   |
| MFM-05-12  | 12V, 0~0.42A  | ±2.5% | 200mV | 80%   |
| MFM-05-15  | 15V, 0~0.33A  | ±2.5% | 200mV | 81%   |
| MFM-05-24  | 24V, 0~0.23A  | ±2.5% | 200mV | 82%   |

### 10W MFM-10

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| MFM-10-3.3 | 3.3V, 0~2.5A | ±2.5% | 200mV | 75%   |
| MFM-10-5   | 5V, 0~2A     | ±2.5% | 200mV | 78%   |
| MFM-10-12  | 12V, 0~0.85A | ±2.5% | 200mV | 82%   |
| MFM-10-15  | 15V, 0~0.67A | ±2.5% | 200mV | 82%   |
| MFM-10-24  | 24V, 0~0.42A | ±2.5% | 200mV | 83%   |

### 15W MFM-15

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| MFM-15-3.3 | 3.3V, 0~3.5A | ±2.5% | 200mV | 75%   |
| MFM-15-5   | 5V, 0~3A     | ±2.5% | 200mV | 79%   |
| MFM-15-12  | 12V, 0~1.25A | ±2.5% | 200mV | 84%   |
| MFM-15-15  | 15V, 0~1A    | ±2.5% | 200mV | 84%   |
| MFM-15-24  | 24V, 0~0.63A | ±2.5% | 200mV | 85%   |

### 20W MFM-20

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| MFM-20-3.3 | 3.3V, 0~4.5A | ±2.5% | 200mV | 76%   |
| MFM-20-5   | 5V, 0~4A     | ±2.5% | 200mV | 79%   |
| MFM-20-12  | 12V, 0~1.8A  | ±2.5% | 200mV | 84%   |
| MFM-20-15  | 15V, 0~1.4A  | ±2.5% | 200mV | 84%   |
| MFM-20-24  | 24V, 0~0.9A  | ±2.5% | 200mV | 85%   |

### 30W MFM-30

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| MFM-30-3.3 | 3.3V, 0~6A   | ±2%  | 80mV  | 80%   |
| MFM-30-5   | 5V, 0~6A     | ±2%  | 80mV  | 83%   |
| MFM-30-12  | 12V, 0~2.5A  | ±2%  | 120mV | 88%   |
| MFM-30-15  | 15V, 0~2A    | ±2%  | 150mV | 89%   |
| MFM-30-24  | 24V, 0~1.3A  | ±2%  | 240mV | 89%   |
| MFM-30-48  | 48V, 0~0.63A | ±2%  | 300mV | 91%   |

# Green Open Frame 5~20W Medical Encapsulated Type

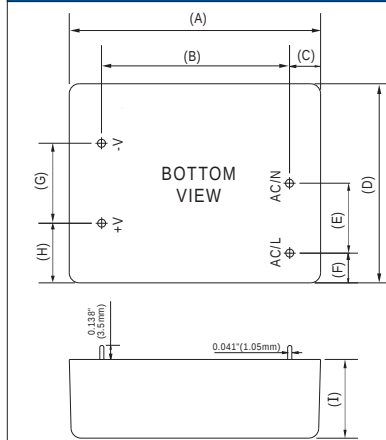


## Features

- Universal AC input / Full range
- **Medical safety approved (2xMOPP)**
- Suitable for BF application with appropriate system consideration
- Protections: Short circuit / Overload / Over voltage
- Low leakage current < 300μA (20W)
- No load power consumption <0.5W (<0.75W for 20W models)
- Fully isolated plastic case
- Isolation class II (5~15W), class I (20W)
- Cooling by free air convection
- Meet industrial, IT safety requirements
- 3 years warranty

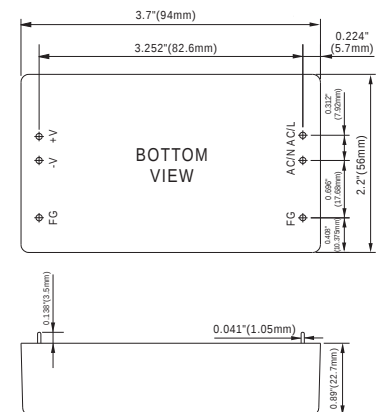


## PM-05 / 10 / 15 Series



|   | 5W               | 10W              | 15W              |
|---|------------------|------------------|------------------|
| A | 2.475" (62.85mm) | 2.76" (70mm)     | 2.95" (75mm)     |
| B | 1.85" (47mm)     | 2.13" (54mm)     | 2.441" (62mm)    |
| C | 0.306" (7.8mm)   | 0.315" (8mm)     | 0.256" (6.5mm)   |
| D | 1.97" (50mm)     | 1.97" (50mm)     | 2.09" (53mm)     |
| E | 0.689" (17.5mm)  | 0.689" (17.5mm)  | 0.788" (20mm)    |
| F | 0.295" (7.5mm)   | 0.295" (7.5mm)   | 0.256" (6.5mm)   |
| G | 0.789" (20.04mm) | 0.789" (20.04mm) | 0.906" (23.01mm) |
| H | 0.59" (15mm)     | 0.59" (15mm)     | 0.59" (15mm)     |
| I | 0.776" (19.7mm)  | 0.89" (22.7mm)   | 0.89" (22.7mm)   |

## PM-20 Series



## General Specification

AC input voltage range ..... 85~264VAC; 120~370VDC

Frequency range ..... 47~440Hz

AC inrush current (max.) ... Cold start, 25A at 115VAC, 45A at 230VAC  
(PM-15: 30A at 115VAC, 50A at 230VAC)  
(PM-20: 30A at 115VAC, 65A at 230VAC)

Overload protection ..... >105% hiccup mode, auto recovery

Over voltage protection ..... 115%~135% rated output voltage, shut off,  
AC recycle to re-start

Setup, rise, hold up time ... PM-5/15: 1000ms, 20ms, 100ms @ 230VAC  
PM-10: 1800ms, 20ms, 100ms @ 230VAC  
PM-20: 500ms, 20ms, 50ms @ 230VAC

Withstand voltage ..... I/P-O/P: 4kVAC, 1 minute

Working temperature ..... PM-5/10/15: -20~+70°C  
PM-20: -20~+60°C

Safety standards ..... ANSI/AAMI ES60601-1, TUV EN60601-1,  
UL60950-1 (PM-15) approved

EMC standards ..... EN55011, EN55032 class B, EN61000-3-2,3  
EN61000-4-2,3,4,5,6,8,11, EN55024,  
EN60601-1-2, EN61204-3 Medical level, criteria A

Connection ..... 4 industrial pins (20W: 6 industrial pins)

Packing ..... 0.085kg ; 120pcs / 11.2kg / 0.97CUFT(PM-05)  
0.105kg ; 120pcs / 13.6kg / 0.97CUFT(PM-10)  
0.14kg ; 120pcs / 17.8kg / 0.97CUFT(PM-15)  
0.18kg ; 90pcs / 17.2kg / 0.97CUFT(PM-20)

## PM-05 Series

| Model No. | Output        | Tol. | R&N   | Effi. |
|-----------|---------------|------|-------|-------|
| PM-05-3.3 | 3.3V, 0~1.25A | ±3%  | 80mV  | 67%   |
| PM-05-5   | 5V, 0~1.00A   | ±2%  | 80mV  | 71%   |
| PM-05-12  | 12V, 0~0.42A  | ±2%  | 150mV | 73%   |
| PM-05-15  | 15V, 0~0.33A  | ±2%  | 150mV | 74%   |
| PM-05-24  | 24V, 0~0.23A  | ±2%  | 240mV | 76%   |

## PM-10 Series

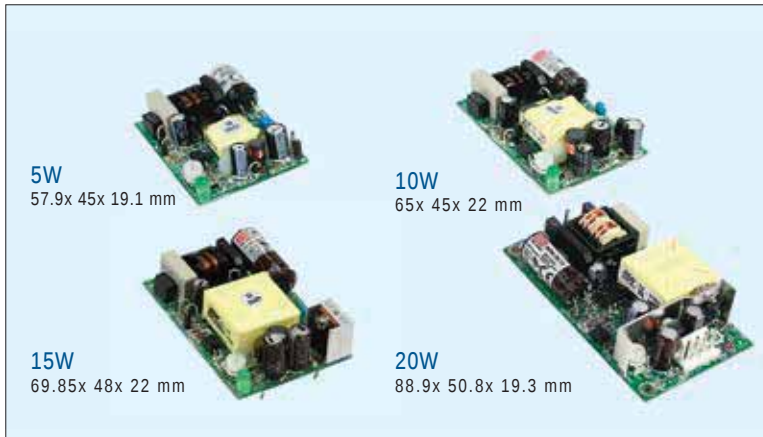
| Model No. | Output        | Tol. | R&N   | Effi. |
|-----------|---------------|------|-------|-------|
| PM-10-3.3 | 3.3V, 0~2.50A | ±3%  | 150mV | 66%   |
| PM-10-5   | 5V, 0~2.00A   | ±2%  | 150mV | 74%   |
| PM-10-12  | 12V, 0~0.85A  | ±2%  | 150mV | 78%   |
| PM-10-15  | 15V, 0~0.67A  | ±2%  | 150mV | 79%   |
| PM-10-24  | 24V, 0~0.42A  | ±2%  | 240mV | 79%   |

## PM-15 Series

| Model No. | Output        | Tol. | R&N   | Effi. |
|-----------|---------------|------|-------|-------|
| PM-15-3.3 | 3.3V, 0~3.50A | ±3%  | 80mV  | 73%   |
| PM-15-5   | 5V, 0~3.00A   | ±2%  | 80mV  | 76%   |
| PM-15-12  | 12V, 0~1.25A  | ±2%  | 150mV | 78%   |
| PM-15-15  | 15V, 0~1.00A  | ±2%  | 150mV | 79%   |
| PM-15-24  | 24V, 0~0.63A  | ±2%  | 240mV | 81%   |

## PM-20 Series

| Model No. | Output        | Tol. | R&N   | Effi. |
|-----------|---------------|------|-------|-------|
| PM-20-3.3 | 3.3V, 0~4.50A | ±3%  | 80mV  | 71%   |
| PM-20-5   | 5V, 0~4.40A   | ±2%  | 80mV  | 75%   |
| PM-20-12  | 12V, 0~1.80A  | ±2%  | 150mV | 81%   |
| PM-20-15  | 15V, 0~1.40A  | ±2%  | 150mV | 83%   |
| PM-20-24  | 24V, 0~0.92A  | ±2%  | 240mV | 84%   |

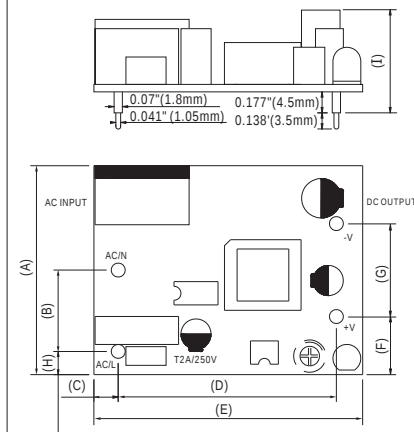


### Features

- Universal AC input / Full range
- Medical safety approved (2xMOPP)
- Suitable for BF application with appropriate system consideration
- Protections:
  - Short circuit / Overload / Over voltage / Over temperature
- Low leakage current < 300μA (20W)
- No load power consumption <0.5W (<0.75W for 20W models)
- Isolation class II (5~15W), class I (20W)
- On-board type version available for 20W (optional)
- Cooling by free air convection
- Meet industrial, IT safety requirements
- 3 years warranty

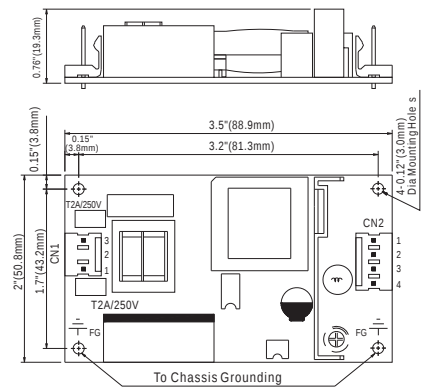


### NFM-05 / 10 / 15 Series



|   | 5W               | 10W              | 15W              |
|---|------------------|------------------|------------------|
| A | 1.77" (45mm)     | 1.77" (45mm)     | 1.89" (48mm)     |
| B | 0.689" (17.5mm)  | 0.689" (17.5mm)  | 0.788" (20mm)    |
| C | 0.21" (5.33mm)   | 0.22" (5.5mm)    | 0.157" (4mm)     |
| D | 1.85" (47mm)     | 2.13" (54mm)     | 2.441" (62mm)    |
| E | 2.28" (57.9mm)   | 2.56" (65mm)     | 2.75" (69.85mm)  |
| F | 0.491" (12.47mm) | 0.491" (12.47mm) | 0.492" (12.5mm)  |
| G | 0.789" (20.04mm) | 0.789" (20.04mm) | 0.906" (23.01mm) |
| H | 0.196" (5mm)     | 0.196" (5mm)     | 0.157" (4mm)     |
| I | 0.75" (19.1mm)   | 0.87" (22mm)     | 0.87" (22mm)     |

### NFM-20 Series



### General Specification

|                           |                                                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC input voltage range    | 85~264VAC; 120~370VDC                                                                                                                                                               |
| Frequency range           | 47~440Hz                                                                                                                                                                            |
| AC inrush current (max.)  | Cold start, 25A at 115VAC, 45A at 230VAC<br>(NFM-15: 30A at 115VAC, 50A at 230VAC)<br>(NFM-20: 30A at 115VAC, 65A at 230VAC)                                                        |
| DC adjustment range       | ±10% rated output voltage                                                                                                                                                           |
| Overload protection       | >105% hiccup mode, auto recovery                                                                                                                                                    |
| Over voltage protection   | 115%~135% rated output voltage, shut off,<br>AC recycle to re-start                                                                                                                 |
| Over temp. protection     | Shutdown o/p voltage, recovers automatically<br>after temperature goes down                                                                                                         |
| Setup, rise, hold up time | NFM-5/15: 1000ms, 20ms, 100ms @ 230VAC<br>NFM-10: 1800ms, 20ms, 100ms @ 230VAC<br>NFM-20: 500ms, 20ms, 50ms @ 230VAC                                                                |
| Withstand voltage         | I/P-O/P: 4kVAC, 1 minute                                                                                                                                                            |
| Working temperature       | NFM-5/10/15: -20~+70°C<br>NFM-20: -20~+60°C                                                                                                                                         |
| Safety standards          | ANSI/AAMI ES60601-1, TUV EN60601-1,<br>UL60950-1 (NFM-15) approved                                                                                                                  |
| EMC standards             | EN55011, EN55032 class B, EN61000-3-2,3<br>EN61000-4-2,3,4,5,6,8,11, EN55024,<br>EN60601-1-2, EN61204-3 Medical level,<br>criteria A                                                |
| Connection                | 4 industrial pins for 5~15W<br>3P/4P/3.96mm pitch, Molex 41791-03/04 for 20W                                                                                                        |
| Packing                   | 0.03kg; 120pcs / 4.6kg / 0.97CUFT(NFM-05)<br>0.045kg; 120pcs / 6.4kg / 0.97CUFT(NFM-10)<br>0.065kg; 120pcs / 8.8kg / 0.97CUFT(NFM-15)<br>0.09kg; 105pcs / 10.5kg / 0.97CUFT(NFM-20) |

### 5W

### NFM-05

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| NFM-05-3.3 | 3.3V, 0~1.25A | ±2%  | 80mV  | 67%   |
| NFM-05-5   | 5V, 0~1.00A   | ±2%  | 80mV  | 71%   |
| NFM-05-12  | 12V, 0~0.42A  | ±1%  | 150mV | 73%   |
| NFM-05-15  | 15V, 0~0.33A  | ±1%  | 150mV | 74%   |
| NFM-05-24  | 24V, 0~0.23A  | ±1%  | 240mV | 76%   |

### 10W

### NFM-10

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| NFM-10-3.3 | 3.3V, 0~2.50A | ±2%  | 150mV | 66%   |
| NFM-10-5   | 5V, 0~2.00A   | ±2%  | 150mV | 74%   |
| NFM-10-12  | 12V, 0~0.85A  | ±1%  | 150mV | 78%   |
| NFM-10-15  | 15V, 0~0.67A  | ±1%  | 150mV | 79%   |
| NFM-10-24  | 24V, 0~0.42A  | ±1%  | 240mV | 79%   |

### 15W

### NFM-15

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| NFM-15-3.3 | 3.3V, 0~3.50A | ±2%  | 80mV  | 73%   |
| NFM-15-5   | 5V, 0~3.00A   | ±2%  | 80mV  | 76%   |
| NFM-15-12  | 12V, 0~1.25A  | ±1%  | 150mV | 78%   |
| NFM-15-15  | 15V, 0~1.00A  | ±1%  | 150mV | 79%   |
| NFM-15-24  | 24V, 0~0.63A  | ±1%  | 240mV | 81%   |

### 20W

### NFM-20

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| NFM-20-3.3 | 3.3V, 0~4.50A | ±2%  | 80mV  | 71%   |
| NFM-20-5   | 5V, 0~4.40A   | ±2%  | 80mV  | 75%   |
| NFM-20-12  | 12V, 0~1.80A  | ±1%  | 150mV | 81%   |
| NFM-20-15  | 15V, 0~1.40A  | ±1%  | 150mV | 83%   |
| NFM-20-24  | 24V, 0~0.92A  | ±1%  | 240mV | 84%   |



RPS-30/45/65 (3"x2")

RPS/D/T-60 (4"x2")

**NEW**

RPS-120 (4"x2")

**NEW**

RPS-200 (4"x2")

**NEW**

RPS-120/200-x-C

## Features

- Universal AC input / Full range
- Built-in active PFC function (RPS-200)
- Class I or Class II configuration (Class I only for enclosed type)
- Medical safety approved (2x MOPP)
- Suitable for BF application with appropriate system consideration
- Extremely low leakage current
- No load power consumption <0.1W (<0.3W for 120W, <0.5W for 200W, <0.75W for 60W)
- High efficiency up to 95%
- Protections: Short circuit / Overload / Over voltage / Over temp. (RPS-120/200)
- Built-in 12V/0.5A fan supply (RPS-120/200)
- LED indicator for power on (except for RPS/D/T-60)
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.               |            | RPS-30                                                                                         | RPS-45           | RPS-65 | RPS/D/T-60                                               | RPS-120-x <input type="checkbox"/>         | RPS-200-x <input type="checkbox"/> |
|-------------------------|------------|------------------------------------------------------------------------------------------------|------------------|--------|----------------------------------------------------------|--------------------------------------------|------------------------------------|
| Rated Power             | Fan        | NA                                                                                             |                  |        |                                                          | 120W (10CFM)                               | 200W (10CFM)                       |
|                         | Convection | 30W                                                                                            | 45W              | 65W    | 60W                                                      | 84W                                        | 140W                               |
| AC input voltage range  |            | 80~264VAC                                                                                      |                  |        | 90~264VAC                                                | 80~264VAC                                  |                                    |
| Leakage current         |            | <90μA                                                                                          | <100μA           |        | <130μA                                                   |                                            |                                    |
| DC adjustment range     |            | ±10% rated output voltage                                                                      |                  |        | -5%~+10%                                                 | ±5% rated output voltage                   |                                    |
| Overload protection     |            | 115%~150% hiccup mode, auto-recovery                                                           |                  |        |                                                          |                                            |                                    |
| Over voltage protection |            | 115%~135% shut down o/p voltage, re-power on to recover                                        |                  |        |                                                          | 110%~130%                                  |                                    |
| Withstand voltage       |            | I/P-O/P: 4kVAC, I/P-FG:2kVAC, O/P-FG: 1.5kVAC                                                  |                  |        |                                                          |                                            |                                    |
| Working temperature     |            | -30~+70°C                                                                                      |                  |        | -20~+70°C(RPS), -20~+65°C(RPD/T)                         | -30~+70°C                                  |                                    |
| Safety standards        |            | ANSI/AAMI ES60601-1, TUV EN60601-1 approved; UL/EN60950-1 for RPS/D/T-60 only                  |                  |        |                                                          |                                            |                                    |
| EMC standards           |            | EN55032 (RPS/D/T-60), EN55011 class B, EN61000-3-2,-3, EN61000-4,2,3,4,5,6,8,11, EN60601-1-1-2 |                  |        |                                                          |                                            |                                    |
| Connection              |            | JST B3P / B2P-VH                                                                               | JST B3P / B4P-VH |        | JST B3P / B4P-VH (RPS-60)<br>JST B3P / B6P-VH (RPD/T-60) | JST B3P / B4P-VH                           | JST B3P / B6P-VH                   |
| Dimension (LxWxH)(mm)   |            | 76.2x 50.8x 24                                                                                 |                  |        | 101.6x 50.8x 29                                          | PCB: 101.6x 50.8x 29 ; Case: 103.4x 62x 40 |                                    |

## 30W—Class II

### RPS-30

| Model No.  | Output (Rated / Peak) | Tol. | R&N   | Effi. |
|------------|-----------------------|------|-------|-------|
| RPS-30-3.3 | 3.3V, 6A / 6.6A       | ±2%  | 80mV  | 80%   |
| RPS-30-5   | 5V, 6A / 6.6A         | ±2%  | 80mV  | 82%   |
| RPS-30-7.5 | 7.5V, 4A / 4.4A       | ±2%  | 80mV  | 84%   |
| RPS-30-12  | 12V, 2.5A / 2.75A     | ±2%  | 100mV | 88%   |
| RPS-30-15  | 15V, 2A / 2.2A        | ±2%  | 100mV | 89%   |
| RPS-30-24  | 24V, 1.25A / 1.375A   | ±1%  | 150mV | 89.5% |
| RPS-30-48  | 48V, 0.625A / 0.687A  | ±1%  | 200mV | 92%   |

## 45W—Class II

### RPS-45

| Model No.  | Output (Rated / Peak) | Tol. | R&N   | Effi. |
|------------|-----------------------|------|-------|-------|
| RPS-45-3.3 | 3.3V, 8A / 8.8A       | ±2%  | 60mV  | 80.5% |
| RPS-45-5   | 5V, 8A / 8.8A         | ±2%  | 60mV  | 83%   |
| RPS-45-7.5 | 7.5V, 5.4A / 5.95A    | ±2%  | 80mV  | 85%   |
| RPS-45-12  | 12V, 3.8A / 4.18A     | ±2%  | 100mV | 88%   |
| RPS-45-15  | 15V, 3A / 3.3A        | ±2%  | 100mV | 89%   |
| RPS-45-24  | 24V, 1.9A / 2.1A      | ±1%  | 120mV | 90%   |
| RPS-45-48  | 48V, 0.94A / 1.03A    | ±1%  | 200mV | 91%   |

## 65W—Class II

### RPS-65

| Model No.  | Output (Rated / Peak) | Tol. | R&N   | Effi. |
|------------|-----------------------|------|-------|-------|
| RPS-65-3.3 | 3.3V, 10A / 11A       | ±2%  | 80mV  | 80%   |
| RPS-65-5   | 5V, 10A / 11A         | ±2%  | 80mV  | 84%   |
| RPS-65-7.5 | 7.5V, 8A / 8.8A       | ±2%  | 80mV  | 85%   |
| RPS-65-12  | 12V, 5.42A / 5.96A    | ±2%  | 120mV | 88%   |
| RPS-65-15  | 15V, 4.34A / 4.77A    | ±1%  | 120mV | 89%   |
| RPS-65-24  | 24V, 2.71A / 2.98A    | ±1%  | 150mV | 90%   |
| RPS-65-48  | 48V, 1.36A / 1.49A    | ±1%  | 200mV | 91%   |

## 60W:Single Output—Class I

### RPS-60

| Model No.  | Output (Rated / Peak) | Tol. | R&N   | Effi. |
|------------|-----------------------|------|-------|-------|
| RPS-60-3.3 | 3.3V, 10A / 11A       | ±2%  | 60mV  | 74%   |
| RPS-60-5   | 5V, 10A / 11A         | ±2%  | 60mV  | 79%   |
| RPS-60-12  | 12V, 5A / 5.5A        | ±2%  | 120mV | 84%   |
| RPS-60-15  | 15V, 4A / 4.4A        | ±2%  | 120mV | 85%   |
| RPS-60-24  | 24V, 2.5A / 2.75A     | ±1%  | 120mV | 87%   |
| RPS-60-48  | 48V, 1.25A / 1.375A   | ±1%  | 120mV | 86%   |

## 60W:Dual Output—Class I

### RPD-60

| Model No. | Output         | Tol.     | R&N   | Effi. | Max. |
|-----------|----------------|----------|-------|-------|------|
| RPD-60A   | 5V, 0.5~5.5A   | +3%, -2% | 80mV  | 78%   | 54W  |
|           | 12V, 0.1~2.2A  | ±6%      | 80mV  |       |      |
| RPD-60B   | 5V, 0.5~3.85A  | +3%, -2% | 80mV  | 82%   | 59W  |
|           | 24V, 0.1~1.65A | +8%, -4% | 100mV |       |      |

## 60W:Triple Output—Class I

### RPT-60

| Model No. | Output          | Tol.      | R&N   | Effi. | Max. |
|-----------|-----------------|-----------|-------|-------|------|
| RPT-60A   | 5V, 0.5~4.4A    | +3%, -2%  | 80mV  | 77%   | 51W  |
|           | 12V, 0.1~2.2A   | ±6%       | 80mV  |       |      |
|           | -5V, 0.1~0.55A  | +9%, -8%  | 80mV  |       |      |
| RPT-60B   | 5V, 0.5~4.4A    | +3%, -2%  | 80mV  | 78%   | 55W  |
|           | 12V, 0.1~2.2A   | ±6%       | 80mV  |       |      |
|           | -12V, 0.1~0.55A | +10%, -6% | 100mV |       |      |
| RPT-60C   | 5V, 0.5~4.4A    | +3%, -2%  | 80mV  | 79%   | 55W  |
|           | 15V, 0.1~0.65A  | ±6%       | 100mV |       |      |
|           | -15V, 0.1~0.55A | ±8%       | 150mV |       |      |
| RPT-60D   | 5V, 0.5~3.85A   | +3%, -2%  | 80mV  | 79%   | 52W  |
|           | 24V, 0.1~1.1A   | ±6%       | 150mV |       |      |
|           | 12V, 0.1~0.55A  | ±8%       | 80mV  |       |      |
| RPT-6003  | 3.3V, 0.5~5.5A  | +3%, -2%  | 80mV  | 75%   | 44W  |
|           | 5V, 0.3~3.3A    | ±8%       | 80mV  |       |      |
|           | 12V, 0.1~0.77A  | +10%, -6% | 80mV  |       |      |

## 120W—Class I or II

### NEW RPS-120

| Model No.                           | Output (Convection/10CFM) | Tol. | R&N   | Effi. |
|-------------------------------------|---------------------------|------|-------|-------|
| RPS-120-12 <input type="checkbox"/> | 12V, 7A / 10A             | ±2%  | 120mV | 89%   |
| RPS-120-15 <input type="checkbox"/> | 15V, 5.6A / 8A            | ±2%  | 120mV | 89%   |
| RPS-120-24 <input type="checkbox"/> | 24V, 3.5A / 5A            | ±1%  | 150mV | 90%   |
| RPS-120-27 <input type="checkbox"/> | 27V, 3.15A / 4.5A         | ±1%  | 150mV | 90%   |
| RPS-120-48 <input type="checkbox"/> | 48V, 1.75A / 2.5A         | ±1%  | 200mV | 91%   |

☐ = blank, -C ; blank: PCB type, -C: Enclosed type

## 200W—Class I or II

### NEW RPS-200

| Model No.                           | Output (Convection/10CFM) | Tol. | R&N   | Effi. |
|-------------------------------------|---------------------------|------|-------|-------|
| RPS-200-12 <input type="checkbox"/> | 12V, 11.7A / 16.7A        | ±2%  | 100mV | 93%   |
| RPS-200-15 <input type="checkbox"/> | 15V, 9.4A / 13.4A         | ±2%  | 100mV | 93.5% |
| RPS-200-24 <input type="checkbox"/> | 24V, 5.9A / 8.4A          | ±1%  | 120mV | 94%   |
| RPS-200-27 <input type="checkbox"/> | 27V, 5.3A / 7.5A          | ±1%  | 120mV | 94%   |
| RPS-200-48 <input type="checkbox"/> | 48V, 3A / 4.2A            | ±1%  | 120mV | 95%   |

☐ = blank, -C ; blank: PCB type, -C: Enclosed type

# Green Open Frame 75~160W 1~3 Output Medical Grade



RPS/D/T-75 (5"x3")



RPS/T-160 (5"x3")



RPT-160-C (optional)

## Features

- Universal AC input / Full range
- **Medical safety approved (2xMOPP)**
- Suitable for BF application with appropriate system consideration (RPS/T-160)
- Built-in active PFC function (RPS/T-160)
- Protections: Short circuit / Overload / Over voltage / Over temperature (RPS/T-160)
- Extremely low leakage current
- Built-in P.G and P.F signal output (RPS/T-160)
- Built-in remote sense function (RPS-160 5~15V)
- No load power consumption <0.75W (RPS-75&RPS/T-160 G model)
- Standby 5V@0.8A (RPS/T-160 G model)
- LED indicator for power on
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.               |            | RPS/D/T-75                                                                                                       | RPS□-160                             | RPT□-160 ○                                              |
|-------------------------|------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------|
| Rated Power             | Fan        | 100W (23.5CFM)                                                                                                   | 160W (20.5CFM)                       | RPT(G)-160:145W (20.5CFM), RPT(G)-160-C: 142W (20.5CFM) |
|                         | Convection | 75W                                                                                                              | 110W                                 | RPT(G)-160: 99W, RPT(G)-160-C: 94W                      |
| AC input voltage range  |            | 90~264VAC                                                                                                        |                                      |                                                         |
| Leakage current         |            | RPS-75: <140μA, RPD/T-75: <150μA                                                                                 | <140μA                               | <160μA                                                  |
| DC adjustment range     |            | CH1: -5%~+10% rated output voltage                                                                               | ±10%                                 | 0~+10%                                                  |
| Overload protection     |            | 140%~180% hiccup mode, auto-recovery                                                                             | 105%~135% hiccup mode, auto-recovery |                                                         |
| Over voltage protection |            | CH1: 110%~135% shut down o/p voltage, re-power on to recover                                                     |                                      |                                                         |
| Withstand voltage       |            | I/P-O/P: 4kVAC, I/P-FG:2kVAC, O/P-FG: 1.5kVAC                                                                    |                                      |                                                         |
| Working temperature     |            | -20~+70°C (refer to output derating curve)                                                                       |                                      |                                                         |
| Safety standards        |            | ANSI/AAMI ES60601-1, TUV EN60601-1 approved (Design refer to ANSI/AAMI ES60601-1, TUV EN60601-1 for RPT □-160-C) |                                      |                                                         |
| EMC standards           |            | EN55011 class B, EN61000-3-2,-3; EN60601-1-2                                                                     |                                      |                                                         |
| Connection              |            | JST B3P / B8P-VH                                                                                                 |                                      |                                                         |
| Dimension (LxWxH)(mm)   |            | 127x 76.2x 31                                                                                                    | 127x 76.2x 34.6                      |                                                         |

## 75W:Single Output—Class I RPS-75

| Model No.  | Output (Rated / 23.5CFM) | Tol. | R&N   | Effi. |
|------------|--------------------------|------|-------|-------|
| RPS-75-3.3 | 3.3V, 15A / 20A          | ±2%  | 60mV  | 73%   |
| RPS-75-5   | 5V, 14A / 18.7A          | ±2%  | 60mV  | 78%   |
| RPS-75-12  | 12V, 6.3A / 8.3A         | ±1%  | 100mV | 82%   |
| RPS-75-15  | 15V, 5A / 6.7A           | ±1%  | 100mV | 83%   |
| RPS-75-24  | 24V, 3.2A / 4.2A         | ±1%  | 150mV | 85%   |
| RPS-75-36  | 36V, 2.1A / 2.8A         | ±1%  | 150mV | 86%   |
| RPS-75-48  | 48V, 1.6A / 2.1A         | ±1%  | 150mV | 86%   |

## 75W:Dual Output—Class I RPD-75

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| RPD-75A   | 5V, 1.0~9.5A  | ±2%  | 80mV  | 77%   | 96W  |
|           | 12V, 0.3~4.0A | ±6%  | 120mV |       |      |
| RPD-75B   | 5V, 1.0~6.8A  | ±2%  | 80mV  | 79%   | 99W  |
|           | 24V, 0.2~2.7A | ±6%  | 200mV |       |      |

## 75W:Triple Output—Class I RPT-75

| Model No. | Output         | Tol.     | R&N   | Effi. | Max. |
|-----------|----------------|----------|-------|-------|------|
| RPT-75A   | 5V, 0.6~8.0A   | ±2%      | 80mV  | 76%   | 93W  |
|           | 12V, 0.2~4.0A  | ±6%      | 120mV |       |      |
|           | -5V, 0.1~1.0A  | ±5%      | 80mV  |       |      |
| RPT-75B   | 5V, 0.6~8.0A   | ±2%      | 80mV  | 77%   | 100W |
|           | 12V, 0.2~4.0A  | ±6%      | 120mV |       |      |
|           | -12V, 0.1~1.0A | ±5%      | 80mV  |       |      |
| RPT-75C   | 5V, 0.6~8.0A   | ±2%      | 80mV  | 77%   | 100W |
|           | 15V, 0.1~3.0A  | ±8%      | 120mV |       |      |
|           | -15V, 0.1~1.0A | ±5%      | 80mV  |       |      |
| RPT-75D   | 5V, 0.6~7.0A   | ±2%      | 80mV  | 79%   | 95W  |
|           | 24V, 0.1~2.0A  | ±8%      | 200mV |       |      |
|           | 12V, 0.1~1.0A  | ±8%      | 120mV |       |      |
| RPT-7503  | 3.3V, 0.7~7.0A | ±4%      | 80mV  | 74%   | 81W  |
|           | 5V, 0.0~8.0A   | ±6%      | 120mV |       |      |
|           | 12V, 0.0~1.5A  | +10%,-6% | 120mV |       |      |

## 160W:Single Output—Class I RPS-160

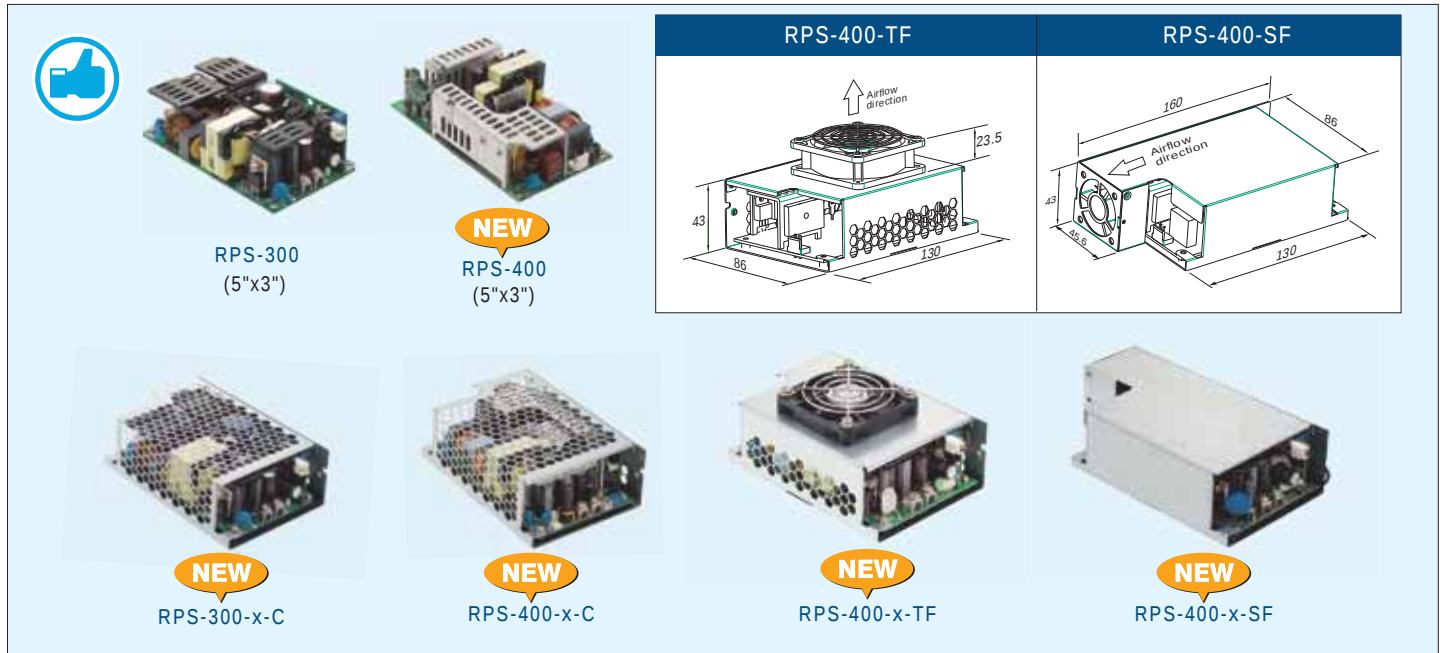
| Model No.   | Output (Convection / 20.5CFM) | Tol. | R&N   | Effi. |
|-------------|-------------------------------|------|-------|-------|
| RPS□-160-5  | 5V, 20A / 30A                 | ±4%  | 100mV | 86%   |
| RPS□-160-12 | 12V, 9.1A / 12.9A             | ±3%  | 100mV | 87%   |
| RPS□-160-15 | 15V, 7.3A / 10.3A             | ±3%  | 120mV | 87%   |
| RPS□-160-24 | 24V, 4.6A / 6.5A              | ±2%  | 120mV | 87%   |
| RPS□-160-48 | 48V, 2.3A / 3.25A             | ±2%  | 250mV | 88%   |

## 160W:Triple Output—Class I RPT-160

| Model No.  | Output         | Tol.    | R&N   | Effi. | Max. |
|------------|----------------|---------|-------|-------|------|
| RPT□-160A○ | 5V, 0.6~14A    | ±2%     | 60mV  | 84%   | 145W |
|            | 12V, 0.2~5.5A  | ±5%     | 80mV  |       |      |
|            | -5V, 0.1~1.0A  | -5%,+7% | 120mV |       |      |
| RPT□-160B○ | 5V, 0.6~14A    | ±2%     | 60mV  | 84%   | 146W |
|            | 12V, 0.2~5.0A  | ±5%     | 100mV |       |      |
|            | -12V, 0.1~1.0A | -4%,+5% | 100mV |       |      |
| RPT□-160C○ | 5V, 0.6~14A    | ±2%     | 60mV  | 83%   | 143W |
|            | 15V, 0.1~3.6A  | ±4%     | 80mV  |       |      |
|            | -15V, 0.1~1.0A | ±8%     | 100mV |       |      |
| RPT□-160D○ | 5V, 0.3~11A    | ±2%     | 80mV  | 83%   | 148W |
|            | 12V, 0.2~5.0A  | ±5%     | 100mV |       |      |
|            | 24V, 0.15~1.2A | -5%,+7% | 120mV |       |      |

□ = blank, G: blank: basic function,  
G: with 5Vsb/0.8A & no load power consumption< 0.75W  
○ = blank, -C: blank: PCB type (standard); -C: Enclosed type (optional)

# Green Open Frame 300~400W Single Output Medical Grade



## Features

- Universal AC input / Full range
- Built-in active PFC function
- Medical safety approved (2xMOPP)
- Suitable for BF application with appropriate system consideration
- Class I or Class II configuration
- Protections:
  - Short circuit / Overload / Over voltage / Over temperature
- Extremely low leakage current
- Built-in P.G, P.F signal output and remote sense function
- No load power consumption <0.5W
- Built-in 12V/0.5A fan supply
- Standby 5V@1A
- LED indicator for power on
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.              |            | RPS-300-x <input type="checkbox"/>                               | RPS-400-x <input type="checkbox"/>                                                         |
|------------------------|------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Rated Power            | Fan        | 300W (20.5CFM)                                                   | 400W (25CFM)                                                                               |
|                        | Convection | 200W                                                             | 250W                                                                                       |
| AC input voltage range |            | 90~264VAC                                                        | 80~264VAC                                                                                  |
| Leakage current        |            | PCB type: <140μA; Enclosed type: <200μA                          | <160μA                                                                                     |
| DC adjustment range    |            | ±5%                                                              |                                                                                            |
| Overload protection    |            | 105%~135% hiccup mode, auto-recovery                             |                                                                                            |
| Withstand voltage      |            | I/P-O/P: 4kVAC, I/P-FG: 2kVAC, O/P-FG: 1.5kVAC                   |                                                                                            |
| Working temperature    |            | -30~+70°C (refer to output derating curve)                       |                                                                                            |
| Safety standards       |            | ANSI/AAMI ES60601-1, TUV EN60601-1 approved                      |                                                                                            |
| EMC standards          |            | EN55011 class B (Radiation class A), EN61000-3-2,-3; EN60601-1-2 |                                                                                            |
| Connection             |            | JST B5P / screw terminal                                         |                                                                                            |
| Dimension (LxWxH)(mm)  |            | PCB : 127x 76.2x 35 (5"x3")<br>Case: 130x 86.6x 43               | PCB : 127x 76.2x 35 (5"x3")<br>Case: 130x 86x 43(-C); 130x 86x 66.5(-TF); 160x 86x 43(-SF) |

## 300W—Class I or II RPS-300

| Model No.                           | Output (Convection / 20.5CFM) | Tol. | R&N   | Effi. |
|-------------------------------------|-------------------------------|------|-------|-------|
| RPS-300-12 <input type="checkbox"/> | 12V, 16.67A / 25A             | ±3%  | 120mV | 90.0% |
| RPS-300-15 <input type="checkbox"/> | 15V, 13.33A / 20A             | ±3%  | 120mV | 90.0% |
| RPS-300-24 <input type="checkbox"/> | 24V, 8.33A / 12.5A            | ±2%  | 150mV | 92.5% |
| RPS-300-27 <input type="checkbox"/> | 27V, 7.4A / 11.12A            | ±2%  | 200mV | 93.0% |
| RPS-300-48 <input type="checkbox"/> | 48V, 4.17A / 6.25A            | ±2%  | 200mV | 93.0% |

☐ = blank, -C; blank: PCB type, -C: Enclosed type

## 400W—Class I or II RPS-400

| Model No.                           | Output (Convection/with fan) | Tol. | R&N   | Effi. |
|-------------------------------------|------------------------------|------|-------|-------|
| RPS-400-12 <input type="checkbox"/> | 12V, 20.8A / 33.3A           | ±3%  | 120mV | 91.5% |
| RPS-400-15 <input type="checkbox"/> | 15V, 16.7A / 26.7A           | ±3%  | 120mV | 92%   |
| RPS-400-18 <input type="checkbox"/> | 18V, 13.9A / 22.3A           | ±3%  | 150mV | 93%   |
| RPS-400-24 <input type="checkbox"/> | 24V, 10.5A / 16.7A           | ±2%  | 150mV | 93%   |
| RPS-400-27 <input type="checkbox"/> | 27V, 9.3A / 14.9A            | ±1%  | 200mV | 93.5% |
| RPS-400-36 <input type="checkbox"/> | 36V, 7A / 11.2A              | ±1%  | 200mV | 94%   |
| RPS-400-48 <input type="checkbox"/> | 48V, 5.3A / 8.4A             | ±1%  | 200mV | 94%   |

☐ = blank, -C, -TF, -SF; -TF:

blank: PCB type, -C: Enclosed type, -TF: Enclosed type with fan on the top, -SF: Enclosed type with fan on the side



### Features

- Universal AC input / Full range
- **Medical safety approved (2x MOPP)**
- Protections: Short circuit / Overload / Over voltage / Over temperature (MPS-30)
- Extremely low leakage current
- Cooling by free air convection
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.               | MPS-30                                                                 | MPS/D/T-45  | MPS/D/T-65                                              |
|-------------------------|------------------------------------------------------------------------|-------------|---------------------------------------------------------|
| AC input voltage range  | 88~264VAC; 120~370VDC                                                  |             | 90~264VAC; 127~370VDC                                   |
| Leakage current         | <200μA                                                                 |             | <250μA                                                  |
| DC adjustment range     | NA                                                                     |             | CH1: ±10% rated output voltage                          |
| Overload protection     | >105% rated output power                                               |             | 53~75W rated output power    73~105W rated output power |
| Over voltage protection | 110%~135%                                                              |             | CH1: 115%~135% hiccup mode, auto-recovery               |
| Withstand voltage       | I/P-O/P: 4kVAC, I/P-FG:2kVAC, 1 minute                                 |             |                                                         |
| Working temperature     | -10~+60°C (refer to output derating curve)                             |             |                                                         |
| Safety standards        | ANSI/AAMI ES60601-1, TUV EN60601-1 approved                            |             |                                                         |
| EMC standards           | EN55011 class B, EN61000-3-2,-3, EN61000-4-2,3,4,5,6,8,11, EN60601-1-2 |             |                                                         |
| Connection              | 5+4P/3.96mm pitch, Molex P/N:41791-05,04                               |             | 2P+6P/3.96mm pitch, Molex P/N:5277-02, 5273-06          |
| Dimension (LxWxH)(mm)   | 101.6x 65.8x 23.5                                                      | 127x 76x 28 | 127x 76x 42                                             |

### 30W:Single Output—Class I MPS-30

| Model No. | Output      | Tol. | R&N   | Effi. |
|-----------|-------------|------|-------|-------|
| MPS-30-5  | 5V, 0~5.0A  | ±3%  | 80mV  | 72%   |
| MPS-30-12 | 12V, 0~2.5A | ±3%  | 120mV | 75%   |
| MPS-30-15 | 15V, 0~2.0A | ±3%  | 150mV | 76%   |
| MPS-30-24 | 24V, 0~1.2A | ±3%  | 240mV | 77%   |
| MPS-30-27 | 27V, 0~1.1A | ±3%  | 240mV | 78%   |
| MPS-30-48 | 48V, 0~0.6A | ±2%  | 240mV | 78%   |

### 45W:Single Output—Class I MPS-45

| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| MPS-45-3.3  | 3.3V, 0~8.0A  | ±3%  | 80mV  | 65%   |
| MPS-45-5    | 5V, 0~8.0A    | ±3%  | 100mV | 72%   |
| MPS-45-7.5  | 7.5V, 0~5.4A  | ±3%  | 100mV | 75%   |
| MPS-45-12   | 12V, 0~3.7A   | ±2%  | 100mV | 76%   |
| MPS-45-13.5 | 13.5V, 0~3.3A | ±2%  | 100mV | 76%   |
| MPS-45-15   | 15V, 0~3.0A   | ±2%  | 100mV | 77%   |
| MPS-45-24   | 24V, 0~1.9A   | ±2%  | 100mV | 78%   |
| MPS-45-27   | 27V, 0~1.7A   | ±2%  | 100mV | 78%   |
| MPS-45-48   | 48V, 0~1.0A   | ±2%  | 100mV | 78%   |

### 45W:Dual Output—Class I MPD-45

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| MPD-45A   | 5V, 0.4~5.0A  | ±4%  | 60mV  | 76%   | 40W  |
|           | 12V, 0.2~2.5A | ±7%  | 120mV |       |      |
| MPD-45B   | 5V, 0.4~5.0A  | ±4%  | 60mV  | 78%   | 45W  |
|           | 24V, 0.2~1.8A | ±7%  | 150mV |       |      |

### 45W:Triple Output—Class I MPT-45

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| MPT-45A   | 5V, 0.4~5.0A   | ±4%  | 60mV  | 73%   | 41W  |
|           | 12V, 0.2~2.5A  | ±7%  | 120mV |       |      |
|           | -5V, 0.0~0.5A  | ±5%  | 60mV  |       |      |
| MPT-45B   | 5V, 0.4~5.0A   | ±4%  | 60mV  | 75%   | 43W  |
|           | 12V, 0.2~2.5A  | ±7%  | 120mV |       |      |
|           | -12V, 0.0~0.5A | ±5%  | 100mV |       |      |

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| MPT-45C   | 5V, 0.4~5.0A   | ±4%  | 60mV  | 75%   | 44W  |
|           | 15V, 0.2~2.3A  | ±7%  | 120mV |       |      |
|           | -15V, 0.0~0.5A | ±5%  | 100mV |       |      |

### 65W:Single Output—Class I MPS-65

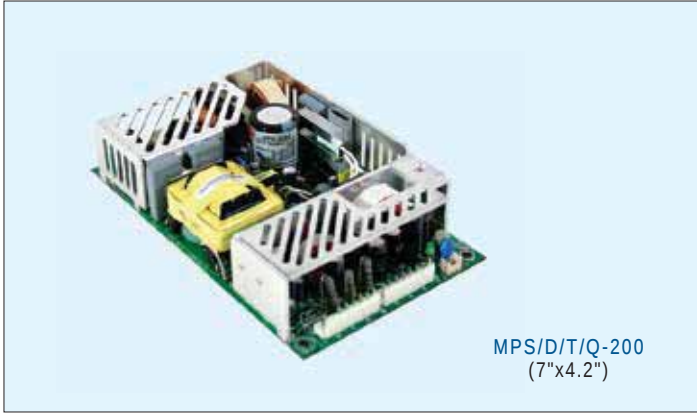
| Model No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| MPS-65-3.3  | 3.3V, 0~12A   | ±3%  | 80mV  | 66%   |
| MPS-65-5    | 5V, 0~12A     | ±3%  | 100mV | 74%   |
| MPS-65-7.5  | 7.5V, 0~8.0A  | ±3%  | 100mV | 76%   |
| MPS-65-12   | 12V, 0~5.2A   | ±2%  | 100mV | 77%   |
| MPS-65-13.5 | 13.5V, 0~4.7A | ±2%  | 100mV | 78%   |
| MPS-65-15   | 15V, 0~4.2A   | ±2%  | 100mV | 79%   |
| MPS-65-24   | 24V, 0~2.7A   | ±2%  | 100mV | 80%   |
| MPS-65-27   | 27V, 0~2.4A   | ±2%  | 100mV | 80%   |
| MPS-65-48   | 48V, 0~1.35A  | ±2%  | 100mV | 80%   |

### 65W:Dual Output—Class I MPD-65

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| MPD-65A   | 5V, 0.4~7.0A  | ±4%  | 60mV  | 75%   | 61W  |
|           | 12V, 0.2~3.2A | ±7%  | 150mV |       |      |
| MPD-65B   | 5V, 0.4~6.0A  | ±4%  | 60mV  | 78%   | 66W  |
|           | 24V, 0.2~2.6A | ±7%  | 150mV |       |      |

### 65W:Triple Output—Class I MPT-65

| Model No. | Output         | Tol.     | R&N   | Effi. | Max. |
|-----------|----------------|----------|-------|-------|------|
| MPT-65A   | 5V, 0.4~7.0A   | ±4%      | 60mV  | 74%   | 60W  |
|           | 12V, 0.2~3.2A  | +10%,-7% | 120mV |       |      |
|           | -5V, 0.0~0.7A  | ±5%      | 60mV  |       |      |
| MPT-65B   | 5V, 0.4~7.0A   | ±4%      | 60mV  | 74%   | 64W  |
|           | 12V, 0.2~3.2A  | +10%,-7% | 160mV |       |      |
|           | -12V, 0.0~0.7A | ±5%      | 100mV |       |      |
| MPT-65C   | 5V, 0.4~7.0A   | ±4%      | 60mV  | 74%   | 65W  |
|           | 15V, 0.2~2.6A  | +10%,-7% | 180mV |       |      |
|           | -15V, 0.0~0.7A | ±5%      | 100mV |       |      |



### ■ Features

- Universal AC input / Full range
- Built-in active PFC function
- Medical safety approved (2xMOPP)
- Suitable for BF application with appropriate system consideration
- Extremely low leakage current
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in remote sense function and remote ON/OFF control
- Free air convection for 140W, 200W with 25CFM forced air
- With P.G and P.F signal output
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



|                          |       |                                                                                                   |
|--------------------------|-------|---------------------------------------------------------------------------------------------------|
| Model No.                |       | MPS/D/T/Q-200                                                                                     |
| AC input voltage range   |       | 90~264VAC                                                                                         |
| Leakage current          |       | <180μA                                                                                            |
| AC inrush current (max.) |       | Cold start, 60A at 230VAC                                                                         |
| DC adjustment range      |       | CH1: -5~+10% rated output voltage                                                                 |
| Overload protection      | Range | 120%~160% rated output power                                                                      |
|                          | Type  | Hiccup mode, auto-recovery                                                                        |
| Over voltage protection  | Range | CH1: 115%~135% rated output voltage                                                               |
|                          | Type  | Shut down o/p voltage                                                                             |
| Withstand voltage        |       | I/P-O/P: 4kVAC, I/P-FG:1.5kVAC, O/P-FG: 1.5kVAC                                                   |
| Working temperature      |       | -20~+70°C (refer to output derating curve)                                                        |
| Safety standards         |       | ANSI/AAMI ES60601-1, TUV EN60601-1, IEC60601-1 approved; Design refer to UL60950-1, TUV EN60950-1 |
| EMC standards            |       | EN55011/EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN60601-1-2, EN61000-6-2        |
| Connection               |       | 3P, 20P / 3.96mm pitch, JST B3P/VH, Molex 5566-20; 3P, 8Px2 / 3.96mm pitch. JSTB3P / B8Px2-VH     |
| Dimension (LxWxH)(mm)    |       | 177.8x 107.2x 35.5                                                                                |

### ■ 200W:Single Output—Class I MPS-200

| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| MPS-200-3.3 | 3.3V, 0~40A  | ±2%  | 80mV  | 77%   |
| MPS-200-5   | 5V, 0~40A    | ±2%  | 80mV  | 81%   |
| MPS-200-12  | 12V, 0~16.7A | ±2%  | 100mV | 84%   |
| MPS-200-15  | 15V, 0~13.4A | ±2%  | 100mV | 85%   |
| MPS-200-24  | 24V, 0~8.4A  | ±1%  | 150mV | 86%   |
| MPS-200-48  | 48V, 0~4.2A  | ±1%  | 200mV | 87%   |

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| MPT-200D  | 5V, 4.0~24A   | ±2%  | 80mV  | 81%   | 196W |
|           | 24V, 0.3~3.6A | ±8%  | 180mV |       |      |
|           | 12V, 0.0~2.4A | ±5%  | 80mV  |       |      |

### ■ 200W:Dual Output—Class I MPD-200

| Model No. | Output        | Tol.     | R&N   | Effi. | Max. |
|-----------|---------------|----------|-------|-------|------|
| MPD-200A  | 5V, 4.0~24A   | ±2%      | 80mV  | 82%   | 196W |
|           | 12V, 0.8~9.6A | +8%, -5% | 120mV |       |      |
| MPD-200B  | 5V, 4.0~24A   | ±2%      | 80mV  | 83%   | 196W |
|           | 24V, 0.4~4.8A | ±6.5%    | 180mV |       |      |

### ■ 200W:Triple Output—Class I MPT-200

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| MPT-200A  | 5V, 4.0~24A    | ±2%  | 80mV  | 80%   | 200W |
|           | 12V, 0.8~9.0A  | ±8%  | 120mV |       |      |
|           | -5V, 0.0~2.4A  | ±5%  | 80mV  |       |      |
| MPT-200B  | 5V, 4.0~24A    | ±2%  | 80mV  | 80%   | 196W |
|           | 12V, 0.6~7.2A  | ±8%  | 120mV |       |      |
|           | -12V, 0.0~2.4A | ±5%  | 80mV  |       |      |
| MPT-200C  | 5V, 4.0~24A    | ±2%  | 80mV  | 80%   | 201W |
|           | 15V, 0.5~5.6A  | ±8%  | 150mV |       |      |
|           | -15V, 0.0~2.4A | ±5%  | 80mV  |       |      |

### ■ 200W:Quad Output—Class I MPQ-200

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| MPQ-200B  | 5V, 3.0~18A    | ±2%  | 80mV  | 78%   | 193W |
|           | 12V, 0.7~8.4A  | ±8%  | 120mV |       |      |
|           | -5V, 0.0~2.4A  | ±5%  | 80mV  |       |      |
| MPQ-200C  | -12V, 0.0~2.4A | ±5%  | 80mV  |       |      |
|           | 5V, 3.0~18A    | ±2%  | 80mV  | 78%   | 190W |
|           | 15V, 0.5~6.0A  | ±6%  | 150mV |       |      |
| MPQ-200D  | -5V, 0.0~2.4A  | ±5%  | 80mV  |       |      |
|           | -15V, 0.0~2.4A | ±5%  | 80mV  |       |      |
|           | 5V, 3.0~18A    | ±2%  | 80mV  | 79%   | 195W |
| MPQ-200F  | 24V, 0.3~3.6A  | ±8%  | 180mV |       |      |
|           | 12V, 0.0~2.4A  | ±5%  | 80mV  |       |      |
|           | -12V, 0.0~2.4A | ±5%  | 80mV  |       |      |
| MPQ-200F  | 5V, 3.0~18A    | ±2%  | 80mV  | 81%   | 200W |
|           | 24V, 0.3~3.3A  | ±8%  | 180mV |       |      |
|           | 15V, 0.0~2.4A  | ±5%  | 80mV  |       |      |
| MPQ-200F  | -15V, 0.0~2.4A | ±5%  | 80mV  |       |      |

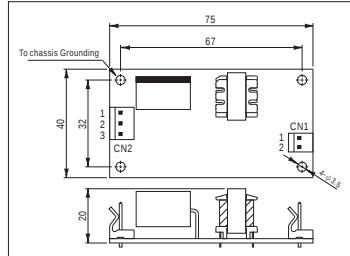
### 5W & 15W & 35W Single Output

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature(PS-05/15)
- Cooling by free air convection
- Low leakage current <0.5mA(PS-05/15)
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

CB CE



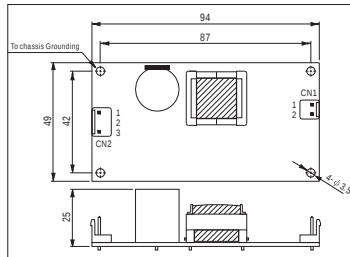
PS-05  
75x 40x 20 mm



CB CE



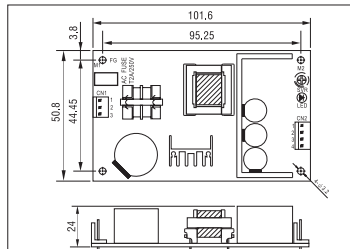
PS-15  
94x 49x 25 mm



CB CE



PS-35  
101.6x 50.8x 24 mm



AC input voltage range ..... 85~264VAC; 120~370VDC(PS-05/15)  
90~264VAC; 127~370VDC(PS-35)  
AC inrush current ..... Cold start, 30A at 230VAC(PS-05),  
40A at 230VAC(PS-15), 45A at 230VAC(PS-35)  
Overload protection ..... 105%~160% hiccup mode, auto-recovery  
Over voltage protection ..... 115%~150% rated output voltage  
Over temp. protection ..... Hiccup mode, auto-recovery(PS-05/15)  
Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG:1.5kVAC, 1minute  
Working temperature ..... -10~+60°C (PS-05/15); -20~+65°C (PS-35)  
Safety standards ..... IEC60950-1 CB approved(PS-05/15)  
UL60950-1, TUV EN60950-1 approved(PS-35)  
EMC standards ..... EN55032 class B, EN61000-3-2,3,  
EN61000-4-2,3,4,5,6,8,11  
Connection ..... PS-05: 3P/ 5mm, 2P/ 3.96mm pitch, Molex 5285-03,5273-02  
PS-15: 3+2P/3.96mm pitch, JST B3P/B2P-VH  
PS-35: 3+4P/3.96mm pitch, JST B3P/B4P-VH-B

#### 5W

| Model No. | Output       | Tol. | R&N   | Effi. |
|-----------|--------------|------|-------|-------|
| PS-05-5   | 5V, 0~1.0A   | ±2%  | 100mV | 70%   |
| PS-05-12  | 12V, 0~0.45A | ±2%  | 120mV | 75%   |
| PS-05-15  | 15V, 0~0.35A | ±2%  | 120mV | 75%   |
| PS-05-24  | 24V, 0~0.22A | ±2%  | 200mV | 76%   |
| PS-05-48  | 48V, 0~0.11A | ±1%  | 200mV | 76%   |

#### 10W

| Model No. | Output        | Tol. | R&N   | Effi. |
|-----------|---------------|------|-------|-------|
| PS-15-5   | 5V, 0~2.80A   | ±2%  | 100mV | 74%   |
| PS-15-12  | 12V, 0~1.25A  | ±2%  | 120mV | 77%   |
| PS-15-15  | 15V, 0~1.00A  | ±2%  | 120mV | 78%   |
| PS-15-24  | 24V, 0~0.625A | ±2%  | 150mV | 79%   |
| PS-15-48  | 48V, 0~0.313A | ±2%  | 200mV | 77%   |

#### 35W

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| PS-35-3.3  | 3.3V, 0~6.0A  | ±2%  | 80mV  | 70%   |
| PS-35-5    | 5V, 0~6.0A    | ±2%  | 100mV | 78%   |
| PS-35-7.5  | 7.5V, 0~4.7A  | ±2%  | 100mV | 80%   |
| PS-35-12   | 12V, 0~3.0A   | ±1%  | 120mV | 81%   |
| PS-35-13.5 | 13.5V, 0~2.6A | ±1%  | 120mV | 81%   |
| PS-35-15   | 15V, 0~2.4A   | ±1%  | 150mV | 81%   |
| PS-35-24   | 24V, 0~1.5A   | ±1%  | 200mV | 85%   |
| PS-35-48   | 48V, 0~0.75A  | ±1%  | 240mV | 84%   |

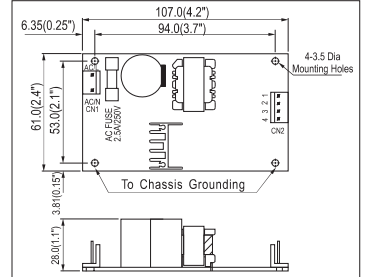
### 25W 1~2 Output

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Cooling by free air convection
- Low leakage current <0.5mA
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

CB CE



107x 61x 28 mm



AC input voltage range ..... 85~264VAC; 120~370VDC  
AC inrush current ..... Cold start, 36A at 230VAC  
Overload protection ..... >105% hiccup mode, auto-recovery  
Over voltage protection ..... 115%~135% rated output voltage  
Over temp. protection ..... Shut down o/p voltage, re-power on to recover  
Leakage current ..... Less than 0.5mA at 240VAC  
Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG:2kVAC, 1minute  
Working temperature ..... -10~+60°C (refer to output derating curve)  
Safety standards ..... UL60950-1, TUV EN60950-1 approved  
EMC standards ..... EN55032 class B, EN61000-3-2,3,  
EN61000-4-2,3,4,5  
Connection ..... 3P, 4P/ 3.96mm pitch, Molex P/N: 41791-03, 04  
Packing ..... 0.14kg ; 96pcs / 15.0kg / 1.30CUFT(PS-25)  
0.15kg ; 96pcs / 15.9kg / 1.30CUFT(PD-25)  
0.13kg ; 96pcs / 15.4kg / 1.30CUFT(PD-2503)

#### Single Output

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| PS-25-3.3  | 3.3V, 0~5.0A  | ±3%  | 80mV  | 66%   |
| PS-25-5    | 5V, 0~5.0A    | ±2%  | 80mV  | 74%   |
| PS-25-7.5  | 7.5V, 0~3.3A  | ±2%  | 80mV  | 76%   |
| PS-25-12   | 12V, 0~2.1A   | ±2%  | 100mV | 78%   |
| PS-25-13.5 | 13.5V, 0~1.9A | ±2%  | 100mV | 78%   |
| PS-25-15   | 15V, 0~1.7A   | ±2%  | 100mV | 78%   |
| PS-25-24   | 24V, 0~1.0A   | ±2%  | 240mV | 79%   |
| PS-25-27   | 27V, 0~0.9A   | ±2%  | 240mV | 79%   |
| PS-25-48   | 48V, 0~0.5A   | ±2%  | 350mV | 79%   |

#### Dual Output

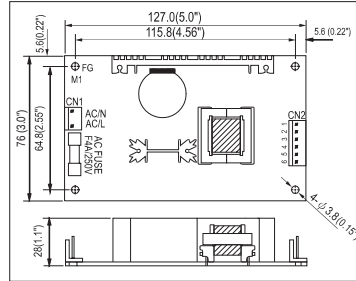
| Model No. | Output         | Tol.    | R&N   | Effi. | Max. |
|-----------|----------------|---------|-------|-------|------|
| PD-25A    | 5V, 0.2~2.5A   | ±2%     | 50mV  | 71%   | 25W  |
|           | 12V, 0.1~1.5A  | ±6%     | 150mV |       |      |
| PD-25B    | 5V, 0.2~2.0A   | ±2%     | 50mV  | 77%   | 25W  |
|           | 24V, 0.1~1.0A  | ±6%     | 200mV |       |      |
| PD-2505   | 5V, 0.1~3.0A   | ±6%     | 50mV  | 73%   | 25W  |
|           | -5V, 0.1~2.5A  | ±6%     | 50mV  |       |      |
| PD-2512   | 12V, 0.1~1.2A  | ±4%     | 50mV  | 74%   | 24W  |
|           | -12V, 0.1~1.2A | ±4%     | 50mV  |       |      |
| PD-2515   | 15V, 0.1~1.0A  | ±4%     | 50mV  | 75%   | 24W  |
|           | -15V, 0.1~1.0A | ±4%     | 50mV  |       |      |
| PD-2503   | 3.3V, 0.2~5.0A | ±2%     | 50mV  | 72%   | 25W  |
|           | 5V, 0.1~4.0A   | +5%,-8% | 50mV  |       |      |

### 45W 1~3 Output

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Fixed switching frequency at 65kHz
- Low leakage current <0.75mA
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty



127x 76x 28 mm



AC input voltage range ...90~264VAC; 127~370VDC  
 AC inrush current .....Cold start, 15A at 115VAC, 30A at 230VAC  
 DC adjustment range .....CH1: -5%~+10% rated output voltage  
 Overload protection .....53~75W hiccup mode, auto-recovery  
 Over voltage protection .. CH1: 115%~135% rated output voltage  
 Leakage current .....Less than 0.75mA at 240VAC  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG:1.5kVAC(PS-45 2kVAC)  
 Working temperature .....-10~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards .....EN55032 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,8,11  
 Connection ..... 2P, 6P/ 3.96mm pitch, Molex 5277-02 / 5273-06  
 Packing ..... 0.19kg ; 72pcs / 15.6kg / 1.35CUFT(PS-45)  
 0.20kg ; 72pcs / 16.0kg / 1.35CUFT(PD-45)  
 0.21kg ; 72pcs / 17.0kg / 1.35CUFT(PT-45)

#### Single Output

| Model No.  | Output        | Tol. | R&N   | Effi. |  |
|------------|---------------|------|-------|-------|--|
| PS-45-3.3  | 3.3V, 0~8.0A  | ±3%  | 80mV  | 69%   |  |
| PS-45-5    | 5V, 0~8.0A    | ±3%  | 100mV | 74%   |  |
| PS-45-7.5  | 7.5V, 0~5.4A  | ±3%  | 100mV | 75%   |  |
| PS-45-12   | 12V, 0~3.7A   | ±2%  | 100mV | 76%   |  |
| PS-45-13.5 | 13.5V, 0~3.3A | ±2%  | 100mV | 77%   |  |
| PS-45-15   | 15V, 0~3.0A   | ±2%  | 100mV | 77%   |  |
| PS-45-24   | 24V, 0~1.9A   | ±2%  | 100mV | 78%   |  |
| PS-45-27   | 27V, 0~1.7A   | ±2%  | 100mV | 78%   |  |
| PS-45-48   | 48V, 0~1.0A   | ±2%  | 100mV | 78%   |  |

#### Dual Output

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| PD-45A    | 5V, 0.4~5.0A  | ±4%  | 50mV  | 77%   | 40W  |
|           | 12V, 0.2~2.5A | ±7%  | 120mV |       |      |
| PD-45B    | 5V, 0.4~5.0A  | ±4%  | 50mV  | 78%   | 45W  |
|           | 24V, 0.2~1.8A | ±7%  | 120mV |       |      |

#### Triple Output

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| PT-45A    | 5V, 0.4~5.0A   | ±4%  | 50mV  | 75%   | 41W  |
|           | 12V, 0.2~2.5A  | ±7%  | 120mV |       |      |
|           | -5V, 0.0~0.5A  | ±5%  | 50mV  |       |      |
| PT-45B    | 5V, 0.4~5.0A   | ±4%  | 50mV  | 75%   | 43W  |
|           | 12V, 0.2~2.5A  | ±7%  | 120mV |       |      |
|           | -12V, 0.0~0.5A | ±5%  | 100mV |       |      |
| PT-45C    | 5V, 0.4~5.0A   | ±4%  | 50mV  | 75%   | 44W  |
|           | 15V, 0.2~2.3A  | ±7%  | 120mV |       |      |
|           | -15V, 0.0~0.5A | ±5%  | 100mV |       |      |

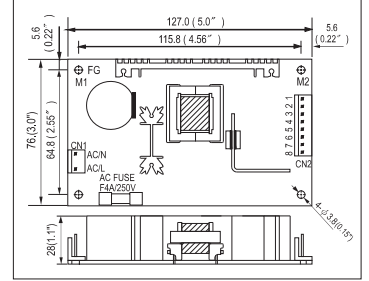
### 45W & 65W Triple Output with 3.3V Channel

- Universal AC input / Full range
- Total power for CH1+2: 35W (PT-45)
- Total power for CH1+2: 54W (PT-65)
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- 2 years warranty



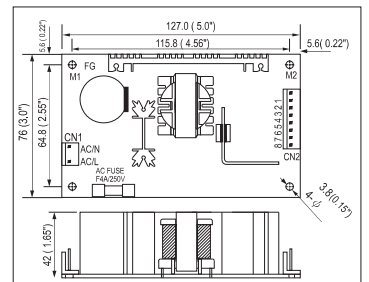
PT-4503

127x 76x 28 mm



PT-6503

127x 76x 42 mm



AC input voltage range ..... 90~264VAC; 127~370VDC  
 AC inrush current ..... Cold start, 20A at 115VAC, 40A at 230VAC  
 DC adjustment range ..... 3.3V: ±10% rated output voltage  
 Overload protection ..... 120%~160% hiccup mode, auto-recovery  
 Over voltage protection ..... 5V: 115%~135% rated output voltage  
 Leakage current ..... Less than 1.0mA at 240VAC  
 Setup, rise, hold up time ..... 800ms, 50ms, 60ms at full load and 230VAC  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG:1.5kVAC, 1minute  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards .....EN55032 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,11  
 Connection ..... 2P, 8P/ 3.96mm pitch, Molex: 5277-02, 5273-08  
 Packing ..... 0.23kg ; 72pcs / 17.6kg / 1.35CUFT(PT-4503)  
 0.28kg ; 54pcs / 16.2kg / 1.35CUFT(PT-6503)

#### Triple Output (45W)

| Model No. | Output         | Tol.     | R&N   | Effi. | Max. |
|-----------|----------------|----------|-------|-------|------|
| PT-4503   | 3.3V, 0.0~5.0A | ±2%      | 50mV  | 72%   | 45W  |
|           | 5V, 0.2~7.0A   | +4%, -2% | 50mV  |       |      |
|           | 12V, 0.0~1.2A  | ±8%      | 100mV |       |      |

#### Triple Output (65W)

| Model No. | Output         | Tol.     | R&N   | Effi. | Max. |
|-----------|----------------|----------|-------|-------|------|
| PT-6503   | 3.3V, 0.0~7.0A | ±3%      | 50mV  | 72%   | 62W  |
|           | 5V, 0.2~10A    | +4%, -2% | 50mV  |       |      |
|           | 12V, 0.0~1.2A  | ±8%      | 100mV |       |      |

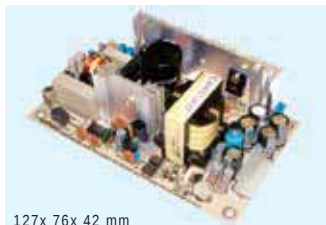


#### 48hrs delivery—

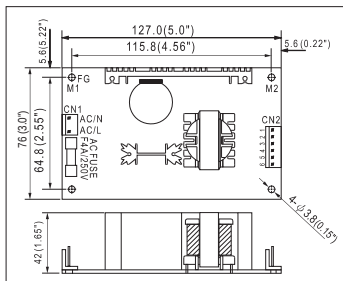
We keep enough stock for 95% of standard models at our 2400m<sup>2</sup> warehouse. We can arrange prompt delivery within 48hrs.

## 65W 1~3 Output

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Low leakage current <0.75mA
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty



127x 76x 42 mm



|                                 |                                                                                                                                     |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| AC input voltage range .....    | 90~264VAC; 127~370VDC                                                                                                               |
| AC inrush current .....         | Cold start, 20A at 115VAC, 40A at 230VAC                                                                                            |
| DC adjustment range .....       | CH1: -5%~+10% rated output voltage                                                                                                  |
| Overload protection .....       | 73~105W hiccup mode, auto-recovery                                                                                                  |
| Over voltage protection .....   | CH1: 115%~135% rated output voltage                                                                                                 |
| Leakage current .....           | Less than 0.75mA at 240VAC                                                                                                          |
| Setup, rise, hold up time ..... | 800ms, 20ms, 60ms at full load and 230VAC                                                                                           |
| Withstand voltage .....         | I/P-O/P: 3kVAC, I/P-FG:1.5kVAC(PS-65 2kVAC)                                                                                         |
| Working temperature .....       | -10~+60°C (refer to output derating curve)                                                                                          |
| Safety standards .....          | UL60950-1, TUV EN60950-1 approved                                                                                                   |
| EMC standards .....             | EN55032 class B, EN61000-3-2,3,<br>EN61000-4-2,3,4,5,6,8,11                                                                         |
| Connection .....                | 2P, 6P/ 3.96mm pitch, Molex P/N: 5277-02,<br>5273-06                                                                                |
| Packing .....                   | 0.21kg ; 54pcs / 14.2kg / 1.35CUFT(PS-65)<br>0.24kg ; 54pcs / 15.0kg / 1.35CUFT(PD-65)<br>0.25kg ; 54pcs / 15.9kg / 1.35CUFT(PT-65) |

## ❖ Single Output

| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| PS-65-3.3  | 3.3V, 0~12A   | ±3%  | 80mV  | 69%   |
| PS-65-5    | 5V, 0~12A     | ±3%  | 100mV | 76%   |
| PS-65-7.5  | 7.5V, 0~8.0A  | ±3%  | 100mV | 79%   |
| PS-65-12   | 12V, 0~5.2A   | ±2%  | 100mV | 79%   |
| PS-65-13.5 | 13.5V, 0~4.7A | ±2%  | 100mV | 79%   |
| PS-65-15   | 15V, 0~4.2A   | ±2%  | 100mV | 79%   |
| PS-65-24   | 24V, 0~2.7A   | ±2%  | 100mV | 80%   |
| PS-65-27   | 27V, 0~2.4A   | ±2%  | 100mV | 80%   |
| PS-65-48   | 48V, 0~1.35A  | ±2%  | 100mV | 80%   |

## ❖ Dual Output

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| PD-65A    | 5V, 0.4~7.0A  | ±4%  | 50mV  | 78%   | 61W  |
|           | 12V, 0.2~3.2A | ±7%  | 120mV |       |      |
| PD-65B    | 5V, 0.4~6.0A  | ±4%  | 50mV  | 81%   | 66W  |
|           | 24V, 0.2~2.6A | ±7%  | 150mV |       |      |

## ❖ Triple Output

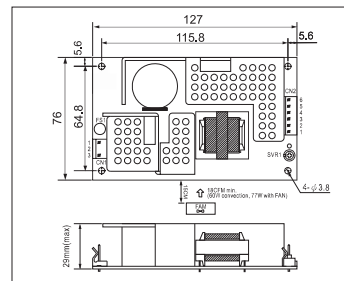
| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| PT-65A    | 5V, 0.4~7.0A   | ±4%  | 50mV  | 76%   | 60W  |
|           | 12V, 0.2~3.2A  | ±7%  | 120mV |       |      |
|           | -5V, 0.0~0.7A  | ±5%  | 50mV  |       |      |
| PT-65B    | 5V, 0.4~7.0A   | ±4%  | 50mV  | 77%   | 64W  |
|           | 12V, 0.2~3.2A  | ±7%  | 120mV |       |      |
|           | -12V, 0.0~0.7A | ±5%  | 100mV |       |      |
| PT-65C    | 5V, 0.4~7.0A   | ±4%  | 50mV  | 77%   | 65W  |
|           | 15V, 0.2~2.6A  | ±7%  | 120mV |       |      |
|           | -15V, 0.0~0.7A | ±5%  | 100mV |       |      |
| PT-65D    | 5V, 0.5~5.0A   | ±4%  | 50mV  | 79%   | 68W  |
|           | 12V, 0.2~4.0A  | ±6%  | 100mV |       |      |
|           | 24V, 0.2~1.3A  | ±6%  | 200mV |       |      |

## 65W 2, 3 Output

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 12V or 24V high peak current capability
- 60~65W free air convection, 77~80W with 18 CFM forced air
- Low leakage current < 1mA
- 100% full load burn-in test
- 2 years warranty



127x 76x 29 mm



|                                 |                                                                                                 |
|---------------------------------|-------------------------------------------------------------------------------------------------|
| AC input voltage range .....    | 90~264VAC; 127~370VDC                                                                           |
| AC inrush current .....         | Cold start, 25A at 115VAC, 50A at 230VAC                                                        |
| DC adjustment range .....       | CH1 12V: 11.4~12.8V, 24V: 22.8~26.4V                                                            |
| Overload protection .....       | 90~125W hiccup mode, auto-recovery                                                              |
| Over voltage protection .....   | CH1: 115%~135% rated output voltage                                                             |
| Leakage current .....           | Less than 1mA at 240VAC                                                                         |
| Setup, rise, hold up time ..... | 800ms, 20ms, 20ms at full load and 230VAC                                                       |
| Withstand voltage .....         | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, 1minute                                                          |
| Working temperature .....       | -20~+60°C (refer to output derating curve)                                                      |
| Safety standards .....          | UL60950-1, TUV EN60950-1 approved                                                               |
| EMC standards .....             | EN55032 class B, EN61000-3-2,3,<br>EN61000-4-2,3,4,5,6,8,11                                     |
| Connection .....                | 3P, 6P/ 3.96mm pitch, Molex P/N: 5273-03,<br>5273-06                                            |
| Packing .....                   | 0.24kg ; 63pcs / 16kg / 1.35CUFT (PCB type)<br>0.47kg ; 32pcs / 16kg / 0.64CUFT (Enclosed type) |

## ❖ Dual Output

| Model No. | Output      | Tol. | R&N   | Effi. | Max. |
|-----------|-------------|------|-------|-------|------|
| RPD-65C   | 12V, 0~5.8A | ±2%  | 120mV | 79%   | 60W  |
|           | 5V, 0~1.5A  | ±5%  | 50mV  |       |      |
| RPD-65D   | 24V, 0~2.9A | ±2%  | 150mV | 81%   | 60W  |
|           | 5V, 0~1.5A  | ±5%  | 50mV  |       |      |

### ❖ Triple Output

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| RPT-65E   | 12V, 0.18~5.8A | ±2%  | 120mV | 77%   | 63W  |
|           | 5V, 0.0~1.5A   | ±5%  | 100mV |       |      |
|           | -5V, 0.0~0.7A  | ±5%  | 120mV |       |      |
| RPT-65F   | 12V, 0.18~5.8A | ±2%  | 150mV | 77%   | 66W  |
|           | 5V, 0.0~1.5A   | ±5%  | 100mV |       |      |
|           | -12V, 0.0~0.7A | ±5%  | 150mV |       |      |
| RPT-65G   | 24V, 0.09~2.9A | ±2%  | 150mV | 81%   | 66W  |
|           | 5V, 0.0~1.5A   | ±5%  | 50mV  |       |      |
|           | 12V, 0.0~0.7A  | ±5%  | 100mV |       |      |



## Customer Satisfaction —

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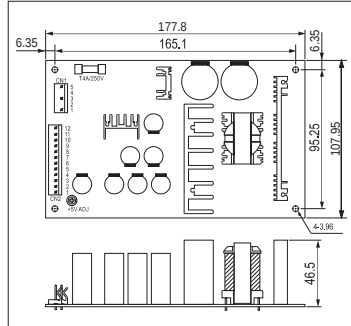


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### 110W Dual Output

- Universal AC input / Full range
- Power good signal output (option)
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Low leakage current <1mA@ 240VAC
- 2 years warranty

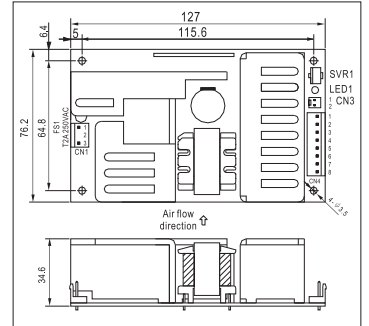


AC input voltage range ...100~264VAC; 141~370VDC  
 AC inrush current .....Cold start, 45A at 230VAC  
 DC adjustment range .....CH1: -5%~+10% rated output voltage  
 Overload protection .....105%~135% hiccup mode, auto-recovery  
 Over voltage protection ..CH1: 115%~135% rated output voltage  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG:1.5kVAC, 1minute  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55032 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,11  
 Connection .....5+12P/ 3.96mm pitch, Molex: 5273-05,12  
 Packing ..... 0.51kg ; 24pcs / 13.1kg / 1.19CUFT

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| PD-110A   | 5V, 0.5~5.0A  | ±2%  | 100mV | 75%   | 103W |
|           | 12V, 0.5~6.5A | ±6%  | 150mV |       |      |
| PD-110B   | 5V, 0.5~5.0A  | ±2%  | 100mV | 78%   | 109W |
|           | 24V, 0.5~3.5A | ±6%  | 200mV |       |      |

### 125W 1,3 Output with PFC Function

- Universal AC input / Full range
- Built-in active PFC function
- High power density 6.117W/in<sup>3</sup>
- Protections: Short circuit / Overload / Over voltage
- Built-in remote sense for PPS-125
- LED indicator for power on
- Free air convection for 100W and 125W with 18 CFM forced air
- 100% full load burn-in test
- 3 years warranty



AC input voltage range .....90~264VAC; 127~370VDC  
 AC inrush current .....Cold start, 40A at 230VAC  
 DC adjustment range .....CH1: ±5% rated output voltage  
 Overload protection .....130%~160% fold back current limiting, auto-recovery  
 Over voltage protection ..... CH1:110%~135% rated output voltage  
 Leakage current ..... Less than 2.0mA at 240VAC  
 Setup, rise, hold up time .... 1000ms, 30ms, 20ms at full load and 230VAC  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG:1.5kVAC, 1minute  
 Working temperature ..... -20~+70°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55032 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,8,11  
 Connection .....3+8P /3.96mm pitch, JST: B3P/B8P-VH (PPS-125)  
 3+5Px2 /3.96mm pitch, JST: B3P/B5Px2-VH (PPT-125)  
 Packing .....0.37kg; 36pcs / 14.3kg / 0.79CUFT

#### Single Output

| Model No.    | Output        | Tol. | R&N   | Effi. |  |
|--------------|---------------|------|-------|-------|--|
| PPS-125-3.3  | 3.3V, 0~25A   | ±2%  | 100mV | 70%   |  |
| PPS-125-5    | 5V, 0~25A     | ±2%  | 100mV | 79%   |  |
| PPS-125-12   | 12V, 0~10.5A  | ±2%  | 100mV | 80%   |  |
| PPS-125-13.5 | 13.5V, 0~9.3A | ±2%  | 100mV | 80%   |  |
| PPS-125-15   | 15V, 0~8.4A   | ±2%  | 100mV | 80%   |  |
| PPS-125-24   | 24V, 0~5.2A   | ±1%  | 150mV | 83%   |  |
| PPS-125-27   | 27V, 0~4.6A   | ±1%  | 150mV | 83%   |  |
| PPS-125-48   | 48V, 0~2.6A   | ±1%  | 250mV | 84%   |  |

#### Triple Output

| Model No. | Output           | Tol. | R&N   | Effi. | Max  |
|-----------|------------------|------|-------|-------|------|
| PPT-125A  | 3.3V, 1.0~12.5A  | ±3%  | 100mV | 75%   | 99W  |
|           | 5V, 0.8~10.0A    | ±5%  | 100mV |       |      |
|           | 12V, 0.05~0.63A  | ±6%  | 120mV |       |      |
| PPT-125B  | 5V, 1.0~14.38A   | ±3%  | 100mV | 78%   | 124W |
|           | 12V, 0.3~3.75A   | ±5%  | 120mV |       |      |
|           | -12V, 0.05~0.63A | ±6%  | 120mV |       |      |
| PPT-125C  | 5V, 1.0~13.75A   | ±3%  | 100mV | 78%   | 125W |
|           | 15V, 0.25~3.13A  | ±5%  | 150mV |       |      |
|           | -15V, 0.05~0.63A | ±6%  | 150mV |       |      |
| PPT-125D  | 5V, 1.0~8.75A    | ±3%  | 100mV | 78%   | 126W |
|           | 24V, 0.25~3.13A  | ±5%  | 240mV |       |      |
|           | 12V, 0.05~0.63A  | ±6%  | 120mV |       |      |



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#### 48hrs delivery—

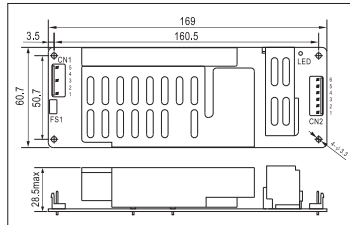
We keep enough stock for 95% of standard models at our 2400m<sup>2</sup> warehouse. We can arrange prompt delivery within 48hrs.

### 150W Single Output with PFC Function

- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Cooling by free air convection
- High power density 8.4W/in<sup>3</sup>
- No load power consumption <1W
- 100% full load burn-in test
- 3 years warranty



169x 60.7x 28.5 mm



AC input voltage range ..... 90~264VAC ; 127~370VDC  
 DC adjustment range ..... Can be modified between  $\pm 10\%$  rated output voltage by factory  
 Overload protection ..... 105%~135% hiccup mode, auto-recovery  
 Over voltage protection ..... 110%~135% rated output voltage  
 Withstand voltage ..... I/P-O/P: 4.25kVDC, I/P-FG: 1.5kVAC, 1minute  
 Working temperature ..... -20~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1 approved  
 EMC standards ..... EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... 5+6P/3.96mm pitch, JST P/N :B5P/B6P-VH  
 Packing ..... 0.32kg ; 48pcs / 15.8kg / 0.79CUFT

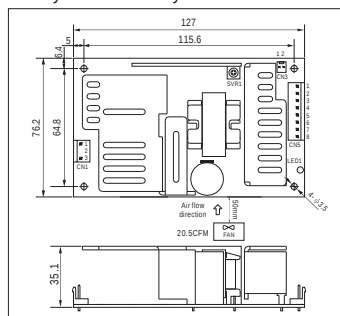
| Model No.  | Output      | Tol.      | R&N   | Effi. |
|------------|-------------|-----------|-------|-------|
| ASP-150-12 | 12V, 0~11A  | $\pm 2\%$ | 150mV | 88%   |
| ASP-150-15 | 15V, 0~9.5A | $\pm 2\%$ | 180mV | 88%   |
| ASP-150-20 | 20V, 0~7.5A | $\pm 1\%$ | 200mV | 90%   |
| ASP-150-24 | 24V, 0~6.3A | $\pm 1\%$ | 240mV | 90%   |
| ASP-150-48 | 48V, 0~3.2A | $\pm 1\%$ | 240mV | 89%   |

### 200W Single Output with PFC Function

- Universal AC input / Full range
- High efficiency up to 90%
- PF>0.98@115VAC; >0.93@230VAC
- Protections: Short circuit / Overload / Over voltage / Over temp.
- High power density 9.78W/in<sup>3</sup>
- 5"x3" compact size
- ZVS technology to reduce power dissipation
- Built-in remote sense function
- Free air convection for 150W and 200W with 20.5 CFM forced air
- 3 years warranty



127x 76.2x 35.1 mm



AC input voltage range ..... 90~264VAC; 127~370VDC  
 DC adjustment range .....  $\pm 10\%$  rated output voltage  
 Overload protection ..... 105%~135% hiccup mode, auto-recovery  
 Over voltage protection ..... 115%~135% rated output voltage  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, 1minute  
 Working temperature ..... -20~+70°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... 3+8P/3.96mm pitch, JST B3P/B8P-VH  
 Packing ..... 0.37kg ; 36pcs / 14.3kg / 0.79CUFT

| Model No.  | Output        | Tol.      | R&N   | Effi. |
|------------|---------------|-----------|-------|-------|
| PPS-200-5  | 5V, 0~36.0A   | $\pm 4\%$ | 100mV | 86%   |
| PPS-200-12 | 12V, 0~16.6A  | $\pm 3\%$ | 100mV | 89%   |
| PPS-200-15 | 15V, 0~13.3A  | $\pm 3\%$ | 100mV | 89%   |
| PPS-200-24 | 24V, 0~8.30A  | $\pm 2\%$ | 150mV | 89%   |
| PPS-200-27 | 27V, 0~7.40A  | $\pm 2\%$ | 150mV | 89%   |
| PPS-200-48 | 48V, 0~4.167A | $\pm 2\%$ | 250mV | 90%   |

### 250W Isolated Dual Output with PFC Function

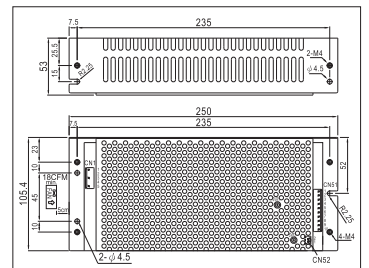
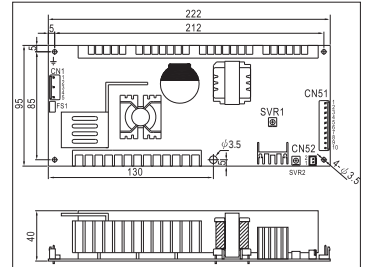
- Universal AC input / Full range
- Isolated output & GND for CH1,CH2
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Optional case available
- Cooling by free air convection
- Remote control function for CH1
- Peak load 170% for 10 sec. (CH1)
- 100% full load burn-in test
- 3 years warranty



222x 95x 40 mm



250x 105.4x 53 mm



AC input voltage range ..... 90~264VAC; 127~370VDC  
 AC inrush current ..... Cold start, 58A at 230VAC  
 Leakage current ..... Less than 3.5mA at 240VAC  
 DC adjustment range .....  $\pm 10\%$  for CH1;  $\pm 5\%$  for CH2  
 Overload protection(CH1) ..... 105%~170% normally operation, shut off after 10 sec.; >180%, constant current, shut off after 10 sec.  
 (CH2) ..... 101%~150% hiccup mode, auto-recovery  
 Over voltage protection ..... CH1: 115%~140%, CH2: 110%~135%  
 Setup, rise, hold up time ..... 1200ms, 60ms, 30ms at full load and 230VAC  
 Withstand voltage ..... I/P-O/P: 3.0kVAC, I/P-FG: 2kVAC, 1minute  
 Working temperature ..... -20~+70°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55032 class B, EN61000-3-2,-3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2  
 Connection ..... 5+10+2P/3.96mm pitch JST B5P/B10P-VH, B2B-XH  
 Packing ..... 0.74kg ; 18pcs / 14.3kg / 0.88CUFT (PCB type); 1.6kg ; 9pcs / 15.4kg / 0.61CUFT (Enclosed type)

| Model No. | Output      | Tol.      | R&N   | Effi. |
|-----------|-------------|-----------|-------|-------|
| PID-250A  | 12V, 0~15A  | $\pm 3\%$ | 120mV | 83%   |
| PID-250B  | 5V, 0~5.0A  | $\pm 2\%$ | 50mV  |       |
| PID-250C  | 24V, 0~9.4A | $\pm 2\%$ | 150mV | 86%   |
| PID-250D  | 5V, 0~5.0A  | $\pm 2\%$ | 50mV  |       |
| PID-250E  | 36V, 0~6.3A | $\pm 2\%$ | 200mV | 86%   |
| PID-250F  | 5V, 0~5.0A  | $\pm 2\%$ | 50mV  |       |
| PID-250G  | 48V, 0~4.7A | $\pm 2\%$ | 200mV | 86%   |
| PID-250H  | 5V, 0~5.0A  | $\pm 2\%$ | 50mV  |       |

#### ► Feature Description

PID-250 series is suitable for motor-based equipment with logic control circuit. CH1 with high peak power capability can provide the required surge loading while starting up the motor. The isolated 5V/5A CH2 is good for logic control usage and can still work properly even CH1 is malfunction or at any protection modes. The isolated design between CH1 and CH2 can significantly prevent noise of the motor action from entering control circuits and hence secure the accurate operation of the end equipment.

# Green Open Frame

1~20W AC/DC Miniature Encapsulated Type



## Features

- Universal AC input / Full range
- No load power consumption < 0.075W (<0.1W for IRM-05~20)
- Miniature size, high power density
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Isolation Class II
- Comply with EN55032 class B without any additional components
- Fully isolated plastic case
- High operating temperature up to +85°C
- Withstand 5G vibration test
- Low cost, high reliability
- Pass LPS
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.               | IRM-01-x[S]                                                                                                               | IRM-02-x[S] | IRM-03-x[S]                        | IRM-05                                     | IRM-10    | IRM-15         | IRM-20    |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------|--------------------------------------------|-----------|----------------|-----------|
| AC input voltage range  | 85~305VAC                                                                                                                 |             |                                    | 85~264VAC; 120~370VDC                      |           |                |           |
| Overload protection     | >110%                                                                                                                     |             | 105%~260%                          | 115%~260%                                  | 115%~190% |                | 115%~160% |
| Over voltage protection | 115%~135% rated output voltage                                                                                            |             |                                    |                                            |           |                |           |
| Withstand voltage       | I/P-O/P: 3kVAC                                                                                                            |             |                                    |                                            |           |                |           |
| Working temperature     | -30~+85°C                                                                                                                 |             |                                    | -30~+70°C (refer to output derating curve) |           |                |           |
| Safety standards        | IRM-01~20: UL60950-1, TUV EN60950-1 approved; IRM-03(S): TUV EN60335-1 approved;<br>Design refer to IEC60601-1 for IRM-03 |             |                                    |                                            |           |                |           |
| EMC standards           | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11                                                                  |             |                                    |                                            |           |                |           |
| Dimension (LxWxH)(mm)   | PCB: 33.7x 22.2x 15<br>SMD: 33.7x 22.2x 16                                                                                |             | PCB: 37x 24x 15<br>SMD: 37x 24x 16 | 45.7x 25.4x 21.5                           |           | 52.4x 27.2x 24 |           |

## 1W NEW IRM-01

| Model No.   | Output        | Tol.  | R&N   | Effi. |
|-------------|---------------|-------|-------|-------|
| IRM-01-3.3□ | 3.3V, 0~300mA | ±2.5% | 150mV | 66%   |
| IRM-01-5□   | 5V, 0~200mA   | ±2.5% | 150mV | 70%   |
| IRM-01-9□   | 9V, 0~111mA   | ±2.5% | 150mV | 72%   |
| IRM-01-12□  | 12V, 0~83mA   | ±2.5% | 150mV | 74%   |
| IRM-01-15□  | 15V, 0~67mA   | ±2.5% | 200mV | 75%   |
| IRM-01-24□  | 24V, 0~42mA   | ±2.5% | 240mV | 77%   |

□ = Blank, S ; Blank: PCB mounting style, S: SMD type

## 2W NEW IRM-02

| Model No.   | Output        | Tol.  | R&N   | Effi. |
|-------------|---------------|-------|-------|-------|
| IRM-02-3.3□ | 3.3V, 0~600mA | ±2.5% | 150mV | 66%   |
| IRM-02-5□   | 5V, 0~400mA   | ±2.5% | 150mV | 70%   |
| IRM-02-9□   | 9V, 0~222mA   | ±2.5% | 150mV | 72%   |
| IRM-02-12□  | 12V, 0~167mA  | ±2.5% | 150mV | 74%   |
| IRM-02-15□  | 15V, 0~133mA  | ±2.5% | 200mV | 75%   |
| IRM-02-24□  | 24V, 0~83mA   | ±2.5% | 240mV | 77%   |

□ = Blank, S ; Blank: PCB mounting style, S: SMD type

## 3W IRM-03

| Model No.   | Output        | Tol.  | R&N   | Effi. |
|-------------|---------------|-------|-------|-------|
| IRM-03-3.3□ | 3.3V, 0~900mA | ±2.5% | 100mV | 68%   |
| IRM-03-5□   | 5V, 0~600mA   | ±2.5% | 100mV | 72%   |
| IRM-03-9□   | 9V, 0~333mA   | ±2.5% | 100mV | 77%   |
| IRM-03-12□  | 12V, 0~250mA  | ±2.5% | 150mV | 78%   |
| IRM-03-15□  | 15V, 0~200mA  | ±2.5% | 200mV | 78%   |
| IRM-03-24□  | 24V, 0~125mA  | ±2.5% | 240mV | 80%   |

□ = Blank, S ; Blank: PCB mounting style, S: SMD type

## 5W IRM-05

| Model No.  | Output        | Tol.  | R&N   | Effi. |
|------------|---------------|-------|-------|-------|
| IRM-05-3.3 | 3.3V, 0~1.25A | ±2.5% | 200mV | 68%   |
| IRM-05-5   | 5V, 0~1A      | ±2.5% | 200mV | 71%   |
| IRM-05-12  | 12V, 0~0.42A  | ±2.5% | 200mV | 75%   |
| IRM-05-15  | 15V, 0~0.33A  | ±2.5% | 200mV | 75%   |
| IRM-05-24  | 24V, 0~0.23A  | ±2.5% | 200mV | 77%   |

## 10W IRM-10

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| IRM-10-3.3 | 3.3V, 0~2.5A | ±2.5% | 200mV | 74%   |
| IRM-10-5   | 5V, 0~2A     | ±2.5% | 200mV | 77%   |
| IRM-10-12  | 12V, 0~0.85A | ±2.5% | 200mV | 82%   |
| IRM-10-15  | 15V, 0~0.67A | ±2.5% | 200mV | 82%   |
| IRM-10-24  | 24V, 0~0.42A | ±2.5% | 200mV | 82%   |

## 15W IRM-15

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| IRM-15-3.3 | 3.3V, 0~3.5A | ±2.5% | 200mV | 74%   |
| IRM-15-5   | 5V, 0~3A     | ±2.5% | 200mV | 78%   |
| IRM-15-12  | 12V, 0~1.25A | ±2.5% | 200mV | 82%   |
| IRM-15-15  | 15V, 0~1A    | ±2.5% | 200mV | 82%   |
| IRM-15-24  | 24V, 0~0.63A | ±2.5% | 200mV | 83%   |

## 20W IRM-20

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| IRM-20-3.3 | 3.3V, 0~4.5A | ±2.5% | 200mV | 76%   |
| IRM-20-5   | 5V, 0~4A     | ±2.5% | 200mV | 79%   |
| IRM-20-12  | 12V, 0~1.8A  | ±2.5% | 200mV | 84%   |
| IRM-20-15  | 15V, 0~1.4A  | ±2.5% | 200mV | 84%   |
| IRM-20-24  | 24V, 0~0.9A  | ±2.5% | 200mV | 85%   |

# Green Open Frame 30~60W AC/DC Miniature Encapsulated Type



IRM-30



IRM-30-xST



IRM-45/60



IRM-45/60-xST

## Features

- Universal AC input / Full range
- No load power consumption < 0.1W
- Miniature size, high power density
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Isolation Class II
- Fully isolated plastic case
- Comply with EN55032 class B without any additional components
- High operating temperature up to +70°C
- Withstand 5G vibration test
- Low cost, high reliability
- Pass LPS (except for IRM-45/60 5V)
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                 | IRM-30-x <sup>ST</sup>                                                  | IRM-45-x <sup>ST</sup> | IRM-60-x <sup>ST</sup>                               |
|---------------------------|-------------------------------------------------------------------------|------------------------|------------------------------------------------------|
| AC input voltage range    | 85~264VAC                                                               |                        |                                                      |
| AC inrush current (max.)  | Cold start, 25A at 115VAC, 45A at 230VAC                                |                        | Cold start, 30A at 115VAC, 60A at 230VAC             |
| Overload protection       | 105%~160%                                                               |                        | 115%~160%                                            |
| Over voltage protection   | 105%~135%                                                               |                        |                                                      |
| Setup, rise, hold up time | 1000ms, 30ms, 40ms at 230VAC                                            |                        | 1000ms, 30ms, 50ms at 230VAC                         |
| Leakage current           | Less than 0.25mA at 240VAC                                              |                        |                                                      |
| Withstand voltage         | I/P-O/P: 3kVAC                                                          |                        |                                                      |
| Working temperature       | -30~+70°C (refer to output derating curve)                              |                        |                                                      |
| Vibration                 | 10~500Hz, 5G 10min./1 cycle, period for 60 min. each along X, Y, Z axes |                        |                                                      |
| Safety standards          | UL60950-1, TUV EN60950-1 approved                                       |                        |                                                      |
| EMC standards             | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11                |                        |                                                      |
| Connection                | 4 industrial pins                                                       |                        |                                                      |
| Dimension (LxWxH)(mm)     | PCB mounting: 69.5x 39x 24; Screw I/O: 91x 39.5x 28.5                   |                        | PCB mounting: 87x 52x 29.5; Screw I/O: 109x 52x 33.5 |

## 30W IRM-30

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| IRM-30-5□  | 5V, 0~6A     | ±2.5% | 120mV | 83%   |
| IRM-30-12□ | 12V, 0~2.5A  | ±2.5% | 150mV | 88%   |
| IRM-30-15□ | 15V, 0~2A    | ±2.5% | 200mV | 88%   |
| IRM-30-24□ | 24V, 0~1.3A  | ±2.5% | 240mV | 88.5% |
| IRM-30-48□ | 48V, 0~0.63A | ±2.5% | 300mV | 90%   |

□ = Blank, ST ; Blank: PCB mounting style, ST: Screw terminal style

## 45W IRM-45

| Model No.  | Output      | Tol.  | R&N   | Effi. |
|------------|-------------|-------|-------|-------|
| IRM-45-5□  | 5V, 0~8A    | ±2.5% | 80mV  | 83.5% |
| IRM-45-12□ | 12V, 0~3.8A | ±2.5% | 150mV | 87.5% |
| IRM-45-15□ | 15V, 0~3A   | ±2.5% | 180mV | 88.5% |

□ = Blank, ST ; Blank: PCB mounting style, ST: Screw terminal style

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| IRM-45-24□ | 24V, 0~1.9A  | ±2.5% | 200mV | 89.5% |
| IRM-45-48□ | 48V, 0~0.94A | ±2.5% | 300mV | 90.5% |

□ = Blank, ST ; Blank: PCB mounting style, ST: Screw terminal style

## 60W IRM-60

| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| IRM-60-5□  | 5V, 0~10A    | ±2.5% | 80mV  | 84%   |
| IRM-60-12□ | 12V, 0~5A    | ±2.5% | 120mV | 87.5% |
| IRM-60-15□ | 15V, 0~4A    | ±2.5% | 120mV | 89%   |
| IRM-60-24□ | 24V, 0~2.5A  | ±2.5% | 150mV | 90%   |
| IRM-60-48□ | 48V, 0~1.25A | ±2.5% | 240mV | 91%   |

□ = Blank, ST ; Blank: PCB mounting style, ST: Screw terminal style

# Green Open Frame 15~65W Single Output



EPS-15  
(2.5"x1.8")



EPS-25/35  
(3"x2")



EPS-45S/65S  
(3"x2")

## Features

- Universal AC input / Full range
- No load power consumption <0.1W(<0.3W for 15~35W)
- High efficiency up to 91%
- Compact size, 1U low profile
- Cooling by free air convection
- Protections: Short circuit / Overload / Over voltage
- Class I or Class II installations
- LED indicator for power on (EPS-25/35/45S/65S)
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |       | EPS-15                                                   | EPS-25                       | EPS-35                    | EPS-45S                      | EPS-65S |
|--------------------------|-------|----------------------------------------------------------|------------------------------|---------------------------|------------------------------|---------|
| AC input voltage range   |       | 85~264VAC; 120~370VDC                                    |                              |                           | 80~264VAC                    |         |
| AC inrush current (max.) |       | Cold start, 45A at 230VAC                                | Cold start, 35A at 230VAC    | Cold start, 40A at 230VAC | Cold start, 60A at 230VAC    |         |
| DC adjustment range      |       | ±10% rated output voltage                                |                              |                           | -5~+10% rated output voltage |         |
| Overload protection      | Range | 115%~150% rated output power                             | 115%~170% rated output power |                           | 115%~150% rated output power |         |
|                          | Type  | Hiccup mode, auto-recovery                               |                              |                           |                              |         |
| Over voltage protection  |       | 110%~135% shut down o/p voltage, re-power on to recover  |                              |                           |                              |         |
| Withstand voltage        |       | I/P-O/P: 3kVAC, I/P-FG:2kVAC, O/P-FG: 0.5kVAC            |                              |                           |                              |         |
| Working temperature      |       | -30~+70°C (refer to output derating curve)               |                              |                           |                              |         |
| Safety standards         |       | UL60950-1, TUV EN60950-1 approved                        |                              |                           |                              |         |
| EMC standards            |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 |                              |                           |                              |         |
| Connection               |       | JST B3P/B2P-VH                                           |                              |                           | JST B3P/B4P-VH               |         |
| Dimension (LxWxH)(mm)    |       | 63.5x45.7x24                                             | 76.2x50.8x24                 |                           |                              |         |

## 15W—Class I EPS-15

| Model No.  | Output (Rated / Peak 10 sec.) | Tol. | R&N   | Effi. |
|------------|-------------------------------|------|-------|-------|
| EPS-15-3.3 | 3.3V, 0~3A / 3.3A             | ±2%  | 50mV  | 75%   |
| EPS-15-5   | 5V, 0~3A / 3.3A               | ±2%  | 50mV  | 78%   |
| EPS-15-7.5 | 7.5V, 0~2A / 2.2A             | ±2%  | 80mV  | 81%   |
| EPS-15-12  | 12V, 0~1.25A / 1.38A          | ±1%  | 80mV  | 82%   |
| EPS-15-15  | 15V, 0~1A / 1.1A              | ±1%  | 100mV | 83%   |
| EPS-15-24  | 24V, 0~0.625A / 0.69A         | ±1%  | 150mV | 83%   |
| EPS-15-27  | 27V, 0~0.56A / 0.615A         | ±1%  | 180mV | 84%   |
| EPS-15-36  | 36V, 0~0.42A / 0.46A          | ±1%  | 200mV | 85%   |
| EPS-15-48  | 48V, 0~0.313A / 0.344A        | ±1%  | 200mV | 85%   |

## 25W—Class I EPS-25

| Model No.  | Output (Rated / Peak 10 sec.) | Tol. | R&N   | Effi. |
|------------|-------------------------------|------|-------|-------|
| EPS-25-3.3 | 3.3V, 0~5A / 5.5A             | ±2%  | 60mV  | 79%   |
| EPS-25-5   | 5V, 0~5A / 5.5A               | ±2%  | 60mV  | 81%   |
| EPS-25-7.5 | 7.5V, 0~3.4A / 3.74A          | ±2%  | 80mV  | 83%   |
| EPS-25-12  | 12V, 0~2.1A / 2.34A           | ±1%  | 100mV | 86%   |
| EPS-25-15  | 15V, 0~1.7A / 1.87A           | ±1%  | 100mV | 87%   |
| EPS-25-24  | 24V, 0~1.05A / 1.17A          | ±1%  | 180mV | 88%   |
| EPS-25-27  | 27V, 0~0.95A / 1.05A          | ±1%  | 180mV | 89%   |
| EPS-25-36  | 36V, 0~0.7A / 0.78A           | ±1%  | 200mV | 89%   |
| EPS-25-48  | 48V, 0~0.53A / 0.59A          | ±1%  | 240mV | 90%   |

## 35W—Class I EPS-35

| Model No.  | Output (Rated / Peak 10 sec.) | Tol.  | R&N  | Effi. |
|------------|-------------------------------|-------|------|-------|
| EPS-35-3.3 | 3.3V, 0~6A / 6.6A             | ±2.5% | 60mV | 80%   |
| EPS-35-5   | 5V, 0~6A / 6.6A               | ±2.0% | 70mV | 82%   |
| EPS-35-7.5 | 7.5V, 0~4.7A / 5.2A           | ±2.0% | 80mV | 84%   |

| Model No. | Output (Rated / Peak 10 sec.) | Tol.  | R&N   | Effi. |
|-----------|-------------------------------|-------|-------|-------|
| EPS-35-12 | 12V, 0~3A / 3.3A              | ±1.0% | 100mV | 87%   |
| EPS-35-15 | 15V, 0~2.4A / 2.65A           | ±1.0% | 100mV | 88%   |
| EPS-35-24 | 24V, 0~1.5A / 1.65A           | ±1%   | 180mV | 89%   |
| EPS-35-27 | 27V, 0~1.3A / 1.45A           | ±1%   | 180mV | 89%   |
| EPS-35-36 | 36V, 0~1A / 1.1A              | ±1%   | 200mV | 89%   |
| EPS-35-48 | 48V, 0~0.75A / 0.82A          | ±1%   | 240mV | 90%   |

## 45W—Class II EPS-45S

| Model No.   | Output (Rated / Peak 10 sec.) | Tol. | R&N   | Effi. |
|-------------|-------------------------------|------|-------|-------|
| EPS-45S-3.3 | 3.3V, 0~8A / 8.8A             | ±2%  | 80mV  | 80%   |
| EPS-45S-5   | 5V, 0~8A / 8.8A               | ±2%  | 80mV  | 83%   |
| EPS-45S-7.5 | 7.5V, 0~5.4A / 5.95A          | ±2%  | 80mV  | 85%   |
| EPS-45S-12  | 12V, 0~3.8A / 4.18A           | ±2%  | 120mV | 88%   |
| EPS-45S-15  | 15V, 0~3A / 3.3A              | ±2%  | 150mV | 89%   |
| EPS-45S-24  | 24V, 0~1.9A / 2.1A            | ±1%  | 240mV | 90%   |
| EPS-45S-48  | 48V, 0~0.94A / 1.03A          | ±1%  | 300mV | 91%   |

## 65W—Class II EPS-65S

| Model No.   | Output (Rated / Peak 10 sec.) | Tol. | R&N   | Effi. |
|-------------|-------------------------------|------|-------|-------|
| EPS-65S-3.3 | 3.3V, 0~10A / 11A             | ±2%  | 80mV  | 80%   |
| EPS-65S-5   | 5V, 0~10A / 11A               | ±2%  | 80mV  | 84%   |
| EPS-65S-7.5 | 7.5V, 0~8A / 8.8A             | ±2%  | 80mV  | 85%   |
| EPS-65S-12  | 12V, 0~5.42A / 5.96A          | ±2%  | 120mV | 88%   |
| EPS-65S-15  | 15V, 0~4.34A / 4.77A          | ±2%  | 150mV | 89%   |
| EPS-65S-24  | 24V, 0~2.71A / 2.98A          | ±1%  | 240mV | 90%   |
| EPS-65S-48  | 48V, 0~1.36A / 1.49A          | ±1%  | 300mV | 91%   |

# Green Open Frame 45~120W Single Output



## Features

- Compact size, 1U low profile
- Universal AC input / Full range
- Built-in active PFC function (ELP-75)
- Class I or Class II installations
- No load power consumption < 0.3W (<0.5W for ELP-75)
- High efficiency up to 91%
- Protections: Short circuit / Overload / Over voltage / Over temp.(EPS-120)
- Cooling by free air convection
- Built-in 12V/0.5A auxiliary output (EPS-120)
- LED indicator for power on
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.               |            | EPS-45-x <input type="checkbox"/>                        | EPS-65-x <input type="checkbox"/> | EPS-120         | ELP-75-x <input type="checkbox"/>               |
|-------------------------|------------|----------------------------------------------------------|-----------------------------------|-----------------|-------------------------------------------------|
| Rated Power             | Fan        | NA                                                       | NA                                | 120W (10CFM)    | NA                                              |
|                         | Convection | 45W                                                      | 65W                               | 84W             | 75W                                             |
| AC input voltage range  |            | 90~264VAC                                                |                                   | 80~264VAC       | 90~264VAC                                       |
| DC adjustment range     |            | ±10% rated output voltage                                |                                   | ±5%             | ±10%                                            |
| Overload protection     | Range      | 115%~150% rated output power                             |                                   |                 | 105%~150% rated output power                    |
|                         | Type       | Hiccup mode, auto-recovery                               |                                   |                 |                                                 |
| Over voltage protection |            | 110%~130% shut down o/p voltage, re-power on to recover  |                                   |                 |                                                 |
| Withstand voltage       |            | I/P-O/P: 3kVAC, I/P-FG:2kVAC, O/P-FG: 0.5kVAC, 1 minute  |                                   |                 | I/P-O/P: 3kVAC, I/P-FG:1.5kVAC, O/P-FG: 0.5kVAC |
| Working temperature     |            | -30~+70°C (refer to output derating curve)               |                                   |                 |                                                 |
| Safety standards        |            | UL60950-1, TUV EN60950-1 approved                        |                                   |                 |                                                 |
| EMC standards           |            | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 |                                   |                 |                                                 |
| Connection              |            | 3+4P/3.96mm pitch, JST B3P/B4P-VH                        |                                   |                 | 3+4P/3.96mm pitch, JST B3P/B6P-VH               |
| Dimension (LxWxH)(mm)   |            | PCB: 101.6x50.8x29 ; Case: 103.4x62x37                   |                                   | 101.6x 50.8x 29 | PCB: 175x 60x 27 ; Case: 195x 68.5x 33          |

## 45W—Class I EPS-45

| Model No.                           | Output (Rated / Peak 10 sec.) | Tol. | R&N   | Effi. |
|-------------------------------------|-------------------------------|------|-------|-------|
| EPS-45-3.3 <input type="checkbox"/> | 3.3V, 8A / 9A                 | ±3%  | 80mV  | 80%   |
| EPS-45-5 <input type="checkbox"/>   | 5V, 8A / 9A                   | ±2%  | 80mV  | 82%   |
| EPS-45-7.5 <input type="checkbox"/> | 7.5V, 5.4A / 5.6A             | ±2%  | 100mV | 84%   |
| EPS-45-12 <input type="checkbox"/>  | 12V, 3.75A / 4.2A             | ±2%  | 120mV | 87%   |
| EPS-45-15 <input type="checkbox"/>  | 15V, 3A / 3.3A                | ±2%  | 150mV | 88%   |
| EPS-45-24 <input type="checkbox"/>  | 24V, 1.9A / 2.1A              | ±1%  | 240mV | 89%   |
| EPS-45-36 <input type="checkbox"/>  | 36V, 1.25A / 1.4A             | ±1%  | 280mV | 89%   |
| EPS-45-48 <input type="checkbox"/>  | 48V, 1A / 1.1A                | ±1%  | 300mV | 90%   |

☐ = blank, -C ; blank: PCB type, -C: Enclosed type

## 120W—Class I or II NEW EPS-120

| Model No.  | Output (Convection/10CFM) | Tol. | R&N   | Effi. |
|------------|---------------------------|------|-------|-------|
| EPS-120-12 | 12V, 7A / 10A             | ±2%  | 120mV | 88.0% |
| EPS-120-15 | 15V, 5.6A / 8A            | ±2%  | 120mV | 88.5% |
| EPS-120-24 | 24V, 3.5A / 5A            | ±1%  | 150mV | 90.0% |
| EPS-120-27 | 27V, 3.15A / 4.5A         | ±1%  | 150mV | 90.0% |
| EPS-120-48 | 48V, 1.75A / 2.5A         | ±1%  | 200mV | 91.0% |

## 65W—Class I EPS-65

| Model No.                           | Output (Rated / Peak 10 sec.) | Tol. | R&N   | Effi. |
|-------------------------------------|-------------------------------|------|-------|-------|
| EPS-65-3.3 <input type="checkbox"/> | 3.3V, 11A / 12A               | ±3%  | 80mV  | 80%   |
| EPS-65-5 <input type="checkbox"/>   | 5V, 11A / 12A                 | ±2%  | 80mV  | 82%   |
| EPS-65-7.5 <input type="checkbox"/> | 7.5V, 8A / 8.8A               | ±2%  | 100mV | 84%   |
| EPS-65-12 <input type="checkbox"/>  | 12V, 5.42A / 6A               | ±2%  | 120mV | 86%   |
| EPS-65-15 <input type="checkbox"/>  | 15V, 4.34A / 4.8A             | ±2%  | 150mV | 87%   |
| EPS-65-24 <input type="checkbox"/>  | 24V, 2.71A / 3A               | ±1%  | 240mV | 88%   |
| EPS-65-36 <input type="checkbox"/>  | 36V, 1.81A / 2A               | ±1%  | 280mV | 89%   |
| EPS-65-48 <input type="checkbox"/>  | 48V, 1.36A / 1.5A             | ±1%  | 300mV | 90%   |

☐ = blank, -C ; blank: PCB type, -C: Enclosed type

## 75W—Class I ELP-75

| Model No.                           | Output     | Tol. | R&N   | Effi. |
|-------------------------------------|------------|------|-------|-------|
| ELP-75-3.3 <input type="checkbox"/> | 3.3V, 15A  | ±3%  | 80mV  | 80%   |
| ELP-75-5 <input type="checkbox"/>   | 5V, 15A    | ±2%  | 80mV  | 82%   |
| ELP-75-12 <input type="checkbox"/>  | 12V, 6.25A | ±2%  | 120mV | 89%   |
| ELP-75-15 <input type="checkbox"/>  | 15V, 5A    | ±2%  | 150mV | 90%   |
| ELP-75-24 <input type="checkbox"/>  | 24V, 3.15A | ±1%  | 240mV | 90%   |
| ELP-75-36 <input type="checkbox"/>  | 36V, 2.1A  | ±1%  | 280mV | 90%   |
| ELP-75-48 <input type="checkbox"/>  | 48V, 1.6A  | ±1%  | 300mV | 90%   |

☐ = blank, -C ; blank: PCB type, -C: Enclosed type

# Green Open Frame 100~400W Single Output



EPP-100  
(4"x2")



EPP-150  
(4"x2")



**NEW**  
EPP-200  
(4"x2")



EPP-300  
(5"x3")



**NEW**  
EPP-400  
(5"x3")

## Features

- Universal AC input / Full range
- Built-in active PFC function
- Class I or Class II installations
- No load power consumption <0.5W
- High efficiency up to 94%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in 12V/0.5A auxiliary output (12V/0.3A for EPP-100/150)
- Standby 5V@1A with fan, @ 0.6A without fan (EPP-300/400)
- Built-in remote sense function (EPP-300/400)
- LED indicator for power on
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.               |            | EPP-100                                                                      | EPP-150      | EPP-200                  | EPP-300                     | EPP-400                                       |
|-------------------------|------------|------------------------------------------------------------------------------|--------------|--------------------------|-----------------------------|-----------------------------------------------|
| Rated Power             | Fan        | 100W (20CFM)                                                                 | 150W (20CFM) | 200W (10CFM)             | 300W (20.5CFM)              | 400W (25CFM)                                  |
|                         | Convection | 75W                                                                          | 100W         | 140W                     | 200W                        | 250W                                          |
| AC input voltage range  |            | 90~264VAC                                                                    |              | 80~264VAC                | 90~264VAC                   | 80~264VAC                                     |
| DC adjustment range     |            | -2%~+5% rated output voltage                                                 |              | ±5% rated output voltage |                             |                                               |
| Overload protection     | Range      | 105%~145%                                                                    |              | 115%~150%                | 105%~135%                   | 115%~135%                                     |
|                         | Type       | Hiccup mode, auto-recovery                                                   |              |                          |                             |                                               |
| Over voltage protection | Range      | 115%~135% rated output voltage                                               |              | 110%~130%                | 115%~135%                   | 110%~130%                                     |
|                         | Type       | Shut down o/p voltage, re-power on to recover                                |              |                          |                             |                                               |
| Withstand voltage       |            | I/P-O/P: 3kVAC, I/P-FG:2kVAC, O/P-FG: 0.5kVAC                                |              |                          |                             | I/P-O/P: 3kVAC, I/P-FG:2kVAC, O/P-FG: 1.5kVAC |
| Working temperature     |            | -30~+70°C (refer to output derating curve)                                   |              |                          |                             |                                               |
| Safety standards        |            | UL60950-1, TUV EN60950-1 approved                                            |              |                          |                             |                                               |
| EMC standards           |            | EN55011 (EPP-300) / EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 |              |                          |                             |                                               |
| Connection              |            | JST B3P / B4P-VH                                                             |              | JST B3P / B6P-VH         | JST B5P-VH / Screw terminal |                                               |
| Dimension (LxWxH)(mm)   |            | 101.6x 50.8x 29                                                              |              |                          | 127x 76.2x 35               |                                               |

## 100W—Class I EPP-100

| Model No.  | Output (Convection/20CFM) | Tol. | R&N   | Effi. |
|------------|---------------------------|------|-------|-------|
| EPP-100-12 | 12V, 6.3A / 8.5A          | ±2%  | 120mV | 91.0% |
| EPP-100-15 | 15V, 5A / 6.67A           | ±2%  | 150mV | 91.0% |
| EPP-100-24 | 24V, 3.2A / 4.2A          | ±1%  | 240mV | 92.0% |
| EPP-100-27 | 27V, 2.8A / 3.71A         | ±1%  | 240mV | 92.5% |
| EPP-100-48 | 48V, 1.6A / 2.1A          | ±1%  | 300mV | 92.5% |

## 150W—Class I EPP-150

| Model No.  | Output (Convection/20CFM) | Tol. | R&N   | Effi. |
|------------|---------------------------|------|-------|-------|
| EPP-150-12 | 12V, 8.4A / 12.5A         | ±2%  | 130mV | 91.5% |
| EPP-150-15 | 15V, 6.7A / 10.0A         | ±2%  | 150mV | 92.0% |
| EPP-150-24 | 24V, 4.2A / 6.25A         | ±1%  | 240mV | 93.0% |
| EPP-150-27 | 27V, 3.71A / 5.56A        | ±1%  | 240mV | 92.0% |
| EPP-150-48 | 48V, 2.1A / 3.125A        | ±1%  | 300mV | 92.0% |

## 200W—Class I or II **NEW** EPP-200

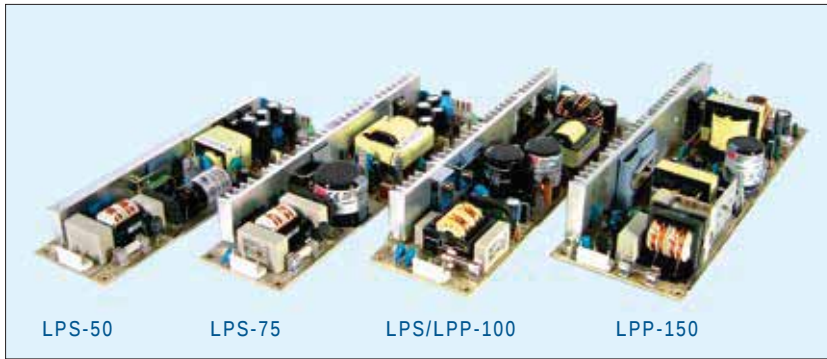
| Model No.  | Output (Convection/10CFM) | Tol. | R&N   | Effi. |
|------------|---------------------------|------|-------|-------|
| EPP-200-12 | 12V, 11.7A / 16.7A        | ±2%  | 100mV | 92%   |
| EPP-200-15 | 15V, 9.4A / 13.4A         | ±2%  | 100mV | 92%   |
| EPP-200-24 | 24V, 5.9A / 8.4A          | ±1%  | 150mV | 93%   |
| EPP-200-27 | 27V, 5.3A / 7.5A          | ±1%  | 150mV | 93%   |
| EPP-200-48 | 48V, 3A / 4.2A            | ±1%  | 200mV | 94%   |

## 300W—Class I EPP-300

| Model No.  | Output (Convection/20.5CFM) | Tol. | R&N   | Effi. |
|------------|-----------------------------|------|-------|-------|
| EPP-300-12 | 12V, 16.67A / 25.0A         | ±3%  | 120mV | 90.0% |
| EPP-300-15 | 15V, 13.33A / 20.0A         | ±3%  | 120mV | 90.0% |
| EPP-300-24 | 4V, 8.33A / 12.5A           | ±2%  | 150mV | 92.5% |
| EPP-300-27 | 27V, 7.4A / 11.12A          | ±2%  | 200mV | 93.0% |
| EPP-300-48 | 48V, 4.17A / 6.25A          | ±2%  | 250mV | 93.0% |

## 400W—Class I or II **NEW** EPP-400

| Model No.  | Output (Convection/25CFM) | Tol. | R&N   | Effi. |
|------------|---------------------------|------|-------|-------|
| EPP-400-12 | 12V, 20.8A / 33.3A        | ±3%  | 120mV | 92%   |
| EPP-400-15 | 15V, 16.7A / 26.7A        | ±3%  | 150mV | 92%   |
| EPP-400-24 | 24V, 10.5A / 16.7A        | ±2%  | 200mV | 93%   |
| EPP-400-27 | 27V, 9.3A / 14.9A         | ±1%  | 200mV | 93%   |
| EPP-400-36 | 36V, 7A / 11.2A           | ±1%  | 250mV | 93%   |
| EPP-400-48 | 48V, 5.3A / 8.4A          | ±1%  | 250mV | 94%   |



### Features

- Universal AC input / Full range
- Built-in active PFC function (LPP-100/150)
- Protections: Short circuit / Overload / Over voltage
- Optional over temperature protection for LPP-150
- Built-in remote ON/OFF control (LPS-50/75)
- Cooling by free air convection
- 100% full load burn-in test
- 2 years warranty for LPS series
- 3 years warranty for LPP series

| LPS-50 | LPS-75 | LPS/LPP-100 | LPP-150 |
|--------|--------|-------------|---------|
|        |        |             |         |

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                  |       | LPS-50                                                                                                         | LPS-75           | LPS-100                                    | LPP-100                                  | LPP-150                          |
|----------------------------|-------|----------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------|------------------------------------------|----------------------------------|
| AC input voltage range     |       | 90~264VAC                                                                                                      |                  | 115/230 auto switch                        | 85~264VAC                                |                                  |
| AC inrush current (230VAC) |       | 35A                                                                                                            | 36A              | 60A                                        | 30A                                      | 55A                              |
| DC adjustment range        |       | ±10% rated output voltage                                                                                      |                  |                                            | -5%~+10% rated output voltage            |                                  |
| Overload protection        | Range | 122%~160%                                                                                                      | 115%~150%        | 105%~140%                                  | 105%~150% rated output power             |                                  |
|                            | Type  | Hiccup mode, auto recovery                                                                                     |                  |                                            | Constant current limiting, auto recovery |                                  |
| Over voltage protection    | Range | 110%~135% of rated output voltage                                                                              |                  |                                            |                                          | Shut off, AC recycle to re-start |
|                            | Type  | Hiccup mode, auto recovery                                                                                     |                  |                                            |                                          |                                  |
| Withstand voltage          |       | I/P-O/P: 3kVAC, I/P-FG:1.5kVAC(2kVAC for LPP-150), O/P-FG: 0.5kVAC, 1 minute                                   |                  |                                            |                                          |                                  |
| Working temperature        |       | -20~+70°C (refer to output derating curve)                                                                     |                  | -10~+60°C (refer to output derating curve) |                                          |                                  |
| Safety standards           |       | UL60950-1, TUV EN60950-1 approved                                                                              |                  |                                            |                                          |                                  |
| EMC standards              |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 (EN61000-6-2 heavy industry level for LPS-50/75 only) |                  |                                            |                                          |                                  |
| Connection                 |       | JST B5P / B4P-VH                                                                                               | JST B5P / B6P-VH | JST B5P / B8P-VH                           |                                          | JST B5P / B6Px2-VH               |
| Dimension (LxWxH)(mm)      |       | 195x 55x 23                                                                                                    | 222x 55x 30      | 222x 62x 32                                | 222x 62x 33.6                            | 222x 75x 41                      |
| Packing                    |       | 48pcs / 12.5kg                                                                                                 | 48pcs / 15.6kg   | 24pcs / 12.5kg                             | 24pcs / 13.9kg                           | 24pcs / 16.6kg                   |

### 50W LPS-50

| Model No.  | Output      | Tol. | R&N   | Effi. |
|------------|-------------|------|-------|-------|
| LPS-50-3.3 | 3.3V, 0~10A | ±3%  | 50mV  | 75%   |
| LPS-50-5   | 5V, 0~10A   | ±3%  | 50mV  | 81%   |
| LPS-50-12  | 12V, 0~4.2A | ±2%  | 80mV  | 82%   |
| LPS-50-15  | 15V, 0~3.4A | ±2%  | 80mV  | 84%   |
| LPS-50-24  | 24V, 0~2.1A | ±1%  | 80mV  | 85%   |
| LPS-50-48  | 48V, 0~1.1A | ±1%  | 100mV | 86%   |

### 75W LPS-75

| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| LPS-75-3.3 | 3.3V, 0~15A  | ±3%  | 80mV  | 69%   |
| LPS-75-5   | 5V, 0~15A    | ±3%  | 80mV  | 77%   |
| LPS-75-12  | 12V, 0~6.2A  | ±2%  | 100mV | 80%   |
| LPS-75-15  | 15V, 0~5.0A  | ±2%  | 100mV | 81%   |
| LPS-75-24  | 24V, 0~3.2A  | ±2%  | 120mV | 83%   |
| LPS-75-48  | 48V, 0~1.56A | ±2%  | 120mV | 83%   |

### 100W LPS-100

| Model No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| LPS-100-3.3  | 3.3V, 0~20A   | ±3%  | 150mV | 69%   |
| LPS-100-5    | 5V, 0~20A     | ±3%  | 100mV | 77%   |
| LPS-100-7.5  | 7.5V, 0~13.3A | ±2%  | 100mV | 77%   |
| LPS-100-12   | 12V, 0~8.4A   | ±2%  | 100mV | 79%   |
| LPS-100-13.5 | 13.5V, 0~7.5A | ±2%  | 100mV | 79%   |
| LPS-100-15   | 15V, 0~6.7A   | ±2%  | 100mV | 80%   |

|            |             |     |       |     |
|------------|-------------|-----|-------|-----|
| LPS-100-24 | 24V, 0~4.2A | ±1% | 150mV | 80% |
| LPS-100-27 | 27V, 0~3.8A | ±1% | 150mV | 81% |
| LPS-100-48 | 48V, 0~2.1A | ±1% | 200mV | 81% |

### 100W (with PFC Function) LPP-100

| Model No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| LPP-100-3.3  | 3.3V, 0~20A   | ±2%  | 100mV | 69%   |
| LPP-100-5    | 5V, 0~20A     | ±2%  | 100mV | 75%   |
| LPP-100-7.5  | 7.5V, 0~13.5A | ±2%  | 100mV | 76%   |
| LPP-100-12   | 12V, 0~8.5A   | ±2%  | 100mV | 79%   |
| LPP-100-13.5 | 13.5V, 0~7.5A | ±2%  | 100mV | 79%   |
| LPP-100-15   | 15V, 0~6.7A   | ±2%  | 100mV | 80%   |
| LPP-100-24   | 24V, 0~4.2A   | ±1%  | 150mV | 83%   |
| LPP-100-27   | 27V, 0~3.8A   | ±1%  | 150mV | 83%   |
| LPP-100-48   | 48V, 0~2.1A   | ±1%  | 250mV | 83%   |

### 150W (with PFC Function) LPP-150

| Model No.    | Output         | Tol. | R&N   | Effi. |
|--------------|----------------|------|-------|-------|
| LPP-150-3.3  | 3.3V, 0~30A    | ±2%  | 100mV | 70%   |
| LPP-150-5    | 5V, 0~30A      | ±2%  | 100mV | 76%   |
| LPP-150-7.5  | 7.5V, 0~20A    | ±2%  | 100mV | 80%   |
| LPP-150-12   | 12V, 0~12.5A   | ±2%  | 100mV | 82%   |
| LPP-150-13.5 | 13.5V, 0~11.2A | ±2%  | 100mV | 83%   |
| LPP-150-15   | 15V, 0~10A     | ±2%  | 100mV | 83%   |
| LPP-150-24   | 24V, 0~6.3A    | ±1%  | 150mV | 85%   |
| LPP-150-27   | 27V, 0~5.6A    | ±1%  | 150mV | 85%   |
| LPP-150-48   | 48V, 0~3.2A    | ±1%  | 250mV | 85%   |

# Industrial Adaptor 12~30W Interchangeable Type



## ■ Features

- Interchangeable AC plugs (plug kit sold separately)
- Universal AC input / Full range
- No load power consumption <0.075W
- Energy efficiency Level VI
- Comply with EISA 2007/DoE and EU ErP
- Class II power (without earth pin)
- Protections: Short circuit / Over voltage / Overload
- Fully enclosed plastic case
- LED indicator for power on
- Pass LPS
- Approvals: UL / CUL / TUV / CCC / RCM / FCC / CE
- 2 years warranty

## ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                                               | GE12                                                                                                 | GE18 | GE24 | GE30 |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------|------|------|------|
| AC input voltage range                                  | 90~264VAC / 0.4A for GE12; 90~264VAC / 0.7A for GE18/24/30                                           |      |      |      |
| AC inrush current (max.)                                | Cold start, 40A at 100VAC; 80A at 230VAC                                                             |      |      |      |
| Overload protection                                     | Hiccup mode, auto-recovery                                                                           |      |      |      |
| Over voltage protection                                 | 115%~135% rated output voltage                                                                       |      |      |      |
| Setup, rise, hold up time                               | 4000ms, 100ms, 30ms at 230VAC input                                                                  |      |      |      |
| Withstand voltage                                       | I/P-O/P:4242VDC, 1 minute                                                                            |      |      |      |
| Working temperature                                     | -10~+50°C (refer to output derating curve)                                                           |      |      |      |
| Safety standards                                        | UL60950-1, CSA22.2, TUV EN60950-1, CCC GB4943, AS/NZS 60950.1 approved                               |      |      |      |
| EMC standards                                           | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, FCC part15 class B, GB9254                 |      |      |      |
| Length of output cable                                  | 100cm of 16AWG for GE12 5~12V and GE18/24 5~12V<br>150cm of 18AWG for GE12/18 15~48V and GE24 15~48V |      |      |      |
| Standard DC plug<br>(refer to page 62 for DC plug list) | P1J: 2.1øx5.5øx11mm / C+, tuning fork type                                                           |      |      |      |

## ■ Wall-mounted (Interchangeable Type)—12W

| Order No.<br>(Main body) | Output        | Tol. | R&N   | Effi. |
|--------------------------|---------------|------|-------|-------|
| GE12I05-P1J              | 5V, 0~2.00A   | ±5%  | 50mV  | 80.0% |
| GE12I07-P1J              | 7.5V, 0~1.33A | ±5%  | 75mV  | 82.0% |
| GE12I09-P1J              | 9V, 0~1.33A   | ±5%  | 100mV | 84.0% |
| GE12I12-P1J              | 12V, 0~1.00A  | ±3%  | 120mV | 84.0% |
| GE12I15-P1J              | 15V, 0~0.80A  | ±3%  | 150mV | 85.0% |
| GE12I18-P1J              | 18V, 0~0.83A  | ±3%  | 180mV | 85.0% |
| GE12I24-P1J              | 24V, 0~0.625A | ±3%  | 240mV | 85.5% |

## ■ Wall-mounted (Interchangeable Type)—24W

| Order No.<br>(Main body) | Output        | Tol. | R&N   | Effi. |
|--------------------------|---------------|------|-------|-------|
| GE24I05-P1J              | 5V, 0~3.00A   | ±5%  | 50mV  | 81.0% |
| GE24I07-P1J              | 7.5V, 0~2.00A | ±5%  | 75mV  | 83.0% |
| GE24I09-P1J              | 9V, 0~2.22A   | ±5%  | 100mV | 85.5% |
| GE24I12-P1J              | 12V, 0~2.00A  | ±3%  | 120mV | 86.0% |
| GE24I15-P1J              | 15V, 0~1.60A  | ±3%  | 150mV | 86.0% |
| GE24I18-P1J              | 18V, 0~1.33A  | ±3%  | 180mV | 87.0% |
| GE24I24-P1J              | 24V, 0~1.00A  | ±3%  | 240mV | 87.5% |
| GE24I48-P1J              | 48V, 0~0.50A  | ±3%  | 300mV | 89.0% |

## ■ Wall-mounted (Interchangeable Type)—18W

| Order No.<br>(Main body) | Output        | Tol. | R&N   | Effi. |
|--------------------------|---------------|------|-------|-------|
| GE18I05-P1J              | 5V, 0~2.40A   | ±5%  | 50mV  | 80.5% |
| GE18I07-P1J              | 7.5V, 0~1.73A | ±5%  | 75mV  | 82.5% |
| GE18I09-P1J              | 9V, 0~2.00A   | ±5%  | 100mV | 85.0% |
| GE18I12-P1J              | 12V, 0~1.50A  | ±3%  | 120mV | 86.0% |
| GE18I15-P1J              | 15V, 0~1.20A  | ±3%  | 150mV | 86.5% |
| GE18I18-P1J              | 18V, 0~1.00A  | ±3%  | 180mV | 87.0% |
| GE18I24-P1J              | 24V, 0~0.75A  | ±3%  | 240mV | 87.0% |
| GE18I48-P1J              | 48V, 0~0.375A | ±3%  | 300mV | 87.0% |

## ■ Wall-mounted (Interchangeable Type)—30W

| Order No.<br>(Main body) | Output       | Tol. | R&N   | Effi. |
|--------------------------|--------------|------|-------|-------|
| GE30I12-P1J              | 12V, 0~2.50A | ±3%  | 120mV | 84%   |
| GE30I15-P1J              | 15V, 0~2.00A | ±3%  | 150mV | 86%   |
| GE30I18-P1J              | 18V, 0~1.66A | ±3%  | 180mV | 87%   |
| GE30I24-P1J              | 24V, 0~1.25A | ±3%  | 240mV | 87%   |

## ■ Interchangeable AC Plug Specifically for GE12/18/24/30

| AC Plug Type and Order No. |            |               |            |                 |
|----------------------------|------------|---------------|------------|-----------------|
| AC Plug-AU                 | AC Plug-UK | AC Plug-EU    | AC Plug-US | AC Plug-MIX     |
|                            |            |               |            |                 |
| Australian Type            | U.K. Type  | European Type | U.S. Type  | Mixed Four Type |

Note: The main body unit and AC plug should be ordered separately. The main body needs to be used along with any one of the AC plug.

# Industrial Adaptor 5~15W Desktop & Wall-mounted Type



## 6W Green Adaptor

- Universal AC input / Full range
- No load power consumption < 0.075W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE and EU ErP
- 2 pole US / European type plug
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage
- Pass LPS
- Fully enclosed plastic case
- Approvals: UL/CUL/FCC for GS06U, TUV/CE for GS06E
- 2 years warranty



AC input voltage range ..... 90~264VAC ; 127~370VDC  
 AC inrush current(max.) ... Cold start, 50A at 230VAC  
 Overload protection ..... Hiccup mode, auto-recovery  
 Over voltage protection ... Clamp by zener diode >120%  
 Withstand voltage ..... I/P-O/P: 4242VDC, 1minute  
 Working temperature ..... 0~+50°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, CSA 22.2, TUV EN60950-1  
 EMC standards ..... FCC part15 class B(U Type); EN55032 class B(E Type)  
 Length of output cable ..... 120cm of 18AWG for 5~9V; 180cm of 24AWG for 12~48V

| Order No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| GS06□-1P1J  | 5V, 0~1.00A   | ±5%  | 50mV  | 75.0% |
| GS06□-11P1J | 7.5V, 0~0.80A | ±5%  | 80mV  | 80.5% |
| GS06□-2P1J  | 9V, 0~0.66A   | ±5%  | 80mV  | 79.5% |
| GS06□-3P1J  | 12V, 0~0.50A  | ±3%  | 100mV | 79.5% |
| GS06□-4P1J  | 15V, 0~0.40A  | ±3%  | 120mV | 80.5% |
| GS06□-5P1J  | 18V, 0~0.33A  | ±3%  | 150mV | 81.5% |
| GS06□-6P1J  | 24V, 0~0.25A  | ±2%  | 180mV | 82.0% |
| GS06□-8P1J  | 48V, 0~0.125A | ±2%  | 200mV | 85.0% |

□ = U/E ; U: American 2P, E: European 2P

## 12W Green Adaptor

- Universal AC input / Full range
- No load power consumption < 0.3W
- **Energy efficiency Level V**
- Comply with EISA 2007 and EU ErP
- 2 pole US / European type plug
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Pass LPS
- Fully enclosed plastic case
- Approvals: UL/CUL/BSMI/CB/FCC for GS12U, TUV/CB/CE for GS12E
- 2 years warranty



AC input voltage range ..... 90~264VAC ; 127~370VDC  
 AC inrush current(max.) ... Cold start, 45A at 230VAC  
 Overload protection ..... Hiccup mode, auto-recovery  
 Over voltage protection ... 115%~135% clamp by zener diode  
 Withstand voltage ..... I/P-O/P: 3kVAC, 1minute  
 Working temperature ..... 0~+50°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, CSA 22.2, BSMI CNS14336, TUV EN60950-1  
 EMC standards ..... EN55032, EN61204-3, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, FCC part15 class B

| Order No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| GS12□ 05-P1I | 5V, 0~2.00A   | ±5%  | 75mV  | 76.0% |
| GS12□ 07-P1I | 7.5V, 0~1.60A | ±4%  | 90mV  | 78.5% |
| GS12□ 09-P1I | 9V, 0~1.33A   | ±4%  | 90mV  | 78.5% |
| GS12□ 12-P1I | 12V, 0~1.00A  | ±3%  | 120mV | 78.5% |
| GS12□ 15-P1I | 15V, 0~0.80A  | ±3%  | 150mV | 80.0% |
| GS12□ 18-P1I | 18V, 0~0.67A  | ±3%  | 180mV | 80.0% |
| GS12□ 24-P1I | 24V, 0~0.50A  | ±3%  | 200mV | 80.5% |

□ = U/E ; U: American 2P, E: European 2P

## 5W Green USB Adaptor



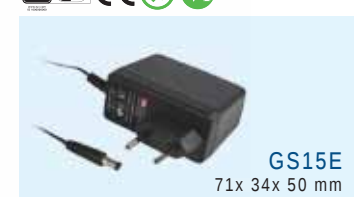
- Universal AC input / Full range
- No load power consumption < 0.075W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE and EU ErP
- Compact size
- 2 pole US / European type plug
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Pass LPS
- Fully enclosed plastic case
- 2 years warranty

AC input voltage range ..... 90~264VAC ; 127~370VDC  
 Overload protection ..... 105%~135% rated output power, hiccup mode, auto-recovery  
 Over voltage protection ..... 105%~200% rated output voltage, hiccup mode, auto-recovery  
 Withstand voltage ..... I/P-O/P: 4242VDC, 1 minute  
 Working temperature ..... -20~+50°C (refer to output derating curve)  
 Safety standards ..... U-Type: UL60950-1, CSA22.2 approved  
 E-Type: TUV EN60950-1 approved  
 EMC standards ..... FCC part15 class B(U Type); EN55032 class B(E Type)  
 Standard DC plug ..... USB Type A

| Order No. | Output   | Tol. | R&N  | Effi. |
|-----------|----------|------|------|-------|
| GS05U-USB | 5V, 0~1A | ±4%  | 90mV | 74.0% |
| GS05E-USB | 5V, 0~1A | ±4%  | 80mV | 74.5% |

## 15W Green Adaptor

- Universal AC input / Full range
- No load power consumption < 0.075W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE and EU ErP
- Protections: Short circuit / Overload / Over voltage
- Pass LPS
- Fully enclosed plastic case
- 2 years warranty



AC input voltage range ..... 90~264VAC ; 127~370VDC  
 AC inrush current(max.) ... Cold start, 50A at 230VAC  
 Overload protection ..... Hiccup mode, auto-recovery  
 Over voltage protection ... Clamp by zener diode > 120%  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, 1 minute  
 Working temperature ..... 0~+50°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, CSA 22.2, TUV EN60950-1 approved  
 EMC standards ..... EN55032-B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,11, FCC part 15 class B  
 Length of output cable ..... 120cm of 18AWG for 5~15V; 180cm of 18AWG for 18~48V  
 Standard DC plug ..... P1J: 2.1x5.5x11mm / C+, tuning fork type (refer to page 62 for DC plug list)

| Order No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| GS15□-1P1J  | 5.0V, 0~2.40A | ±5%  | 50mV  | 80.0% |
| GS15□-11P1J | 7.5V, 0~1.60A | ±5%  | 80mV  | 82.5% |
| GS15□-2P1J  | 9.0V, 0~1.66A | ±5%  | 80mV  | 85.0% |
| GS15□-3P1J  | 12V, 0~1.25A  | ±3%  | 80mV  | 85.0% |
| GS15□-4P1J  | 15V, 0~1.00A  | ±3%  | 100mV | 85.0% |
| GS15□-5P1J  | 18V, 0~0.83A  | ±3%  | 120mV | 85.0% |
| GS15□-6P1J  | 24V, 0~0.625A | ±2%  | 150mV | 85.5% |
| GS15□-8P1J  | 48V, 0~0.31A  | ±2%  | 240mV | 87.0% |

□ = A/B/E/U ; A: IEC320-C14, B: IEC320-C8  
 E: European 2P, U: American 2P

# Industrial Adaptor 18~36W Desktop & Wall-mounted Type



GS18/25A  
93x 54x 36 mm



GS18/25B  
79x 54x 33 mm



GS18/25/36U  
79x 54x 33 mm



GS18/25/36E  
79x 54x 33 mm

## Features

- Universal AC input / Full range
- No load power consumption < 0.3W
- **Energy efficiency Level V**
- Comply with EISA 2007, NRCAN, AU/NZ MEPS and EU ErP
- 2 pole US / European plug or IEC320-C14/C8
- Class II power (without earth pin) for B/U/E type
- Class I power (with earth pin) only for A type
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- LED indicator for power on (except for GS36)
- Pass LPS
- Approvals:  
A type: UL / CUL / TUV / BSMI / CCC / PSE / CB / FCC / CE  
B type: UL / CUL / TUV / BSMI / CCC / CB / FCC / CE  
U type: UL / CUL / BSMI / CB / FCC  
E type: TUV / CB / CE
- 2 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Order No.                                               |       | GS18□                                                                                                                                                                                                                                                                                           | GS25□ | GS36□                                       |
|---------------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------|
| AC input voltage range                                  |       | 90~264VAC ; 135~370VDC                                                                                                                                                                                                                                                                          |       |                                             |
| AC inrush current (max.)                                |       | Cold start, 45A at 230VAC                                                                                                                                                                                                                                                                       |       | Cold start, 60A at 230VAC                   |
| Overload protection                                     | Range | 105%~150% rated output power                                                                                                                                                                                                                                                                    |       | 110%~250% rated output power                |
|                                                         | Type  | Hiccup mode, auto-recovery                                                                                                                                                                                                                                                                      |       |                                             |
| Over voltage protection                                 |       | 105%~135% rated output voltage, clamp by zener diode                                                                                                                                                                                                                                            |       |                                             |
| Withstand voltage                                       |       | I/P-O/P: 4242VDC, 1 minute                                                                                                                                                                                                                                                                      |       |                                             |
| Working temperature                                     |       | 0~+50°C (refer to output derating curve )                                                                                                                                                                                                                                                       |       | -20~+50°C (refer to output derating curve ) |
| Safety standards                                        |       | A-Type: UL60950-1, CSA 22.2, TUV EN60950-1, BSMI CNS14336, PSE J60950-1(GS18A/GS25A-5V~28V only), CCC GB4943 approved<br>B-Type: UL60950-1, CSA 22.2, TUV EN60950-1, BSMI CNS14336, CCC GB4943 approved<br>U-Type: UL60950-1, CSA22.2, BSMI CNS14336 approved<br>E-Type: TUV EN60950-1 approved |       |                                             |
| EMC standards                                           |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11(A/B/E type); FCC part 15 class B, CNS13438(A/B/U type); GB9254(A/B type)                                                                                                                                                               |       |                                             |
| Length of output cable                                  |       | 120cm of 16AWG for 5~12V ; 180cm of UL1185, 18AWG for 15~48V                                                                                                                                                                                                                                    |       | 100cm of UL1185, 16AWG                      |
| Standard DC plug<br>(refer to page 62 for DC plug list) |       | P1J: 2.1øx5.5øx11mm / C+, tuning fork type                                                                                                                                                                                                                                                      |       |                                             |

## Desktop / Wall-mounted — 18W



| Order No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| GS18□05-P1J | 5V, 0~3.00A   | ±5%  | 50mV  | 79.5% |
| GS18□07-P1J | 7.5V, 0~2.00A | ±5%  | 80mV  | 82.0% |
| GS18□09-P1J | 9V, 0~2.00A   | ±5%  | 80mV  | 83.0% |
| GS18□12-P1J | 12V, 0~1.50A  | ±3%  | 80mV  | 85.0% |
| GS18□15-P1J | 15V, 0~1.20A  | ±3%  | 100mV | 85.0% |
| GS18□18-P1J | 18V, 0~1.00A  | ±3%  | 150mV | 85.0% |

| Order No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| GS18□24-P1J | 24V, 0~0.75A  | ±2%  | 180mV | 86.0% |
| GS18□28-P1J | 28V, 0~0.64A  | ±2%  | 240mV | 86.5% |
| GS18□48-P1J | 48V, 0~0.375A | ±2%  | 240mV | 87.0% |

□ = A / B / U / E  
Class I — A: IEC320-C14  
Class II — B: IEC320-C8, U: American 2P, E: European 2P

## Desktop / Wall-mounted — 25W



| Order No.   | Output        | Tol. | R&N   | Effi. |
|-------------|---------------|------|-------|-------|
| GS25□05-P1J | 5V, 0~4.00A   | ±5%  | 50mV  | 78.5% |
| GS25□07-P1J | 7.5V, 0~2.93A | ±5%  | 80mV  | 81.5% |
| GS25□09-P1J | 9V, 0~2.77A   | ±5%  | 80mV  | 82.5% |
| GS25□12-P1J | 12V, 0~2.08A  | ±3%  | 80mV  | 84.5% |
| GS25□15-P1J | 15V, 0~1.66A  | ±3%  | 100mV | 84.5% |
| GS25□18-P1J | 18V, 0~1.38A  | ±3%  | 150mV | 84.5% |

| Order No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| GS25□24-P1J | 24V, 0~1.04A | ±2%  | 180mV | 85.5% |
| GS25□28-P1J | 28V, 0~0.89A | ±2%  | 240mV | 85.5% |
| GS25□48-P1J | 48V, 0~0.52A | ±2%  | 240mV | 87.0% |

□ = A / B / U / E  
Class I — A: IEC320-C14  
Class II — B: IEC320-C8, U: American 2P, E: European 2P

## Wall-mounted — 36W



| Order No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| GS36□05-P1J | 5V, 0~4.50A  | ±5%  | 90mV  | 76.5% |
| GS36□09-P1J | 9V, 0~3.50A  | ±5%  | 90mV  | 81.5% |
| GS36□12-P1J | 12V, 0~3.00A | ±3%  | 100mV | 84.5% |

| Order No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| GS36□24-P1J | 24V, 0~1.50A | ±2%  | 180mV | 85.5% |
| GS36□48-P1J | 48V, 0~0.75A | ±2%  | 240mV | 87.5% |

□ = U / E ; U: American 2P, E: European 2P

# Industrial Adaptor 18~36W Desktop & Wall-mounted Type



**GST18/25A**  
93x 54x 36 mm



**GST18/25/36B**  
79x 54x 33 mm



**GST18/25/36U**  
79x 54x 33 mm



**GST18/25/36E**  
79x 54x 33 mm

## Features

- Global certificates
- Universal AC input / Full range
- No load power consumption < 0.075W
- Energy efficiency Level VI
- Comply with EISA 2007 / DoE, NRCAN, AU/NZ MEPS, Korea K-MEPS, EU ErP and CoC Version 5
- -30~+70°C wide range working temperature
- Class II power (without earth pin) for B/U/E type  
Class I power (with earth pin) only for A type
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- LED indicator for power on
- Pass LPS
- Approvals:  
A type: UL/CUL/TUV/BSMI/CCC/PSE/RCM/KC/BIS/EAC/SIRIM/CB/FCC/CE  
B type: UL/CUL/TUV/BSMI/CCC/PSE/RCM/KC/BIS/EAC/SIRIM/CB/FCC/CE  
U type: UL/CUL/BSMI/EAC/CB/FCC  
E type: TUV/EAC/SIRIM/CB/CE
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

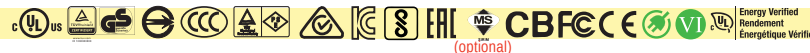
|                                                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                        |                              |
|---------------------------------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------|
| Order No.                                               |       | GST18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | GST25                                                                  | GST36                        |
| AC input voltage range                                  |       | 85~264VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                        |                              |
| AC inrush current (max.)                                |       | Cold start, 70A at 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                        |                              |
| Overload protection                                     | Range | 110%~150% rated output power                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                        | 110%~250% rated output power |
|                                                         | Type  | Hiccup mode, auto-recovery                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                        |                              |
| Over voltage protection                                 |       | 110%~140% rated output voltage, clamp by zener diode                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                        |                              |
| Withstand voltage                                       |       | I/P-O/P: 4242VDC, 1 minute                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                        |                              |
| Working temperature                                     |       | -30~+70°C (refer to output derating curve)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                        |                              |
| Safety standards                                        |       | A-Type: UL60950-1, CSA 22.2, TUV EN60950-1, BSMI CNS14336, CCC GB4943, PSE J60950-1, AS/NZS60950.1, KC K60950-1, BIS IS13252, EAC TP TC004; SIRIM MS IEC60950-1(optional) approved<br>B-Type: UL60950-1, CSA 22.2, TUV EN60950-1, BSMI CNS14336, CCC GB4943, PSE J60950-1, AS/NZS60950.1, KC K60950-1, BIS IS13252, EAC TP TC004; SIRIM MS IEC60950-1(optional) approved<br>U-Type: UL60950-1, CSA22.2, BSMI CNS14336, EAC TP TC004 approved<br>E-Type: TUV EN60950-1, EAC TP TC004; SIRIM MS IEC60950-1(optional) approved |                                                                        |                              |
| EMC standards                                           |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11(A/B/E type); FCC part 15 class B, CNS13438 class B(A/B/U type); GB9254(A/B type)                                                                                                                                                                                                                                                                                                                                                                                   |                                                                        |                              |
| Length of output cable                                  |       | 120cm of UL1185, 16AWG for 5~12V ;<br>180cm of UL1185, 18AWG for 15~48V                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 100cm of UL2468, 16AWG for 5~12V;<br>180cm of UL1185, 18AWG for 15~48V | 100cm of UL2468, 16AWG       |
| Standard DC plug<br>(refer to page 62 for DC plug list) |       | P1J: 2.1øx5.5øx11mm / C+, tuning fork type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                        |                              |

## Desktop / Wall-mounted — 18W



| Order No.    | Output        | Tol. | R&N   | Effi. | Order No.                                                                                               | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|---------------------------------------------------------------------------------------------------------|---------------|------|-------|-------|
| GST18□05-P1J | 5V, 0~3.00A   | ±5%  | 80mV  | 81.0% | GST18□24-P1J                                                                                            | 24V, 0~0.75A  | ±2%  | 150mV | 88.0% |
| GST18□07-P1J | 7.5V, 0~2.00A | ±5%  | 80mV  | 85.0% | GST18□28-P1J                                                                                            | 28V, 0~0.64A  | ±2%  | 150mV | 88.5% |
| GST18□09-P1J | 9V, 0~2.00A   | ±5%  | 80mV  | 85.0% | GST18□48-P1J                                                                                            | 48V, 0~0.375A | ±2%  | 150mV | 89.0% |
| GST18□12-P1J | 12V, 0~1.50A  | ±3%  | 80mV  | 86.0% | □ = A / B / U / E<br>Class I — A: IEC320-C14<br>Class II — B: IEC320-C8, U: American 2P, E: European 2P |               |      |       |       |
| GST18□15-P1J | 15V, 0~1.20A  | ±3%  | 100mV | 87.0% |                                                                                                         |               |      |       |       |
| GST18□18-P1J | 18V, 0~1.00A  | ±3%  | 150mV | 88.0% |                                                                                                         |               |      |       |       |

## Desktop / Wall-mounted — 25W



| Order No.    | Output        | Tol. | R&N   | Effi. | Order No.                                                                                               | Output       | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|---------------------------------------------------------------------------------------------------------|--------------|------|-------|-------|
| GST25□05-P1J | 5V, 0~4.00A   | ±5%  | 80mV  | 81.5% | GST25□24-P1J                                                                                            | 24V, 0~1.04A | ±2%  | 150mV | 88.0% |
| GST25□07-P1J | 7.5V, 0~2.93A | ±5%  | 80mV  | 84.5% | GST25□28-P1J                                                                                            | 28V, 0~0.89A | ±2%  | 150mV | 88.0% |
| GST25□09-P1J | 9V, 0~2.55A   | ±5%  | 80mV  | 85.0% | GST25□48-P1J                                                                                            | 48V, 0~0.52A | ±2%  | 150mV | 89.0% |
| GST25□12-P1J | 12V, 0~2.08A  | ±3%  | 80mV  | 86.5% | □ = A / B / U / E<br>Class I — A: IEC320-C14<br>Class II — B: IEC320-C8, U: American 2P, E: European 2P |              |      |       |       |
| GST25□15-P1J | 15V, 0~1.66A  | ±3%  | 100mV | 87.0% |                                                                                                         |              |      |       |       |
| GST25□18-P1J | 18V, 0~1.38A  | ±3%  | 100mV | 87.0% |                                                                                                         |              |      |       |       |

## Wall-mounted — 36W



| Order No.    | Output       | Tol. | R&N   | Effi. |  | Order No.                                                    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|--|--------------------------------------------------------------|--------------|------|-------|-------|
| GST36□05-P1J | 5V, 0~4.30A  | ±5%  | 90mV  | 82.0% |  | GST36□24-P1J                                                 | 24V, 0~1.50A | ±2%  | 150mV | 88.5% |
| GST36□09-P1J | 9V, 0~3.11A  | ±5%  | 90mV  | 86.0% |  | GST36□48-P1J                                                 | 48V, 0~0.75A | ±2%  | 200mV | 90.0% |
| GST36□12-P1J | 12V, 0~3.00A | ±3%  | 100mV | 87.5% |  | □ = B / U / E : B: IEC320-C8; U: American 2P, E: European 2P |              |      |       |       |



### Features

- **Global certificates**
- Universal AC input / Full range
- No load power consumption <0.075W for GST40A/60A; <0.15W for GST90A/120A
- **Energy efficiency Level VI**
- Comply with EISA 2007 / DoE, NRCAN, AU/NZ MEPS, Korea K-MEPS, EU ErP and CoC Version 5
- Built-in active PFC function for GST90A/120A
- **-30~+70°C wide range working temperature**
- Class I power (with earth pin)
- Protections: Short circuit / Over voltage / Overload / Over temp. (except for GST40A)
- Fully enclosed plastic case
- LED indicator for power on
- Pass LPS (except for GST90A/120A)
- 3 years warranty

### NOTICE

Since energy efficiency level VI is not compulsory in some countries or areas, energy efficiency level V GS40~280 will keep be sold without being showed on catalog. GST40A~280A are strongly recommended to new design.

### General Specification



| Order No.                                               |       | GST40A                                                                                                                                                                                                                                         | GST60A | GST90A                                                                                        | GST120A               |
|---------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------------------|-----------------------|
| AC input voltage range                                  |       | 90~264VAC; 127~370VDC                                                                                                                                                                                                                          |        |                                                                                               | 85~264VAC; 120~370VDC |
| AC inrush current (max.)                                |       | Cold start, 65A at 230VAC                                                                                                                                                                                                                      |        | Cold start, 70A at 230VAC                                                                     |                       |
| Overload protection                                     | Range | 105%~150% rated output power                                                                                                                                                                                                                   |        | 110%~150%                                                                                     |                       |
|                                                         | Type  | Hiccup mode, auto-recovery                                                                                                                                                                                                                     |        |                                                                                               |                       |
| Over voltage protection                                 |       | 105%~135% rated output voltage                                                                                                                                                                                                                 |        |                                                                                               |                       |
| Setup, rise, hold up time                               |       | 1000ms, 50ms, 50ms                                                                                                                                                                                                                             |        | 1000ms, 50ms, 20ms                                                                            |                       |
| Withstand voltage                                       |       | I/P-O/P:3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                                                                                                                                                                                  |        |                                                                                               | I/P-FG: 3kVAC         |
| Working temperature                                     |       | -30~+70°C (refer to output derating curve)                                                                                                                                                                                                     |        |                                                                                               |                       |
| Safety standards                                        |       | UL60950-1, CSA 22.2, TUV EN60950-1, BSMI CNS14336, CCC GB4943, PSE J60950-1, AS/NZS60950.1, KC K60950-1, BIS IS13252, EAC TP TC004; SIRIM MS IEC60950-1(optional) approved                                                                     |        |                                                                                               |                       |
| EMC standards                                           |       | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, CNS13438, GB9254, FCC part15 class B                                                                                                                                                 |        |                                                                                               |                       |
| Length of output cable                                  |       | GST40A:<br>100cm of UL1185, 16AWG for 5~15V;<br>180cm of UL1185, 18AWG for 18~48V<br>GST60A:<br>100cm of UL2464, 16AWG for 5~9V;<br>100cm of UL1185, 16AWG for 12~15V;<br>150cm of UL1185, 16AWG for 18V;<br>180cm of UL1185, 18AWG for 24~48V |        | 100cm of UL1185, 14AWG for 12~15V;<br>120cm of UL1185, 16AWG for 19~48V                       |                       |
| Standard DC plug<br>(refer to page 62 for DC plug list) |       | P1J: 2.1øx5.5øx11mm / C+,<br>tuning fork type                                                                                                                                                                                                  |        | P1M: 2.5øx5.5øx11mm / C+,<br>tuning fork type                                                 |                       |
|                                                         |       |                                                                                                                                                                                                                                                |        | R7B: Power DIN 4P with lock type<br>P1M: 2.5øx5.5øx11mm/C+,<br>tuning fork type (20~48V only) |                       |

### Desktop (IEC 320-C14 / Class I) — 40W

| Order No.    | Output        | Tol.  | R&N   | Effi. |
|--------------|---------------|-------|-------|-------|
| GST40A05-P1J | 5V, 0~5.00A   | ±5%   | 120mV | 84.5% |
| GST40A07-P1J | 7.5V, 0~5.34A | ±5%   | 120mV | 87.5% |
| GST40A09-P1J | 9V, 0~4.45A   | ±5%   | 120mV | 88.5% |
| GST40A12-P1J | 12V, 0~3.34A  | ±3%   | 120mV | 89.5% |
| GST40A15-P1J | 15V, 0~2.67A  | ±3%   | 120mV | 90.0% |
| GST40A18-P1J | 18V, 0~2.22A  | ±3%   | 120mV | 90.0% |
| GST40A24-P1J | 24V, 0~1.67A  | ±2.5% | 150mV | 91.0% |
| GST40A48-P1J | 48V, 0~0.84A  | ±2.5% | 200mV | 92.0% |

### Desktop (IEC 320-C14 / Class I) — 60W

| Order No.    | Output        | Tol.  | R&N   | Effi. |
|--------------|---------------|-------|-------|-------|
| GST60A05-P1J | 5V, 0~6.00A   | ±5%   | 120mV | 85.5% |
| GST60A07-P1J | 7.5V, 0~6.00A | ±5%   | 120mV | 88.5% |
| GST60A09-P1J | 9V, 0~6.00A   | ±5%   | 120mV | 89.0% |
| GST60A12-P1J | 12V, 0~5.00A  | ±3%   | 120mV | 89.5% |
| GST60A15-P1J | 15V, 0~4.00A  | ±3%   | 120mV | 89.5% |
| GST60A18-P1J | 18V, 0~3.33A  | ±3%   | 120mV | 89.5% |
| GST60A24-P1J | 24V, 0~2.50A  | ±3%   | 150mV | 90.5% |
| GST60A48-P1J | 48V, 0~1.25A  | ±2.5% | 200mV | 92.0% |

### Desktop (IEC 320-C14 / Class I) — 90W

| Order No.    | Output       | Tol.  | R&N   | Effi. |
|--------------|--------------|-------|-------|-------|
| GST90A12-P1M | 12V, 0~6.67A | ±5%   | 120mV | 89.0% |
| GST90A15-P1M | 15V, 0~6.00A | ±5%   | 150mV | 89.5% |
| GST90A19-P1M | 19V, 0~4.74A | ±4%   | 180mV | 90.0% |
| GST90A24-P1M | 24V, 0~3.75A | ±3%   | 200mV | 90.0% |
| GST90A48-P1M | 48V, 0~1.87A | ±2.5% | 200mV | 91.0% |

### Desktop (IEC 320-C14 / Class I) — 120W

| Order No.     | Output      | Tol.  | R&N   | Effi. |
|---------------|-------------|-------|-------|-------|
| GST120A12-R7B | 12V, 0~8.5A | ±5%   | 120mV | 88.5% |
| GST120A15-R7B | 15V, 0~7.0A | ±5%   | 120mV | 89.0% |
| GST120A20-□   | 20V, 0~6.0A | ±5%   | 150mV | 90.0% |
| GST120A24-□   | 24V, 0~5.0A | ±3%   | 180mV | 90.5% |
| GST120A48-□   | 48V, 0~2.5A | ±2.5% | 200mV | 91.0% |
| □ = P1M / R7B |             |       |       |       |



**GST160A**

175x 72x 35 mm

**GST220A**

210x 85x 46 mm

**GST280A**

220x 95x 46 mm

### ■ Features

- **Global certificates**
- Universal AC input / Full range
- No load power consumption < 0.15W (GST280A < 0.5W)
- **Energy efficiency Level VI**
- Comply with EISA 2007 / DoE, NRCAN, AU/NZ MEPS, Korea K-MEPS, EU ErP and CoC Version 5
- Built-in active PFC function
- 3 pole AC inlet IEC320-C14
- Class I power (with earth pin)
- **Fanless design, high operating temperature up to +70°C**
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Fully enclosed plastic case
- LED indicator for power on
- 3 years warranty

### ■ General Specification



| Order No.                                               | GST160A                                                                                                                                                                                                                                                                                       | GST220A                                       | GST280A                                                                                                            |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| AC input voltage range                                  | 85~264VAC ; 120~370VDC                                                                                                                                                                                                                                                                        |                                               |                                                                                                                    |
| AC inrush current (max.)                                | Cold start, 120A at 230VAC                                                                                                                                                                                                                                                                    |                                               |                                                                                                                    |
| Overload protection                                     | Range                                                                                                                                                                                                                                                                                         | 105%~135% rated output power                  |                                                                                                                    |
|                                                         | Type                                                                                                                                                                                                                                                                                          | Hiccup mode, auto-recovery                    |                                                                                                                    |
| Over voltage protection                                 | Range                                                                                                                                                                                                                                                                                         | 105%~150% rated output power                  |                                                                                                                    |
|                                                         | Type                                                                                                                                                                                                                                                                                          | Shut down o/p voltage, re-power on to recover |                                                                                                                    |
| Set up, rise, hold up time                              | 2000ms, 50ms, 20ms                                                                                                                                                                                                                                                                            |                                               | 2000ms, 20ms, 16ms                                                                                                 |
| Withstand voltage                                       | I/P-O/P: 3kVAC, 1 minute                                                                                                                                                                                                                                                                      |                                               |                                                                                                                    |
| Working temperature                                     | -30~+70°C (refer to output derating curve)                                                                                                                                                                                                                                                    |                                               |                                                                                                                    |
| Safety standards                                        | UL60950-1, CSA 22.2, TUV EN60950-1, BSMI CNS14336, CCC GB4943, PSE J60950-1, AS/NZS60950.1, KC K60950-1, BIS IS13252, EAC TP TC004; SIRIM MS IEC60950-1(optional) approved<br>(UL60950-1, CSA C22.2, TUV EN60950-1, BSMI CNS14336, CCC GB4943, AS/NZS60950.1, PSE J60950-1 for GST220A36-R7B) |                                               |                                                                                                                    |
| EMC standards                                           | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, FCC part 15 class B, CNS13438, GB9254, GB17625.1                                                                                                                                                                                    |                                               |                                                                                                                    |
| Length of output cable                                  | 100cm of UL2464, 18AWGx4C for 12V<br>120cm of UL2464, 18AWGx4C for 15~48V                                                                                                                                                                                                                     | 100cm of UL2464, 16AWGx4C                     |                                                                                                                    |
| Standard DC plug<br>(refer to page 62 for DC plug list) | R7B: Power DIN 4P with lock type                                                                                                                                                                                                                                                              |                                               | 6P/4.2mm pitch, MOLEX 39-01-2060(power supply side);<br>MOLEX 39-01-2061(customer side, not provided with GST280A) |

### ■ Desktop (IEC320-C14/Class I) — 160W

| Order No.     | Output       | Tol. | R&N   | Effi. |
|---------------|--------------|------|-------|-------|
| GST160A12-R7B | 12V, 0~11.5A | ±5%  | 80mV  | 90.0% |
| GST160A15-R7B | 15V, 0~9.6A  | ±5%  | 100mV | 91.0% |
| GST160A20-R7B | 20V, 0~8.0A  | ±4%  | 150mV | 93.0% |
| GST160A24-R7B | 24V, 0~6.67A | ±3%  | 180mV | 93.0% |
| GST160A36-R7B | 36V, 0~4.44A | ±3%  | 180mV | 92.0% |
| GST160A48-R7B | 48V, 0~3.34A | ±3%  | 240mV | 94.0% |

### ■ Desktop (IEC320-C14/Class I) — 280W

| Order No.     | Output        | Tol. | R&N   | Effi. |
|---------------|---------------|------|-------|-------|
| GST280A12-C6P | 12V, 0~21A    | ±5%  | 120mV | 90.0% |
| GST280A15-C6P | 15V, 0~17A    | ±5%  | 120mV | 90.0% |
| GST280A20-C6P | 20V, 0~13A    | ±4%  | 150mV | 92.0% |
| GST280A24-C6P | 24V, 0~11.67A | ±3%  | 200mV | 93.0% |
| GST280A48-C6P | 48V, 0~5.84A  | ±2%  | 200mV | 94.0% |

### ■ Desktop (IEC320-C14/Class I) — 220W

| Order No.     | Output       | Tol. | R&N   | Effi. |
|---------------|--------------|------|-------|-------|
| GST220A12-R7B | 12V, 0~15.0A | ±5%  | 80mV  | 90.0% |
| GST220A15-R7B | 15V, 0~13.4A | ±5%  | 100mV | 90.0% |
| GST220A20-R7B | 20V, 0~11.0A | ±4%  | 120mV | 92.0% |
| GST220A24-R7B | 24V, 0~9.20A | ±3%  | 150mV | 93.5% |
| GST220A36-R7B | 36V, 0~6.10A | ±3%  | 200mV | 93.0% |
| GST220A48-R7B | 48V, 0~4.60A | ±2%  | 200mV | 94.5% |

### ► Optional Grayish Model



Optional grayish models (PANTONE Cool Gray 2C) are available for GST&GSM18/25/36 series. MOQ is 200pcs per model. Please contact MEAN WELL sales representatives for more details.

# Industrial Adaptor

12~25W Slim Wall-mounted



## Features

- Universal AC input / Full range
- No load power consumption <0.075W
- **Energy efficiency level VI**
- Comply with EISA 2007/DoE, EU ErP
- 2 pole US/European type plug
- Class II power (without earth pin)
- Protections: Short circuit / Over load / Over voltage
- Pass LPS
- Fully enclosed plastic case
- Approvals:  
U type: UL / CUL / CB / FCC; E type: TUV / CB / CE
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                                               | SGA12□                                                                                                      | SGA18□                                                                         | SGA25□                                                                             |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| AC input voltage range                                  | 90~264VAC; 127~370VDC                                                                                       |                                                                                |                                                                                    |
| AC inrush current (max.)                                | Cold start, 60A at 230VAC                                                                                   | Cold start, 45A at 230VAC                                                      | Cold start, 60A at 230VAC                                                          |
| DC adjustment range                                     | ±10% rated output voltage                                                                                   |                                                                                |                                                                                    |
| Overload protection                                     | Range                                                                                                       | 110%~250% rated output power                                                   | 120%~180% rated output power                                                       |
|                                                         | Type                                                                                                        | Hiccup mode, auto recovery                                                     |                                                                                    |
| Over voltage protection                                 | Range                                                                                                       | 110%~140% rated output voltage                                                 |                                                                                    |
|                                                         | Type                                                                                                        | Clamp by Zener diode                                                           |                                                                                    |
| Setup, rise, hold up time                               | 1300ms, 50ms, 12ms                                                                                          | 300ms, 30ms, 16ms                                                              | 300ms, 60ms, 18ms                                                                  |
| Withstand voltage                                       | I/P-O/P: 4242VDC                                                                                            |                                                                                |                                                                                    |
| Working temperature                                     | -20~+60°C (refer to output derating curve)                                                                  |                                                                                |                                                                                    |
| Safety standards                                        | U-Type: UL60950-1, CSA22.2 approved; E-Type: TUV EN60950-1 approved                                         |                                                                                |                                                                                    |
| EMC standards                                           | U-Type: FCC part15 class B; E-Type: EN55032 class B                                                         |                                                                                |                                                                                    |
| Length of output cable                                  | 100cm of 18AWG for SGA12□05-07-P1J<br>120cm of 22AWG for SGA12□09-P1J<br>180cm of 24AWG for SGA12□12-48-P1J | 100cm of 16AWG for 5~9V<br>100cm of 18AWG for 12V<br>150cm of 22AWG for 15~48V | 100cm of 16AWG for 5~12V<br>180cm of 18AWG for 15~18V<br>180cm of 20AWG for 24~48V |
| Standard DC Plug<br>(refer to page 62 for DC plug list) | USB: Type A; P1J: 2.1x5.5x11mm / C+, tuning fork type                                                       |                                                                                |                                                                                    |
| Dimension (LxWxH)(mm)                                   | 62.2x 27.4x 39.7                                                                                            | 75.5x 32x 47.5                                                                 |                                                                                    |

## Wall-mounted — 12W

| Model No.                               | Output      | Tol. | R&N   | Effi. |
|-----------------------------------------|-------------|------|-------|-------|
| SGA12□05-USB                            | 5V, 2.40A   | ±5%  | 50mV  | 80.0% |
| SGA12□05-P1J                            | 5V, 2.40A   | ±5%  | 50mV  | 80.0% |
| SGA12□07-P1J                            | 7.5V, 1.60A | ±5%  | 50mV  | 83.0% |
| SGA12□09-P1J                            | 9V, 1.33A   | ±3%  | 80mV  | 83.0% |
| SGA12□12-P1J                            | 12V, 1.00A  | ±3%  | 80mV  | 83.0% |
| SGA12□15-P1J                            | 15V, 0.80A  | ±3%  | 80mV  | 84.5% |
| SGA12□18-P1J                            | 18V, 0.666A | ±3%  | 80mV  | 85.0% |
| SGA12□24-P1J                            | 24V, 0.50A  | ±2%  | 100mV | 85.0% |
| SGA12□48-P1J                            | 48V, 0.25A  | ±2%  | 100mV | 86.0% |
| □ = U/E; U: American 2P, E: European 2P |             |      |       |       |

## Wall-mounted — 18W

| Model No.    | Output     | Tol. | R&N  | Effi. |
|--------------|------------|------|------|-------|
| SGA18□05-P1J | 5V, 3.00A  | ±5%  | 80mV | 80.5% |
| SGA18□09-P1J | 9V, 2.00A  | ±5%  | 80mV | 84.5% |
| SGA18□12-P1J | 12V, 1.50A | ±3%  | 80mV | 84.0% |

| Model No.                               | Output      | Tol. | R&N   | Effi. |
|-----------------------------------------|-------------|------|-------|-------|
| SGA18□15-P1J                            | 15V, 1.20A  | ±3%  | 80mV  | 84.0% |
| SGA18□18-P1J                            | 18V, 1.00A  | ±3%  | 80mV  | 84.5% |
| SGA18□24-P1J                            | 24V, 0.75A  | ±2%  | 80mV  | 85.0% |
| SGA18□48-P1J                            | 48V, 0.375A | ±2%  | 120mV | 86.0% |
| □ = U/E; U: American 2P, E: European 2P |             |      |       |       |

## Wall-mounted — 25W

| Model No.                               | Output      | Tol. | R&N   | Effi. |
|-----------------------------------------|-------------|------|-------|-------|
| SGA25□05-P1J                            | 5V, 4.00A   | ±5%  | 80mV  | 82.0% |
| SGA25□07-P1J                            | 7.5V, 2.93A | ±5%  | 80mV  | 85.5% |
| SGA25□09-P1J                            | 9V, 2.77A   | ±5%  | 80mV  | 86.0% |
| SGA25□12-P1J                            | 12V, 2.08A  | ±3%  | 80mV  | 86.0% |
| SGA25□15-P1J                            | 15V, 1.66A  | ±3%  | 80mV  | 86.5% |
| SGA25□18-P1J                            | 18V, 1.38A  | ±3%  | 80mV  | 86.5% |
| SGA25□24-P1J                            | 24V, 1.04A  | ±2%  | 80mV  | 87.0% |
| SGA25□48-P1J                            | 48V, 0.52A  | ±2%  | 120mV | 88.5% |
| □ = U/E; U: American 2P, E: European 2P |             |      |       |       |



### Features

- Universal AC input / Full range
- No load power consumption <0.075W for SGA40 and SGA60 5~7.5V;  
<0.15W for SGA60 9~48V
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE, EU ErP
- 2 pole US/European type plug
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage
- Pass LPS
- Fully enclosed plastic case
- LED indicator for power on (60W only)
- 3 year warranty

### General Specification

| Model No.                 | SGA40□                                                                                                 | SGA60□                                                                            |
|---------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| AC input voltage range    | 90~264VAC; 127~370VDC                                                                                  |                                                                                   |
| AC inrush current (max.)  | Cold start, 70A at 230VAC                                                                              | Cold start, 80A at 230VAC                                                         |
| Overload protection       | Hiccup mode, auto recovery                                                                             |                                                                                   |
| Over voltage protection   | 110%~140% rated output voltage, clamp by Zener diode                                                   |                                                                                   |
| Setup, rise, hold up time | 500ms, 100ms, 12ms                                                                                     | 500ms, 50ms, 12ms                                                                 |
| Withstand voltage         | I/P-O/P: 4242VDC, 1 minute                                                                             |                                                                                   |
| Working temperature       | -20~+50°C (refer to output derating curve)                                                             |                                                                                   |
| Safety standards          | U-Type: UL60950-1, CSA 22.2 approved;<br>E-Type: TUV EN60950-1 approved;<br>CH-Type: GB4943 (40W only) |                                                                                   |
| EMC standards             | U-Type: FCC part15 Class B;<br>E-Type: EN55032 Class B;<br>CH-Type: GB9254(40W only)                   |                                                                                   |
| Length of output cable    | 100cm of 14AWG for 5V<br>100cm of 16AWG for 9~15V<br>150cm of 20AWG for 18~48V                         | 100cm of 14AWG for 5~9V<br>100cm of 16AWG for 12~18V<br>150cm of 18AWG for 24~48V |
| Standard DC Plug          | P1J: 2.1Øx5.5Øx11mm/C+, turning fork type                                                              |                                                                                   |
| Dimension (LxWxH)(mm)     | 75.5x 32x 47.5                                                                                         | 93.5x 35x 51.5                                                                    |

### Wall-mounted — 40W

| Order No.    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|
| SGA40□05-P1J | 5V, 0~5.00A  | ±5%  | 120mV | 84.0% |
| SGA40□09-P1J | 9V, 0~4.44A  | ±5%  | 120mV | 87.0% |
| SGA40□12-P1J | 12V, 0~3.33A | ±3%  | 120mV | 86.5% |
| SGA40□15-P1J | 15V, 0~2.66A | ±2%  | 120mV | 86.5% |
| SGA40□18-P1J | 18V, 0~2.22A | ±2%  | 120mV | 87.0% |
| SGA40□24-P1J | 24V, 0~1.67A | ±2%  | 150mV | 88.0% |
| SGA40□48-P1J | 48V, 0~0.84A | ±2%  | 150mV | 89.0% |

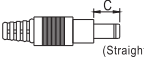
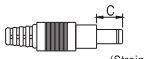
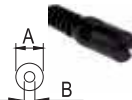
□ = U / E / CH, U: American 2P, E: European 2P, CH: China 2P

### Wall-mounted — 60W

| Order No.    | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|
| SGA60□05-P1J | 5V, 0~6.00A   | ±5%  | 80mV  | 84%   |
| SGA60□07-P1J | 7.5V, 0~6.00A | ±5%  | 80mV  | 86%   |
| SGA60□09-P1J | 9V, 0~5.50A   | ±5%  | 80mV  | 87%   |
| SGA60□12-P1J | 12V, 0~5.00A  | ±3%  | 80mV  | 88%   |
| SGA60□15-P1J | 15V, 0~4.00A  | ±3%  | 80mV  | 87%   |
| SGA60□18-P1J | 18V, 0~3.33A  | ±2%  | 80mV  | 88%   |
| SGA60□24-P1J | 24V, 0~2.50A  | ±2%  | 100mV | 88%   |
| SGA60□48-P1J | 48V, 0~1.25A  | ±2%  | 120mV | 91%   |

□ = U / E, U: American 2P, E: European 2P

### Optional DC Plug List

| Tuning Fork Style                                                                    |                                                                                                        | Type No. | A<br>OD        | B<br>ID | C<br>L |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|----------|----------------|---------|--------|
|     | <br>(Straight)       | P1I      | 5.5            | 2.1     | 9.5    |
|                                                                                      |                                                                                                        | P1J      | 5.5            | 2.1     | 11.0   |
|                                                                                      |                                                                                                        | P1L      | 5.5            | 2.5     | 9.5    |
|                                                                                      |                                                                                                        | P1M      | 5.5            | 2.5     | 11.0   |
|                                                                                      | <br>(Right-angled)   | P1IR     | 5.5            | 2.1     | 9.5    |
|                                                                                      |                                                                                                        | P1JR     | 5.5            | 2.1     | 11.0   |
|                                                                                      |                                                                                                        | P1LR     | 5.5            | 2.5     | 9.5    |
|                                                                                      |                                                                                                        | P1MR     | 5.5            | 2.5     | 11.0   |
| Barrel Style                                                                         |                                                                                                        | Type No. | A<br>OD        | B<br>ID | C<br>L |
|   | <br>(Straight)     | P2I      | 5.5            | 2.1     | 9.5    |
|                                                                                      |                                                                                                        | P2J      | 5.5            | 2.1     | 11.0   |
|                                                                                      |                                                                                                        | P2L      | 5.5            | 2.5     | 9.5    |
|                                                                                      |                                                                                                        | P2M      | 5.5            | 2.5     | 11.0   |
|                                                                                      | <br>(Right-angled) | P2IR     | 5.5            | 2.1     | 9.5    |
|                                                                                      |                                                                                                        | P2JR     | 5.5            | 2.1     | 11.0   |
|                                                                                      |                                                                                                        | P2LR     | 5.5            | 2.5     | 9.5    |
|                                                                                      |                                                                                                        | P2MR     | 5.5            | 2.5     | 11.0   |
| Lock Style                                                                           |                                                                                                        | Type No. | A<br>OD        | B<br>ID | C<br>L |
|   | P2S<br>(S761K)                                                                                         | 5.53     | 2.03           | 12.06   |        |
|                                                                                      | P2K<br>(761K)                                                                                          | 5.53     | 2.54           | 12.06   |        |
|                                                                                      | P2C<br>(S760K)                                                                                         | 5.53     | 2.03           | 9.52    |        |
|                                                                                      | P2D<br>(760K)                                                                                          | 5.53     | 2.54           | 9.52    |        |
| SWITCHCRAFT original                                                                 |                                                                                                        |          |                |         |        |
| Mini Pin Style                                                                       |                                                                                                        | Type No. | A<br>OD        | B<br>ID | C<br>L |
|   | P3A                                                                                                    | 2.35     | 0.7            | 11.0    |        |
|                                                                                      | P3B                                                                                                    | 4.0      | 1.7            | 11.0    |        |
|                                                                                      | P3C                                                                                                    | 4.75     | 1.7            | 11.0    |        |
| Mini. DIN 4 Pin with lock (male)                                                     |                                                                                                        | Type No. | Pin Assignment |         |        |
|   | R7B                                                                                                    | PIN No.  |                | Output  |        |
|                                                                                      |                                                                                                        | 1        |                | +Vo     |        |
|                                                                                      |                                                                                                        | 2        |                | -Vo     |        |
|                                                                                      |                                                                                                        | 3        |                | -Vo     |        |
| KYCON KPPX-4P equivalent                                                             |                                                                                                        | 4        |                | +Vo     |        |
| DIN 5 Pin (male)                                                                     |                                                                                                        | Type No. | Pin Assignment |         |        |
|   | R1B                                                                                                    | Pin No.  |                | Output  |        |
|                                                                                      |                                                                                                        | 1        |                | -Vo     |        |
|                                                                                      |                                                                                                        | 2        |                | -Vo     |        |
|                                                                                      |                                                                                                        | 3        |                | +Vo     |        |
|                                                                                      |                                                                                                        | 4        |                | -Vo     |        |
|                                                                                      |                                                                                                        | 5        |                | +Vo     |        |
| Stripped and tinned leads                                                            |                                                                                                        | Type No. | Pin Assignment |         |        |
|   | by customer                                                                                            | PIN No.  |                | Output  |        |
|                                                                                      |                                                                                                        | 1        |                | +Vo     |        |
| Length of Land L1 by request<br>(MW 's standard length, L: 25 mm, L1: 5 mm)          |                                                                                                        | 2        |                | -Vo     |        |
| ▶ Minimum order quantity is varied for different models.                             |                                                                                                        |          |                |         |        |
| ▶ Other options available by request, please refer to specification for more detail. |                                                                                                        |          |                |         |        |

▶ Minimum order quantity is varied for different models.

▶ Other options available by request, please refer to specification for more detail.

# Industrial Adaptor

29~50W Triple Output Desktop Type



## Features

- Universal AC input / Full range
- No load power consumption <0.3W
- **Energy efficiency Level VI**
- Protections:  
Short circuit / Overload / Over voltage / Over temp. (GP25)
- Comply with EISA 2007/DoE, EU ErP
- Class I power unit (with earth pin) for A type;  
Class II power unit (without earth pin) for B type
- Fully enclosed plastic case
- LED indicator for power on
- **Dual output available (optional)**
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                                          | GP25A                                                                      | GP25B | GP50A                     |
|----------------------------------------------------|----------------------------------------------------------------------------|-------|---------------------------|
| AC input voltage range                             | 90~264VAC ; 135~370VDC                                                     |       |                           |
| AC inrush current (max.)                           | Cold start, 60A at 230VAC                                                  |       | Cold start, 45A at 230VAC |
| Overload protection                                | Hiccup mode, auto recovery                                                 |       |                           |
| Over voltage protection                            | 110%~140% of +5V output                                                    |       |                           |
| Setup, rise, hold up time                          | 800ms, 50ms, 20ms                                                          |       | 1000ms, 50ms, 20ms        |
| Withstand voltage                                  | I/P-O/P:3kVAC, I/P-FG:1.5kVAC , 1 minute                                   |       |                           |
| Working temperature                                | -20~+70°C (refer to output derating curve)                                 |       |                           |
| Safety standards                                   | UL60950-1, CSA22.2, TUV EN60950-1 approved                                 |       |                           |
| EMC standards                                      | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,11, FCC part15 class B |       |                           |
| Length of output cable                             | 150cm of UL2464                                                            |       | 100cm of UL2464           |
| Standard DC Plug<br>(refer to page 62 for DC plug) | R1B: DIN 5P                                                                |       |                           |
| Dimension (LxWxH)(mm)                              | 107.5x 67x 36                                                              |       | 146x 75.5x 43             |

## 29W VI GP25A/B Series

| Order No.    | Output         | Tol.     | R&N   | Effi. | Max.  |
|--------------|----------------|----------|-------|-------|-------|
| GP25□13A-R1B | 5V, 0.5~2.5A   | ±5%      | 50mV  | 80.0% | 28.5W |
|              | 12V, 0.2~1.2A  | -5%~+10% | 100mV |       |       |
|              | -5V, 0.1~0.3A  | ±3%      | 50mV  |       |       |
| GP25□13D-R1B | 5V, 0.5~2.5A   | ±5%      | 60mV  | 80.0% | 28W   |
|              | 12V, 0.2~1.0A  | ±5%      | 120mV |       |       |
|              | -12V, 0.1~0.3A | ±3%      | 50mV  |       |       |
| GP25□14E-R1B | 5V, 0.5~2.5A   | ±5%      | 100mV | 80.5% | 29W   |
|              | 15V, 0.1~0.8A  | -5%~+15% | 150mV |       |       |
|              | -15V, 0.1~0.3A | ±3%      | 50mV  |       |       |

## 50W VI GP50A Series

| Order No.    | Output         | Tol.     | R&N   | Effi. | Max.  |
|--------------|----------------|----------|-------|-------|-------|
| GP50A13A-R1B | 5V, 0.0~4.0A   | ±5%      | 50mV  | 84.0% | 46.5W |
|              | 12V, 0.3~2.0A  | ±3%      | 100mV |       |       |
|              | -5V, 0.1~0.5A  | -5%~+10% | 100mV |       |       |
| GP50A13D-R1B | 5V, 0.0~4.0A   | ±5%      | 50mV  | 84.0% | 50W   |
|              | 12V, 0.3~2.0A  | ±3%      | 150mV |       |       |
|              | -12V, 0.1~0.5A | -5%~+8%  | 100mV |       |       |
| GP50A14E-R1B | 5V, 0.0~4.0A   | ±5%      | 50mV  | 84.5% | 50W   |
|              | 15V, 0.3~1.5A  | ±3%      | 150mV |       |       |
|              | -15V, 0.1~0.5A | -5%~+15% | 150mV |       |       |

□ = A / B; A: IEC 320-C14 / Class I, B: IEC 320-C8 / Class II



### Features

- Universal AC input / Full range
- **Medical safety approved(2xMOPP)**
- Suitable for BF application with appropriate system consideration
- Extremely low leakage current
- No load power consumption <0.1W(<0.3W for GSM06)
- **Energy efficiency Level VI** (GSM06 and GSM18/25/36 5~9V for Level V)
- Comply with EISA 2007/DoE, NRCAN, AU/NZ MEPS, EU ErP and meet CoC Version 5(GSM18/25/36); EISA 2007 and EU ErP(GSM06)
- Class II power(without earth pin)
- 2 pole USA / EURO plug or IEC320-C8
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- LED indicator for power on(except for GSM06)
- Optional lock type DC plug
- Certificates: B-Type: UL / CUL / TUV / CB / FCC / CE  
U-Type: UL / CUL / CB / FCC  
E-Type: TUV / CB / CE
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Order No.                 |       | GSM06□                                                                                                                                                                                                                                                                                 | GSM18□                                                                                                                                                             | GSM25□ | GSM36□ |
|---------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|
| AC input voltage range    |       | 80~264VAC; 113~370VDC                                                                                                                                                                                                                                                                  |                                                                                                                                                                    |        |        |
| Leakage current           |       | <50μA                                                                                                                                                                                                                                                                                  |                                                                                                                                                                    |        |        |
| AC inrush current (max.)  |       | Cold start, 30A at 230VAC                                                                                                                                                                                                                                                              | Cold start, 55A at 230VAC                                                                                                                                          |        |        |
| Overload protection       | Range | >105% rated output power                                                                                                                                                                                                                                                               | 105%~170% rated output power                                                                                                                                       |        |        |
|                           | Type  | Hiccup mode, auto-recovery                                                                                                                                                                                                                                                             |                                                                                                                                                                    |        |        |
| Over voltage protection   |       | 110%~140%                                                                                                                                                                                                                                                                              | 105%~135% rated output voltage, shut down o/p voltage, re-power on to recover                                                                                      |        |        |
| Setup, rise, hold up time |       | 1000ms, 50ms, 12ms                                                                                                                                                                                                                                                                     | 500ms, 30ms, 16ms                                                                                                                                                  |        |        |
| Withstand voltage         |       | I/P-O/P: 5656VDC                                                                                                                                                                                                                                                                       | I/P-O/P: 4kVAC                                                                                                                                                     |        |        |
| Working temperature       |       | 0~+50°C                                                                                                                                                                                                                                                                                | -25~+60°C (refer to output derating curve )                                                                                                                        |        |        |
| Safety standards          |       | B-Type(except for GSM06): ANSI/AAMI ES60601-1/ES60601-1-11, CAN/CSA-C22, TUV EN60601-1 / <b>EN60601-1-11</b> approved<br>U-Type: ANSI/AAMI ES60601-1, <b>ES60601-1-11</b> , CAN/CSA-C22 approved<br>E-Type: TUV EN60601-1 / <b>EN60601-1-11</b> approved                               |                                                                                                                                                                    |        |        |
| EMC standards             |       | B-Type(except for GSM06): EN55011 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN60601-1-2 medical level, FCC Part 15 class B<br>U-Type: FCC Part 15 class B<br>E-Type: EN55011 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN60601-1-2 medical level |                                                                                                                                                                    |        |        |
| Length of output cable    |       | 120cm of UL2468, 22AWG for 5~9V;<br>180cm of UL2468, 24AWG for 12~24V                                                                                                                                                                                                                  | 120cm of UL1185, 16AWG for GSM18/25/36 5~9V;<br>180cm of UL1185, 16AWG for GSM25 12V and GSM36 12~48V;<br>180cm of UL1185, 18AWG for GSM18 12~48V and GSM25 15~48V |        |        |
| Standard DC plug          |       | P1J: 2.1øx 5.5øx 11mm / C+, tuning fork type (refer to page 62 for DC plug list)                                                                                                                                                                                                       |                                                                                                                                                                    |        |        |
| Dimension (LxWxH)(mm)     |       | 66x 32x 42.5                                                                                                                                                                                                                                                                           | 79x 54x 33                                                                                                                                                         |        |        |

### Wall-mounted — 6W

| Order No.    | Output        | Tol. | R&N   | Effi. | Order No.                                  | Output       | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|--------------------------------------------|--------------|------|-------|-------|
| GSM06□05-P1J | 5V, 0~1.20A   | ±5%  | 50mV  | 68%   | GSM06□15-P1J                               | 15V, 0~0.40A | ±5%  | 120mV | 79%   |
| GSM06□06-P1J | 6V, 0~1.00A   | ±5%  | 50mV  | 74%   | GSM06□18-P1J                               | 18V, 0~0.33A | ±5%  | 150mV | 80%   |
| GSM06□07-P1J | 7.5V, 0~0.80A | ±5%  | 80mV  | 74%   | GSM06□24-P1J                               | 24V, 0~0.25A | ±4%  | 180mV | 82%   |
| GSM06□09-P1J | 9V, 0~0.66A   | ±5%  | 80mV  | 76%   | □ = U / E ; U: American 2P, E: European 2P |              |      |       |       |
| GSM06□12-P1J | 12V, 0~0.50A  | ±5%  | 100mV | 77%   |                                            |              |      |       |       |

### Desktop / Wall-mounted — 18W

| Order No.    | Output        | Tol. | R&N   | Effi. | Order No.                                                       | Output        | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|-----------------------------------------------------------------|---------------|------|-------|-------|
| GSM18□05-P1J | 5V, 0~3.00A   | ±5%  | 60mV  | 80%   | GSM18□18-P1J                                                    | 18V, 0~1.00A  | ±3%  | 150mV | 86%   |
| GSM18□07-P1J | 7.5V, 0~2.00A | ±5%  | 80mV  | 83%   | GSM18□24-P1J                                                    | 24V, 0~0.75A  | ±2%  | 180mV | 87%   |
| GSM18□09-P1J | 9V, 0~2.00A   | ±5%  | 80mV  | 84%   | GSM18□48-P1J                                                    | 48V, 0~0.375A | ±2%  | 240mV | 88%   |
| GSM18□12-P1J | 12V, 0~1.50A  | ±3%  | 120mV | 85%   | □ = B / U / E ;<br>B: IEC320-C8, U: American 2P, E: European 2P |               |      |       |       |
| GSM18□15-P1J | 15V, 0~1.20A  | ±3%  | 120mV | 85.5% |                                                                 |               |      |       |       |

### Desktop / Wall-mounted — 25W

| Order No.    | Output        | Tol. | R&N   | Effi. | Order No.                                                       | Output       | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|-----------------------------------------------------------------|--------------|------|-------|-------|
| GSM25□05-P1J | 5V, 0~4.00A   | ±6%  | 60mV  | 80%   | GSM25□18-P1J                                                    | 18V, 0~1.38A | ±3%  | 150mV | 86%   |
| GSM25□07-P1J | 7.5V, 0~2.93A | ±5%  | 80mV  | 83%   | GSM25□24-P1J                                                    | 24V, 0~1.04A | ±2%  | 180mV | 87%   |
| GSM25□09-P1J | 9V, 0~2.77A   | ±5%  | 80mV  | 84%   | GSM25□48-P1J                                                    | 48V, 0~0.52A | ±2%  | 240mV | 88%   |
| GSM25□12-P1J | 12V, 0~2.08A  | ±3%  | 120mV | 86%   | □ = B / U / E ;<br>B: IEC320-C8, U: American 2P, E: European 2P |              |      |       |       |
| GSM25□15-P1J | 15V, 0~1.66A  | ±3%  | 120mV | 86%   |                                                                 |              |      |       |       |

### Desktop / Wall-mounted — 36W

| Order No.    | Output        | Tol. | R&N   | Effi. | Order No.                                                       | Output       | Tol. | R&N   | Effi. |
|--------------|---------------|------|-------|-------|-----------------------------------------------------------------|--------------|------|-------|-------|
| GSM36□05-P1J | 5V, 0~4.50A   | ±6%  | 80mV  | 80%   | GSM36□18-P1J                                                    | 18V, 0~2.00A | ±3%  | 150mV | 87%   |
| GSM36□07-P1J | 7.5V, 0~4.32A | ±5%  | 80mV  | 83%   | GSM36□24-P1J                                                    | 24V, 0~1.50A | ±2%  | 180mV | 87%   |
| GSM36□09-P1J | 9V, 0~4.00A   | ±5%  | 80mV  | 84%   | GSM36□48-P1J                                                    | 48V, 0~0.75A | ±2%  | 240mV | 88%   |
| GSM36□12-P1J | 12V, 0~3.00A  | ±3%  | 120mV | 86%   | □ = B / U / E ;<br>B: IEC320-C8, U: American 2P, E: European 2P |              |      |       |       |
| GSM36□15-P1J | 15V, 0~2.40A  | ±3%  | 120mV | 87%   |                                                                 |              |      |       |       |



GSM40A/60A



GSM40B/60B

### Features

- Universal AC input / Full range
- **Medical safety approved(2xMOPP)**
- Suitable for BF application with appropriate system consideration (B-Type only)
- Extremely low leakage current
- No load power consumption <0.1W
- **Energy efficiency Level VI** (5~9V for Level V)
- Comply with EISA 2007/DoE, NRCAN, AU/NZ MEPS, EU ErP and meet CoC Version 5
- High efficiency up to 91.5%
- A-Type: Class I(with earth Pin)  
B-Type: Class II(without earth Pin)
- Protections: Short circuit / Overload / Over voltage / Over temp.(GSM60 A/B)
- Fully enclosed plastic case
- LED indicator for power on
- Optional lock type DC plug
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Order No.                                               |       | GSM40A                                                                                                                                                                             | GSM40B | GSM60A | GSM60B |
|---------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|
| AC input voltage range                                  |       | 80~264VAC; 113~370VDC                                                                                                                                                              |        |        |        |
| Leakage current                                         |       | A-Type: <100μA, B-Type: <50μA                                                                                                                                                      |        |        |        |
| AC inrush current (max.)                                |       | Cold start, 60A at 230VAC                                                                                                                                                          |        |        |        |
| Overload protection                                     | Range | 105%~160% rated output power                                                                                                                                                       |        |        |        |
|                                                         | Type  | Hiccup mode, auto-recovery                                                                                                                                                         |        |        |        |
| Over voltage protection                                 | Range | 105%~135% rated output voltage                                                                                                                                                     |        |        |        |
|                                                         | Type  | Shut down o/p voltage, re-power on to recover                                                                                                                                      |        |        |        |
| Setup, rise, hold up time                               |       | 1000ms, 30ms, 50ms                                                                                                                                                                 |        |        |        |
| Withstand voltage                                       |       | A-Type: I/P-O/P: 4kVAC, I/P-FG: 2kVAC, O/P-FG: Short<br>B-Type: I/P-O/P: 4kVAC                                                                                                     |        |        |        |
| Working temperature                                     |       | -30~+70°C (refer to output derating curve)                                                                                                                                         |        |        |        |
| Safety standards                                        |       | A-Type: ANSI/AAMI ES60601-1, CAN/CSA-C22 / TUV EN60601-1 approved<br>B-Type: ANSI/AAMI ES60601-1, CAN/CSA-C22 / <b>ES60601-1-11</b> , TUV EN60601-1 / <b>EN60601-1-11</b> approved |        |        |        |
| EMC standards                                           |       | EN55011 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN60601-1-2 medical level, FCC Part 15 class B                                                                |        |        |        |
| Length of output cable                                  |       | 100cm of UL2464, 16AWG for GSM40 5~7.5V and GSM60 5~15V<br>100cm of UL1185, 16AWG for GSM40 9~12V<br>150cm of UL1185, 16AWG for GSM40 15~48V and GSM60 18~48V                      |        |        |        |
| Standard DC plug<br>(refer to page 62 for DC plug list) |       | P1J: 2.1øx5.5øx11mm/c+, tuning fork type                                                                                                                                           |        |        |        |
| Dimension (LxWxH)(mm)                                   |       | 125x 50x 31.5                                                                                                                                                                      |        |        |        |

### Desktop (IEC 320-C14 / Class I) — 40W

| Order No.    | Output          | Tol.  | R&N   | Effi. |
|--------------|-----------------|-------|-------|-------|
| GSM40A05-P1J | 5V, 0.1~5A      | ±5%   | 80mV  | 81.0% |
| GSM40A07-P1J | 7.5V, 0.1~5.34A | ±5%   | 80mV  | 85.5% |
| GSM40A09-P1J | 9V, 0.1~4.45A   | ±5%   | 100mV | 86.0% |
| GSM40A12-P1J | 12V, 0.1~3.34A  | ±3%   | 100mV | 88.0% |
| GSM40A15-P1J | 15V, 0.1~2.67A  | ±3%   | 100mV | 88.5% |
| GSM40A18-P1J | 18V, 0.1~2.22A  | ±3%   | 120mV | 89.5% |
| GSM40A24-P1J | 24V, 0.1~1.67A  | ±2.5% | 150mV | 90.0% |
| GSM40A48-P1J | 48V, 0.1~0.84A  | ±2.5% | 150mV | 91.0% |

### Desktop (IEC 320-C8 / Class II) — 40W

| Order No.    | Output          | Tol.  | R&N   | Effi. |
|--------------|-----------------|-------|-------|-------|
| GSM40B05-P1J | 5V, 0.1~5A      | ±5%   | 80mV  | 81.0% |
| GSM40B07-P1J | 7.5V, 0.1~5.34A | ±5%   | 80mV  | 85.5% |
| GSM40B09-P1J | 9V, 0.1~4.45A   | ±5%   | 100mV | 86.0% |
| GSM40B12-P1J | 12V, 0.1~3.34A  | ±3%   | 100mV | 88.0% |
| GSM40B15-P1J | 15V, 0.1~2.67A  | ±3%   | 100mV | 88.5% |
| GSM40B18-P1J | 18V, 0.1~2.22A  | ±3%   | 120mV | 89.0% |
| GSM40B24-P1J | 24V, 0.1~1.67A  | ±2.5% | 150mV | 90.0% |
| GSM40B48-P1J | 48V, 0.1~0.84A  | ±2.5% | 150mV | 91.0% |

### Desktop (IEC 320-C14 / Class I) — 60W

| Order No.    | Output         | Tol.  | R&N   | Effi. |
|--------------|----------------|-------|-------|-------|
| GSM60A05-P1J | 5V, 0.1~6A     | ±5%   | 80mV  | 81.5% |
| GSM60A07-P1J | 7.5V, 0.1~6A   | ±5%   | 80mV  | 86.0% |
| GSM60A09-P1J | 9V, 0.1~6A     | ±5%   | 100mV | 87.5% |
| GSM60A12-P1J | 12V, 0.1~5A    | ±3%   | 100mV | 88.0% |
| GSM60A15-P1J | 15V, 0.1~4A    | ±3%   | 100mV | 88.5% |
| GSM60A18-P1J | 18V, 0.1~3.33A | ±3%   | 120mV | 89.0% |
| GSM60A24-P1J | 24V, 0.1~2.50A | ±3%   | 150mV | 90.5% |
| GSM60A48-P1J | 48V, 0.1~1.25A | ±2.5% | 200mV | 91.5% |

### Desktop (IEC 320-C8 / Class II) — 60W

| Order No.    | Output         | Tol.  | R&N   | Effi. |
|--------------|----------------|-------|-------|-------|
| GSM60B05-P1J | 5V, 0.1~6A     | ±5%   | 80mV  | 81.5% |
| GSM60B07-P1J | 7.5V, 0.1~6A   | ±5%   | 80mV  | 86.0% |
| GSM60B09-P1J | 9V, 0.1~6A     | ±5%   | 100mV | 87.5% |
| GSM60B12-P1J | 12V, 0.1~5A    | ±3%   | 100mV | 88.0% |
| GSM60B15-P1J | 15V, 0.1~4A    | ±3%   | 100mV | 88.5% |
| GSM60B18-P1J | 18V, 0.1~3.33A | ±3%   | 120mV | 89.0% |
| GSM60B24-P1J | 24V, 0.1~2.5A  | ±3%   | 150mV | 90.0% |
| GSM60B48-P1J | 48V, 0.1~1.25A | ±2.5% | 200mV | 91.5% |



### Features

- Universal AC input / Full range
- **Medical safety approved (2xMOPP)**
- Suitable for BF application with appropriate system consideration (B-Type only)
- Extremely low leakage current
- No load power consumption <0.15W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE, NRCAN, AU/NZ MEPS, EU ErP and meet CoC Version 5
- Built-in active PFC function
- High efficiency up to 91.5%
- A-Type: Class I (with earth Pin); B-Type: Class II (without earth Pin)
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Fully enclosed plastic case
- LED indicator for power on
- Optional lock type DC plug
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Order No.                                               |       | GSM90A                                                                                                                                                                          | GSM90B             | GSM120A                                                                          | GSM120B |
|---------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------|---------|
| AC input voltage range                                  |       | 80~264VAC; 113~370VDC                                                                                                                                                           |                    |                                                                                  |         |
| Leakage current                                         |       | <100μA                                                                                                                                                                          |                    |                                                                                  |         |
| AC inrush current (max.)                                |       | Cold start, 60A at 230VAC                                                                                                                                                       |                    | Cold start, 70A at 230VAC                                                        |         |
| Overload protection                                     | Range | 110%~150% rated output power                                                                                                                                                    |                    | 105%~160% rated output power                                                     |         |
|                                                         | Type  | Hiccup mode, auto-recovery                                                                                                                                                      |                    |                                                                                  |         |
| Over voltage protection                                 | Range | 105%~135% rated output voltage                                                                                                                                                  |                    |                                                                                  |         |
|                                                         | Type  | Shut down o/p voltage, re-power on to recover                                                                                                                                   |                    |                                                                                  |         |
| Setup, rise, hold up time                               |       | 1000ms, 50ms, 40ms                                                                                                                                                              | 1000ms, 50ms, 30ms | 1500ms, 30ms, 40ms                                                               |         |
| Withstand voltage                                       |       | A-Type: I/P-O/P: 4kVAC, I/P-FG: 2kVAC, O/P-FG: Short<br>B-Type: I/P-O/P: 4kVAC                                                                                                  |                    | A-Type: I/P-O/P: 4kVAC, I/P-FG: 2kVAC, O/P-FG:0.5kVAC,<br>B-Type: I/P-O/P: 4kVAC |         |
| Working temperature                                     |       | -30~+70°C (refer to output derating curve)                                                                                                                                      |                    |                                                                                  |         |
| Safety standards                                        |       | A-Type: ANSI/AAMI ES60601-1, CAN/CSA-C22, TUV EN60601-1 approved<br>B-Type: ANSI/AAMI ES60601-1, CAN/CSA-C22, <b>ES60601-1-11</b> , TUV EN60601-1, <b>EN60601-1-11</b> approved |                    |                                                                                  |         |
| EMC standards                                           |       | EN55011 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN60601-1-2 medical level, FCC Part 15 class B                                                             |                    |                                                                                  |         |
| Length of output cable                                  |       | 100cm of UL1185, 14AWG for 12~15V;<br>120cm of UL1185, 16AWG for 19~48V                                                                                                         |                    | 100cm of UL2464, 18AWGx4C for 12V;<br>120cm of UL2464, 18AWGx4C for 15~48V       |         |
| Standard DC plug<br>(refer to page 62 for DC plug list) |       | P1M: 2.5øx5.5øx11mm/c+, tuning fork type                                                                                                                                        |                    | R7B: Power DIN 4P with lock type                                                 |         |
| Dimension (LxWxH)(mm)                                   |       | 145x 60x 32                                                                                                                                                                     |                    | 167x 67x 35                                                                      |         |

### Desktop (IEC 320-C14 / Class I) — 90W

NEW

| Order No.    | Output       | Tol.  | R&N   | Effi. |
|--------------|--------------|-------|-------|-------|
| GSM90A12-P1M | 12V, 0~6.67A | ±5%   | 120mV | 88.0% |
| GSM90A15-P1M | 15V, 0~6.00A | ±5%   | 120mV | 89.0% |
| GSM90A19-P1M | 19V, 0~4.74A | ±4%   | 120mV | 89.0% |
| GSM90A24-P1M | 24V, 0~3.75A | ±3%   | 180mV | 90.0% |
| GSM90A48-P1M | 48V, 0~1.87A | ±2.5% | 200mV | 91.0% |

### Desktop (IEC 320-C8 / Class II) — 90W

| Order No.    | Output       | Tol.  | R&N   | Effi. |
|--------------|--------------|-------|-------|-------|
| GSM90B12-P1M | 12V, 0~6.67A | ±5%   | 120mV | 88.0% |
| GSM90B15-P1M | 15V, 0~6.00A | ±5%   | 120mV | 89.0% |
| GSM90B19-P1M | 19V, 0~4.74A | ±4%   | 120mV | 89.0% |
| GSM90B24-P1M | 24V, 0~3.75A | ±3%   | 180mV | 90.0% |
| GSM90B48-P1M | 48V, 0~1.87A | ±2.5% | 200mV | 91.0% |

### Desktop (IEC 320-C14 / Class I) — 120W

NEW

| Order No.     | Output       | Tol.  | R&N   | Effi. |
|---------------|--------------|-------|-------|-------|
| GSM120A12-R7B | 12V, 0~8.50A | ±5%   | 100mV | 88.0% |
| GSM120A15-R7B | 15V, 0~7.00A | ±5%   | 120mV | 89.0% |
| GSM120A20-R7B | 20V, 0~6.00A | ±4%   | 180mV | 89.0% |
| GSM120A24-R7B | 24V, 0~5.00A | ±3%   | 180mV | 90.0% |
| GSM120A48-R7B | 48V, 0~2.50A | ±2.5% | 200mV | 91.5% |

### Desktop (IEC 320-C8 / Class II) — 120W

| Order No.     | Output       | Tol.  | R&N   | Effi. |
|---------------|--------------|-------|-------|-------|
| GSM120B12-R7B | 12V, 0~8.50A | ±5%   | 100mV | 88.0% |
| GSM120B15-R7B | 15V, 0~7.00A | ±5%   | 120mV | 89.0% |
| GSM120B20-R7B | 20V, 0~6.00A | ±4%   | 150mV | 89.0% |
| GSM120B24-R7B | 24V, 0~5.00A | ±3%   | 180mV | 90.0% |
| GSM120B48-R7B | 48V, 0~2.50A | ±2.5% | 200mV | 91.5% |



### Features

- Universal AC input / Full range
- **Medical safety approved (2xMOPP)**
- Suitable for BF application with appropriate system consideration (B-Type only)
- Extremely low leakage current
- No load power consumption < 0.15W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE, NRCAN, AU/NZ MEPS, EU ErP and meet CoC Version 5
- Built-in active PFC function
- High efficiency up to 94.5%
- **Fanless design, high operating temperature up to +70°C**
- A-Type: Class I (with earth Pin); B-Type: Class II (without earth Pin)
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Fully enclosed plastic case
- LED indicator for power on
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Order No.                                               |       | GSM160A                                                                                                                                                                         | GSM160B | GSM220A                      | GSM220B |
|---------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------------------------------|---------|
| AC input voltage range                                  |       | 80~264VAC; 113~370VDC                                                                                                                                                           |         |                              |         |
| Leakage current                                         |       | <90μA                                                                                                                                                                           |         | <100μA                       |         |
| AC inrush current (max.)                                |       | Cold start, 110A at 230VAC                                                                                                                                                      |         |                              |         |
| Overload protection                                     | Range | 105%~150% rated output power                                                                                                                                                    |         | 105%~135% rated output power |         |
|                                                         | Type  | Hiccup mode, auto-recovery                                                                                                                                                      |         |                              |         |
| Over voltage protection                                 | Range | 105%~135% rated output voltage                                                                                                                                                  |         |                              |         |
|                                                         | Type  | Shut down o/p voltage, re-power on to recover                                                                                                                                   |         |                              |         |
| Setup, rise, hold up time                               |       | 2000ms, 50ms, 24ms                                                                                                                                                              |         |                              |         |
| Withstand voltage                                       |       | A-Type: I/P-O/P: 4kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC; B-Type: I/P-O/P: 4kVAC                                                                                                  |         |                              |         |
| Working temperature                                     |       | -30~+70°C (refer to output derating curve)                                                                                                                                      |         |                              |         |
| Safety standards                                        |       | A-Type: ANSI/AAMI ES60601-1, CAN/CSA-C22, TUV EN60601-1 approved<br>B-Type: ANSI/AAMI ES60601-1, CAN/CSA-C22, <b>ES60601-1-11</b> , TUV EN60601-1, <b>EN60601-1-11</b> approved |         |                              |         |
| EMC standards                                           |       | EN55011 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN60601-1-2 medical level, FCC Part 15 class B                                                             |         |                              |         |
| Length of output cable                                  |       | 100cm of UL2464, 16AWGx4C for 12V;<br>120cm of UL2464, 18AWGx4C for 15~48V                                                                                                      |         | 100cm of UL2464, 16AWGx4C    |         |
| Standard DC plug<br>(refer to page 62 for DC plug list) |       | R7B: power DIN 4P with lock type                                                                                                                                                |         |                              |         |
| Dimension (LxWxH)(mm)                                   |       | 175x 72x 35                                                                                                                                                                     |         | 210x 85x 46                  |         |

### Desktop (IEC 320-C14 / Class I) — 160W

NEW

| Order No.     | Output       | Tol. | R&N   | Effi. |
|---------------|--------------|------|-------|-------|
| GSM160A12-R7B | 12V, 0~11.5A | ±5%  | 80mV  | 90.0% |
| GSM160A15-R7B | 15V, 0~9.6A  | ±5%  | 100mV | 91.0% |
| GSM160A20-R7B | 20V, 0~8.0A  | ±4%  | 120mV | 92.5% |
| GSM160A24-R7B | 24V, 0~6.67A | ±3%  | 180mV | 93.0% |
| GSM160A48-R7B | 48V, 0~3.34A | ±3%  | 200mV | 94.0% |

### Desktop (IEC 320-C8 / Class II) — 160W

| Order No.     | Output       | Tol. | R&N   | Effi. |
|---------------|--------------|------|-------|-------|
| GSM160B12-R7B | 12V, 0~11.5A | ±5%  | 80mV  | 90.0% |
| GSM160B15-R7B | 15V, 0~9.6A  | ±5%  | 100mV | 91.0% |
| GSM160B20-R7B | 20V, 0~8.0A  | ±4%  | 120mV | 92.5% |
| GSM160B24-R7B | 24V, 0~6.67A | ±3%  | 180mV | 93.5% |
| GSM160B48-R7B | 48V, 0~3.34A | ±3%  | 200mV | 94.0% |

### Desktop (IEC 320-C14 / Class I) — 220W

NEW

| Order No.     | Output       | Tol. | R&N   | Effi. |
|---------------|--------------|------|-------|-------|
| GSM220A12-R7B | 12V, 0~15.0A | ±5%  | 80mV  | 90.0% |
| GSM220A15-R7B | 15V, 0~13.4A | ±5%  | 80mV  | 90.0% |
| GSM220A20-R7B | 20V, 0~11.0A | ±4%  | 120mV | 92.0% |
| GSM220A24-R7B | 24V, 0~9.20A | ±3%  | 120mV | 93.5% |
| GSM220A48-R7B | 48V, 0~4.60A | ±2%  | 150mV | 94.5% |

### Desktop (IEC 320-C8 / Class II) — 220W

| Order No.     | Output       | Tol. | R&N   | Effi. |
|---------------|--------------|------|-------|-------|
| GSM220B12-R7B | 12V, 0~15.0A | ±5%  | 80mV  | 90.0% |
| GSM220B15-R7B | 15V, 0~13.4A | ±5%  | 80mV  | 90.0% |
| GSM220B20-R7B | 20V, 0~11.0A | ±4%  | 120mV | 92.0% |
| GSM220B24-R7B | 24V, 0~9.20A | ±3%  | 120mV | 93.5% |
| GSM220B48-R7B | 48V, 0~4.60A | ±2%  | 180mV | 94.5% |



### Features

- Interchangeable AC plugs (plug kit sold separately)
- Medical safety approved (2xMOPP)
- Suitable for BF application with appropriate system consideration
- Universal AC input / Full range
- No load power consumption <0.075W (<0.1W for GEM12I18V/48V and GEM30I/40I)
- Energy efficiency Level VI
- Comply with EISA 2007/DoE and EU ErP
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage
- Extremely low leakage current
- Fully enclosed plastic case
- Optional lock type DC plug
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Order No.                 | GEM12I                                                                                                     | GEM18I                                                                  | GEM30I                                                                                          | GEM40I                                                                  |
|---------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| AC input voltage range    | 80~264VAC; 113~370VDC                                                                                      |                                                                         |                                                                                                 |                                                                         |
| Leakage current           | <100μA                                                                                                     |                                                                         |                                                                                                 |                                                                         |
| AC inrush current (max.)  | Cold start, 60A at 230VAC                                                                                  |                                                                         | Cold start, 65A at 230VAC                                                                       |                                                                         |
| Overload protection       | 110%~200%                                                                                                  | 105%~160%                                                               | 120%~200%                                                                                       | 105%~160%                                                               |
| Over voltage protection   | 110%~140% rated output voltage, clamp by zener diode                                                       |                                                                         |                                                                                                 |                                                                         |
| Setup, rise, hold up time | 500ms, 30ms, 16ms                                                                                          |                                                                         | 500ms, 100ms, 16ms                                                                              | 500ms, 30ms, 16ms                                                       |
| Withstand voltage         | I/P-O/P: 5656VDC, 1 minute                                                                                 |                                                                         |                                                                                                 |                                                                         |
| Working temperature       | -20~+70℃                                                                                                   | -20~+50℃                                                                | -25~+70℃ (refer to output derating curve)                                                       |                                                                         |
| Safety standards          | ANSI/AAMI ES60601-1/60601-1-11, CAN/CSA-C22, TUV EN60601-1/60601-1-11 approved (GEM18I TUV&UL60601-1 only) |                                                                         |                                                                                                 |                                                                         |
| EMC standards             | EN55011 Class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, FCC part18 class B                               |                                                                         |                                                                                                 |                                                                         |
| Length of output cable    | 5~7.5V: 100cm of 18AWG,<br>9V: 120cm of 22AWG,<br>12~48V: 150cm of 24AWG                                   | 5~9V: 100cm of 16AWG,<br>12V: 100cm of 18AWG,<br>15~48V: 150cm of 22AWG | 5~9V: 100cm of 16AWG,<br>12V: 100cm of 18AWG,<br>15~24V: 150cm of 20AWG,<br>48V: 180cm of 24AWG | 5V: 100cm of 14AWG,<br>9~15V: 100cm of 16AWG,<br>18~48V: 150cm of 20AWG |
| Standard DC plug          | P1J: 2.1øx5.5øx11mm/C+, turning fork type (refer to page 62 for DC plug list)                              |                                                                         |                                                                                                 |                                                                         |

### Wall-mounted(Interchangeable Type)—12W

NEW

| Order No.<br>(main body) | Output       | Tol. | R&N   | Effi. |
|--------------------------|--------------|------|-------|-------|
| GEM12I05-USB             | 5V, 0~2.4A   | ±5%  | 60mV  | 80%   |
| GEM12I05-P1J             | 5V, 0~2.4A   | ±5%  | 60mV  | 80%   |
| GEM12I07-P1J             | 7.5V, 0~1.6A | ±5%  | 60mV  | 82%   |
| GEM12I09-P1J             | 9V, 0~1.33A  | ±4%  | 60mV  | 82%   |
| GEM12I12-P1J             | 12V, 0~1A    | ±3%  | 80mV  | 82.5% |
| GEM12I15-P1J             | 15V, 0~0.8A  | ±3%  | 80mV  | 84%   |
| GEM12I18-P1J             | 18V, 0~0.66A | ±3%  | 80mV  | 84%   |
| GEM12I24-P1J             | 24V, 0~0.5A  | ±2%  | 80mV  | 85%   |
| GEM12I48-P1J             | 48V, 0~0.25A | ±2%  | 100mV | 87%   |

### Wall-mounted(Interchangeable Type)—30W

NEW

| Order No.<br>(main body) | Output        | Tol. | R&N   | Effi. |
|--------------------------|---------------|------|-------|-------|
| GEM30I05-P1J             | 5V, 0~4.00A   | ±5%  | 100mV | 82%   |
| GEM30I07-P1J             | 7.5V, 0~3.33A | ±5%  | 100mV | 86%   |
| GEM30I09-P1J             | 9V, 0~3.33A   | ±5%  | 100mV | 87%   |
| GEM30I12-P1J             | 12V, 0~2.50A  | ±3%  | 100mV | 87%   |
| GEM30I15-P1J             | 15V, 0~2.00A  | ±3%  | 100mV | 87%   |
| GEM30I18-P1J             | 18V, 0~1.66A  | ±2%  | 100mV | 88%   |
| GEM30I24-P1J             | 24V, 0~1.25A  | ±2%  | 100mV | 88.5% |
| GEM30I48-P1J             | 48V, 0~0.62A  | ±2%  | 100mV | 90%   |

### Wall-mounted(Interchangeable Type)—18W

NEW

| Order No.<br>(main body) | Output       | Tol. | R&N  | Effi. |
|--------------------------|--------------|------|------|-------|
| GEM18I05-P1J             | 5V, 0~3.00A  | ±5%  | 60mV | 80%   |
| GEM18I09-P1J             | 9V, 0~2.00A  | ±5%  | 60mV | 84%   |
| GEM18I12-P1J             | 12V, 0~1.50A | ±3%  | 80mV | 84%   |
| GEM18I15-P1J             | 15V, 0~1.20A | ±3%  | 80mV | 84%   |
| GEM18I18-P1J             | 18V, 0~1.00A | ±2%  | 80mV | 84%   |
| GEM18I24-P1J             | 24V, 0~0.75A | ±2%  | 80mV | 85%   |
| GEM18I48-P1J             | 48V, 0~0.38A | ±2%  | 80mV | 87%   |

### Wall-mounted(Interchangeable Type)—40W

NEW

| Order No.<br>(main body) | Output       | Tol. | R&N   | Effi. |
|--------------------------|--------------|------|-------|-------|
| GEM40I05-P1J             | 5V, 0~5.00A  | ±5%  | 100mV | 84%   |
| GEM40I09-P1J             | 9V, 0~4.00A  | ±5%  | 100mV | 87%   |
| GEM40I12-P1J             | 12V, 0~3.33A | ±3%  | 100mV | 88%   |
| GEM40I15-P1J             | 15V, 0~2.66A | ±3%  | 120mV | 88%   |
| GEM40I18-P1J             | 18V, 0~2.22A | ±2%  | 120mV | 88%   |
| GEM40I24-P1J             | 24V, 0~1.67A | ±2%  | 120mV | 89%   |
| GEM40I48-P1J             | 48V, 0~0.80A | ±2%  | 200mV | 90.5% |

### Interchangeable AC Plug Specifically for GEM12/18/30/40I

| AC Plug Type and Order No. |             |               |             |                 |
|----------------------------|-------------|---------------|-------------|-----------------|
| AC Plug-AU2                | AC Plug-UK2 | AC Plug-EU2   | AC Plug-US2 | AC Plug-MIX2    |
|                            |             |               |             |                 |
| Australian Type            | U.K. Type   | European Type | U.S. Type   | Mixed Four Type |

► The main body unit and AC plug should be ordered separately. The main body needs to be used along with any one of the AC plug.

# Moistureproof Adaptor

60~120W Single Output



## Features

- **IP67 design for power body**
- Universal AC input / Full range (except for OWA-120E)  
AC input 180~264VAC only (OWA-120E)
- No load power consumption <0.15W
- **Energy efficiency Level VI**
- E-Type: meet CoC Version 5 (OWA-60E/90E);  
comply with EU ErP
- U-Type: Comply with EISA 2007/DoE and NRCAN
- Built-in active PFC function (OWA-90/120)
- Class II power (without earth pin)
- High efficiency up to 91%
- Fanless design, cooling by free air convection
- Fully enclosed plastic case
- Protections: Short circuit / Over current /  
Over voltage / Over temperature
- Suitable for household appliances or the electronic  
applications at highly dusty or damp environment
- **5 years warranty**

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                   | OWA-60 □                                                                                                     | OWA-90 □                                                                                                   | OWA-120 □                                                                                                                                |
|-----------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| AC input voltage range      | 90~264VAC; 127~370VDC (180~264VAC ; 254~370VDC for OWA-120E)                                                 |                                                                                                            |                                                                                                                                          |
| AC inrush current (max.)    | Cold start, 65A at 230VAC                                                                                    |                                                                                                            |                                                                                                                                          |
| Overload protection         | E-Type: 105~115% hiccup mode, auto-recovery; U-Type: 95~108% constant current limiting, auto-recovery        |                                                                                                            |                                                                                                                                          |
| Over voltage protection     | 110%~140% rated output voltage, re-power on to recover                                                       |                                                                                                            |                                                                                                                                          |
| Over temperature protection | Shut down output voltage, re-power on to recover                                                             |                                                                                                            |                                                                                                                                          |
| Withstand voltage           | I/P-O/P: 3.75KVAC                                                                                            |                                                                                                            |                                                                                                                                          |
| Working temperature         | -35~+70°C                                                                                                    | -40~+70°C (refer to output derating curve)                                                                 |                                                                                                                                          |
| Safety standards            | E-Type: DEKRA EN60335-1(except for 48~54V), EN61558-1, EN61558-2-16 approved; U-Type: UL8750 listed approved | E-Type: TUV EN60335-1(except for 42~54V), EN61558-1, EN61558-2-16 approved; U-Type: UL8750 listed approved | E-Type: DEKRA EN60335-1(except for 48~54V), EN61558-1, EN61558-2-16 approved; U-Type: UL8750 listed approved                             |
| EMC standards               | E-Type: EN55032 class B, EN55014, EN61000-3-2,-3; U-Type: FCC Part 15                                        |                                                                                                            |                                                                                                                                          |
| Standard plug               | Input                                                                                                        | E-Type: CEE 7/7 EU plug; U-Type: NEMA 1-15P plug                                                           |                                                                                                                                          |
|                             | Output                                                                                                       | 2.1x5.5x11mm / C+, tuning fork type                                                                        | E-Type: XLR 4P, male type;<br>U-Type: P1M, 2.5x5.5x11mm / C+, tuning fork type (OWA-90U 20~54V only) or R7B, Power DIN 4P with lock type |
| Length of cable             | Input                                                                                                        | E-Type: 150cm of H05RN-F 1.0mm <sup>2</sup> x2C; U-Type: 150cm of SVT 18AWGx2C                             |                                                                                                                                          |
|                             | Output                                                                                                       | E-Type: 30cm of H05RN-F 1.0mm <sup>2</sup> x2C<br>U-Type: 30cm of UL1185 16AWG x2C                         | E-Type: 30cm of H07RN-F 1.5mm <sup>2</sup> x2C<br>U-Type: 30cm of UL2464 18AWG x4C                                                       |
| Dimension (LxWxH)(mm)       | 130x 53x 35                                                                                                  | 171x 63x 37.5                                                                                              | 191x 63x 37.5                                                                                                                            |

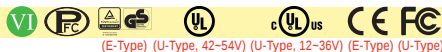
## OWA-60 Series



| Model No.    | Output       | Tol.  | R&N   | Effi. |
|--------------|--------------|-------|-------|-------|
| OWA-60 □ -12 | 12V, 0~5A    | ±4.0% | 150mV | 88%   |
| OWA-60 □ -15 | 15V, 0~4A    | ±4.0% | 150mV | 89%   |
| OWA-60 □ -20 | 20V, 0~3A    | ±4.0% | 150mV | 89%   |
| OWA-60 □ -24 | 24V, 0~2.5A  | ±3.0% | 150mV | 90%   |
| OWA-60 □ -30 | 30V, 0~2A    | ±3.0% | 200mV | 90%   |
| OWA-60 □ -36 | 36V, 0~1.67A | ±2.0% | 200mV | 90%   |
| OWA-60 □ -42 | 42V, 0~1.5A  | ±1.0% | 250mV | 90%   |
| OWA-60 □ -48 | 48V, 0~1.25A | ±1.0% | 250mV | 91%   |
| OWA-60 □ -54 | 54V, 0~1.12A | ±1.0% | 350mV | 91%   |

□ = E / U ; E: European 2P, U: American 2P

## OWA-90 Series



| Model No.      | Output       | Tol.  | R&N   | Effi. |
|----------------|--------------|-------|-------|-------|
| OWA-90 □ -12   | 12V, 0~7.5A  | ±4.0% | 150mV | 89%   |
| OWA-90 □ -15   | 15V, 0~6A    | ±4.0% | 150mV | 90%   |
| OWA-90 □ -20-▲ | 20V, 0~4.5A  | ±4.0% | 150mV | 90%   |
| OWA-90 □ -24-▲ | 24V, 0~3.75A | ±3.0% | 150mV | 90%   |

|                |              |       |       |     |
|----------------|--------------|-------|-------|-----|
| OWA-90 □ -30-▲ | 30V, 0~3A    | ±3.0% | 200mV | 90% |
| OWA-90 □ -36-▲ | 36V, 0~2.5A  | ±2.0% | 200mV | 91% |
| OWA-90 □ -42-▲ | 42V, 0~2.15A | ±1.0% | 250mV | 91% |
| OWA-90 □ -48-▲ | 48V, 0~1.88A | ±1.0% | 250mV | 91% |
| OWA-90 □ -54-▲ | 54V, 0~1.67A | ±1.0% | 350mV | 91% |

□ = E / U ; E: European 2P, U: American 2P ; ▲=Blank(R7B)/P1M

## OWA-120 Series



| Model No.     | Output      | Tol.  | R&N   | Effi. |
|---------------|-------------|-------|-------|-------|
| OWA-120E-12   | 12V, 0~9.6A | ±4.0% | 150mV | 87.5% |
| OWA-120U-12   | 12V, 0~10A  | ±4.0% | 150mV | 87.5% |
| OWA-120 □ -15 | 15V, 0~8A   | ±4.0% | 150mV | 89.0% |
| OWA-120 □ -20 | 20V, 0~6A   | ±4.0% | 150mV | 90.0% |
| OWA-120 □ -24 | 24V, 0~5A   | ±4.0% | 150mV | 90.5% |
| OWA-120 □ -30 | 30V, 0~4A   | ±3.0% | 200mV | 90.0% |
| OWA-120 □ -36 | 36V, 0~3.4A | ±2.0% | 200mV | 90.0% |
| OWA-120 □ -42 | 42V, 0~2.9A | ±1.0% | 250mV | 90.5% |
| OWA-120 □ -48 | 48V, 0~2.5A | ±1.0% | 250mV | 90.5% |
| OWA-120 □ -54 | 54V, 0~2.3A | ±1.0% | 350mV | 90.5% |

□ = E / U ; E: European 2P, U: American 2P

## 30W Green Adaptor with Charging Function

- Universal AC input / Full range
- Class II power (without earth pin)
- **No load power consumption <1W**
- Constant current and voltage (CC, CV mode)
- High reliability
- Suitable for high surge current equipment
- Protections: Short circuit / Overload / Over voltage / Over temp.
- 2 color LED indicator for charging status
- Fully enclosed plastic case
- 2 years warranty



AC input voltage range ..... 90~264VAC; 127~370VDC  
 Overload protection ..... 90%~110% constant current mode and over 300% pulsing mode  
 Over voltage protection ..... 110%~135% rated output voltage  
 Withstand voltage ..... I/P-O/P: 3kVAC, 1minute  
 Working temperature ..... 0~+50°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, CSA 22.2, TUV EN60950-1 approved  
 EMC standards ..... EN55014-1, EN61000-3-2,3, EN61000-4-2,3,4,5,6,11  
 Length of output cable ..... 120cm of UL1185, 16AWG for 4.2~8.4V  
 180cm of UL1185, 18AWG for 14.3~28.6V  
 Standard DC plug ..... P1J: 2.1Øx5.5Øx11mm / C+, tuning fork type

| Order No.   | Output         | R&N   | Effi. |
|-------------|----------------|-------|-------|
| GC30□-0P1J  | 4.2V, 0~4.00A  | 50mV  | 55%   |
| GC30□-1P1J  | 5.6V, 0~3.99A  | 50mV  | 70%   |
| GC30□-11P1J | 7.2V, 0~3.00A  | 80mV  | 74%   |
| GC30□-2P1J  | 8.4V, 0~3.00A  | 80mV  | 76%   |
| GC30□-4P1J  | 14.3V, 0~2.09A | 100mV | 78%   |
| GC30□-5P1J  | 16.8V, 0~1.60A | 100mV | 78%   |
| GC30□-6P1J  | 28.6V, 0~1.04A | 150mV | 80%   |

□ = B / U / E ; B: IEC320-C8, U: American 2P, E: European 2P

## 160W Green Adaptor with Charging Function



- Universal AC input / Full range
- Built-in active PFC function
- **No load power consumption <1W**
- High efficiency up to 94%
- 2 stage charging characteristic
- Cooling by free air convection
- 3 pole AC inlet IEC320-C14
- Class I power (with earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Fully enclosed plastic case
- 2 color LED indicator for charging status
- 2 years warranty

AC input voltage range .... 85~264VAC; 120~370VDC  
 Overload protection ..... 90%~110% constant current, auto-recovery  
 Over voltage protection ..... 105%~135% rated output voltage, re-power on to recover  
 Withstand voltage ..... I/P-O/P: 3kVAC  
 Working temperature ..... -30~+70°C (refer to derating curve)  
 Safety standards ..... UL1012(GC160Axx-AD1 only), EN60950-1 approved  
 EMC standards ..... EN55032 class B, FCC part 15 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Length of output cable ..... 120cm of UL2464, 18AWGx 4C  
 Standard DC plug ..... Power DIN 4P with lock type (R7B)

| Model No.  | Output       | Effi. |
|------------|--------------|-------|
| GC160A12-□ | 13.6V, 10.0A | 89.0% |
| GC160A24-□ | 27.2V, 5.89A | 92.5% |
| GC160A48-□ | 54.4V, 2.95A | 94.0% |

□ = R7B / AD1 ; R7B= 4 pin power din, AD1= Anderson connector

## 218W & 326W Green Adaptor with Charging Function



- Universal AC input / Full range
- Built-in active PFC function
- **No load power consumption <1W**
- High efficiency up to 93.5%
- 2 stage charging characteristic
- Cooling by free air convection
- 3 pole AC inlet IEC320-C14
- Class I power (with earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Fully enclosed plastic case
- 2 color LED indicator for charging status
- 2 years warranty

|           | GC220     | GC330     |
|-----------|-----------|-----------|
| Case (mm) | 210x85x46 | 220x95x46 |
| Connector |           |           |

AC input voltage range ..... 90~264VAC; 127~370VDC  
 Overload protection ..... 90%~110% constant current, auto-recovery  
 Over voltage protection ..... 105%~135% rated output voltage, re-power on to recover  
 Withstand voltage ..... I/P-O/P: 3kVAC  
 Working temperature ..... -30~+60°C (refer to output derating curve)  
 Safety standards ..... GC220: TUV EN60950-1, UL60950-1 approved  
 GC330: TUV EN60950-1, UL60950-1 approved  
 EMC standards ..... EN55032 class B, FCC part 15 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Length of output cable ..... 100cm of UL2464, 16AWGx 4C  
 Standard DC plug ... GC220: Power DIN 4P with lock type (R7B)  
 GC330: 4P/6.35mm pitch, AMP 1-480702-0 (power supply side); AMP 1-480703-0 (customer side)

### GC220 Series

| Model No.  | Output       | Effi. |
|------------|--------------|-------|
| GC220A12-□ | 13.6V, 13.5A | 89.0% |
| GC220A24-□ | 27.2V, 8A    | 92.5% |
| GC220A48-□ | 54.4V, 4A    | 93.0% |

□ = R7B / AD1 ; R7B= 4 pin power din, AD1= Anderson connector

### GC330 Series

| Model No.    | Output    | Effi. |
|--------------|-----------|-------|
| GC330A36-C4P | 40.8V, 8A | 93.5% |
| GC330A48-C4P | 54.4V, 6A | 93.5% |

## 120W Green Adaptor with Charging Function

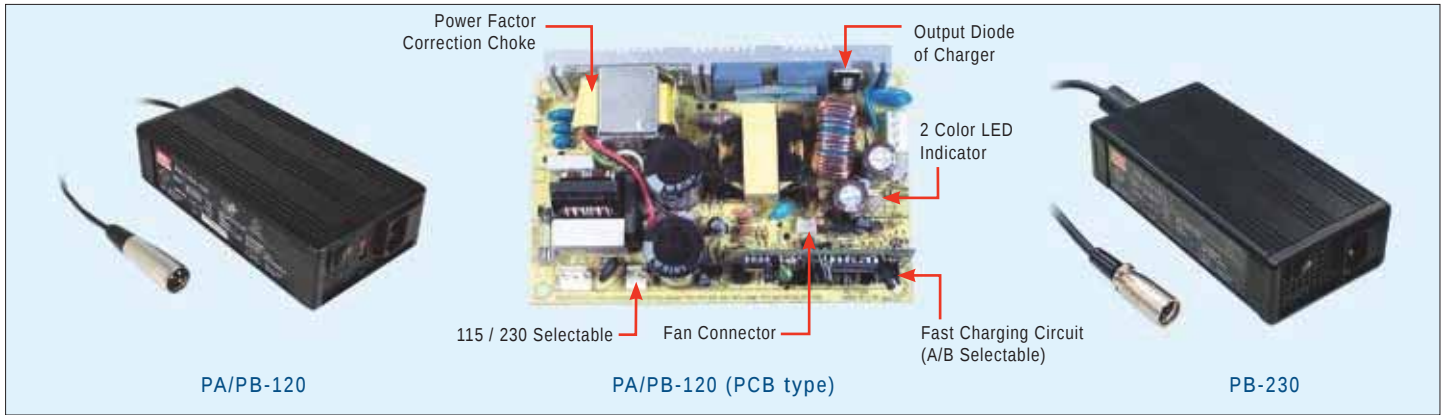


- Universal AC input / Full range
- Built-in active PFC function
- **No load power consumption <0.5W**
- High efficiency up to 91%
- 2 stage charging characteristic
- Cooling by free air convection
- 3 pole AC inlet IEC320-C14
- Class I power (with earth pin)
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Fully enclosed plastic case
- 2 color LED indicator for charging status
- 2 years warranty

AC input voltage range ..... 85~264VAC; 120~370VDC  
 Overload protection ..... 90~110% constant current, auto-recovery  
 Over voltage protection ..... 105%~135% shut down O/P voltage, re-power on to recover  
 Withstand voltage ..... I/P-O/P: 3kVAC  
 Working temperature ..... -30~+70°C (refer to derating curve)  
 Safety standards ..... UL1012 (GC120Axx-AD1 only), EN60950-1, J60950-1 approved  
 EMC standards ..... EN55032 class B, FCC part 15 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Length of output cable ..... 120cm of UL2464, 18AWGx 4C  
 Standard DC plug ..... Power DIN 4P with lock type (R7B)

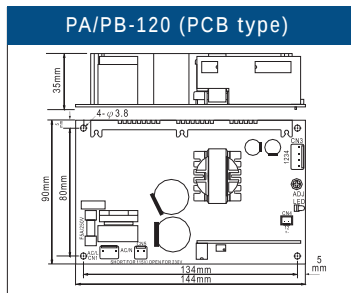
| Model No.  | Output       | Effi. |
|------------|--------------|-------|
| GC120A12-□ | 13.6V, 7.5A  | 86.5% |
| GC120A24-□ | 27.2V, 4.42A | 90.0% |
| GC120A48-□ | 54.4V, 2.21A | 91.0% |

□ = R7B / AD1 ; R7B= 4 pin power din, AD1= Anderson connector



### Features for PA/PB-120

- Stationary charger for lead-acid batteries
- AC input range selectable by switch
- Charging type selectable (optional)
- Passive PFC option
- Protections:
  - Short circuit / Overload / Over voltage / Over temp.
- Built-in ON/OFF power switch
- 3 poles AC inlet with fuse holder
- 2 color LED loading indicator
- Open frame models available (without safety approvals)
- 2 years warranty



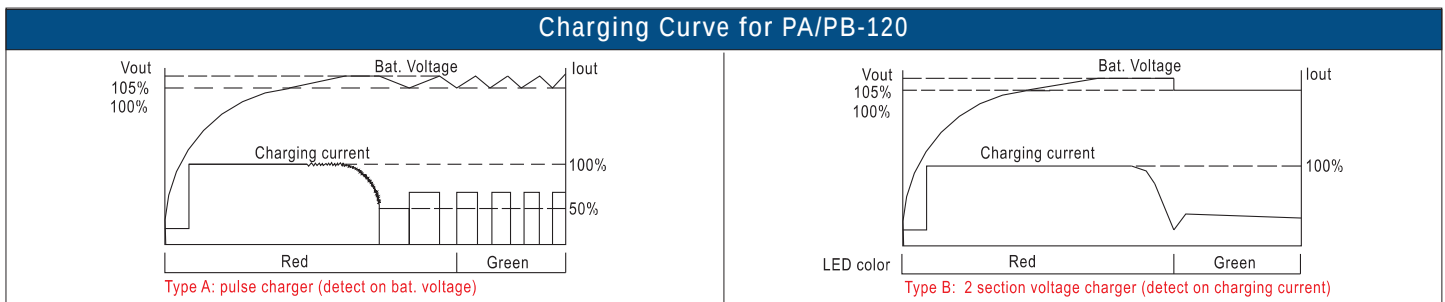
### Features for PB-230

- Stationary charger for lead-acid batteries and Li-ion batteries
- Universal AC input/Full range
- 3 stage charging
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Built-in remote ON/OFF control
- Fan ON/OFF control
- 2 color LED loading indicator
- 2 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                 | PA/B-120                                                                     | PB-230                                                          |
|---------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------|
| AC input voltage range    | 88~132VAC/ 176~264VAC selectable by switch                                   | 90~264VAC; 127~370VDC                                           |
| AC inrush current (max.)  | Cold start, 50A at 230VAC                                                    |                                                                 |
| Overload protection       | 90%~110% constant current limiting ,auto-recovery                            |                                                                 |
| Over voltage protection   | 108%~127% hiccup mode, auto-recovery                                         | 102%~125% shut down o/p voltage, auto-recovery                  |
| Setup, rise, hold up time | 1000ms, 50ms, 16ms at full load and 230VAC                                   | NA                                                              |
| Withstand voltage         | I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC                             |                                                                 |
| Working temperature       | -10~+45°C (refer to output derating curve)                                   | -20~+50°C (refer to output derating curve)                      |
| Safety standards          | UL60950-1, TUV EN60950-1, EN60335-1, EN60335-2-29(except for 55.2V) approved | UL1012(PB-230xx-AD1 only), TUV EN60950-1, PSE J60950-1 approved |
| EMC standards             | EN55032 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3                     | EN55032 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3        |
| Dimension (LxWxH)(mm)     | Case Type: 180x 96x 49; PCB Type: 144x 90x 35                                | 190x 96x 49                                                     |

| Order Information for PA/PB-120                                                                                                                                                               | Order Information for PB-230                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <p>PA - 120 P - xx</p> <p>A: Voltage detector<br/>B: Current detector</p> <p>P: With PFC<br/>N: None PFC</p> <p>P: Open PCB<br/>C: With case</p> <p>13: 13.8V<br/>27: 27.6V<br/>54: 55.2V</p> | <p>PB-230-xx</p> <p>Blank: XLR 4P (standard)<br/>AD1: Anderson connector (optional)</p> |



### PA/B-120 Series



| Model No.   | Output        | Tol.     | R&N   | Effi. |
|-------------|---------------|----------|-------|-------|
| P□-120□-13□ | 13.8V, 0~7.2A | ±3~±8.5% | 150mV | 73%   |
| P□-120□-27□ | 27.6V, 0~4.3A | ±1~±8.0% | 200mV | 79%   |
| P□-120□-54□ | 55.2V, 0~2.2A | ±1~±7.5% | 250mV | 79%   |

### PB-230 Series



| Model No.  | Output       | Effi. |
|------------|--------------|-------|
| PB-230-12□ | 14.4V, 0~16A | 81.5% |
| PB-230-24□ | 28.8V, 0~8A  | 85.5% |
| PB-230-48□ | 57.6V, 0~4A  | 86.0% |

□ = Blank, AD1; Blank = XLR 4P, male type, AD1 = Anderson connector



ESP-120



ESP-240



ENP-120 / 180 / 240 / 360

### ■ Features for ESP Series

- AC input range selectable by switch
- Fanless design, cooling by free air convection (ESP-120)  
Forced air cooling by built-in DC fan (ESP-240)
- Protections:  
Short circuit / Overload / Over voltage / Over temperature
- 3 color LED loading indicator
- 2 years warranty

### ■ Features for ENP Series

- Universal AC input / Full range
- Built-in active PFC function
- No load power consumption <0.15W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE, NRCAN, EU ErP and CoC Version 5 (EISA 2007/DoE, NRCAN, EU ErP for ENP-360)
- 125% peak load capability
- **Fanless design**, cooling by free air convection
- Protections: Short circuit / Overload / Over voltage / Over temp.
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Order No.                | ESP-120                                                          | ESP-240 | ENP-120                                                              | ENP-180                   | ENP-240                   | ENP-360                   |
|--------------------------|------------------------------------------------------------------|---------|----------------------------------------------------------------------|---------------------------|---------------------------|---------------------------|
| AC input voltage range   | 88~132VAC / 176~264VAC selectable by switch                      |         | 90~264VAC; 127 ~ 370VDC                                              |                           |                           |                           |
| AC inrush current (max.) | Cold start, 40A at 230VAC                                        |         | Cold start, 65A at 230VAC                                            | Cold start, 70A at 230VAC | Cold start, 75A at 230VAC | Cold start, 60A at 230VAC |
| DC adjustment range      | 13.5V: 12~15V, 27V: 24~30V, 54V: 48~56V                          |         | 12V: 11.5~15V, 24V: 23.5~30V, 48V: 47.5~58.8V                        |                           |                           |                           |
| Overload protection      | 105%~135% fold back current limiting, auto-recovery              |         | 110~125% constant current limiting, auto-recovery                    |                           |                           |                           |
| Over voltage protection  | 115%~135% constant voltage limiting, auto-recovery               |         | 110~130% shut down and latch off o/p voltage, re-power on to recover |                           |                           |                           |
| Over temp. protection    | Shut down o/p voltage, auto-recovery after temperature goes down |         |                                                                      |                           |                           |                           |
| Withstand voltage        | I/P-O/P: 3kVAC, I/P-FG:1.5kVAC, O/P-FG: 0.5kVAC                  |         | I/P-O/P:3kVAC, I/P-FG:2KVAC, O/P-FG:0.5kVAC                          |                           |                           |                           |
| Working temperature      | -10~+60°C (refer to output derating curve)                       |         | -30~+70°C (refer to output derating curve)                           |                           |                           |                           |
| Safety standards         | CSA 60950-1 approved                                             |         | UL60950-1 approved                                                   |                           |                           |                           |
| EMC standards            | EN55032 class B, EN61000-3-2,-3, EN61000-4-2,3,4                 |         | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11             |                           |                           |                           |
| Dimension (LxWxH)(mm)    | 150x 140x 75                                                     |         | 192x 178x 45.5                                                       |                           |                           |                           |

### ■ ESP-120 Series



| Model No.    | Output      | Tol. | R&N   | Effi. |
|--------------|-------------|------|-------|-------|
| ESP-120-13.5 | 13.5V, 0~8A | ±2%  | 120mV | 81%   |
| ESP-120-27   | 27V, 0~4A   | ±1%  | 150mV | 83%   |
| ESP-120-54   | 54V, 0~2A   | ±1%  | 400mV | 84%   |

### ■ ENP-180 Series



| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| ENP-180-12 | 13.8V, 0~13A  | ±1%  | 150mV | 91%   |
| ENP-180-24 | 27.6V, 0~6.5A | ±1%  | 150mV | 93.5% |
| ENP-180-48 | 55.2V, 0~3.3A | ±1%  | 350mV | 94%   |

### ■ ESP-240 Series



| Model No.    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|
| ESP-240-13.5 | 13.5V, 0~16A | ±2%  | 120mV | 81%   |
| ESP-240-27   | 27V, 0~8A    | ±1%  | 150mV | 84%   |
| ESP-240-54   | 54V, 0~4A    | ±1%  | 400mV | 85%   |

### ■ ENP-240 Series



| Model No.  | Output         | Tol. | R&N   | Effi. |
|------------|----------------|------|-------|-------|
| ENP-240-12 | 13.8V, 0~17.4A | ±1%  | 150mV | 91%   |
| ENP-240-24 | 27.6V, 0~8.7A  | ±1%  | 150mV | 93.5% |
| ENP-240-48 | 55.2V, 0~4.4A  | ±1%  | 350mV | 94%   |

### ■ ENP-120 Series



| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| ENP-120-12 | 13.8V, 0~8.7A | ±1%  | 150mV | 89.5% |
| ENP-120-24 | 27.6V, 0~4.3A | ±1%  | 150mV | 91%   |
| ENP-120-48 | 55.2V, 0~2.2A | ±1%  | 350mV | 91.5% |

### ■ ENP-360 Series



| Model No.  | Output        | Tol. | R&N   | Effi. |
|------------|---------------|------|-------|-------|
| ENP-360-12 | 13.8V, 0~26A  | ±1%  | 150mV | 91%   |
| ENP-360-24 | 27.6V, 0~13A  | ±1%  | 150mV | 93%   |
| ENP-360-48 | 55.2V, 0~6.5A | ±1%  | 350mV | 94%   |



ESC-120



ESC-240



NEW

ENC-120 / 180 / 240 / 360

### ■ Features for ESC Series

- Desktop charger for lead-acid batteries
- AC input range selectable by switch
- Fanless design, cooling by free air convection (ESC-120)  
Forced air cooling by built-in DC fan (ESC-240)
- Protections: Short circuit / Overload / Over voltage / Over temp.
- Battery under voltage / over voltage and reverse polarity protection
- 3 color LED loading indicator
- 2 years warranty

### ■ Features for ENC Series

- Desktop charger for lead-acid batteries and Li-ion batteries
- Universal AC input / Full range
- Built-in active PFC function
- Built-in 3 stage charging curve, curve programming option available
- **Fanless design**, cooling by free air convection
- Protections: Short circuit / Over voltage / Over temperature
- Battery under voltage / over voltage and reverse polarity protection
- Built-in temperature compensation function
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Order No.                | ESC-120                                                          | ESC-240 | ENC-120                                                                 | ENC-180                   | ENC-240                   | ENC-360                   |
|--------------------------|------------------------------------------------------------------|---------|-------------------------------------------------------------------------|---------------------------|---------------------------|---------------------------|
| AC input voltage range   | 88~132VAC / 176~264VAC selectable by switch                      |         | 90~264VAC; 127 ~ 370VDC                                                 |                           |                           |                           |
| AC inrush current (max.) | Cold start, 40A at 230VAC                                        |         | Cold start, 65A at 230VAC                                               | Cold start, 70A at 230VAC | Cold start, 75A at 230VAC | Cold start, 60A at 230VAC |
| DC adjustment range      | 13.5V: 12~15V, 27V: 24~30V, 54V: 48~56V                          |         | NA                                                                      |                           |                           |                           |
| Overload protection      | 105%~135% fold back current limiting, auto-recovery              |         | 110 ~ 125% constant current limiting, auto-recovery                     |                           |                           |                           |
| Over voltage protection  | 115%~135% constant voltage limiting, auto-recovery               |         | 110 ~ 130% shut down and latch off o/p voltage, re-power on to recover. |                           |                           |                           |
| Over temp. protection    | Shut down o/p voltage, auto-recovery after temperature goes down |         |                                                                         |                           |                           |                           |
| Withstand voltage        | I/P-O/P: 3kVAC, I/P-FG:1.5kVAC, O/P-FG: 0.5kVAV                  |         | I/P-O/P:3kVAC, I/P-FG:2KVAC, O/P-FG:0.5KVAC                             |                           |                           |                           |
| Working temperature      | -10~+60°C (refer to output derating curve)                       |         | -30~+70°C (refer to output derating curve)                              |                           |                           |                           |
| Safety standards         | CSA 61010-1 approved                                             |         | UL60950-1 approved                                                      |                           |                           |                           |
| EMC standards            | EN55032 class B, EN61000-3-2,-3, EN61000-4-2,3,4                 |         | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11                |                           |                           |                           |
| Dimension (LxWxH)(mm)    | 150x 140x 75                                                     |         | 192x 178x 45.5                                                          |                           |                           |                           |

### ■ ESC-120 Series



| Model No.    | Output      | Tol. | R&N   | Effi. |
|--------------|-------------|------|-------|-------|
| ESC-120-13.5 | 13.5V, 0~8A | ±2%  | 120mV | 81%   |
| ESC-120-27   | 27V, 0~4A   | ±1%  | 150mV | 83%   |
| ESC-120-54   | 54V, 0~2A   | ±1%  | 400mV | 84%   |

### ■ ESC-240 Series



| Model No.    | Output       | Tol. | R&N   | Effi. |
|--------------|--------------|------|-------|-------|
| ESC-240-13.5 | 13.5V, 0~16A | ±2%  | 120mV | 81%   |
| ESC-240-27   | 27V, 0~8A    | ±1%  | 150mV | 84%   |
| ESC-240-54   | 54V, 0~4A    | ±1%  | 400mV | 85%   |

### ■ ENC-180 Series



| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| ENC-180-12 | 14.4V, 0~12A | ±1%  | 150mV | 91%   |
| ENC-180-24 | 28.8V, 0~6A  | ±1%  | 150mV | 92%   |
| ENC-180-48 | 57.6V, 0~3A  | ±1%  | 350mV | 93%   |

### ■ ENC-240 Series



| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| ENC-240-12 | 14.4V, 0~16A | ±1%  | 150mV | 91%   |
| ENC-240-24 | 28.8V, 0~8A  | ±1%  | 150mV | 92%   |
| ENC-240-48 | 57.6V, 0~4A  | ±1%  | 350mV | 93%   |

### ■ ENC-120 Series



| Model No.  | Output      | Tol. | R&N   | Effi. |
|------------|-------------|------|-------|-------|
| ENC-120-12 | 14.4V, 0~8A | ±1%  | 150mV | 89%   |
| ENC-120-24 | 28.8V, 0~4A | ±1%  | 150mV | 90%   |
| ENC-120-48 | 57.6V, 0~2A | ±1%  | 350mV | 90.5% |

### ■ ENC-360 Series



| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| ENC-360-12 | 14.4V, 0~24A | ±1%  | 150mV | 91%   |
| ENC-360-24 | 28.8V, 0~12A | ±1%  | 150mV | 93%   |
| ENC-360-48 | 57.6V, 0~6A  | ±1%  | 350mV | 94%   |



### ■ Features

- For MEAN WELL's intelligent battery chargers with charging curve programmable function (ENC/RPB/RCB series)
- Simple connection and configuration
- No need of battery or AC power
- LED status indicator

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



|                       |                                                             |
|-----------------------|-------------------------------------------------------------|
| Model No.             | SBP-001                                                     |
| Programming interface | PMBus, CANBus, UART                                         |
| LED indicator         | Green: 3.3V interface      Orange: 5V interface             |
| Programming volt.     | 5V and 3.3V, for programming purpose only. Total 0.5W(max.) |
| Comm. interface       | USB                                                         |
| Working temperature   | 0~ +40°C                                                    |
| Dimension (LxWxH)(mm) | 165x 46x 23                                                 |

### ■ Description

The Smart Battery Charging Programmer Software is utilized for programming MEAN WELL's intelligent chargers, including ENC, RPB and RCB series. The connection between personal computer (PC) and charger is established via the "programmer" hardware interface from MEAN WELL. What function is provided?

Charging parameter adjustment: Values of constant current (CC), constant voltage (CV), float voltage (FV) and taper current (TC) can be set and adjusted.

Battery temperature compensation: Various charging voltage compensation is provided for battery at different temperature conditions.

Timeout setting: Fully programmable timeout during stages enables to be set to shutdown the charger to prevent battery over-charge.

### ■ Hardware Connection

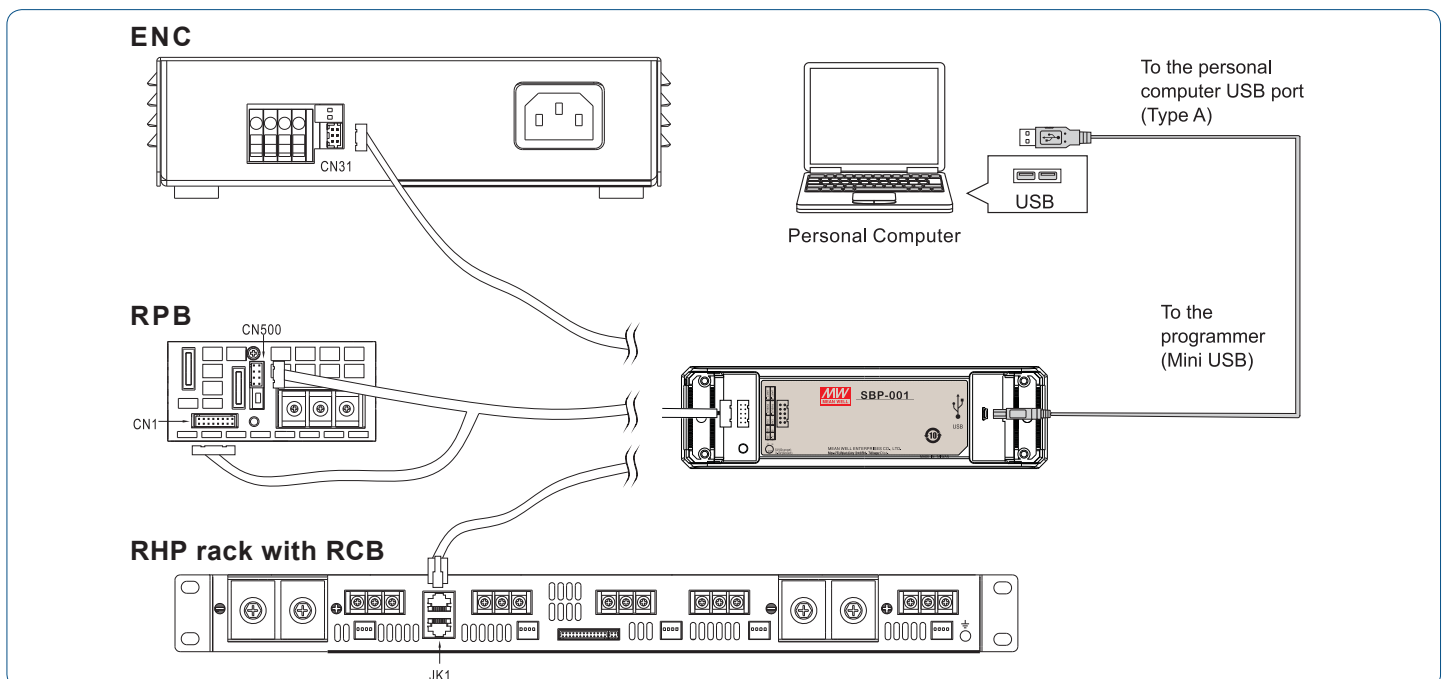
Prior to program a driver, the connection between driver and PC must be established first via the Programmer shown in the figure below. The following steps are suggested:

ENC series with SBP-001:

- 1.Remove the ENC from AC.
- 2.Connect Programmer and PC with the enclosed USB cable. LED (GREEN) of the Programmer is ON.
- 3.Connect the communication cable to CN31 of the ENC from the Programmer.

RPB/RCB series with SBP-001:

- 1.Remove the RPB/RCB from AC.
- 2.Connect Programmer and PC with the enclosed USB cable. LED (GREEN) of the Programmer is ON.
- 3.Connect the communication cable to CN1 and CN500 of the RPB from the Programmer; RCB requires working with a RHP rack, link the cable to JK1 of the rack.
4. Apply AC to the charger.
5. LED of the Programmer will light in ORANGE once connection is established successfully.





### ■ Features for PB-300/360

- 3 stage charger for lead-acid batteries and Li-ion batteries
- AC input range selectable by switch
- Passive PFC compliance to EN61000-3-2 class A (option)
- Protections: Reverse polarity / Short circuit / Over voltage / Over temperature
- 2 color LED loading indicator
- Fan ON/OFF control (PB-360 only)
- Cooling by free air convection for PB-300, Cooling by built-in DC fan for PB-360
- 3 years warranty

### ■ Features for PB-600/1000

- 2/3/8 stage smart charger for lead-acid batteries and Li-ion batteries, microprocessor controlled power management
- CANBus potocol (optional for PB-1000)
- Built-in active PFC function
- Built-in battery rescue function
- Protections: Reverse polarity / Short circuit / Over voltage / Over temp.
- Built-in temperature compensation function
- 2-bank charger (PB-1000)
- 3 color LED loading indicator
- Built-in remote ON-OFF control
- Fan ON/OFF control (PB-600)
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Order No.                | PB-300                                                                                        | PB-360                                     | PB-600                                                                              | PB-1000                           |
|--------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|
| AC input voltage range   | 90~132VAC / 180~264VAC selectable by switch                                                   |                                            | 90~264VAC; 127~370VDC                                                               |                                   |
| AC inrush current (max.) | Cold start, 60A at 230VAC                                                                     |                                            | Cold start, 50A at 230VAC                                                           |                                   |
| Over voltage protection  | 108%~125% rated output voltage                                                                |                                            | 110%~125% rated output voltage                                                      |                                   |
| Withstand voltage        | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC (I/P-FG: 1.5kVAC for PB-360)                   |                                            |                                                                                     |                                   |
| Working temperature      | -10~+50°C                                                                                     | -20~+60°C (refer to output derating curve) |                                                                                     |                                   |
| Safety standards         | IEC60335-2-29 CB approval by TUV (except for 48V), UL60950-1 approved                         |                                            | TUV EN60335-1, EN60335-2-29 (except for 48V), EN60950-1 (48V only), UL1012 approved | UL60950-1, TUV EN60950-1 approved |
| EMC standards            | EN55032 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3 (except for PB-300/360 non-PFC type) |                                            |                                                                                     |                                   |
| Case No.                 | 801B                                                                                          | 801A                                       | 805C                                                                                | 804B                              |
| Dimension (LxWxH)(mm)    | 253x 135x 48.5                                                                                |                                            | 230x 158x 67                                                                        | 300x 184x 70                      |

### ■ PB-300 Series



| Model No.  | Output (20 min.) / (Continuous at 25°C) | Effi. |
|------------|-----------------------------------------|-------|
| PB-300□-12 | 14.4V, 20.85A / 12.5A                   | 85%   |
| PB-300□-24 | 28.8V, 10.50A / 6.25A                   | 86%   |
| PB-300□-48 | 57.6V, 5.3A / 3.20A                     | 88%   |

□ = P: with PFC; N: non PFC

### ■ PB-360 Series



| Model No.  | Output       | Effi. |
|------------|--------------|-------|
| PB-360□-12 | 14.4V, 24.3A | 85%   |
| PB-360□-24 | 28.8V, 12.5A | 86%   |
| PB-360□-48 | 57.6V, 6.25A | 87%   |

□ = P: with PFC; N: non PFC

### ■ PB-600 Series



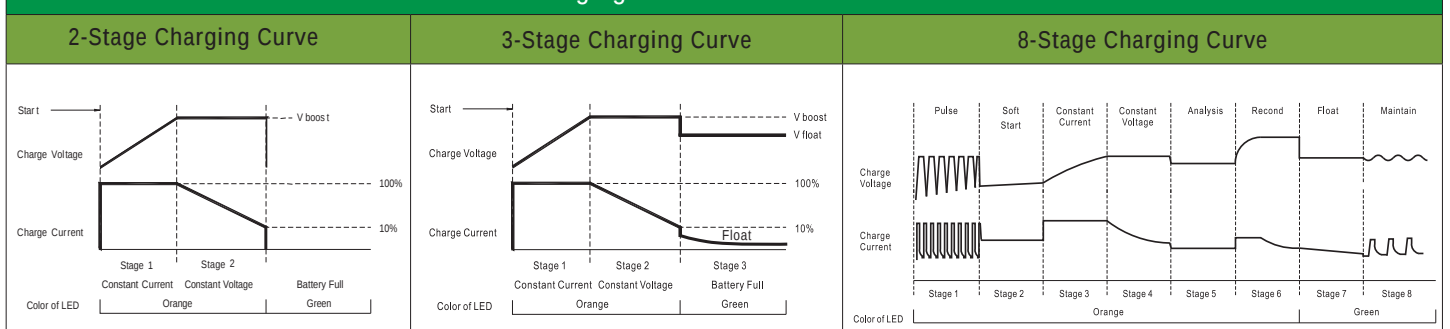
| Model No. | Output         | Effi. |
|-----------|----------------|-------|
| PB-600-12 | 14.4V, 0~40.0A | 86%   |
| PB-600-24 | 28.8V, 0~21.0A | 87%   |
| PB-600-48 | 57.6V, 0~10.5A | 89%   |

### ■ PB-1000 Series



| Model No.  | Output       | Effi. |
|------------|--------------|-------|
| PB-1000-12 | 14.4V, 60.0A | 85%   |
| PB-1000-24 | 28.8V, 34.7A | 88%   |
| PB-1000-48 | 57.6V, 17.4A | 89%   |

### Built-in Charging Curves for PB-600 and PB-1000





### ■ Features for HEP-600C

- 3 stage charger for lead-acid batteries and Li-ion batteries in harsh environment
- **Universal AC input 90~305VAC**
- Built-in active PFC function
- No load power consumption < 0.5W at remote OFF
- **High efficiency up to 95.5%**
- **Fanless design, cooling by free air convection**
- **-40~+70°C wide operating range**
- Aluminum case and filling with heat-conducted silicone
- **Withstand 10G vibration test**
- Operating altitude up to 5000 meters
- Vo and Io can be adjusted through internal potentiometer
- Protections: Short circuit / Over voltage / Over temperature
- 3 color LED loading indicator
- **6 years warranty**

### ■ Features for RPB-1600/RCB-1600

- Intelligent charger with programmable 3 stage curve for lead-acid batteries and Li-ion batteries
- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Built-in active PFC function
- **Built-in I<sup>2</sup>C interface, PMBus protocol (optional CANBus)**
- **1U low profile (41mm height)**
- **Rack mountable (RCB-1600), support hot swap (hot plug)**
- **Output voltage and current programmable**
- Forced air cooling by built-in DC fan
- Built-in OR-ing FET
- **Active current sharing up to 4800W (2+1) for RPB-1600, 8000W with one 19" rack shelf (RHP-1U□-A) for RCB-1600**
- Protections: Battery under voltage / Battery no connection / Short circuit / Over voltage / Over temperature
- 3 color LED loading indicator
- Optional conformal coating
- **5 years warranty**

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

|                          |                                                                                        |                                                                                                                                                                                                        |                           |
|--------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Order No.                | HEP-600C                                                                               | RPB-1600                                                                                                                                                                                               | RCB-1600                  |
| AC input voltage range   | 90~305VAC; 127~431VDC                                                                  | 90 ~ 264VAC; 127 ~ 370VDC                                                                                                                                                                              |                           |
| AC inrush current (max.) | Cold start, 70A at 230VAC                                                              | Cold start, 35A at 230VAC                                                                                                                                                                              |                           |
| DC adjustment range      | Vo: 95%~125% rated output voltage                                                      | Vo: -1%~+22.5% by potentiometer, or to 75%~125% of nominal output voltage by 1~5VDC <b>external control signal</b><br>Io: to 20%~100% of rated output current by 1-5VDC <b>external control signal</b> |                           |
| Over voltage protection  | 112%~142% shut down o/p voltage, re-power on to recover                                | 130%~155% shut down o/p voltage, re-power on to recover                                                                                                                                                |                           |
| Working temperature      | -40~+70°C (refer to output derating curve)                                             | -30~+70°C (refer to output derating curve)                                                                                                                                                             |                           |
| Withstand voltage        | I/P-O/P: 3.75kVAC, I/P-FG: 2kVAC, O/P-FG: 1.5kVAC                                      | I/P-O/P:3KVAC, I/P-FG:2KVAC, O/P-FG:1.5KVAC                                                                                                                                                            |                           |
| Safety standards         | UL60950-1, TUV EN60950-1 approved                                                      |                                                                                                                                                                                                        |                           |
| EMC standards            | EN55032 conduction class B, radiation class A; EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 |                                                                                                                                                                                                        |                           |
| Connection               | 3+7P / 11mm pitch terminal block with cover                                            | bus bars                                                                                                                                                                                               | Postronic PCIM34W13M400A1 |
| Dimension(LxWxH)(mm)     | 280x 144x 48.5                                                                         | 300x 85x 41                                                                                                                                                                                            |                           |

### ■ HEP-600 Series



| Model No.   | Output         | Effi. |
|-------------|----------------|-------|
| HEP-600C-12 | 14.4V, 0~35.0A | 93.5% |
| HEP-600C-24 | 28.8V, 0~21.0A | 94.5% |
| HEP-600C-48 | 57.6V, 0~10.5A | 95.5% |

### ■ RPB-1600 Series



| Model No.   | Output         | Effi. |
|-------------|----------------|-------|
| RPB-1600-12 | 14.4V, 0~100A  | 91.0% |
| RPB-1600-24 | 28.8V, 0~55A   | 92.5% |
| RPB-1600-48 | 57.6V, 0~27.5A | 93.5% |

### ■ RCB-1600 Series



| Model No.   | Output         | Effi. |
|-------------|----------------|-------|
| RCB-1600-12 | 14.4V, 0~100A  | 90.5% |
| RCB-1600-24 | 28.8V, 0~55A   | 92.0% |
| RCB-1600-48 | 57.6V, 0~27.5A | 93.0% |



#### Best products also need best service.

We have authorized distributors all over the world. They have sufficient stock for your prompt delivery. Also, they can offer you technical support & RMA services. Please contact your local distributors for more product information. You can also contact us at [info@meanwell.com](mailto:info@meanwell.com) for information of your local distributors.



## Features

- Universal AC input / Full range
- Withstand 300VAC surge for 5 seconds (RCP-1600)
- Built-in active PFC function
- Built-in auxiliary power
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- High power density up to 25W/inch<sup>3</sup> (RCP-1600)
- 1U low profile (41mm height)
- Output voltage programmable;  
Constant current level I<sub>cc</sub> programmable (RCP-1600)
- Active current sharing up to 3 units (RCP-1000) or 5 units (RCP-1600) in one 19" rack, 3 racks max. can be operated in parallel (up to 8 units for RCP-1000 or 15 units for RCP-1600)
- Built-in remote ON/OFF control
- Built-in remote sense function
- AC OK (RCP-1000) and DC OK signal output
- Internal OR-ing diode (RCP-1000) or OR-ing FET (RCP-1600), hot-swap operation
- Optional I<sup>2</sup>C serial data bus (RCP-1000);  
Built-in PMBus serial communication, optional CANBus (RCP-1600)
- 5 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Order No.                 | RCP-1000                                                                                                                    | RCP-1600                                                                                                                                                                                                          |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AC input voltage range    | 90~264VAC, 127~370VDC                                                                                                       |                                                                                                                                                                                                                   |
| AC inrush current (max.)  | Cold start, 50A at 230VAC                                                                                                   | Cold start, 35A at 230VAC                                                                                                                                                                                         |
| DC adjustment range       | V <sub>o</sub> : ±3% by potentiometer, or to 90%~110% of rated output voltage by external resistor                          | V <sub>o</sub> : -1%~+22.5% by potentiometer, or to 40%~125% of rated output voltage by 1~5VDC external control signal<br>I <sub>cc</sub> : to 20%~100% of rated output current by 1~5VDC external control signal |
| Overload protection (OLP) | 105%~125% constant current limiting, auto-recovery                                                                          | 105%~115% constant current limiting, shut down o/p voltage after 5 sec., re-power on to recover                                                                                                                   |
| Over voltage protection   | 110%~135% shut down o/p voltage, re-power on to recover                                                                     | 130%~155% shut down o/p voltage, re-power on to recover                                                                                                                                                           |
| Withstand voltage         | I/P-O/P:3kVAC, I/P-FG:2kVAC, O/P-F/G: 0.7kVDC                                                                               | I/P-O/P:3kVAC, I/P-FG:2kVAC, O/P-F/G: 1.5kVAC                                                                                                                                                                     |
| Working temperature       | -20~+60°C (refer to output derating curve)                                                                                  | -30~+70°C (refer to output derating curve)                                                                                                                                                                        |
| Safety standards          | UL60950-1, TUV EN60950-1 approved                                                                                           |                                                                                                                                                                                                                   |
| EMC standards             | EN55032 class B (Radiation class A for RCP-1600), EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 heavy industry level |                                                                                                                                                                                                                   |
| Connection                | Postronic PCB24W9M400A1                                                                                                     | Postronic PCIM34W13M400A1                                                                                                                                                                                         |
| Dimension(LxWxH)          | 295x 127x 41mm (483.6x 350.8x 44mm for RCP-1U)                                                                              | 300x 85x 41mm (440x 365x 44mm for RHP-1U)                                                                                                                                                                         |
| Case No.                  | 952A (959A for RCP-1U)                                                                                                      | 237A (242A for RHP-1U)                                                                                                                                                                                            |
| Packing                   | 1.93kg (RCP-1000, single unit);<br>3.9kg (RCP-1U, single empty rack)                                                        | 1.87kg (RCP-1600, single unit);<br>5.5kg (RHP-1U, single empty rack)                                                                                                                                              |

## Order Information for RCP-1000 and RCP-1U

Rectifier: RCP-1000-**12**-**C**  
 C : with I<sup>2</sup>C interface  
 —: without I<sup>2</sup>C interface  
 Output voltage(12V/24V/48V)

Rack Shelf: RCP-1U **I**  
 I : AC inlet(IEC320-C14)  
 T : Terminal block

## Order Information for RCP-1600 and RHP-1U

Rectifier: RCP-1600-**12**-**C**  
 —: Standard model, PMBus protocol  
 C : Optional model, CANBus protocol  
 Output voltage(12V/24V/48V)

Rack Shelf: RHP-1U **I**-**A**  
 —: For RCP/RCB-1600  
 I : AC inlet(IEC320-C14)  
 T : Terminal block

## Rectifier — 1000W

| Model No.   | Output     | Tol. | R&N   | Effi. |
|-------------|------------|------|-------|-------|
| RCP-1000-12 | 12V, 0~60A | ±1%  | 150mV | 81.0% |
| RCP-1000-24 | 24V, 0~40A | ±1%  | 200mV | 87.0% |
| RCP-1000-48 | 48V, 0~21A | ±1%  | 300mV | 89.0% |

## Rectifier — 1600W

| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| RCP-1600-12 | 12V, 0~125A  | ±1%  | 150mV | 88.5% |
| RCP-1600-24 | 24V, 0~67A   | ±1%  | 200mV | 91.0% |
| RCP-1600-48 | 48V, 0~33.5A | ±1%  | 300mV | 93.0% |



RCP-2000



RKP-1U

### Features

- Universal AC input / Full range
- Withstand 300VAC surge for 5 seconds
- Built-in active PFC function
- Built-in 5V/0.3A, 12V/0.8A auxiliary power
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- High power density 21.4W/inch<sup>3</sup>
- 1U low profile (41mm height)
- Output voltage programmable
- Active current sharing up to 3 units in one 19" rack, 3 racks max. can be operated in parallel (up to 9 units)
- Built-in remote ON/OFF control
- Built-in remote sense function
- Internal OR-ing FET, hot-swap operation
- Built-in PMBus serial communication
- AC OK and DC OK signal, fan fail, OTP alarm signal
- 5 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

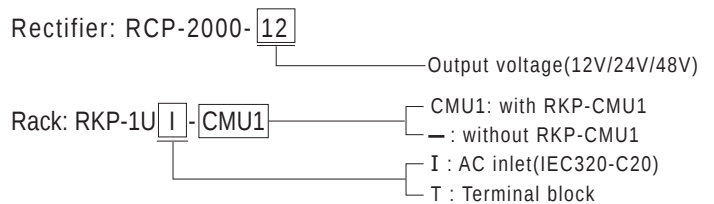


|                           |                                                                                                              |
|---------------------------|--------------------------------------------------------------------------------------------------------------|
| Order No.                 | RCP-2000                                                                                                     |
| AC input voltage range    | 90~264VAC, 127~320VDC                                                                                        |
| AC inrush current (max.)  | Cold start, 50A at 230VAC                                                                                    |
| DC adjustment range       | Vo: -12%~+15% by potentiometer, or to 90%~110% of rated output voltage by 1.5~4.5VDC external control signal |
| Overload protection       | 105%~125% constant current limiting, shut down o/p voltage after 5 sec., re-power on to recover              |
| Over voltage protection   | 120%~145% shut down o/p voltage, re-power on to recover                                                      |
| Setup, rise, hold up time | 1500ms, 60ms, 10ms at full load and 230VAC                                                                   |
| Withstand voltage         | I/P-O/P:3kVAC, I/P-FG:2kVAC, O/P-F/G: 0.7kVDC                                                                |
| Working temperature       | -40~+70°C (refer to output derating curve)                                                                   |
| Safety standards          | UL60950-1, TUV EN60950-1 approved                                                                            |
| EMC standards             | EN55032 class A, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 heavy industry level                   |
| Connection                | Postronic PCIM34W13M400A                                                                                     |
| Dimension(LxWxH)          | 295x 127x 41mm (483.6x 350.8x 44mm for RKP-1U)                                                               |
| Case No.                  | 974A (959A for RKP-1U)                                                                                       |
| Packing                   | 2kg (RCP-2000, single unit); 4.18kg (RKP-1U, single empty rack)                                              |

### Rectifier — 2000W

| Model No.   | Output      | Tol. | R&N   | Effi. |
|-------------|-------------|------|-------|-------|
| RCP-2000-12 | 12V, 0~100A | ±2%  | 150mV | 86.0% |
| RCP-2000-24 | 24V, 0~80A  | ±1%  | 200mV | 90.5% |
| RCP-2000-48 | 48V, 0~42A  | ±1%  | 300mV | 92.0% |

### Order Information for RCP-2000 and RKP-1U



### Control and Monitor Unit for RCP-2000



RKP-CMU1



CASE:959A  
147.5x 127x 41 mm

RKP-1U□-CMU1



CASE: 959D  
486.6x 350.8x 44 mm

- 1U low profile, rack mountable
- Control and monitor up to 32 RCP-2000 units
- Front panel LCD and buttons for on-site service without PC
- Alarm/event log with time and date
- Easy wire connections on rear side
- Windows-based PC communication software
- USB, RS-232 or Ethernet interface for PC connection locally or remote monitoring and control via GSM modem
- 4 user programmable relay outputs for traditional remote or warning
- 5 years warranty

- DC input voltage range ..... 12~15VDC
- DC input current ..... 1A at 12VDC, 0.8A at 15VDC
- Output relay contact ..... 4 user programmable relay
- Working temperature ..... -25~+70°C (refer to output derating curve)
- Safety standards ..... UL60950-1, TUV EN60950-1 approved for RKP-1U□-CMU1
- Withstand voltage ..... I/P-O/P:3kVAC, I/P-FG:2kVAC, O/P-FG:0.7kVDC for RKP-1U□-CMU1; O/P-FG:0.7kVDC for RKP-CMU1
- Isolation resistance ..... I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500VDC for RKP-1U□-CMU1; O/P-FG:100M Ohms/500VDC for RKP-CMU1
- EMC standards ..... EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-1 light industry level

| Model No.    | Application                                                   |
|--------------|---------------------------------------------------------------|
| RKP-CMU1     | Control and monitor RCP-2000 series (single unit of RKP-CMU1) |
| RKP-1U□-CMU1 | Control and monitor RCP-2000 series (19" rack with RKP-CMU1)  |

Coming  
Soon



NMP650 (650W, 4 SLOT)



NMP1K2 (1200W, 6 SLOT)



NMS-240

### Description

NMP family is a 1U low profile modular power (or, configurable type power supply) from MEAN WELL. This family comprises two power wattage for the line-up, 650W and 1200W, and the output modules deliver up to 240W with adjust options for the major working voltages used in industry 5V, 12V, 24V, 48V. NMP family is complied with two categories of safety approvals, the medical standard (2 x MOPP between primary to secondary) and the ITE standard, offering the best flexibility for various types of applications.

### Features

- ITE and medical (2 x MOPP) dual safety approval
- Universal AC input / Full range
- Output voltage and current programmable
- 1U low profile
- Built-in parallel function
- Additional 5V/2A (NMP1K2) or 5V/1.5A (NMP650) auxiliary output for remote control
- Global or local ON/OFF control
- DC OK signal for output status
- Short circuit / Overload / Over voltage for all modules
- Cooling by thermostatically controlled fan with fan alarm function
- 5 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



UL/CUL/TUV/CE pending

| Model No.                   | NMP650                                                                                                               | NMP1K2       |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------|--------------|
| AC input voltage range      | 90~264VAC ; 120~370VDC                                                                                               |              |
| Power Factor                | PF >0.95/230VAC, PF > 0.98/115VAC at full load                                                                       |              |
| AC inrush current (max.)    | Cold start, 40A at 230VAC, 25A at 115VAC                                                                             |              |
| Max output voltage          | 650W                                                                                                                 | 1200W        |
| Efficiency (typical)        | 91%(cold start)~90.5%(normal work), full case load with 1H module at nominal 24V only                                |              |
|                             | 87%(Normal work), full case load with each type of module at nominal voltage                                         |              |
| Over temperature protection | Output shutdown, auto-recovery                                                                                       |              |
| Withstand voltage           | I/P-O/P: 4kVAC, I/P-FG: 2kVAC, O/P-FG: 1.5kVAC, 1 minute                                                             |              |
| Working temperature         | -30~+50°C@100%, +70°C @ 60% load at 230VAC                                                                           |              |
| Safety standards            | Design refer to ANSI/AAMI ES60601-1, TUV EN60601-1, IEC 60601-1 (3rd edition); UL60950-1, TUV EN60950-1              |              |
| EMC standards               | EN55011, EN55032 Class B, EN61000-3-2,-3, EN61000-4-2,3,4,6,8,11, EN55024 light industry level, criteria A; SEMI F47 |              |
| Connection                  | Input side: 3P/9.5mm pitch terminal block &HRS DF11-10DP-2DS                                                         |              |
| Dimension (LxWxH)(mm)       | 250x 89x 41                                                                                                          | 250x 127x 41 |

# Modular Series



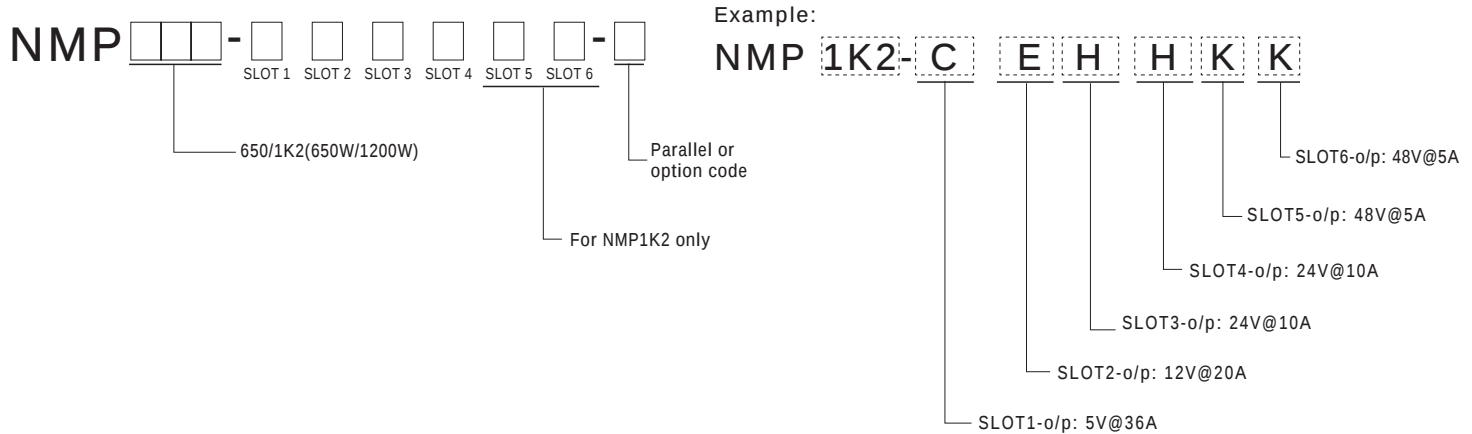
## NMS-240: 1-SLOT isolated dual output (240W max.)

| Item Code | Output     | Vdc adj. | Tol. | R&N.  | Max.   |
|-----------|------------|----------|------|-------|--------|
| C         | 5V, 0~36A  | 3~6V     | ±2%  | 80mV  | 180.0W |
| E         | 12V, 0~20A | 6~15V    | ±1%  | 150mV | 240W   |
| H         | 24V, 0~10A | 15~30V   | ±1%  | 150mV | 240W   |
| K         | 48V, 0~5A  | 30~58V   | ±1%  | 250mV | 240W   |

### Parallel Connection Accessory

| FAP-009<br>(For NMS-240, 2 units)        |  |
|------------------------------------------|--|
| FAP-010<br>(For NMS-240, 3 units)        |  |
| Series Connection Accessory              |  |
| FAS-001<br>(For 1-slot modules: NMS-240) |  |

## Output Configuration Guide



## 3200W Programmable High Power with Digital Control

| Model NO. &<br>Product Picture | DPU-3200                                                                                                           | DRP-3200                                                                            | DBU-3200                                                                             | DBR-3200                                                                                  |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
|                                | Power Supply                                                                                                       | Rack Power                                                                          | Battery Charger                                                                      | Rack Charger                                                                              |
| General Specification          |                                 |  |  |      |
|                                | Coming Soon                                                                                                        |                                                                                     | Coming Soon                                                                          |                                                                                           |
| Output configuration           | 24V / 48V                                                                                                          |                                                                                     | 28.8V / 57.6V                                                                        |                                                                                           |
| Current sharing                | 16000W (4+1)                                                                                                       | 12800W<br>for one 19" rack shelf                                                    | 6400W (1+1)                                                                          | 12800W<br>for one 19" rack shelf                                                          |
| Programmable function          | Output voltage and constant current level                                                                          |                                                                                     | Output voltage and output current                                                    |                                                                                           |
| PFC function                   | Built-in PFC function                                                                                              |                                                                                     |                                                                                      |                                                                                           |
| Protections                    | Short circuit / Overload /<br>Over voltage / Over temperature                                                      |                                                                                     | Short circuit /<br>Over voltage /<br>Over temperature                                | Battery under voltage /<br>Battery no connection /<br>Short circuit /<br>Over temperature |
| Dimensions (LxWxH)(mm)         | 325x 107x 41                                                                                                       |                                                                                     |                                                                                      |                                                                                           |
| Other features                 | • Built-in OR-ing FET, support hot swap<br>• Forced air cooling by built-in DC fan<br>• Optional conformal coating |                                                                                     |                                                                                      |                                                                                           |

# Modular Series 450W/650W/1000W Configurable Power



MP450 (450W, 5 SLOT)

MP650 (650W, 5 SLOT)

MP1K0 (1000W, 7 SLOT)



MS-75



MS-150



MS-210



MS-300



MS-360



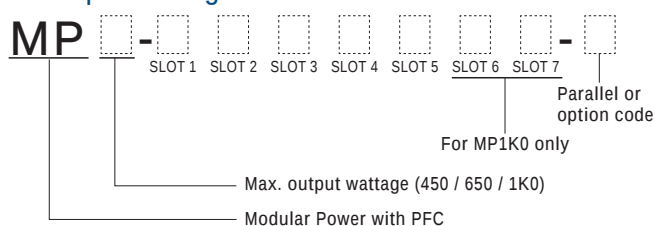
MD-100

## Description

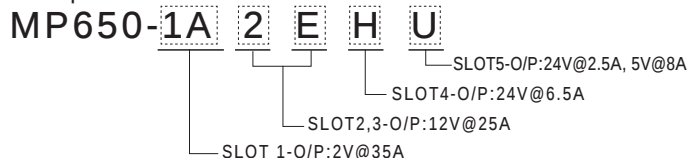
Modular series are switching power supplies with modular design that consist of two stages: front-end PFC and output modules. With the power factor correction, the line input is rectified into high DC voltage (around 390VDC) by the front-end PFC stage, and then the DC output modules will transfer the operating voltage into all kinds of DC output voltages from 1.6V~53V. Right now we offer 75W, 150W, 210W, 300W, 360W single output modules and 100W dual output modules to fulfill all kinds of applications up to 14 isolated outputs.

There are millions of combinations available for the Modular Series. Users can configure the DC outputs and get the fastest solution for their own power requirement with safety and EMC certificates. No NRE / safety application charges and long period of waiting for certificates! Providing standard products as usual, MEAN WELL offers you a revolutionary standard power solution that fulfills your custom-made request!

## Output Configuration Guide



Example:



## Features

- Millions of output configuration is available
- Universal AC input / Full range
- Built-in active PFC compliance to EN61000-3-2
- Built-in constant current limiting circuit for single output modules
- Remote control on each output module
- Remote sense on each single output module (MS-75 / 150 / 210 / 300 / 360)
- Short circuit / Overload / Over voltage protections for all modules
- Parallel function for MS-210 (up to 5 units), MS-300/360 (up to 3 units)
- Margining control function (MS-210 / 360)
- Cooling by built-in DC fan with fan alarm function
- Additional 12V/0.1A auxiliary output for remote control
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                   | MP450                                                                                              | MP650                     | MP1K0                     |
|-----------------------------|----------------------------------------------------------------------------------------------------|---------------------------|---------------------------|
| AC input voltage range      | 85~264VAC or 120~370VDC                                                                            |                           |                           |
| Power Factor                | PF > 0.95 / 230VAC, PF > 0.98 / 115VAC at full load                                                |                           |                           |
| AC inrush current (max.)    | Cold start, 40A at 230VAC                                                                          | Cold start, 50A at 230VAC | Cold start, 40A at 230VAC |
| Max output voltage          | 450W                                                                                               | 650W                      | 1000W                     |
| Efficiency (typical)        | 82.5%                                                                                              | 84%                       | 84%                       |
| Over temperature protection | Output shutdown, auto-recovery                                                                     |                           |                           |
| Fan alarm                   | Output shutdown when fan malfunctions                                                              |                           |                           |
| Withstand voltage           | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC, 1 minute                                           |                           |                           |
| Working temperature         | -20~+50°C@100%, +70°C @ 50% load                                                                   |                           |                           |
| Safety standards            | UL60950-1, TUV EN60950-1 approved                                                                  |                           |                           |
| EMC standards               | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN55024 light industry level, criteria A |                           |                           |
| Connection                  | Input side: 3P/10mm pitch terminal block & JST B3B-XH                                              |                           |                           |
| Dimension (LxWxH)(mm)       | 254x 127x 63.5                                                                                     | 278x 127x 63.5            | 278x 177.8x 63.5          |

# Modular Series



## MS-75: 1-SLOT single output (75W max.)

| Item Code | Output      | ★Peak I | Vdc adj.   | Tol. | R&N.  |
|-----------|-------------|---------|------------|------|-------|
| L         | 3.3V, 0~15A | 17.3A   | 2.6~4.0V   | ±2%  | 80mV  |
| M         | 5V, 0~15A   | 17.3A   | 4.0~6.0V   | ±2%  | 80mV  |
| N         | 12V, 0~6.3A | 7.30A   | 9.0~13.2V  | ±1%  | 150mV |
| O         | 15V, 0~5.0A | 5.80A   | 13.2~16.8V | ±1%  | 150mV |
| P         | 24V, 0~3.2A | 3.70A   | 20.0~26.4V | ±1%  | 150mV |
| Q         | 48V, 0~1.6A | 1.80A   | 40.0~53.0V | ±1%  | 250mV |

## MS-150: 1-SLOT single output (150W max.)

| Item Code | Output      | ★Peak I | Vdc adj.   | Tol. | R&N.  |
|-----------|-------------|---------|------------|------|-------|
| A         | 2V, 0~25A   | 30.0A   | 1.6~2.6V   | ±3%  | 50mV  |
| B         | 3.3V, 0~25A | 30.0A   | 2.6~4.0V   | ±2%  | 80mV  |
| C         | 5V, 0~25A   | 30.0A   | 4.0~6.0V   | ±2%  | 80mV  |
| D         | 7.5V, 0~18A | 20.7A   | 6.0~9.0V   | ±2%  | 100mV |
| E         | 12V, 0~13A  | 15.0A   | 9.0~13.2V  | ±1%  | 150mV |
| F         | 15V, 0~10A  | 11.5A   | 13.2~16.8V | ±1%  | 150mV |
| G         | 18V, 0~8.5A | 9.80A   | 16.8~20.0V | ±1%  | 150mV |
| H         | 24V, 0~6.5A | 7.50A   | 20.0~26.4V | ±1%  | 150mV |
| I         | 27V, 0~5.8A | 6.70A   | 25.0~31.0V | ±1%  | 150mV |
| J         | 33V, 0~4.7A | 5.40A   | 30.0~40.0V | ±1%  | 250mV |
| K         | 48V, 0~3.2A | 3.68A   | 40.0~53.0V | ±1%  | 250mV |

## MS-210: 1-SLOT parallelable single output (210W max.)

| Item Code | Output       | ★Peak I | Vdc adj.   | Tol. | R&N.  |
|-----------|--------------|---------|------------|------|-------|
| 1A        | 2V, 0~35A    | 38.5A   | 1.6~2.6V   | ±3%  | 70mV  |
| 1B        | 3.3V, 0~35A  | 38.5A   | 2.6~4.0V   | ±2%  | 80mV  |
| 1C        | 5V, 0~35A    | 38.5A   | 4.0~6.0V   | ±2%  | 80mV  |
| 1D        | 7.5V, 0~28A  | 32.2A   | 6.0~9.0V   | ±2%  | 100mV |
| 1E        | 12V, 0~17.5A | 20.1A   | 9.0~13.2V  | ±1%  | 150mV |
| 1F        | 15V, 0~14A   | 16.1A   | 13.2~16.8V | ±1%  | 150mV |
| 1G        | 18V, 0~11.6A | 13.4A   | 16.8~20.0V | ±1%  | 150mV |
| 1H        | 24V, 0~8.75A | 10.1A   | 20.0~26.4V | ±1%  | 150mV |
| 1I        | 27V, 0~7.8A  | 9.00A   | 25.0~31.0V | ±1%  | 150mV |
| 1J        | 33V, 0~6.4A  | 7.40A   | 30.0~40.0V | ±1%  | 250mV |
| 1K        | 48V, 0~4.4A  | 5.10A   | 40.0~53.0V | ±1%  | 250mV |

## MS-300: 2-SLOT parallelable single output (300W max.)

| Item Code | Output       | ★Peak I | Vdc adj.   | Tol. | R&N.  |
|-----------|--------------|---------|------------|------|-------|
| 2A        | 2V, 0~50A    | 57.5A   | 1.6~2.6V   | ±3%  | 80mV  |
| 2B        | 3.3V, 0~50A  | 57.5A   | 2.6~4.0V   | ±2%  | 80mV  |
| 2C        | 5V, 0~50A    | 57.5A   | 4.0~6.0V   | ±2%  | 80mV  |
| 2D        | 7.5V, 0~40A  | 46.0A   | 6.0~9.0V   | ±2%  | 100mV |
| 2E        | 12V, 0~25A   | 29.0A   | 9.0~13.2V  | ±1%  | 150mV |
| 2F        | 15V, 0~20A   | 23.0A   | 13.2~16.8V | ±1%  | 150mV |
| 2G        | 18V, 0~16.7A | 19.2A   | 16.8~20.0V | ±1%  | 150mV |
| 2H        | 24V, 0~12.5A | 14.4A   | 20.0~26.4V | ±1%  | 150mV |
| 2I        | 27V, 0~11.2A | 12.9A   | 25.0~31.0V | ±1%  | 200mV |
| 2J        | 33V, 0~9.1A  | 10.5A   | 30.0~40.0V | ±1%  | 250mV |
| 2K        | 48V, 0~6.3A  | 7.2A    | 40.0~53.0V | ±1%  | 300mV |

## MS-360: 2-SLOT parallelable single output (360W max.)

| Item Code | Output       | ★Peak I | Vdc adj.   | Tol. | R&N.  |
|-----------|--------------|---------|------------|------|-------|
| 3A        | 2V, 0~60A    | 69.0A   | 1.6~2.6V   | ±3%  | 80mV  |
| 3B        | 3.3V, 0~60A  | 69.0A   | 2.6~4.0V   | ±2%  | 100mV |
| 3C        | 5V, 0~60A    | 69.0A   | 4.0~6.0V   | ±2%  | 100mV |
| 3D        | 7.5V, 0~48A  | 55.2A   | 6.0~9.0V   | ±2%  | 100mV |
| 3E        | 12V, 0~30A   | 34.5A   | 9.0~13.2V  | ±1%  | 150mV |
| 3F        | 15V, 0~24A   | 27.6A   | 13.2~16.8V | ±1%  | 150mV |
| 3G        | 18V, 0~20A   | 23.0A   | 16.8~20.0V | ±1%  | 150mV |
| 3H        | 24V, 0~15A   | 17.3A   | 20.0~26.4V | ±1%  | 150mV |
| 3I        | 27V, 0~13.4A | 15.5A   | 25.0~31.0V | ±1%  | 200mV |
| 3J        | 33V, 0~11A   | 12.7A   | 30.0~40.0V | ±1%  | 250mV |
| 3K        | 48V, 0~7.5A  | 8.7A    | 40.0~53.0V | ±1%  | 300mV |

## MD-100: 1-SLOT isolated dual output (100W max.)

| Item Code | Output        | Vdc adj.   | Tol. | R&N.  | Max.   |
|-----------|---------------|------------|------|-------|--------|
| R         | 5V, 2.0~10A   | 4.75~5.5V  | ±3%  | 100mV | 90.0W  |
|           | 5V, 0.0~8.0A  | 4.75~5.5V  | ±3%  | 100mV |        |
| S         | 5V, 2.0~10A   | 4.75~5.5V  | ±3%  | 100mV | 100.4W |
|           | 12V, 0.0~5.8A | 11.4~13.2V | ±3%  | 150mV |        |
| T         | 5V, 2.0~10A   | 4.75~5.5V  | ±3%  | 100mV | 101.0W |
|           | 15V, 0.0~4.7A | 14.2~16.5V | ±3%  | 150mV |        |
| U         | 24V, 0.5~3.0A | 22.8~26.4V | ±3%  | 200mV | 100.0W |
|           | 5V, 0.0~10A   | 4.75~5.5V  | ±3%  | 100mV |        |
| V         | 24V, 0.6~3.0A | 22.8~26.4V | ±2%  | 240mV | 100.8W |
|           | 12V, 0.0~4.7A | 11.4~13.2V | ±3%  | 120mV |        |
| W         | 12V, 1.0~5.0A | 11.4~13.2V | ±2%  | 120mV | 100.8W |
|           | 12V, 0.0~5.8A | 11.4~13.2V | ±3%  | 120mV |        |
| X         | 15V, 1.0~4.7A | 14.2~16.5V | ±2%  | 150mV | 100.5W |
|           | 15V, 0.0~4.7A | 14.2~16.5V | ±3%  | 150mV |        |

★Peak I: 35% duty cycle maximum within every 10 seconds. Average output power should not exceed the rated power.

### Parallel Connection Accessory

|                                  |  |
|----------------------------------|--|
| FAP-001<br>(For MS-300, 2 units) |  |
| FAP-002<br>(For MS-300, 3 units) |  |
| FAP-003<br>(For MS-210, 2 units) |  |
| FAP-004<br>(For MS-210, 3 units) |  |
| FAP-005<br>(For MS-210, 4 units) |  |
| FAP-006<br>(For MS-210, 5 units) |  |
| FAP-007<br>(For MS-360, 2 units) |  |
| FAP-008<br>(For MS-360, 3 units) |  |

### Series Connection Accessory

|                                                    |  |
|----------------------------------------------------|--|
| FAS-001<br>(For 1-slot modules: MS-75/150, MD-100) |  |
| FAS-002<br>(For 2-slot modules: MS-300)            |  |
| FAS-003<br>(For 1-slot modules: MS-210)            |  |
| FAS-004<br>(For 2-slot modules: MS-360)            |  |

► Please use MP450-CNPOQ, MP650-1A2EHU, MP1K0-2C2CEKL-1.....etc. as the order code. For more detail information about technical issues, please refer to the user manual.

► Please refer to the user manual for more detail information about parallel connection and the parallel codes. About series connection, please contact us or your local MEAN WELL distributor for more details.

# LED Sign Panel 350~400W Economical Single Output



## Features

- ERP-300: 180~264VAC input only  
ERPF-400: 90~264VAC input  
(withstand 300VAC surge input for 5 sec.)
- Built-in active PFC function (ERPF-400)
- Semi-potted and design against rain splash
- Fanless design, cooling by free air convection
- Protections: Short circuit / Overload / Over voltage / Over temperature
- LED indicator for power on
- Low cost, high reliability
- Suitable for channel letter, strip lighting and moving sign applications
- 3 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                 |        | ERP-350                                                            | ERPF-400                                          |
|---------------------------|--------|--------------------------------------------------------------------|---------------------------------------------------|
| AC input voltage range    |        | 180~264VAC; 254~370VDC                                             | 90~264VAC; 127~370VDC                             |
| AC inrush current (max.)  |        | Cold start, 90A at 230VAC                                          |                                                   |
| Setup, rise, hold up time |        | 1500ms, 200ms, 20ms                                                | 2000ms, 100ms, 10ms                               |
| DC adjustment range       |        | ±10% rated output voltage                                          |                                                   |
| Overload protection       | Range  | 110%~180% rated output power                                       | 105%~135% rated output power                      |
|                           | Type   | Hiccup mode, auto-recovery                                         | Constant current limiting, auto-recovery          |
| Over voltage protection   | Range  | 12V: 13.8~16.2V, 24V: 27.6~32.4V, 36V: 41.4~46.8V, 48V: 57.6~67.2V | 12V: 13.8~16.2V, 24V: 27.6~32.4V, 48V: 55.2~64.8V |
|                           | Type   | Hiccup mode, auto-recovery                                         | Shut down O/P voltage, re-power on to recover     |
| Withstand voltage         |        | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                     |                                                   |
| Working temperature       |        | -30~+60°C (refer to output derating curve)                         |                                                   |
| Safety standards          |        | UL60950-1, CQC GB4943.1(24~48V) approved                           | UL60950-1, TUV EN60950-1, CCC GB4943.1 approved   |
| EMC standards             |        | Design refer to EN55032 class A                                    | Compliance to EN55032 class A, GB9254 class A     |
| Connection                | Input  | 9P / 9.5mm pitch terminal block                                    |                                                   |
|                           | Output |                                                                    |                                                   |
| Dimension (LxWxH) (mm)    |        | 220.4x 130x 48                                                     |                                                   |
| Packing                   |        | 0.9kg; 9pcs / 11kg / 0.63CUFT                                      | 1.1kg; 9pcs / 11kg / 0.63CUFT                     |

## ERP-350 Series



| Model No.  | Output       | Tol. | R&N   | Effi. |
|------------|--------------|------|-------|-------|
| ERP-350-12 | 12V, 0~26.7A | ±1%  | 150mV | 87%   |
| ERP-350-24 | 24V, 0~14.6A | ±1%  | 150mV | 89%   |
| ERP-350-36 | 36V, 0~9.7A  | ±1%  | 240mV | 90%   |
| ERP-350-48 | 48V, 0~7.3A  | ±1%  | 240mV | 90%   |

## ERPF-400 Series



| Model No.   | Output       | Tol. | R&N   | Effi. |
|-------------|--------------|------|-------|-------|
| ERPF-400-12 | 12V, 0~30A   | ±1%  | 150mV | 89%   |
| ERPF-400-24 | 24V, 0~16.7A | ±1%  | 150mV | 90%   |
| ERPF-400-48 | 48V, 0~8.3A  | ±1%  | 240mV | 91%   |



### ■ Features

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Slim width and low profile (26mm)
- Built-in active PFC function
- 150% peak load capability (100ms)
- Fanless design, cooling by free air convection
- Protections:  
Short circuit / Overload / Over voltage / Over temperature
- DC OK signal
- LED indicator for power on
- Suitable for moving sign applications
- 3 years warranty

### ■ General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



|                           |                                                                                      |
|---------------------------|--------------------------------------------------------------------------------------|
| Model No.                 | UHP-200A                                                                             |
| AC input voltage range    | 100~264VAC; 141~370VDC                                                               |
| Leakage current           | Less than 1mA at 240VAC                                                              |
| AC inrush current (max.)  | Cold start, 85A at 230VAC                                                            |
| DC adjustment range       | 4.2V: 4.0~4.4V, 4.5V: 4.3~4.7V, 5V: 4.7~5.3V                                         |
| Overload protection       | 110%~140% rated output power                                                         |
| Over voltage protection   | 110%~140% rated output voltage                                                       |
| Setup, rise, hold up time | 2000ms, 200ms, 10ms at 230VAC                                                        |
| Withstand voltage         | I/P-O/P:3kVAC, I/P-FG:2kVAC, O/P-F/G: 0.5kVDC                                        |
| Working temperature       | -30~+70°C (refer to output derating curve)                                           |
| Vibration                 | 10~500Hz, 5G 10min. / 1 cycle, period for 60 min., each along X, Y, Z axes           |
| Safety standards          | UL60950-1, TUV EN60950-1, CCC GB4943 approved                                        |
| EMC standards             | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN55024, GB9254, GB17625.1 |
| Dimension (LxWxH)(mm)     | 167x 55x 26                                                                          |

| Model No.    | Output      | Tol. | R&N   | Effi. |
|--------------|-------------|------|-------|-------|
| UHP-200A-4.2 | 4.2V, 0~40A | ±4%  | 200mV | 88%   |
| UHP-200A-4.5 | 4.5V, 0~40A | ±4%  | 200mV | 88%   |
| UHP-200A-5   | 5V, 0~40A   | ±4%  | 200mV | 88.5% |



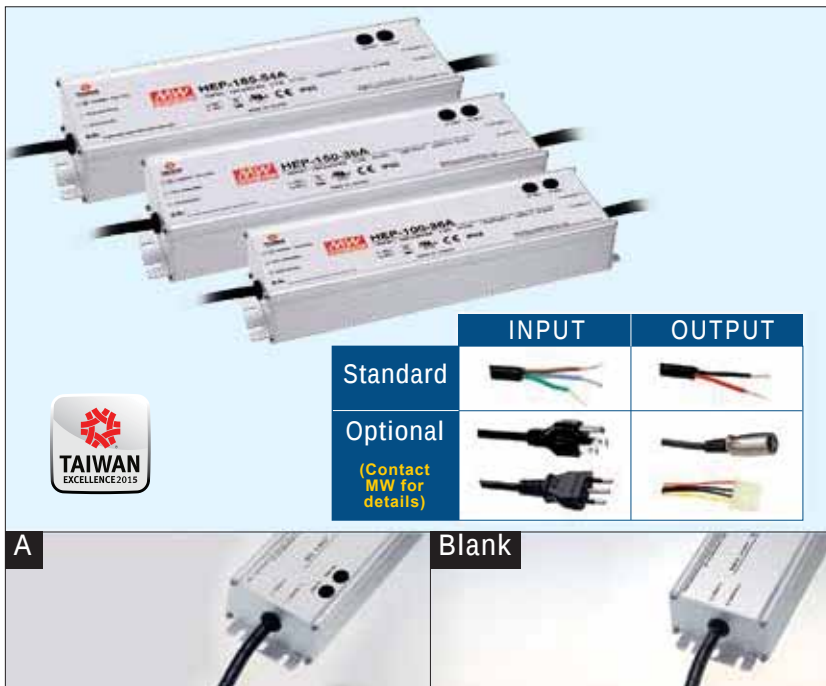
#### Products —

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### Features

- Universal AC input 90~305VAC
- Built-in active PFC function
- High efficiency up to 94%
- Fanless design, cooling by free air convection
- Ultra-wide operating range
- Meet 6kV surge immunity level
- Withstand 10G vibration test
- Operating altitude up to 5000 meters
- Protections:
  - Short circuit / Overload / Over voltage / Over temperature
- Multiple models for choice:
  - A-Type: **IP65 rated**, Vo and Io can be adjusted through internal potentiometer
  - Blank-Type(option): **IP68 rated**, Vo and Io fixed
- Suitable for general industrial applications at high/low temperature, high dust, high moisture, high vibration, high salt or outdoor environment
- 6 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                 | HEP-100                                                                                                                          | HEP-150                       | HEP-185                                                                                                               |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| AC input voltage range    | 90~305VAC, 127~431VDC                                                                                                            |                               |                                                                                                                       |
| AC inrush current (max.)  | Cold start, 60A at 230VAC                                                                                                        |                               | Cold start, 65A at 230VAC                                                                                             |
| DC adjustment range       | Vo: -10%~+10% by potentiometer (A-Type only)<br>Io: to 60%~100% of rated output current adjustment by potentiometer(A-Type only) |                               | Vo: -10%~+10% by potentiometer (A-Type only)<br>Io: to 50%~100% of rated output current by potentiometer(A-Type only) |
| Overload protection       | 105%~125% constant current limiting, auto-recovery                                                                               |                               |                                                                                                                       |
| Over voltage protection   | 108%~135% rated output voltage                                                                                                   |                               |                                                                                                                       |
| Setup, rise, hold up time | 500ms, 50ms, 16ms at full load and 230VAC                                                                                        |                               |                                                                                                                       |
| Withstand voltage         | I/P-O/P: 3.75kVAC, I/P-FG: 2kVAC, O/P-FG: 1.5kVAC                                                                                |                               |                                                                                                                       |
| Working temperature       | -55~+70°C (refer to output derating curve)                                                                                       |                               |                                                                                                                       |
| Safety standards          | UL60950-1 approved ; Design refer to TUV EN60950-1                                                                               |                               |                                                                                                                       |
| EMC standards             | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11                                                                         |                               |                                                                                                                       |
| Connection                | Input                                                                                                                            | UL rated, SJTW 18AWGx3C(30cm) |                                                                                                                       |
|                           | Output                                                                                                                           | SJTW 14AWGx2C(30cm)           |                                                                                                                       |
| Dimension (LxWxH)(mm)     | 220x 68x 38.8                                                                                                                    |                               | 228x 68x 38.8                                                                                                         |

### 100W

#### HEP-100

| Model No.               | Output       | Tol.  | R&N   | Effi. |
|-------------------------|--------------|-------|-------|-------|
| HEP-100-12 <sub>A</sub> | 12V, 0~8.34A | ±1.0% | 120mV | 92%   |
| HEP-100-15 <sub>A</sub> | 15V, 0~6.67A | ±1.0% | 150mV | 92%   |
| HEP-100-24 <sub>A</sub> | 24V, 0~4.00A | ±1.0% | 150mV | 93%   |
| HEP-100-36 <sub>A</sub> | 36V, 0~2.65A | ±1.0% | 200mV | 93%   |
| HEP-100-48 <sub>A</sub> | 48V, 0~2.00A | ±1.0% | 200mV | 93%   |
| HEP-100-54 <sub>A</sub> | 54V, 0~1.77A | ±1.0% | 200mV | 93%   |

A = A or Blank, A: standard model(IP65), Blank: optional model(IP68)

### 185W

#### HEP-185

| Model No.               | Output       | Tol.  | R&N   | Effi. |
|-------------------------|--------------|-------|-------|-------|
| HEP-185-12 <sub>A</sub> | 12V, 0~13.0A | ±2.5% | 150mV | 91.5% |
| HEP-185-15 <sub>A</sub> | 15V, 0~11.5A | ±2.0% | 150mV | 92.0% |
| HEP-185-24 <sub>A</sub> | 24V, 0~7.80A | ±1.0% | 150mV | 93.5% |
| HEP-185-36 <sub>A</sub> | 36V, 0~5.20A | ±1.0% | 200mV | 93.5% |
| HEP-185-48 <sub>A</sub> | 48V, 0~3.90A | ±1.0% | 200mV | 94.0% |
| HEP-185-54 <sub>A</sub> | 54V, 0~3.45A | ±1.0% | 200mV | 94.0% |

A = A or Blank, A: standard model(IP65), Blank: optional model(IP68)

### 150W

#### HEP-150

| Model No.               | Output       | Tol.  | R&N   | Effi. |
|-------------------------|--------------|-------|-------|-------|
| HEP-150-12 <sub>A</sub> | 12V, 0~12.5A | ±2.5% | 150mV | 91.5% |
| HEP-150-15 <sub>A</sub> | 15V, 0~10.0A | ±2.0% | 150mV | 92.0% |
| HEP-150-24 <sub>A</sub> | 24V, 0~6.30A | ±1.0% | 150mV | 93.0% |
| HEP-150-36 <sub>A</sub> | 36V, 0~4.20A | ±1.0% | 200mV | 93.5% |
| HEP-150-48 <sub>A</sub> | 48V, 0~3.20A | ±1.0% | 200mV | 94.0% |
| HEP-150-54 <sub>A</sub> | 54V, 0~2.80A | ±1.0% | 200mV | 94.0% |

A = A or Blank, A: standard model(IP65), Blank: optional model(IP68)



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We have authorized distributors all over the world. They have sufficient stock for your prompt delivery. Also, they can offer you technical support & RMA services. Please contact your local distributors for more product information. You can also contact us at [info@meanwell.com](mailto:info@meanwell.com) for information of your local distributors.



### Features

- Universal AC input 90~305VAC
- Built-in active PFC function
- No load power consumption <0.5W at remote OFF(HEP-600)
- High efficiency up to 96%
- Fanless design, cooling by free air convection
- Ultra-wide operating temperature
- Meet 6kV surge immunity level (HEP-240/320)
- Withstand 10G vibration test
- Operating altitude up to 5000 meters
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Multiple models for choice (HEP-240/320/480):  
A-Type: **IP65 rated**, Vo and Io can be adjusted through internal potentiometer  
Blank-Type(option): **IP68 rated**, Vo and Io fixed
- Suitable for general industrial applications at high/low temperature, high dust, high moisture, high vibration, high salt or outdoor environment
- 6 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                 |        | HEP-240                                                                                                                                                                          | HEP-320                   | HEP-480                                                                                   | HEP-600                                     |
|---------------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------|
| AC input voltage range    |        | 90~305VAC; 127~431VDC                                                                                                                                                            |                           |                                                                                           |                                             |
| AC inrush current (max.)  |        | Cold start, 75A at 230VAC                                                                                                                                                        | Cold start, 70A at 230VAC | Cold start, 35A at 230VAC                                                                 | Cold start, 70A at 230VAC                   |
| DC adjustment range       |        | Vo: -6%~+6% by potentiometer (HEP-240 A-Type only)<br>-10%~+10% by potentiometer (HEP-320 A-Type only)<br>Io: to 50%~100% of rated output current by potentiometer (A-Type only) |                           | Vo: -15%~+5% by potentiometer<br>Io: to 50%~100% of rated output current by potentiometer |                                             |
| Overload protection       |        | 105%~125% hiccup mode, auto-recovery                                                                                                                                             |                           | 105%~125% constant current limiting, auto-recovery                                        |                                             |
| Over voltage protection   |        | 108%~135% rated output voltage                                                                                                                                                   |                           |                                                                                           |                                             |
| Setup, rise, hold up time |        | 500ms, 80ms, 15ms at full load and 230VAC                                                                                                                                        |                           | 500ms, 80ms, 16ms                                                                         | 500ms, 80ms, 15ms                           |
| Withstand voltage         |        | I/P-O/P: 3.75kVAC, I/P-FG: 2kVAC, O/P-FG: 1.5kVAC                                                                                                                                |                           |                                                                                           |                                             |
| Working temperature       |        | -55~+70°C (refer to output derating curve)                                                                                                                                       |                           | -55~+65°C                                                                                 | -40~+70°C                                   |
| Safety standards          |        | UL60950-1 approved ; Design refer to TUV EN60950-1                                                                                                                               |                           |                                                                                           | UL60950-1, TUV EN60950-1 approved           |
| EMC standards             |        | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11                                                                                                                         |                           |                                                                                           |                                             |
| Connection                | Input  | UL rated, SJTW 18AWGx3C (30cm)                                                                                                                                                   |                           | UL rated, SJOW 17AWGx3C (30cm)                                                            | 3+7P / 11mm pitch terminal block with cover |
|                           | Output | SJTW 14AWGx2C (30cm)                                                                                                                                                             |                           | SJOW 17AWGx2C+17AWGx2C                                                                    |                                             |
| Dimension (LxWxH)(mm)     |        | 244.2x 68x 38.8                                                                                                                                                                  | 252x 90x 43.8             | 262x 125x 43.8                                                                            | 280x 144x 48.5                              |

### HEP-240 Series



| Model No.   | Output       | Tol.  | R&N   | Effi. |
|-------------|--------------|-------|-------|-------|
| HEP-240-12A | 12V, 0~16.0A | ±2.5% | 150mV | 90.0% |
| HEP-240-15A | 15V, 0~15.0A | ±2.0% | 150mV | 90.0% |
| HEP-240-24A | 24V, 0~10.0A | ±1.0% | 150mV | 92.5% |
| HEP-240-36A | 36V, 0~6.70A | ±1.0% | 250mV | 92.5% |
| HEP-240-48A | 48V, 0~5.00A | ±1.0% | 250mV | 93.0% |
| HEP-240-54A | 54V, 0~4.45A | ±1.0% | 350mV | 93.5% |

□ = A or Blank, A: standard model(IP65), Blank: optional model(IP68)

### HEP-480 Series



| Model No.   | Output       | Tol.  | R&N   | Effi. |
|-------------|--------------|-------|-------|-------|
| HEP-480-24A | 24V, 0~20A   | ±1.0% | 200mV | 94.0% |
| HEP-480-36A | 36V, 0~13.3A | ±1.0% | 250mV | 95.0% |
| HEP-480-48A | 48V, 0~10A   | ±1.0% | 250mV | 94.5% |
| HEP-480-54A | 54V, 0~8.9A  | ±1.0% | 350mV | 95.0% |

□ = A or Blank, A: standard model(IP65), Blank: optional model(IP68)

### HEP-600 Series



| Model No.  | Output       | Tol.  | R&N   | Effi. |
|------------|--------------|-------|-------|-------|
| HEP-600-12 | 12V, 0~40A   | ±3.0% | 150mV | 93.0% |
| HEP-600-15 | 15V, 0~36A   | ±2.0% | 150mV | 94.0% |
| HEP-600-20 | 20V, 0~28A   | ±1.5% | 150mV | 95.0% |
| HEP-600-24 | 24V, 0~25A   | ±1.0% | 150mV | 95.0% |
| HEP-600-30 | 30V, 0~20A   | ±1.0% | 200mV | 95.5% |
| HEP-600-36 | 36V, 0~16.7A | ±1.0% | 250mV | 95.5% |
| HEP-600-42 | 42V, 0~14.3A | ±1.0% | 250mV | 96.0% |
| HEP-600-48 | 48V, 0~12.5A | ±1.0% | 250mV | 96.0% |
| HEP-600-54 | 54V, 0~11.2A | ±1.0% | 350mV | 96.0% |

### HEP-320 Series



| Model No.   | Output        | Tol.  | R&N   | Effi. |
|-------------|---------------|-------|-------|-------|
| HEP-320-12A | 12V, 0~22.0A  | ±3.0% | 150mV | 91.0% |
| HEP-320-15A | 15V, 0~19.0A  | ±2.0% | 150mV | 92.5% |
| HEP-320-24A | 24V, 0~13.34A | ±1.0% | 150mV | 94.0% |
| HEP-320-36A | 36V, 0~8.90A  | ±1.0% | 250mV | 94.0% |
| HEP-320-48A | 48V, 0~6.70A  | ±1.0% | 250mV | 94.5% |
| HEP-320-54A | 54V, 0~5.95A  | ±1.0% | 350mV | 95.0% |

□ = A or Blank, A: standard model(IP65), Blank: optional model(IP68)



DRC-40

DRC-60

DRC-100

### Features

- Single output with battery charger (UPS function)
- Universal AC input / Full range
- Can be installed on DIN rail TS-35/7.5 or 15
- Protections:  
Short circuit / Overload / Over voltage / Battery low protection / Battery reverse polarity protection by fuse
- Alarm signal for AC OK and battery low
- Cooling by free air convection
- Pass LPS (DRC-40/60)
- LED indicator for power on
- 100% full load burn-in test
- 3 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                       | DRC-40                                                   | DRC-60 | DRC-100                                    |
|---------------------------------|----------------------------------------------------------|--------|--------------------------------------------|
| AC input voltage range          | 90~264VAC; 127~370VDC                                    |        |                                            |
| AC inrush current (max.)        | Cold start, 30A at 115VAC, 60A at 230VAC                 |        |                                            |
| DC adjustment range             | CH1, 13.8V: 12~15V; 27.6V: 24~30V                        |        |                                            |
| Overload protection             | 105%~150% hiccup mode, auto-recovery                     |        |                                            |
| Over voltage protection         | 105%~135% rated output voltage                           |        |                                            |
| Setup, rise, hold up time       | 400ms, 50ms, 50ms at full load and 230VAC                |        | 2400ms, 50ms, 50ms at full load and 230VAC |
| Withstand voltage               | I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC           |        |                                            |
| Working temperature             | -30~+70°C (refer to output derating curve)               |        |                                            |
| Safety standards                | UL60950-1, TUV EN60950-1 approved                        |        |                                            |
| EMC standards                   | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 |        |                                            |
| Connection (screw DIN terminal) | I/P: 3 poles, O/P: 8 poles                               |        | I/P: 3 poles, O/P: 10 poles                |
| Case No.                        | 962A                                                     |        | 973A                                       |
| Dimension (LxWxH)(mm)           | 40x 90x 100                                              |        | 55x 90x 100                                |

| 40W       |                         | DRC-40 |       |       |      |
|-----------|-------------------------|--------|-------|-------|------|
| Model No. | Output                  | Tol.   | R&N   | Effi. | Max. |
| DRC-40A   | 13.8V, 0~2.9A           | ±1%    | 120mV | 86%   | 40W  |
|           | 13.8V, 0~1.0A (Charger) |        |       |       |      |
| DRC-40B   | 27.6V, 0~1.45A          | ±1%    | 200mV | 87%   | 40W  |
|           | 27.6V, 0~0.5A (Charger) |        |       |       |      |

| 100W      |                          | DRC-100 |       |       |      |
|-----------|--------------------------|---------|-------|-------|------|
| Model No. | Output                   | Tol.    | R&N   | Effi. | Max. |
| DRC-100A  | 13.8V, 0~7A              | ±1%     | 120mV | 87%   | 97W  |
|           | 13.8V, 0~2.5A (Charger)  |         |       |       |      |
| DRC-100B  | 27.6V, 0~3.5A            | ±1%     | 240mV | 89%   | 97W  |
|           | 27.6V, 0~1.25A (Charger) |         |       |       |      |

| 60W       |                          | DRC-60 |       |       |      |
|-----------|--------------------------|--------|-------|-------|------|
| Model No. | Output                   | Tol.   | R&N   | Effi. | Max. |
| DRC-60A   | 13.8V, 0~4.3A            | ±1%    | 120mV | 86%   | 59W  |
|           | 13.8V, 0~1.5A (Charger)  |        |       |       |      |
| DRC-60B   | 27.6V, 0~2.15A           | ±1%    | 200mV | 88%   | 59W  |
|           | 27.6V, 0~0.75A (Charger) |        |       |       |      |



### Customer Satisfaction —

Today's effort, tomorrow's reward. Continuously improve CQTS to satisfy customer is our goal.



### Products —

- One Stop Shopping
- Total Solution



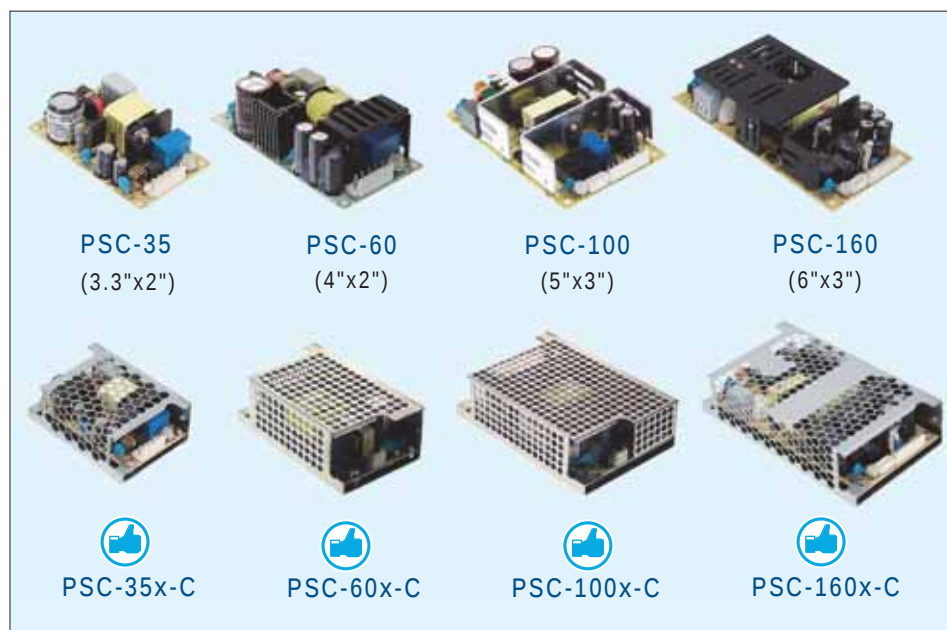
### Best products also need best service.

We have authorized distributors all over the world. They have sufficient stock for your prompt delivery. Also, they can offer you technical support & RMA services. Please contact your local distributors for more product information. You can also contact us at [info@meanwell.com](mailto:info@meanwell.com) for information of your local distributors.



### 48hrs delivery—

We keep enough stock for 95% of standard models at our 2400m<sup>2</sup> warehouse. We can arrange prompt delivery within 48hrs.



### Features

- Single output with battery charger (UPS function)
- Universal AC input / Full range
- PCB and enclosed type with metal case available
- Compact size
- Built-in active PFC function (PSC-160)
- Protections:
  - Short circuit / Overload / Over voltage
- Battery low protection / Battery reverse polarity protection by fuse
- Alarm signal for AC OK and battery low
- Cooling by free air convection
- 100% full load, burn-in test
- 2 years warranty

### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)



| Model No.                |               | PSC-35                                                   | PSC-60                                     | PSC-100                                                    | PSC-160                                |
|--------------------------|---------------|----------------------------------------------------------|--------------------------------------------|------------------------------------------------------------|----------------------------------------|
| AC input voltage range   |               | 90~264VAC; 127~370VDC                                    |                                            |                                                            |                                        |
| AC inrush current (max.) |               | Cold start, 40A at 230VAC                                | 60A at 230VAC                              | 70A at 230VAC                                              |                                        |
| DC adjustment range      |               | CH1, 13.8V: 12~15V; 27.6V: 24~29V                        |                                            |                                                            |                                        |
| Overload protection      |               | 105%~150% hiccup mode, auto-recovery                     |                                            |                                                            |                                        |
| Over voltage protection  |               | CH1, 105%~135%, shut off, re-power on to recover         | CH1, 105%~135%, hiccup mode, auto recovery | CH1, 105%~135%, shut off, re-power on to recover           |                                        |
| Withstand voltage        |               | I/P-O/P:3kVAC, I/P-FG: 2kVAC, 1 minute                   | I/P-O/P:3kVAC, I/P-FG: 1.5kVAC, 1 minute   |                                                            | I/P-O/P:3kVAC, I/P-FG: 2kVAC, 1 minute |
| Working temperature      |               | -30~+70°C                                                | -20~+70°C (refer to output derating curve) |                                                            |                                        |
| Safety standards         |               | UL60950-1, TUV EN60950-1 approved                        |                                            |                                                            |                                        |
| EMC standards            |               | EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11 |                                            |                                                            |                                        |
| Connection               |               | 3+6P/3.96mm pitch, JST: B3P/B6P-VH                       |                                            | 3+8P/3.96mm pitch, 4P/2.5mm pitch, JST: B3P/B8P-VH, B4B-XH |                                        |
| Dimension (LxWxH)(mm)    | PCB Type      | 84.6x 50.8x 24                                           | 101.6x 50.8x 29                            | 127x 76.2x 31                                              | 152.4x 76.2x 32                        |
|                          | Enclosed Type | 86.4x 59.6x 30                                           | 103.4x 62x 37                              | 130x 85x 37                                                | 155.4x 85x 37                          |

| 35W                                                |                | PSC-35    |       |       |      |
|----------------------------------------------------|----------------|-----------|-------|-------|------|
| Model No.                                          | Output         | Tol.      | R&N   | Effi. | Max. |
| PSC-35A                                            | 13.8V, 0~2.6A  | ±1%       | 120mV | 84%   | 36W  |
|                                                    | 13.8V, 0~0.9A  | (Charger) |       |       |      |
| PSC-35B                                            | 27.6V, 0~1.3A  | ±1%       | 240mV | 86%   | 36W  |
|                                                    | 27.6V, 0~0.45A | (Charger) |       |       |      |
| □ = blank, -C ; Blank: PCB Type, -C: Enclosed Type |                |           |       |       |      |

| 100W                                               |                | PSC-100   |       |       |      |
|----------------------------------------------------|----------------|-----------|-------|-------|------|
| Model No.                                          | Output         | Tol.      | R&N   | Effi. | Max. |
| PSC-100A                                           | 13.8V, 0~7.0A  | ±1%       | 100mV | 86%   | 100W |
|                                                    | 13.8V, 0~2.5A  | (Charger) |       |       |      |
| PSC-100B                                           | 27.6V, 0~3.50A | ±1%       | 100mV | 88%   | 101W |
|                                                    | 27.6V, 0~1.25A | (Charger) |       |       |      |
| □ = blank, -C ; Blank: PCB Type, -C: Enclosed Type |                |           |       |       |      |

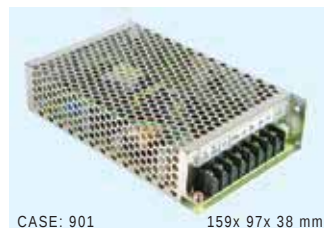
| 60W                                                |                | PSC-60    |       |       |      |
|----------------------------------------------------|----------------|-----------|-------|-------|------|
| Model No.                                          | Output         | Tol.      | R&N   | Effi. | Max. |
| PSC-60A                                            | 13.8V, 0~4.3A  | ±1%       | 120mV | 84%   | 59W  |
|                                                    | 13.8V, 0~1.50A | (Charger) |       |       |      |
| PSC-60B                                            | 27.6V, 0~2.15A | ±1%       | 240mV | 84%   | 59W  |
|                                                    | 27.6V, 0~0.75A | (Charger) |       |       |      |
| □ = blank, -C ; Blank: PCB Type, -C: Enclosed Type |                |           |       |       |      |

| 160W                                               |                | PSC-160   |       |       |      |
|----------------------------------------------------|----------------|-----------|-------|-------|------|
| Model No.                                          | Output         | Tol.      | R&N   | Effi. | Max. |
| PSC-160A                                           | 13.8V, 0~11.6A | ±1%       | 150mV | 88%   | 160W |
|                                                    | 13.8V, 0~4A    | (Charger) |       |       |      |
| PSC-160B                                           | 27.6V, 0~5.8A  | ±1%       | 240mV | 90%   | 160W |
|                                                    | 27.6V, 0~2A    | (Charger) |       |       |      |
| □ = blank, -C ; Blank: PCB Type, -C: Enclosed Type |                |           |       |       |      |

# Security Series 55~155W Single and Dual Output



## 55W 1~2 Output with Battery Charger



CASE: 901 159x 97x 38 mm

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Battery low protection (except for ADS series)
- DC alarm signal (optional)
- Cooling by free air convection
- Fixed switching frequency at 45kHz
- Approvals: UL / CUL / TUV / CB / CE
- 100% full load burn-in test
- 2 years warranty

AC input voltage range ..... 88~264VAC; 124~370VDC  
 AC inrush current ..... Cold start, 20A at 115VAC, 40A at 230VAC  
 DC adjustment range ..... 12V, 24V:  $\pm 10\%$   
 13.8V: 12~14.5V; 27.6V: 24~29V  
 Overload protection ..... 105%~150% hiccup mode, auto-recovery  
 Over voltage protection ..... CH1: 105%~135% rated output voltage  
 Setup, rise, hold up time ..... 800ms, 50ms, 80ms at full load and 230VAC  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, 1minute  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55032 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,8,11  
 Connection ..... 8P/ 8.25mm pitch terminal block  
 Packing ..... 0.57kg ; 24pcs / 13.7kg / 0.75CUFT

### ♦ Single Output with 5V, 4A DC-DC Converter

| Model No. | Output      | Tol.      | R&N   | Effi. | Max. |
|-----------|-------------|-----------|-------|-------|------|
| ADS-5512  | 12V, 0~4.0A | $\pm 1\%$ | 100mV | 76%   | 51W  |
|           | 5V, 0~4.0A  | $\pm 3\%$ | 100mV |       |      |
| ADS-5524  | 24V, 0~2.5A | $\pm 1\%$ | 100mV | 79%   | 58W  |
|           | 5V, 0~4.0A  | $\pm 3\%$ | 100mV |       |      |

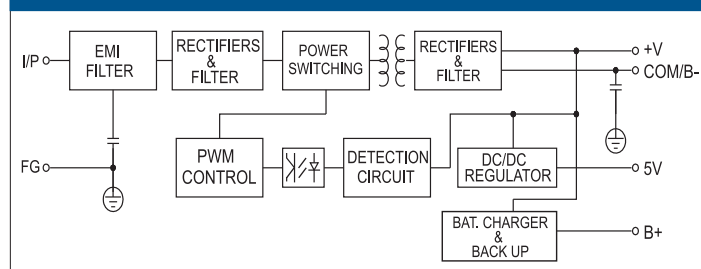
### ♦ Single Output with Battery Charger (UPS Function)

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| AD-55A    | 13.8V, 0~4.0A  | $\pm 1\%$ | 100mV | 71%   | 51W  |
|           | 13.4V, 0~0.23A | (Charger) |       |       |      |
| AD-55B    | 27.6V, 0~2.0A  | $\pm 1\%$ | 100mV | 74%   | 54W  |
|           | 26.5V, 0~0.16A | (Charger) |       |       |      |

### ♦ Dual Output with Battery Charger (UPS Function)

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| ADD-55A   | 13.8V, 0~3.50A | $\pm 1\%$ | 100mV | 71%   | 53W  |
|           | 5V, 0~4.00A    | $\pm 3\%$ | 100mV |       |      |
|           | 13.4V, 0~0.23A | (Charger) |       |       |      |
| ADD-55B   | 27.6V, 0~2.00A | $\pm 1\%$ | 150mV | 74%   | 55W  |
|           | 5V, 0~4.00A    | $\pm 3\%$ | 150mV |       |      |
|           | 26.5V, 0~0.16A | (Charger) |       |       |      |

## Block Diagram



## 155W 1~2 Output with Battery Charger and PFC Function



CASE: 906B 199x 110x 50 mm

- Universal AC input / Full range
- PF>0.92@230VAC and full load
- Protections: Short circuit / Overload / Over voltage
- Battery low protection (except for ADS series)
- Cooling by free air convection
- Fixed switching frequency at 134kHz
- Approvals: UL / CUL / TUV / CB / CE
- 100% full load burn-in test
- 2 years warranty

AC input voltage range ..... 88~264VAC; 124~370VDC  
 AC inrush current ..... Cold start, 20A at 115VAC, 40A at 230VAC  
 DC adjustment range ..... 12V, 24V, 48V:  $\pm 10\%$   
 13.8V: 12~14.5V; 27.6V: 24~29V; 54V: 48~58V  
 Overload protection ..... CH1,2: 105%~135%, charger: 0.51~0.9A;  
 constant current limiting, auto-recovery  
 Over voltage protection ..... CH1: 115%~135% rated output voltage  
 Setup, rise, hold up time ... 1000ms, 90ms, 24ms at full load and 230VAC  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, 1minute  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55032 class B, EN61000-3-2,3,  
 EN61000-4-2,3,4,5,6,8,11  
 Connection ..... 8P/ 9.5mm pitch terminal block  
 Packing ..... 1.0kg ; 16pcs / 16.0kg / 0.95CUFT

### ♦ Single Output with 5V, 3A DC-DC Converter

| Model No. | Output       | Tol.      | R&N   | Effi. | Max. |
|-----------|--------------|-----------|-------|-------|------|
| ADS-15512 | 12V, 0~12.5A | $\pm 2\%$ | 150mV | 77%   | 153W |
|           | 5V, 0~3.00A  | $\pm 3\%$ | 100mV |       |      |
| ADS-15524 | 24V, 0~6.50A | $\pm 1\%$ | 150mV | 82%   | 154W |
|           | 5V, 0~3.00A  | $\pm 3\%$ | 100mV |       |      |
| ADS-15548 | 48V, 0~3.20A | $\pm 1\%$ | 240mV | 82%   | 154W |
|           | 5V, 0~3.00A  | $\pm 5\%$ | 100mV |       |      |

### ♦ Single Output with Battery Charger (UPS Function)

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| AD-155A   | 13.8V, 0~11.5A | $\pm 2\%$ | 150mV | 80%   | 152W |
|           | 13.3V, 0~0.50A | (Charger) |       |       |      |
| AD-155B   | 27.6V, 0~5.50A | $\pm 1\%$ | 150mV | 84%   | 152W |
|           | 27.1V, 0~0.50A | (Charger) |       |       |      |
| AD-155C   | 54.0V, 0~2.70A | $\pm 1\%$ | 240mV | 84%   | 157W |
|           | 53.5V, 0~0.50A | (Charger) |       |       |      |

### ♦ Dual Output with Battery Charger (UPS Function)

| Model No. | Output         | Tol.      | R&N   | Effi. | Max. |
|-----------|----------------|-----------|-------|-------|------|
| ADD-155A  | 13.8V, 0~10.5A | $\pm 1\%$ | 150mV | 78%   | 153W |
|           | 5V, 0~3.00A    | $\pm 3\%$ | 100mV |       |      |
|           | 13.3V, 0~0.50A | (Charger) |       |       |      |
| ADD-155B  | 27.6V, 0~5.00A | $\pm 1\%$ | 200mV | 81%   | 153W |
|           | 5V, 0~3.00A    | $\pm 3\%$ | 100mV |       |      |
|           | 27.1V, 0~0.50A | (Charger) |       |       |      |
| ADD-155C  | 54.0V, 0~2.50A | $\pm 1\%$ | 240mV | 81%   | 150W |
|           | 5V, 0~3.00A    | $\pm 5\%$ | 100mV |       |      |
|           | 53.5V, 0~0.20A | (Charger) |       |       |      |

# Security Series/ATX Power



## 35~75W Single Output

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Battery reverse polarity protection by fuse
- Cooling by free air convection
- No load power consumption <0.75W
- Suitable for installation in metallic or non-metallic system enclosure
- Temperature compensation function
- LED indicator for power on
- 2 years warranty



AC input voltage range ..... 85~264VAC; 120~370VDC  
 DC adjustment range ..... 95%~115% rated output voltage  
 Overload protection ..... 120%~165%, hiccup mode, auto-recovery  
 Over voltage protection ..... 120%~140%, rated output voltage  
 Setup, rise, hold up time .... 500ms, 30ms, 50ms at full load and 230VAC  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG:1.5kVAC, 1minute  
 Working temperature ..... -20~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1 approved  
 EMC standards ..... EN55032 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... I/P: 3 poles, O/P: 2 poles screw terminal

### ◆ SCP-35 Series

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| SCP-35-12 | 13.8V, 0~2.6A | ±2%  | 120mV | 83%   | 36W  |
| SCP-35-24 | 27.6V, 0~1.4A | ±1%  | 200mV | 86%   | 39W  |

### ◆ SCP-50 Series

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| SCP-50-12 | 13.8V, 0~3.6A | ±2%  | 120mV | 81%   | 50W  |
| SCP-50-24 | 27.6V, 0~1.8A | ±1%  | 200mV | 85%   | 50W  |

### ◆ SCP-75 Series

| Model No. | Output        | Tol. | R&N   | Effi. | Max. |
|-----------|---------------|------|-------|-------|------|
| SCP-75-12 | 13.8V, 0~5.4A | ±2%  | 120mV | 81%   | 75W  |
| SCP-75-24 | 27.6V, 0~2.7A | ±1%  | 200mV | 85%   | 75W  |

## 250~300W Industrial ATX PC Power Supply



- Universal AC input / Full range
- Low profile for 1U/2U rack system
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage
- With power good and fail signal output
- Forced air cooling by built-in DC fan
- PS-ON signal input
- 2 years warranty

AC input voltage range ..... 90~264VAC, 127~370VDC  
 Setup, rise, hold up time ... 800ms, 20ms, 16ms at 230VAC  
 Overload protection ..... 105%~150% shut off, re-power on to recover  
 Over voltage protection ..... 110%~140% rated output voltage for CH1~CH3  
 Withstand voltage ..... I/P-O/P: 1.5kVAC, I/P-FG:2kVAC, 1minute  
 Working temperature ..... -10~+60°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55032 class B, EN61000-3-2,-3, EN61000-4-2,3,4,5,6,8,11

| Model No. | Output         | Tol. | R&N   | Effi. | Max. |
|-----------|----------------|------|-------|-------|------|
| IPC-250   | 3.3V, 0~20A    | ±5%  | 50mV  | 75%   | 250W |
|           | 5V, 1~25A      | ±5%  | 50mV  |       |      |
|           | 12V, 1~15A     | ±7%  | 120mV |       |      |
|           | -5V, 0~0.5A    | ±8%  | 100mV |       |      |
|           | -12V, 0.1~1.0A | ±10% | 120mV |       |      |
|           | 5VSB, 0~2.0A   | ±5%  | 50mV  |       |      |
| IPC-300A  | 3.3V, 0~20A    | ±5%  | 50mV  | 75%   | 300W |
|           | 5V, 1~30A      | ±5%  | 50mV  |       |      |
|           | 12V, 1~18A     | ±7%  | 120mV |       |      |
|           | -5V, 0~0.5A    | ±8%  | 100mV |       |      |
|           | -12V, 0.1~1.0A | ±10% | 120mV |       |      |
|           | 5VSB, 0~2.0A   | ±5%  | 50mV  |       |      |
| IPC-300B  | 24V, 0~3.0A    | ±5%  | 240mV | 80%   | 300W |
|           | 5V, 1~30A      | ±5%  | 50mV  |       |      |
|           | 12V, 1~18A     | ±7%  | 120mV |       |      |
|           | -5V, 0~0.5A    | ±8%  | 100mV |       |      |
|           | -12V, 0.1~1.0A | ±10% | 120mV |       |      |
|           | 5VSB, 0~2.0A   | ±5%  | 50mV  |       |      |



### Best products also need best service.

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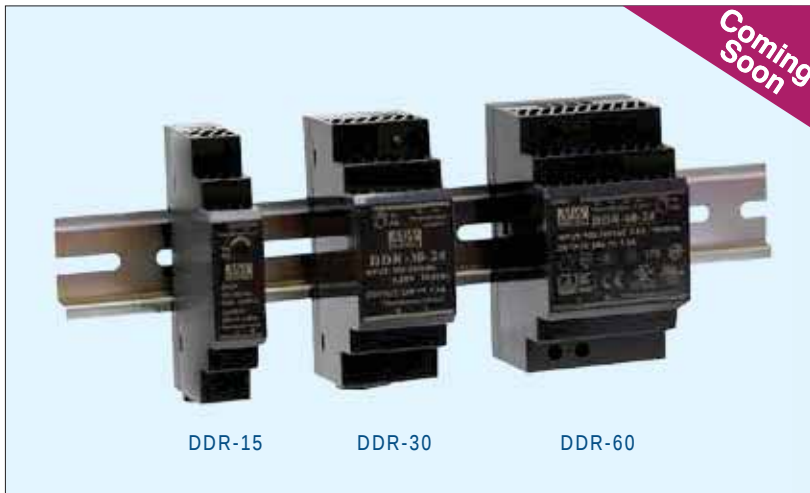


We provide specification, drawing, test report and more information, please visit our website — <http://www.meanwell.com>



### 48hrs delivery—

We keep enough stock for 95% of standard models at our 2400m² warehouse. We can arrange prompt delivery within 48hrs.



### Features

- Compact size with 1SU~3SU width
- 4:1 ultra-wide input range
- Protections: Short circuit / Overload / Over voltage / Input reverse polarity / Input under voltage
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- 3000VDC I/O isolation (Rainforce isolation)
- -40~+85°C ultra-wide operating temperature
- DC output adjustable ( $\pm 10\%$ )
- 3 years warranty



### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

CB/CE pending

| Model No.                 | DDR-15                                                                         | DDR-30       | DDR-60         |
|---------------------------|--------------------------------------------------------------------------------|--------------|----------------|
| DC input range            | G: 9~36V, L: 18~75V                                                            |              |                |
| Line regulation (1 sec.)  | $\pm 0.5\%$                                                                    |              |                |
| Load regulation (max.)    | $\pm 0.5\%$                                                                    |              |                |
| Overload protection       | 110%~150% hiccup mode, recovers automatically after fault condition is removed |              |                |
| Over voltage protection   | 115%~135% Shut down O/P voltage, re-power on to recover                        |              |                |
| Withstand voltage         | I/P-O/P: 3kVDC                                                                 |              |                |
| Isolation resistance      | 100M $\Omega$ @500VDC                                                          |              |                |
| Working temperature(min.) | -40~+85°C (refer to output derating curve)                                     |              |                |
| Safety standards          | Design refer to IEC62368(LVD)                                                  |              |                |
| EMC standards             | EN55032 class B, EN61000-3-3, EN61000-4-2,3,4,5,6,8                            |              |                |
| Dimension (LxWxH)(mm)     | 17.5x 90x 54.5                                                                 | 35x 90x 54.5 | 52.5x 90x 54.5 |

### 15W DDR-15

| Model No.   | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|-------------|-----------|------------|----------|-------------|-----------|
| DDR-15G-3.3 | 9~36      | 3.3        | 3.5      | 50          | 84        |
| DDR-15G-5   | 9~36      | 5          | 3        | 50          | 84        |
| DDR-15G-12  | 9~36      | 12         | 1.25     | 60          | 85        |
| DDR-15G-15  | 9~36      | 15         | 1        | 75          | 85        |
| DDR-15G-24  | 9~36      | 24         | 0.63     | 100         | 86        |
| DDR-15L-3.3 | 18~75     | 3.3        | 4.5      | 50          | 85        |
| DDR-15L-5   | 18~75     | 5          | 3        | 50          | 85        |
| DDR-15L-12  | 18~75     | 12         | 1.25     | 60          | 86        |
| DDR-15L-15  | 18~75     | 15         | 1        | 75          | 86        |
| DDR-15L-24  | 18~75     | 24         | 0.63     | 100         | 87        |

### 30W DDR-30

| Model No.  | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|------------|-----------|------------|----------|-------------|-----------|
| DDR-30G-5  | 9~36      | 5          | 6        | 60          | 85        |
| DDR-30G-12 | 9~36      | 12         | 2.5      | 75          | 86        |
| DDR-30G-15 | 9~36      | 15         | 2        | 75          | 87        |
| DDR-30G-24 | 9~36      | 24         | 1.25     | 100         | 89        |

| Model No.  | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|------------|-----------|------------|----------|-------------|-----------|
| DDR-30L-5  | 18~75     | 5          | 6        | 60          | 86        |
| DDR-30L-12 | 18~75     | 12         | 2.5      | 75          | 90        |
| DDR-30L-15 | 18~75     | 15         | 2        | 75          | 90        |
| DDR-30L-24 | 18~75     | 24         | 1.25     | 100         | 91        |

### 60W DDR-60

| Model No.  | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|------------|-----------|------------|----------|-------------|-----------|
| DDR-60G-5  | 9~36      | 5          | 12       | 60          | 88        |
| DDR-60G-12 | 9~36      | 12         | 5        | 75          | 92        |
| DDR-60G-15 | 9~36      | 15         | 4        | 75          | 91        |
| DDR-60G-24 | 9~36      | 24         | 2.5      | 100         | 90        |
| DDR-60L-5  | 18~75     | 5          | 12       | 60          | 89        |
| DDR-60L-12 | 18~75     | 12         | 5        | 75          | 91        |
| DDR-60L-15 | 18~75     | 15         | 4        | 75          | 92        |
| DDR-60L-24 | 18~75     | 24         | 2.5      | 100         | 92        |



### Features

- ITE & Railway safety
- 2:1 wide input range
- **150% peak load capability**
- Protections:
  - Short circuit / Overload / Over voltage / Over temperature / Input reverse polarity / Input under voltage
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- 4000VDC I/O isolation (Rainforce isolation)
- -40~+70°C wide operating temperature
- DC output adjustable
- DC OK relay contact (DDR-240 only)
- Current sharing up to 960W (3+1) for DDR-240
- 3 years warranty



### General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

CB/CE pending

| Model No.                 | DDR-120                                                                                                | DDR-240                                                            |
|---------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| DC input range            | A: 9~18V, B: 16.8~33.6V, C: 33.6~67.2V, D: 67.2~154V                                                   | B: 16.8~33.6V, C: 33.6~67.2V, D: 67.2~154V                         |
| Line regulation (1 sec.)  | ±0.5%                                                                                                  |                                                                    |
| Load regulation (max.)    | ±1%                                                                                                    |                                                                    |
| Overload protection       | 110%~150% rated output power for more than 3 seconds and then shut down O/P voltage with auto-recovery |                                                                    |
| Over voltage protection   | 120%~135% Shut down O/P voltage, re-power on to recover                                                |                                                                    |
| Withstand voltage         | I/P-O/P: 4kVDC, I/P-FG: 2.5kVDC, O/P-FG: 2.5kVDC                                                       |                                                                    |
| Isolation resistance      | 100MΩ@500VDC                                                                                           |                                                                    |
| Working temperature(min.) | -40~+70°C (refer to output derating curve)                                                             |                                                                    |
| Safety standards          | Industrial                                                                                             | Design refer to IEC62368(LVD) [except for 67.2~154Vin]             |
|                           | Railway                                                                                                | Design refer to EN50155 / IEC60571, EN45545-2 (except for 9~18Vin) |
| EMC standards             | EN55032 class B, EN61000-3,-2,-3, EN61000-4-2,3,4,5,6,8; EN50121-3-2 (except for 9~18Vin)              |                                                                    |
| Dimension (LxWxH)(mm)     | 32x 125.2x 102                                                                                         | 63x 125.2x 113.5                                                   |

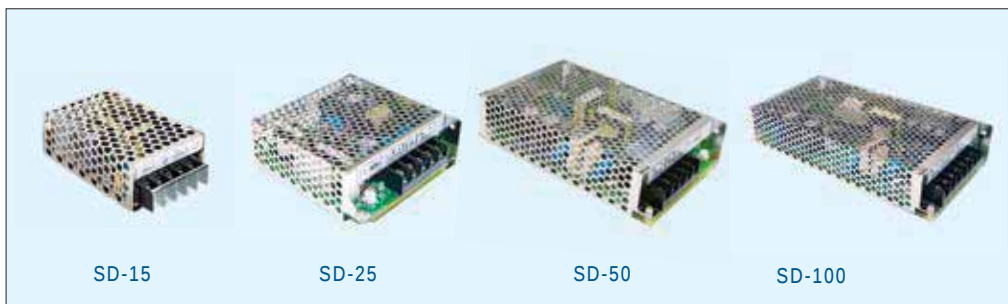
### 120W DDR-120

| Model No.   | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|-------------|-----------|------------|----------|-------------|-----------|
| DDR-120A-12 | 9~18      | 12         | 10       | 100         | 89        |
| DDR-120B-12 | 16.8~33.6 | 12         | 10       | 100         | 90        |
| DDR-120C-12 | 33.6~67.2 | 12         | 10       | 100         | 91        |
| DDR-120D-12 | 67.2~154  | 12         | 10       | 100         | 92        |
| DDR-120A-24 | 9~18      | 24         | 5        | 120         | 90        |
| DDR-120B-24 | 16.8~33.6 | 24         | 5        | 120         | 91        |
| DDR-120C-24 | 33.6~67.2 | 24         | 5        | 120         | 92        |
| DDR-120D-24 | 67.2~154  | 24         | 5        | 120         | 93        |
| DDR-120A-48 | 9~18      | 48         | 2.5      | 200         | 90        |
| DDR-120B-48 | 16.8~33.2 | 48         | 2.5      | 200         | 91        |
| DDR-120C-48 | 33.6~67.2 | 48         | 2.5      | 200         | 92        |
| DDR-120D-48 | 67.2~154  | 48         | 2.5      | 200         | 93        |

### 240W DDR-240

| Model No.   | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|-------------|-----------|------------|----------|-------------|-----------|
| DDR-240B-24 | 16.8~33.6 | 24         | 10       | 120         | 90        |
| DDR-240C-24 | 33.6~67.2 | 24         | 10       | 120         | 91        |
| DDR-240D-24 | 67.2~154  | 24         | 10       | 120         | 92        |
| DDR-240B-48 | 16.8~33.6 | 48         | 5        | 200         | 91        |
| DDR-240C-48 | 33.6~67.2 | 48         | 5        | 200         | 92        |
| DDR-240D-48 | 67.2~154  | 48         | 5        | 200         | 93        |

# DC/DC Converter 15~100W Single Output Enclosed Type



## Features

- 2:1 wide input range
- I/O isolation:  
1500VAC (2000VAC for 15W)
- Protections: Short circuit / Overload /  
Over voltage
- Cooling by free air convection
- 2 years warranty

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                       | SD-15                                                                                                       | SD-25                                | SD-50                                     | SD-100                               |
|---------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------|--------------------------------------|
| DC input range                  | A: 9.2~18V(9.5~15.6 for SD-100A only), B: 19~36V(18~36V for SD-15), C: 36~72V; D: 72~144V (SD-100 only)     |                                      |                                           |                                      |
| DC adjustment range             | 5V: 4.5~5.5V, 12V: 11~16V, 24V: 23~30V (5V: 4.75~5.5V, 12V: 10.8~13.2V, 24V: 21.6~26.4V for SD-15)          |                                      |                                           |                                      |
| Line and load regulation (max.) | ±0.5% (±0.2%~±0.5% for SD-100A only)                                                                        |                                      |                                           |                                      |
| Overload protection             | 105%~160% hiccup mode, auto-recovery                                                                        | 105%~150% hiccup mode, auto-recovery |                                           | 105%~135% hiccup mode, auto-recovery |
| Over voltage protection         | 115%~135% rated output voltage                                                                              | 115%~165% rated output voltage       |                                           |                                      |
| Withstand voltage               | I/P-O/P: 2kVAC, I/P-FG: 1.5kVAC, 1 minute                                                                   |                                      | I/P-O/P: 1.5kVAC, I/P-FG: 2kVAC, 1 minute |                                      |
| Working temperature             | -10~+60°C (refer to output derating curve)                                                                  |                                      |                                           |                                      |
| Safety standards                | Meet LVD; EN60950-1 CB approved by TUV (SD-100 D type only); design refer to IEC60950-1(SD-100 A type only) |                                      |                                           |                                      |
| EMC standards                   | EN55032 class B, EN61000-4-2,3,4,6,8                                                                        |                                      |                                           |                                      |
| Case No.                        | 931A                                                                                                        | 905                                  | 901                                       | 902                                  |
| Dimension (LxWxH) (mm)          | 78x 51x 28                                                                                                  | 99x 97x 36                           | 159x 97x 38                               | 199x 98x 38                          |

## SD-15



| Model No. | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|-----------|-----------|------------|----------|-------------|-----------|
| SD-15A-5  | 9.2~18    | 5          | 3        | 100         | 68        |
| SD-15A-12 | 9.2~18    | 12         | 1.25     | 120         | 72        |
| SD-15A-24 | 9.2~18    | 24         | 0.625    | 150         | 70        |
| SD-15B-5  | 18~36     | 5          | 3        | 100         | 76        |
| SD-15B-12 | 18~36     | 12         | 1.25     | 120         | 76        |
| SD-15B-24 | 18~36     | 24         | 0.625    | 150         | 77        |
| SD-15C-5  | 36~72     | 5          | 3        | 100         | 75        |
| SD-15C-12 | 36~72     | 12         | 1.25     | 120         | 79        |
| SD-15C-24 | 36~72     | 24         | 0.625    | 150         | 78        |

## SD-25



| Model No. | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|-----------|-----------|------------|----------|-------------|-----------|
| SD-25A-5  | 9.2~18    | 5          | 5        | 100         | 71        |
| SD-25A-12 | 9.2~18    | 12         | 2.1      | 120         | 72        |
| SD-25A-24 | 9.2~18    | 24         | 1.1      | 150         | 75        |
| SD-25B-5  | 19~36     | 5          | 5        | 100         | 72        |
| SD-25B-12 | 19~36     | 12         | 2.1      | 120         | 75        |
| SD-25B-24 | 19~36     | 24         | 1.1      | 150         | 78        |
| SD-25C-5  | 36~72     | 5          | 5        | 100         | 74        |
| SD-25C-12 | 36~72     | 12         | 2.1      | 120         | 78        |
| SD-25C-24 | 36~72     | 24         | 1.1      | 150         | 81        |

## SD-50



| Model No. | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|-----------|-----------|------------|----------|-------------|-----------|
| SD-50A-5  | 9.2~18    | 5          | 10       | 100         | 70        |
| SD-50A-12 | 9.2~18    | 12         | 4.2      | 120         | 72        |
| SD-50A-24 | 9.2~18    | 24         | 2.1      | 150         | 74        |
| SD-50B-5  | 19~36     | 5          | 10       | 100         | 73        |
| SD-50B-12 | 19~36     | 12         | 4.2      | 120         | 75        |
| SD-50B-24 | 19~36     | 24         | 2.1      | 150         | 80        |
| SD-50C-5  | 36~72     | 5          | 10       | 100         | 76        |
| SD-50C-12 | 36~72     | 12         | 4.2      | 120         | 78        |
| SD-50C-24 | 36~72     | 24         | 2.1      | 150         | 83        |

## SD-100



| Model No.  | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|------------|-----------|------------|----------|-------------|-----------|
| SD-100A-5  | 9.5~15.6  | 5          | 18       | 100         | 74        |
| SD-100A-12 | 9.5~15.6  | 12         | 8.5      | 120         | 76        |
| SD-100A-24 | 9.5~15.6  | 24         | 4.2      | 150         | 78        |
| SD-100B-5  | 19~36     | 5          | 20       | 100         | 74        |
| SD-100B-12 | 19~36     | 12         | 8.5      | 120         | 75        |
| SD-100B-24 | 19~36     | 24         | 4.2      | 150         | 78        |
| SD-100C-5  | 36~72     | 5          | 20       | 100         | 75        |
| SD-100C-12 | 36~72     | 12         | 8.5      | 120         | 77        |
| SD-100C-24 | 36~72     | 24         | 4.2      | 150         | 81        |
| SD-100D-5  | 72~144    | 5          | 20       | 100         | 76        |
| SD-100D-12 | 72~144    | 12         | 8.5      | 120         | 80        |
| SD-100D-24 | 72~144    | 24         | 4.2      | 150         | 83        |

# DC/DC Converter 150~1000W Single Output Enclosed Type



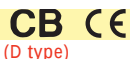
## Features

- 2:1 wide input range (4:1 input for SD-500/1000)
- I/O Isolation: 1500VAC, 2000VAC (SD-500/1000)
- Protections: Short circuit / Overload / Over voltage / Over temperature (except for SD-150) / Input polarity (SD-500 only)
- Fanless design, cooling by free air convection (SD-150/200), forced air cooling by built-in DC fan (SD-350/500/1000)
- DC input active surge current limiting (SD-500)
- Output OK signal (SD-500/1000)
- 1U low profile 41mm (SD-1000)
- 12V / 0.25A auxiliary output (SD-500/1000)
- Built-in remote ON/OFF control and remote sense (SD-500/1000)
- 2 years warranty, 3 years warranty (SD-500/1000)

## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                       | SD-150                                               | SD-200                                                 | SD-350      | SD-500                                                                                | SD-1000 |
|---------------------------------|------------------------------------------------------|--------------------------------------------------------|-------------|---------------------------------------------------------------------------------------|---------|
| DC input range                  | B: 19~36V, C: 36~72V, D: 72~144V                     |                                                        |             | L: 19~72V, H: 72~144V                                                                 |         |
| Vout adjustment range           | 12V: 11~16V,<br>24V: 23~30V                          | 5V: 4.5~5.5V, 12V: 11~16V,<br>24V: 23~30V, 48V: 43~53V |             | 12V: 11~15V, 24V: 23~30V, 48V: 46~60V                                                 |         |
| Line and load regulation (max.) | ±0.5%                                                |                                                        | ±0.2%~±0.5% | ±0.5%                                                                                 |         |
| Overload protection             | 105%~135% hiccup mode,<br>auto-recovery              | 105%~135% shut off,<br>re-power on to recover          |             | 105%~125% constant current limiting,<br>shut off after 5 sec., re-power on to recover |         |
| Over voltage protection         | 130%~165%                                            | 110%~167% rated output voltage                         |             | 130%~160% rated output voltage                                                        |         |
| Withstand voltage               | I/P-O/P: 1.5kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC     |                                                        |             | I/P-O/P: 2kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC                                        |         |
| Working temperature             | -10~+60°C                                            | -20~+60°C                                              |             |                                                                                       |         |
| Safety standards                | Meet LVD, EN60950-1 CB approved by TUV (D type only) |                                                        |             | IEC60950-1 CB approved by TUV                                                         |         |
| EMC standards                   | EN55032 class B, EN61000-4-2,3,4,6,8                 |                                                        |             |                                                                                       |         |
| Case No.                        | 906                                                  | 912H                                                   | 912B        | 912A                                                                                  | 952B    |
| Dimension (LxWxH) (mm)          | 199x 110x 50                                         | 215x 115x 50                                           |             | 295x 127x 41                                                                          |         |

## SD-150



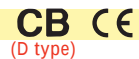
| Model No.  | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|------------|-----------|------------|----------|-------------|-----------|
| SD-150B-12 | 19~36     | 12         | 12.5     | 120         | 75        |
| SD-150B-24 | 19~36     | 24         | 6.3      | 150         | 77        |
| SD-150C-12 | 36~72     | 12         | 12.5     | 120         | 77        |
| SD-150C-24 | 36~72     | 24         | 6.3      | 150         | 80        |
| SD-150D-12 | 72~144    | 12         | 12.5     | 120         | 79        |
| SD-150D-24 | 72~144    | 24         | 6.3      | 150         | 82        |

## SD-200



| Model No.  | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|------------|-----------|------------|----------|-------------|-----------|
| SD-200B-5  | 19~36     | 5          | 34       | 100         | 79        |
| SD-200B-12 | 19~36     | 12         | 16.7     | 120         | 82        |
| SD-200B-24 | 19~36     | 24         | 8.4      | 150         | 85        |
| SD-200B-48 | 19~36     | 48         | 4.2      | 200         | 86        |
| SD-200C-5  | 36~72     | 5          | 40       | 100         | 81        |
| SD-200C-12 | 36~72     | 12         | 16.7     | 120         | 84        |
| SD-200C-24 | 36~72     | 24         | 8.4      | 150         | 86        |
| SD-200C-48 | 36~72     | 48         | 4.2      | 200         | 86        |
| SD-200D-5  | 72~144    | 5          | 40       | 100         | 82        |
| SD-200D-12 | 72~144    | 12         | 16.7     | 120         | 82        |
| SD-200D-24 | 72~144    | 24         | 8.4      | 150         | 84        |
| SD-200D-48 | 72~144    | 48         | 4.2      | 200         | 90        |

## SD-350



| Model No.  | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|------------|-----------|------------|----------|-------------|-----------|
| SD-350B-5  | 19~36     | 5          | 57       | 100         | 74        |
| SD-350B-12 | 19~36     | 12         | 27.5     | 120         | 80        |
| SD-350B-24 | 19~36     | 24         | 14.6     | 150         | 80        |
| SD-350B-48 | 19~36     | 48         | 7.3      | 200         | 84        |
| SD-350C-5  | 36~72     | 5          | 60       | 100         | 76        |
| SD-350C-12 | 36~72     | 12         | 27.5     | 120         | 81        |
| SD-350C-24 | 36~72     | 24         | 14.6     | 150         | 81        |
| SD-350C-48 | 36~72     | 48         | 7.3      | 200         | 82        |
| SD-350D-5  | 72~144    | 5          | 60       | 100         | 78        |
| SD-350D-12 | 72~144    | 12         | 29.2     | 120         | 83        |
| SD-350D-24 | 72~144    | 24         | 14.6     | 150         | 87        |
| SD-350D-48 | 72~144    | 48         | 7.3      | 200         | 89        |

## SD-500



| Model No.  | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|------------|-----------|------------|----------|-------------|-----------|
| SD-500L-12 | 19~72     | 12         | 40       | 150         | 86        |
| SD-500L-24 | 19~72     | 24         | 21       | 150         | 88        |
| SD-500L-48 | 19~72     | 48         | 10.5     | 150         | 89        |
| SD-500H-12 | 72~144    | 12         | 40       | 150         | 87        |
| SD-500H-24 | 72~144    | 24         | 21       | 150         | 89        |
| SD-500H-48 | 72~144    | 48         | 10.5     | 150         | 90        |

## SD-1000



| Model No.   | Vin (VDC) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|-------------|-----------|------------|----------|-------------|-----------|
| SD-1000L-12 | 19~72     | 12         | 60       | 150         | 84        |
| SD-1000L-24 | 19~72     | 24         | 40       | 150         | 88        |
| SD-1000L-48 | 19~72     | 48         | 21       | 150         | 90        |
| SD-1000H-12 | 72~144    | 12         | 60       | 150         | 85        |
| SD-1000H-24 | 72~144    | 24         | 40       | 150         | 89        |
| SD-1000H-48 | 72~144    | 48         | 21       | 150         | 92        |

# DC/DC Converter 30~150W Railway Enclosed Type



## Features

- Compliance to EN50155 and EN45545-2 railway standard
- 4:1 wide input range (RSD-30/60)  
2:1 wide input range (RSD-100/150)
- 4000VDC I/O isolation
- Protections: Short circuit / Overload /  
Over voltage / Input reverse polarity
- Cooling by free air convection
- Built-in constant current limiting circuit
- Ultra compact and 1U low profile
- All using 105°C long life electrolytic capacitors
- Half encapsulated (5G vibration)
- 3 years warranty



## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                  |            | RSD-30                                                                                       | RSD-60      | RSD-100                                                         | RSD-150   |
|----------------------------|------------|----------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------|-----------|
| DC input range             |            | G: 9~36V, L: 18~72V, H: 40~160V                                                              |             | B: 14.4~33.6V, C:28.8~67.2V, D: 57.6~154V                       |           |
| Line regulation (1 sec.)   |            | ±0.2%~±0.5% by models                                                                        |             | ±0.5%                                                           |           |
| Load regulation (max.)     |            | ±0.2%~±0.5% by models                                                                        |             | ±1%                                                             |           |
| Overload protection        |            | 105%~135% constant current limiting, recovers automatically after fault condition is removed |             |                                                                 |           |
| Over voltage protection    |            | 115%~135% Shut down O/P voltage, re-power on to recover                                      |             |                                                                 | 115%~140% |
| Withstand voltage          |            | I/P-O/P: 4kVDC, I/P-FG: 2.5kVDC, O/P-FG: 2.5kVDC, 1 minute                                   |             |                                                                 |           |
| Isolation resistance       |            | 100MΩ@500VDC                                                                                 |             |                                                                 |           |
| Working temperature (min.) |            | -40~+70°C (refer to output derating curve)                                                   |             |                                                                 |           |
| Safety standards           | Industrial | Meet IEC60950-1(LVD)                                                                         |             |                                                                 |           |
|                            | Railway    | EN50155/IEC60571; EN45545-2                                                                  |             |                                                                 |           |
| EMC standards              |            | EN55032 class B (class A for conduction), EN61000-3,-2,3, EN61000-4-2,3,4,5,6                |             | EN55032 class B (class A for conduction), EN61000-4-2,3,4,5,6,8 |           |
| Dimension (LxWxH)(mm)      |            | 113x 60x 25                                                                                  | 128x 60x 25 | 161x 68x 36                                                     | 189x77x36 |

## 30W

### NEW RSD-30

| Model No.   | Vin (VDC)<br>(continuous) | Vout<br>(VDC) | Iout<br>(A) | R&N<br>(mVp-p) | Effi.<br>(%) |
|-------------|---------------------------|---------------|-------------|----------------|--------------|
| RSD-30G-3.3 | 9~36                      | 3.3           | 6           | 70             | 84           |
| RSD-30G-5   | 9~36                      | 5             | 6           | 70             | 85           |
| RSD-30G-12  | 9~36                      | 12            | 2.5         | 60             | 86.5         |
| RSD-30G-24  | 9~36                      | 24            | 1.25        | 50             | 89           |
| RSD-30L-3.3 | 18~72                     | 3.3           | 6           | 70             | 84           |
| RSD-30L-5   | 18~72                     | 5             | 6           | 70             | 86           |
| RSD-30L-12  | 18~72                     | 12            | 2.5         | 60             | 90           |
| RSD-30L-24  | 18~72                     | 24            | 1.25        | 50             | 91           |
| RSD-30H-3.3 | 40~160                    | 3.3           | 6           | 70             | 87           |
| RSD-30H-5   | 40~160                    | 5             | 6           | 70             | 89           |
| RSD-30H-12  | 40~160                    | 12            | 2.5         | 60             | 89           |
| RSD-30H-24  | 40~160                    | 24            | 1.25        | 50             | 89           |

## 100W

### RSD-100

| Model No.   | Vin (VDC)<br>(1 sec / continuous) | Vout<br>(VDC) | Iout<br>(A) | R&N<br>(mVp-p) | Effi.<br>(%) |
|-------------|-----------------------------------|---------------|-------------|----------------|--------------|
| RSD-100B-5  | 14.4~33.6 / 16.8~31.2             | 5             | 20          | 100            | 88           |
| RSD-100B-12 | 14.4~33.6 / 16.8~31.2             | 12            | 8.4         | 120            | 89           |
| RSD-100B-24 | 14.4~33.6 / 16.8~31.2             | 24            | 4.2         | 150            | 89           |
| RSD-100C-5  | 28.8~67.2 / 33.6~62.4             | 5             | 20          | 100            | 89           |
| RSD-100C-12 | 28.8~67.2 / 33.6~62.4             | 12            | 8.4         | 120            | 91           |
| RSD-100C-24 | 28.8~67.2 / 33.6~62.4             | 24            | 4.2         | 150            | 91           |
| RSD-100D-5  | 57.6~154 / 67.2~143               | 5             | 20          | 100            | 89.5         |
| RSD-100D-12 | 57.6~154 / 67.2~143               | 12            | 8.4         | 120            | 91           |
| RSD-100D-24 | 57.6~154 / 67.2~143               | 24            | 4.2         | 150            | 90           |

## 60W

### NEW RSD-60

| Model No.   | Vin (VDC)<br>(continuous) | Vout<br>(VDC) | Iout<br>(A) | R&N<br>(mVp-p) | Effi.<br>(%) |
|-------------|---------------------------|---------------|-------------|----------------|--------------|
| RSD-60G-3.3 | 9~36                      | 3.3           | 12          | 60             | 86.5         |
| RSD-60G-5   | 9~36                      | 5             | 12          | 100            | 88           |
| RSD-60G-12  | 9~36                      | 12            | 5           | 50             | 92           |
| RSD-60G-24  | 9~36                      | 24            | 2.5         | 50             | 90           |
| RSD-60L-3.3 | 18~72                     | 3.3           | 12          | 60             | 88.5         |
| RSD-60L-5   | 18~72                     | 5             | 12          | 60             | 89           |
| RSD-60L-12  | 18~72                     | 12            | 5           | 50             | 93           |
| RSD-60L-24  | 18~72                     | 24            | 2.5         | 50             | 91.5         |
| RSD-60H-3.3 | 40~160                    | 3.3           | 12          | 80             | 87.5         |
| RSD-60H-5   | 40~160                    | 5             | 12          | 60             | 89           |
| RSD-60H-12  | 40~160                    | 12            | 5           | 50             | 92.5         |
| RSD-60H-24  | 40~160                    | 24            | 2.5         | 50             | 91.5         |

## 150W

### RSD-150

| Model No.   | Vin (VDC)<br>(1 sec / continuous) | Vout<br>(VDC) | Iout<br>(A) | R&N<br>(mVp-p) | Effi.<br>(%) |
|-------------|-----------------------------------|---------------|-------------|----------------|--------------|
| RSD-150B-5  | 14.4~33.6 / 16.8~31.2             | 5             | 30          | 100            | 89           |
| RSD-150B-12 | 14.4~33.6 / 16.8~31.2             | 12            | 12.5        | 120            | 90           |
| RSD-150B-24 | 14.4~33.6 / 16.8~31.2             | 24            | 6.3         | 150            | 90           |
| RSD-150C-5  | 28.8~67.2 / 33.6~62.4             | 5             | 30          | 100            | 90           |
| RSD-150C-12 | 28.8~67.2 / 33.6~62.4             | 12            | 12.5        | 120            | 92           |
| RSD-150C-24 | 28.8~67.2 / 33.6~62.4             | 24            | 6.3         | 150            | 91           |
| RSD-150D-5  | 57.6~154 / 67.2~143               | 5             | 30          | 100            | 90           |
| RSD-150D-12 | 57.6~154 / 67.2~143               | 12            | 12.5        | 120            | 92           |
| RSD-150D-24 | 57.6~154 / 67.2~143               | 24            | 6.3         | 150            | 91           |

# DC/DC Converter 200~300W Railway Enclosed Type



RSD-200



RSD-300

## Features

- Compliance to EN50155 and EN45545-2 railway standard
- 2:1 wide input range
- 4000VDC I/O isolation
- Protections:
  - Short circuit / Overload / Over voltage /
  - Input reverse polarity / Over temperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- 1U low profile
- All using 105°C long life electrolytic capacitors
- Half encapsulated (5G vibration)
- 3 years warranty



## General Specification (Please refer to [www.meanwell.com](http://www.meanwell.com) for detail spec.)

| Model No.                 | RSD-200                                                                                      | RSD-300                       |
|---------------------------|----------------------------------------------------------------------------------------------|-------------------------------|
| DC input range            | B: 14.4~33.6V, C: 28.8~67.2V, D: 57.6~154V, E: 21.6~50.4V, F: 43.2~100.8V                    |                               |
| Line regulation (1 sec.)  | ±0.5%                                                                                        |                               |
| Load regulation (max.)    | ±1%                                                                                          |                               |
| Overload protection       | 105%~135% constant current limiting, recovers automatically after fault condition is removed |                               |
| Over voltage protection   | 115%~135% Shut down O/P voltage, re-power on to recover                                      | 115%~140%                     |
| Withstand voltage         | I/P-O/P: 4kVDC, I/P-FG: 2.5kVDC, O/P-FG: 2.5kVDC, 1 minute                                   |                               |
| Isolation resistance      | 100MΩ@500VDC                                                                                 |                               |
| Working temperature(min.) | -40~+70°C (refer to output derating curve)                                                   |                               |
| Safety standards          | Industrial                                                                                   | Meet IEC60950-1(LVD)          |
|                           | Railway                                                                                      | EN50155 / IEC60571; EN45545-2 |
| EMC standards             | EN55032 class B, EN50121-3-2, EN61000-4-2,3,4,5,6,8                                          |                               |
| Dimension (LxWxH)(mm)     | 191x 86x 40                                                                                  | 216x 97x 40                   |

## 200W

## RSD-200

| Model No.   | Vin (VDC)<br>(1 sec / continuous) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|-------------|-----------------------------------|------------|----------|-------------|-----------|
| RSD-200B-12 | 14.4~33.6 / 16.8~31.2             | 12         | 16.7     | 120         | 89        |
| RSD-200B-24 | 14.4~33.6 / 16.8~31.2             | 24         | 8.4      | 150         | 89        |
| RSD-200B-48 | 14.4~33.6 / 16.8~31.2             | 48         | 4.2      | 180         | 89        |
| RSD-200C-12 | 28.8~67.2 / 33.6~62.4             | 12         | 16.7     | 120         | 91        |
| RSD-200C-24 | 28.8~67.2 / 33.6~62.4             | 24         | 8.4      | 150         | 91        |
| RSD-200C-48 | 28.8~67.2 / 33.6~62.4             | 48         | 4.2      | 180         | 91        |
| RSD-200D-12 | 57.6~154 / 67.2~143               | 12         | 16.7     | 120         | 91        |
| RSD-200D-24 | 57.6~154 / 67.2~143               | 24         | 8.4      | 150         | 91        |
| RSD-200D-48 | 57.6~154 / 67.2~143               | 48         | 4.2      | 180         | 91        |

## 300W

## RSD-300

| Model No.   | Vin (VDC)<br>(1 sec / continuous) | Vout (VDC) | Iout (A) | R&N (mVp-p) | Effi. (%) |
|-------------|-----------------------------------|------------|----------|-------------|-----------|
| RSD-300B-5  | 14.4~33.6 / 16.8~31.2             | 5          | 42       | 100         | 89        |
| RSD-300B-12 | 14.4~33.6 / 16.8~31.2             | 12         | 22.5     | 120         | 89.5      |
| RSD-300B-24 | 14.4~33.6 / 16.8~31.2             | 24         | 11.3     | 150         | 90        |
| RSD-300B-48 | 14.4~33.6 / 16.8~31.2             | 48         | 5.7      | 180         | 91.5      |
| RSD-300C-5  | 28.8~67.2 / 33.6~62.4             | 5          | 42       | 100         | 90.5      |
| RSD-300C-12 | 28.8~67.2 / 33.6~62.4             | 12         | 25       | 120         | 91        |
| RSD-300C-24 | 28.8~67.2 / 33.6~62.4             | 24         | 12.5     | 150         | 91.5      |
| RSD-300C-48 | 28.8~67.2 / 33.6~62.4             | 48         | 6.3      | 180         | 92        |
| RSD-300D-5  | 57.6~154 / 67.2~143               | 5          | 42       | 100         | 90        |
| RSD-300D-12 | 57.6~154 / 67.2~143               | 12         | 25       | 120         | 91.5      |
| RSD-300D-24 | 57.6~154 / 67.2~143               | 24         | 12.5     | 150         | 91.5      |
| RSD-300D-48 | 57.6~154 / 67.2~143               | 48         | 6.3      | 180         | 91.5      |
| RSD-300E-5  | 21.6~50.4 / 25.2~46.8             | 5          | 42       | 100         | 88        |
| RSD-300E-12 | 21.6~50.4 / 25.2~46.8             | 12         | 25       | 120         | 90        |
| RSD-300E-24 | 21.6~50.4 / 25.2~46.8             | 24         | 12.5     | 150         | 91        |
| RSD-300E-48 | 21.6~50.4 / 25.2~46.8             | 48         | 6.3      | 180         | 91        |
| RSD-300F-5  | 43.2~100.8 / 50.4~93.6            | 5          | 42       | 100         | 89        |
| RSD-300F-12 | 43.2~100.8 / 50.4~93.6            | 12         | 25       | 120         | 91        |
| RSD-300F-24 | 43.2~100.8 / 50.4~93.6            | 24         | 12.5     | 150         | 91        |
| RSD-300F-48 | 43.2~100.8 / 50.4~93.6            | 48         | 6.3      | 180         | 91.5      |



■ LED Driver



■ LED Display



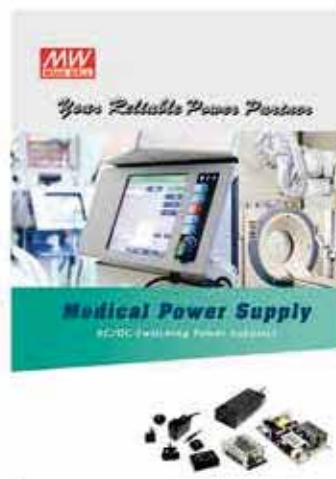
■ DIN Rail



■ DC-DC Converter



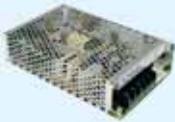
■ Adaptor



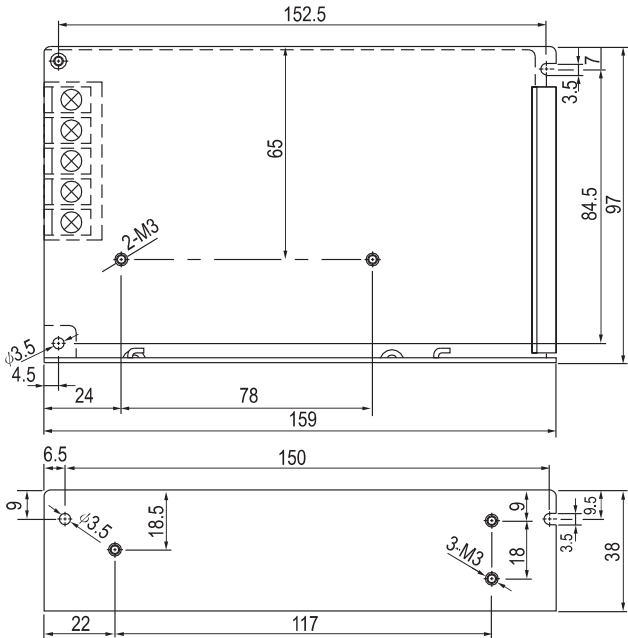
■ Medical Power Supply



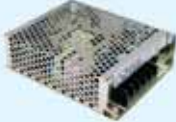
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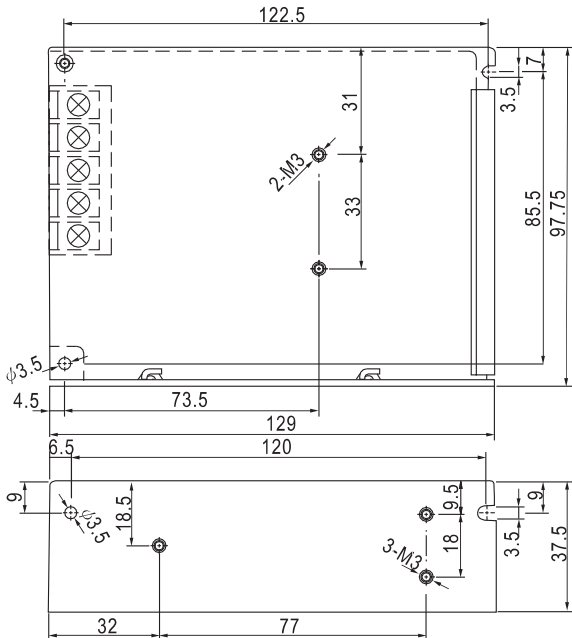
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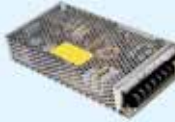
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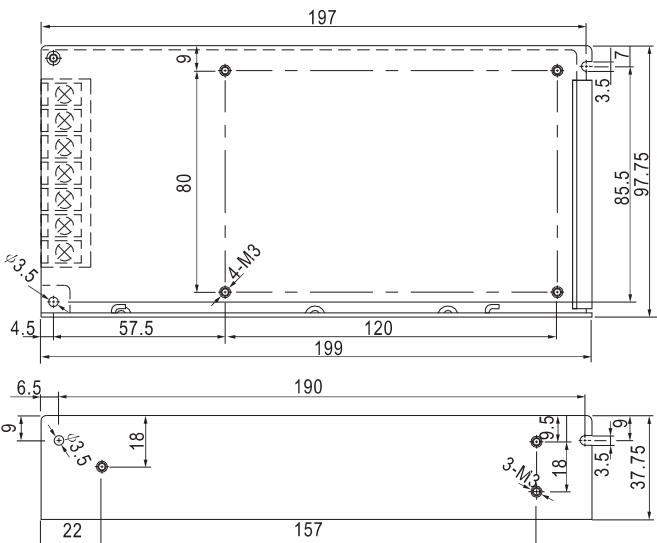
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■ 902



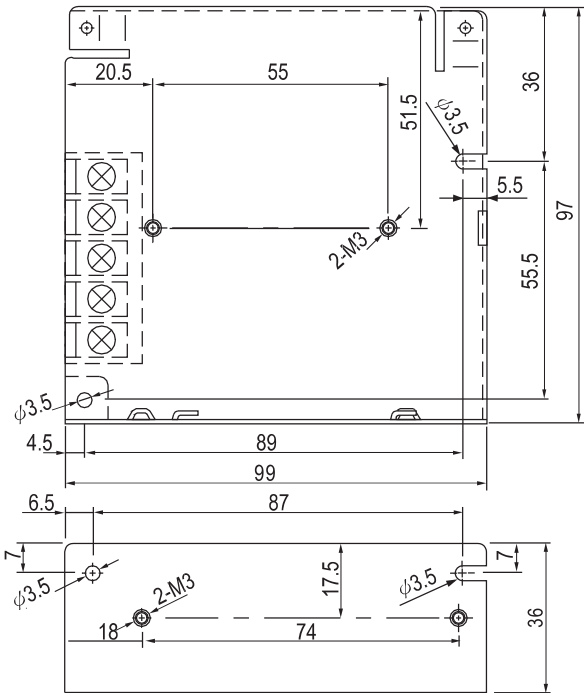
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■ 905



Unit:mm



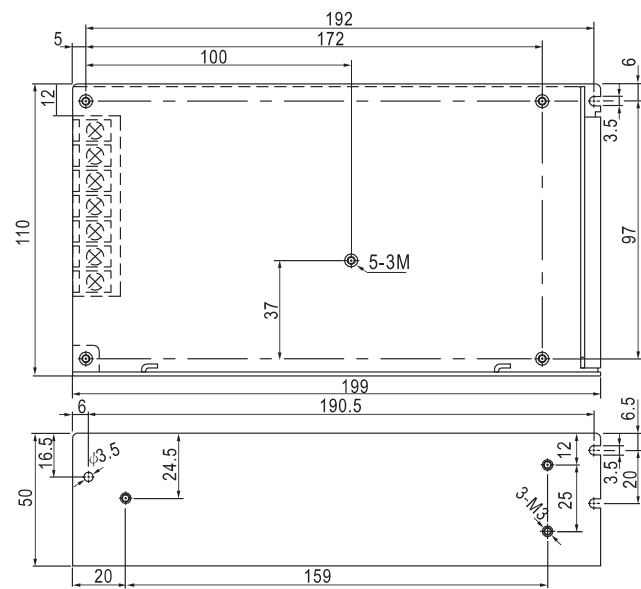
# Case Drawing



■ 906



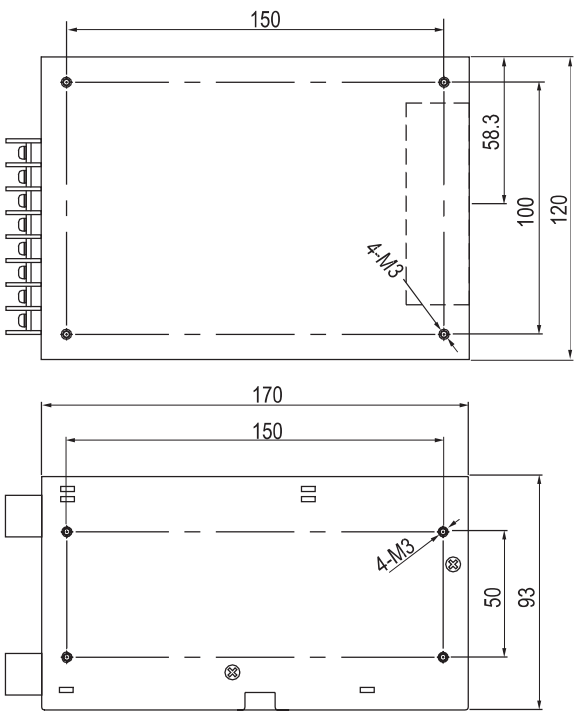
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■ 910A



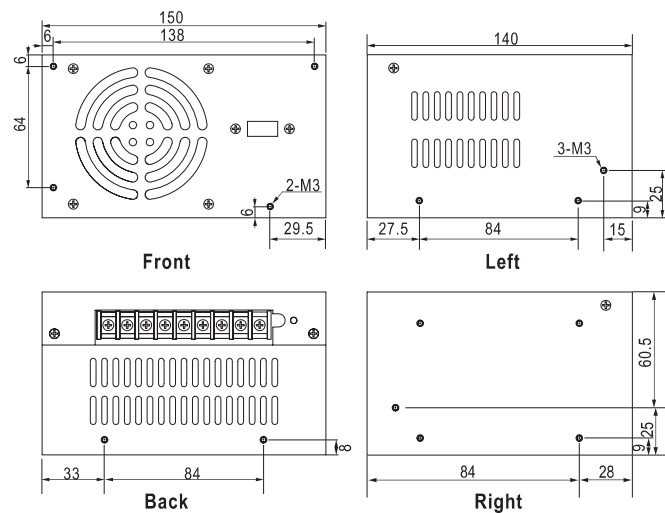
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■ 907



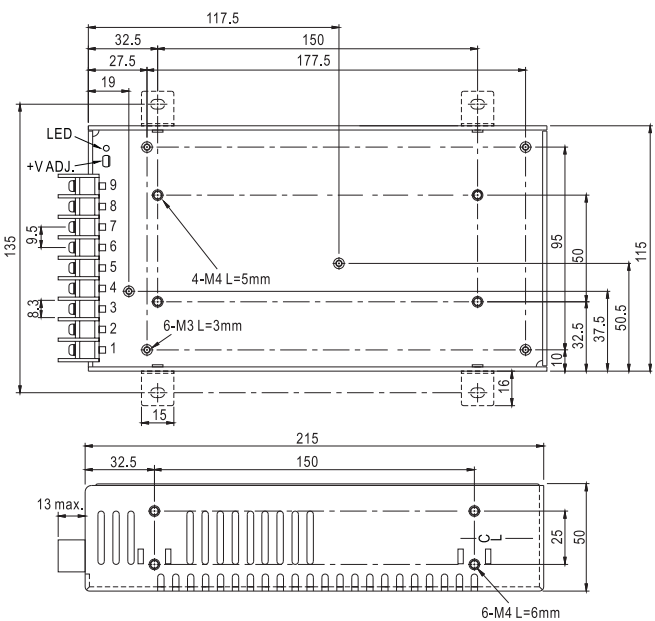
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■ 912



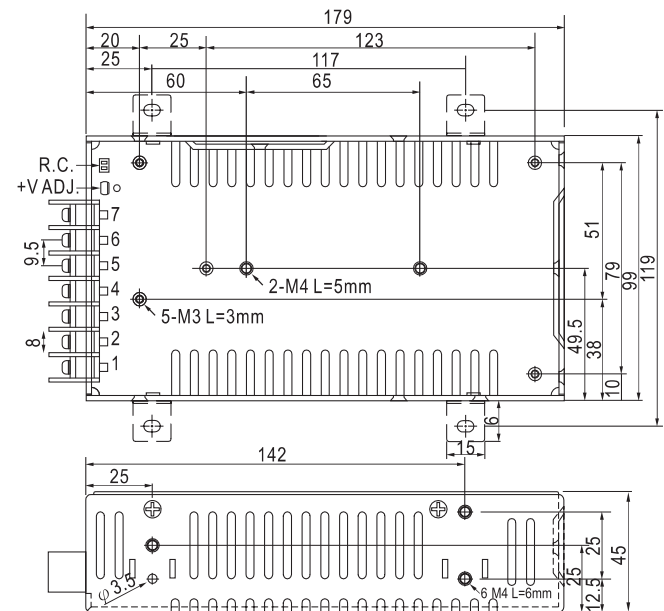
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## 915A



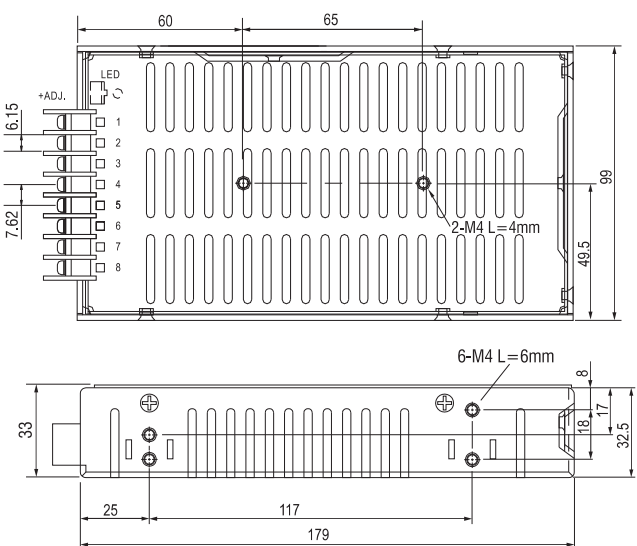
Unit:mm



## 920A



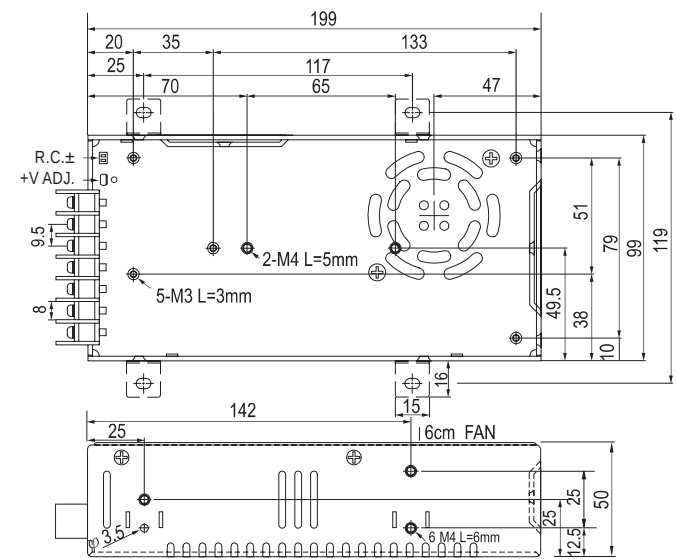
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## 916A 916B



Unit:mm

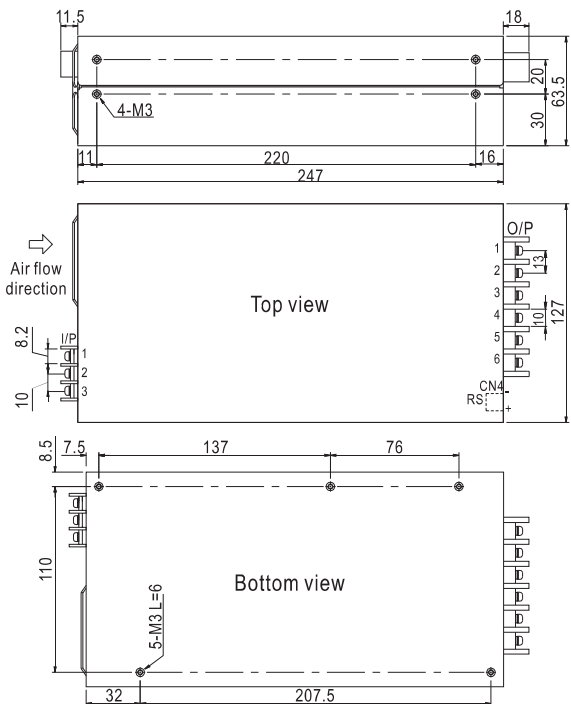


► 916A: without cooling fan / 916B: with cooling fan

## 926A



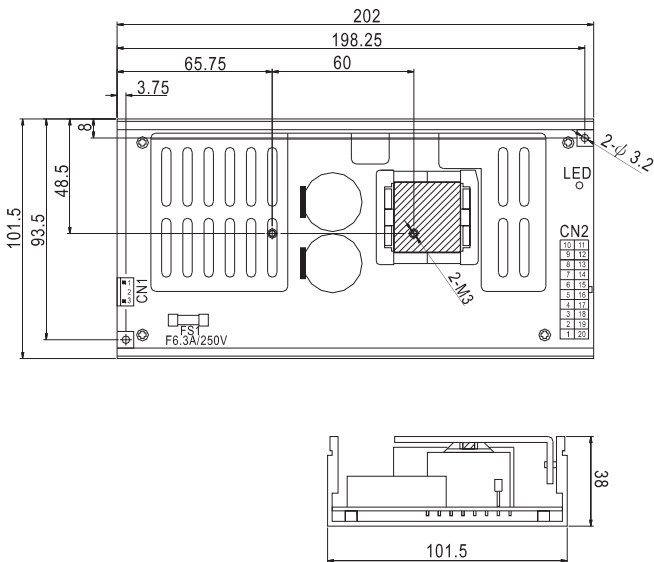
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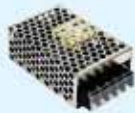
## 928A



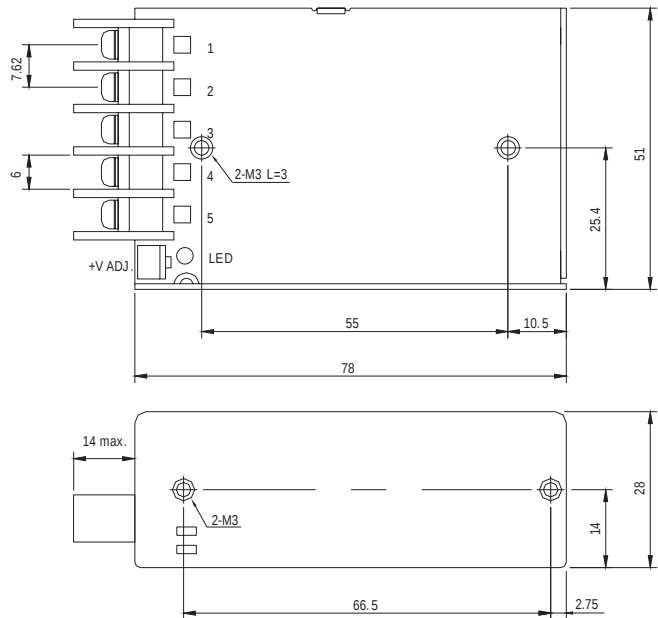
Unit:mm



## 931A



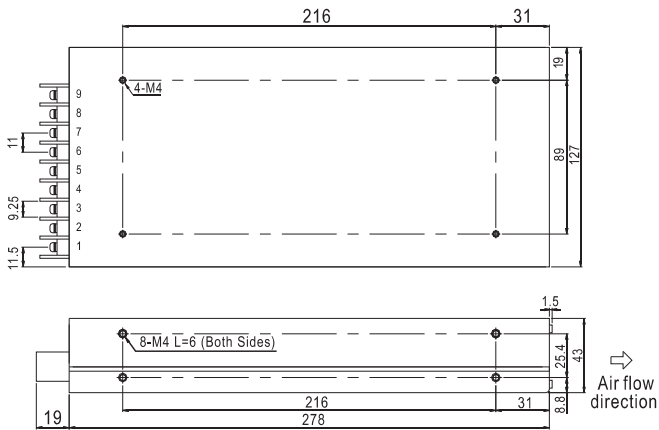
Unit:mm



## 929A



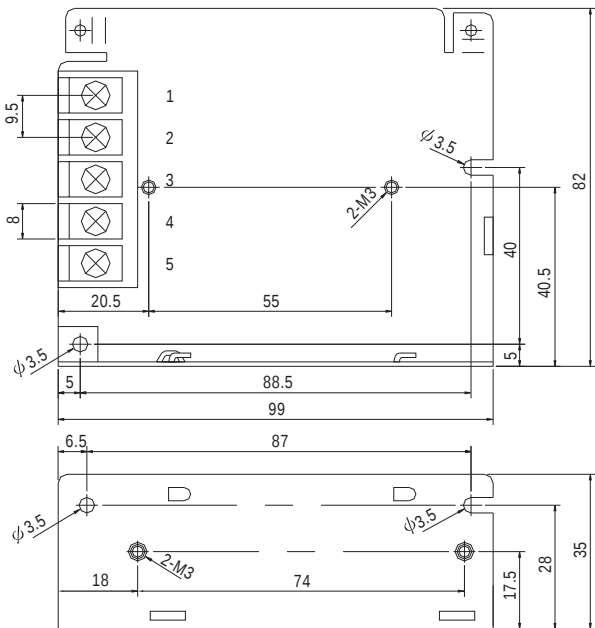
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## 932A



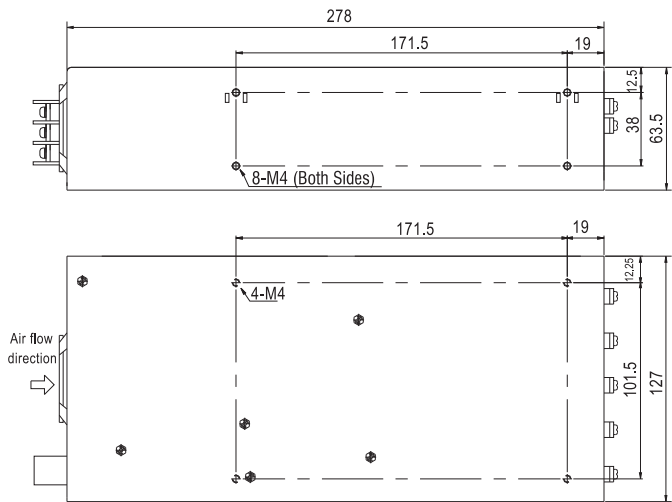
Unit:mm



## ■ 935A



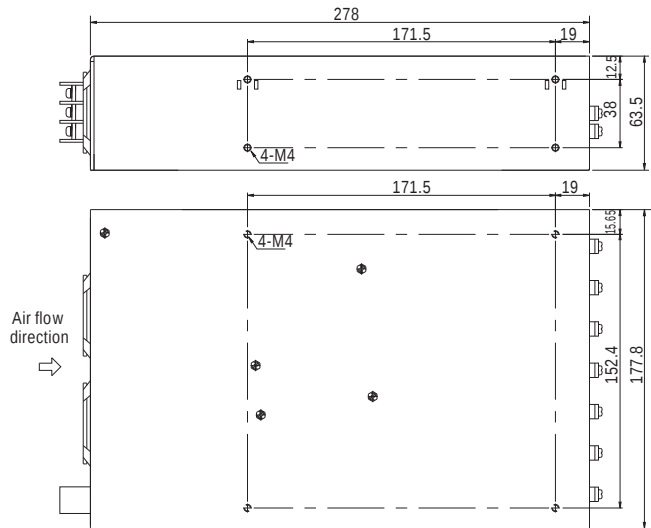
Unit:mm



## ■ 940A



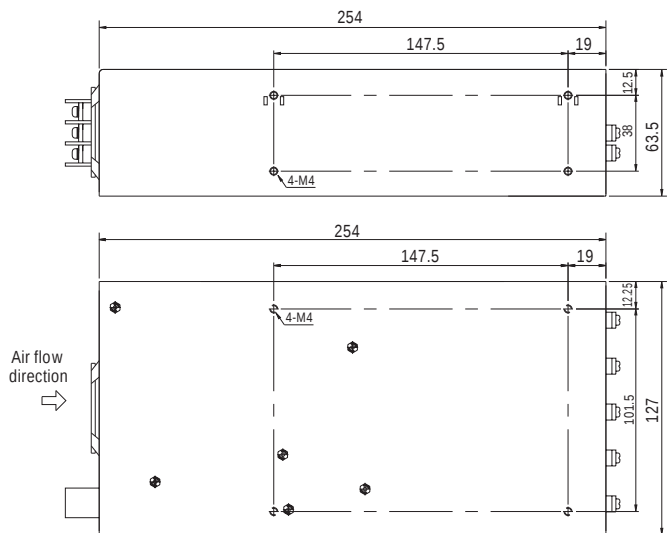
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## ■ 939A



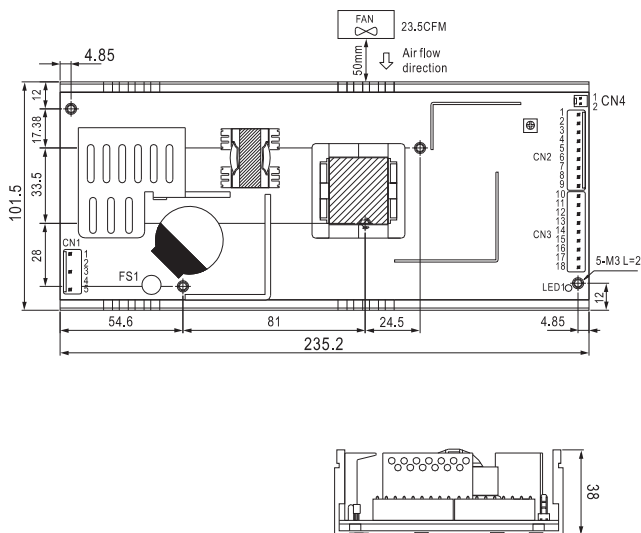
Unit:mm



## ■ 941B



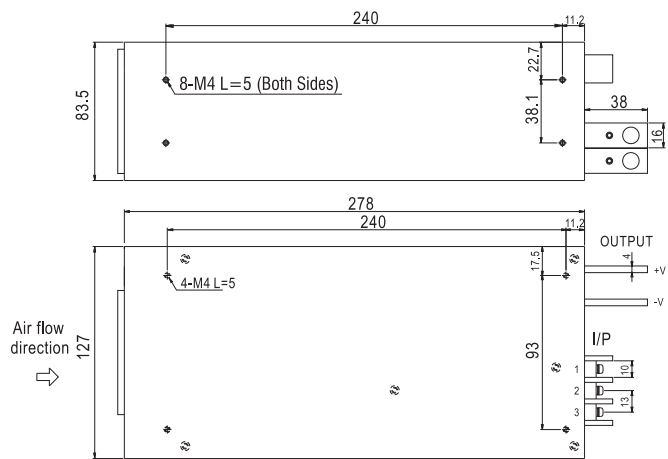
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■ 943A



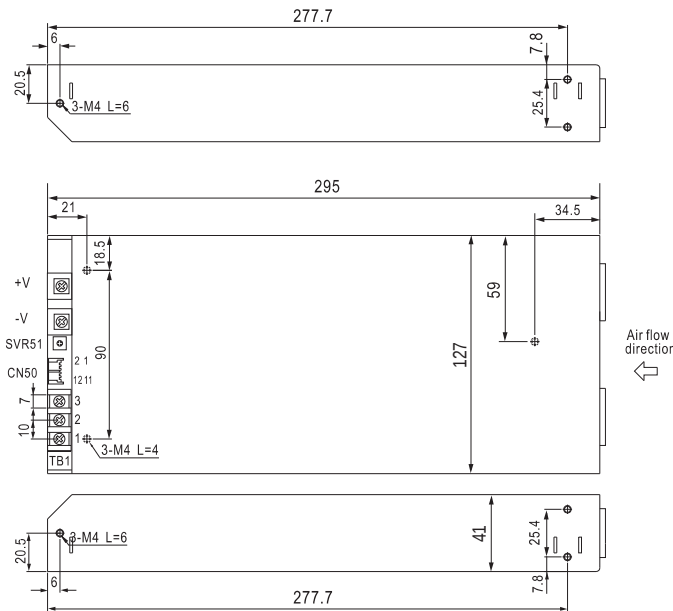
Unit:mm



■ 952B



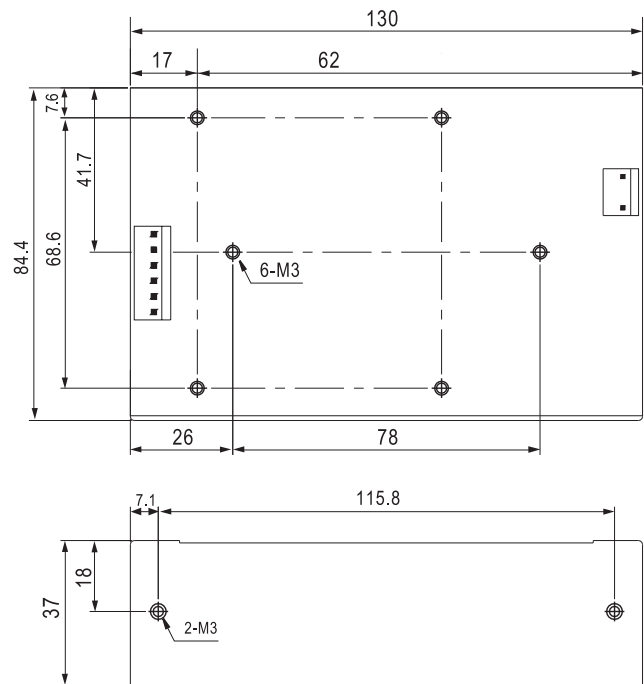
Unit:mm



■ 946A



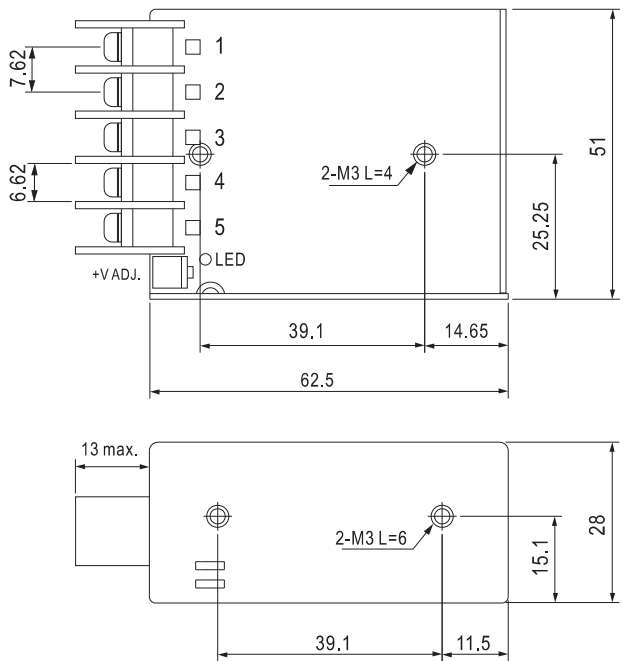
Unit:mm



■ 971A



Unit:mm



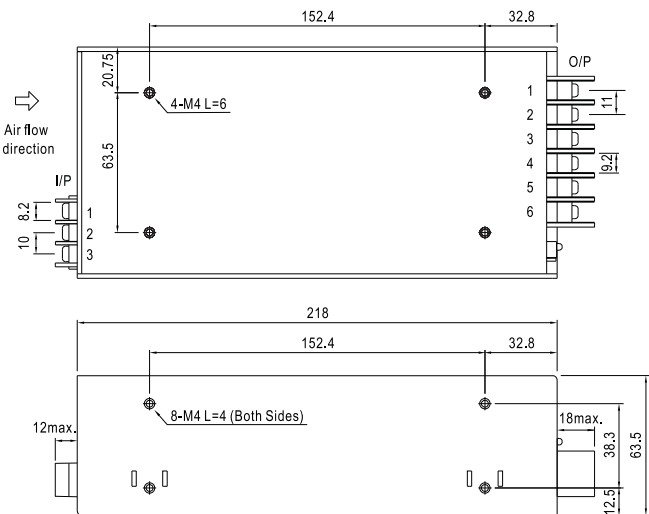
# Case Drawing



## 977A



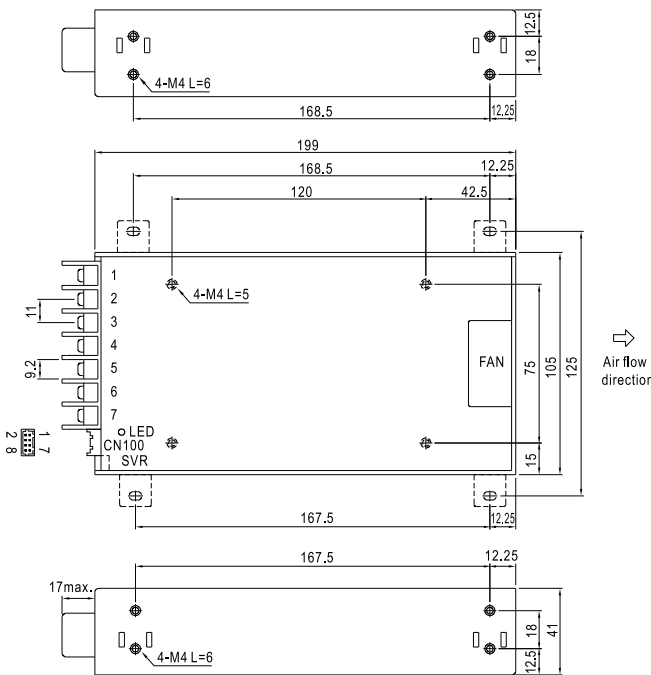
Unit:mm



## 980A



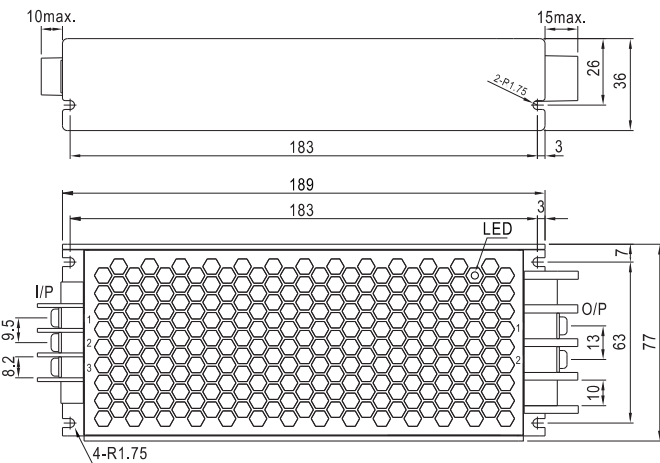
Unit:mm



## 978A



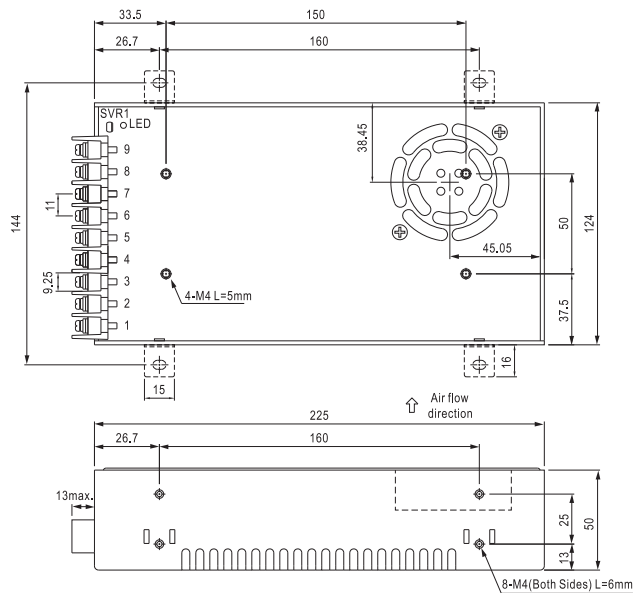
Unit:mm



## 986A



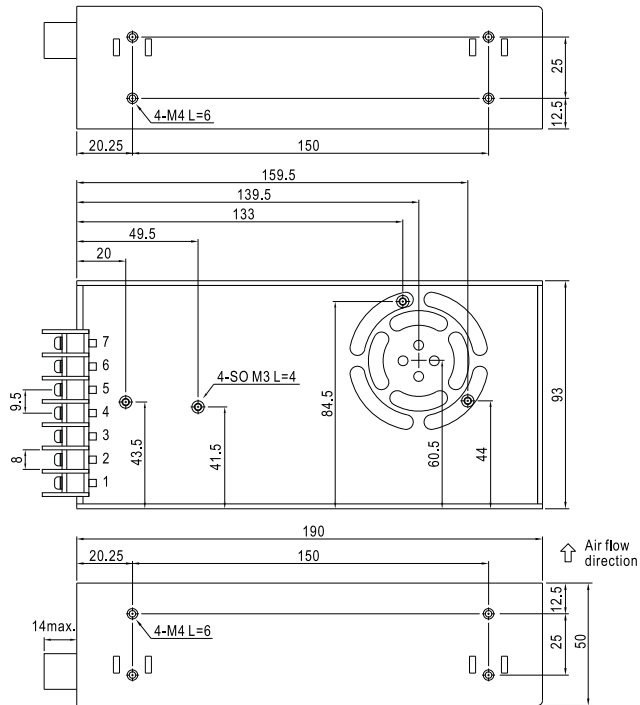
Unit:mm



## 987A



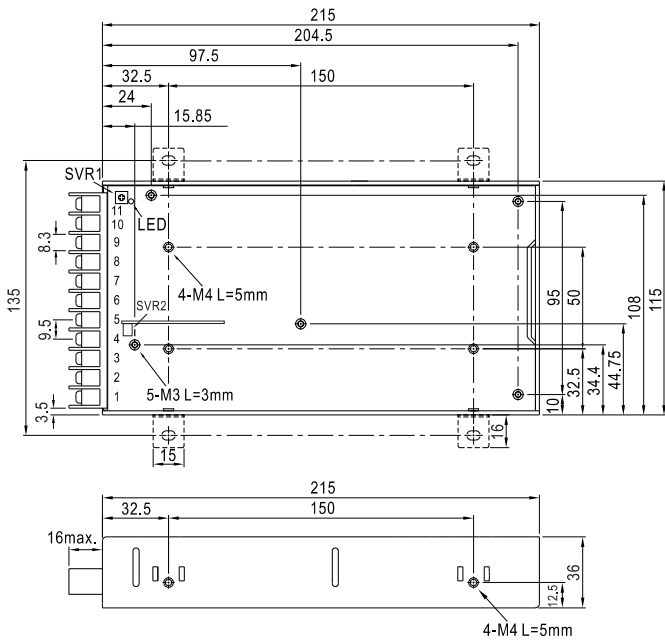
Unit:mm



## 206A



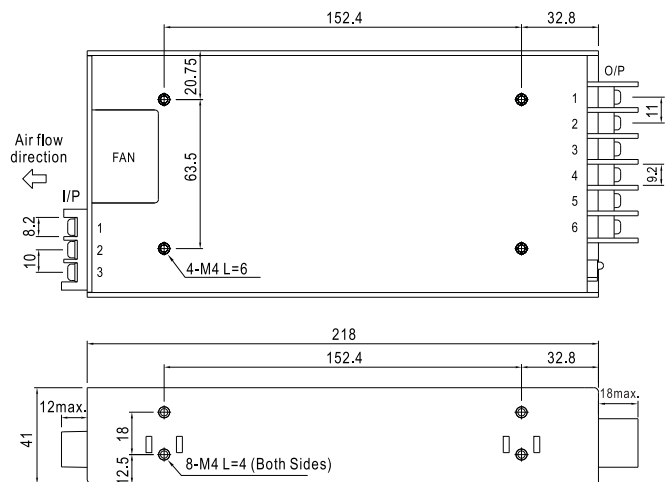
Unit:mm



## 995A



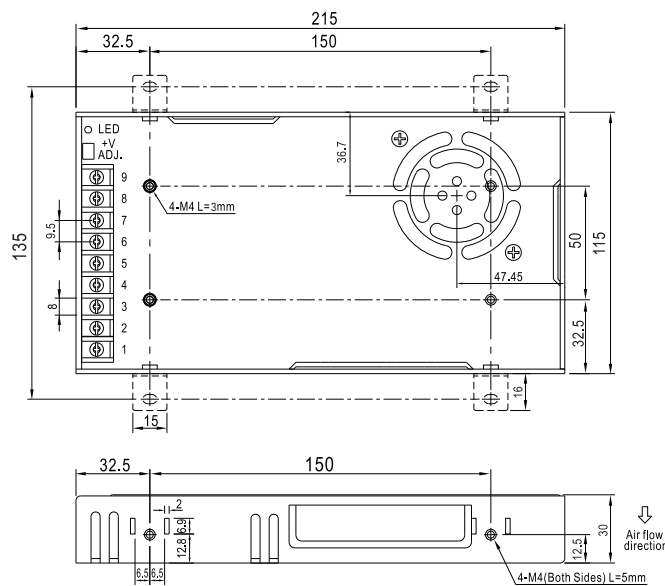
Unit:mm



## 207A



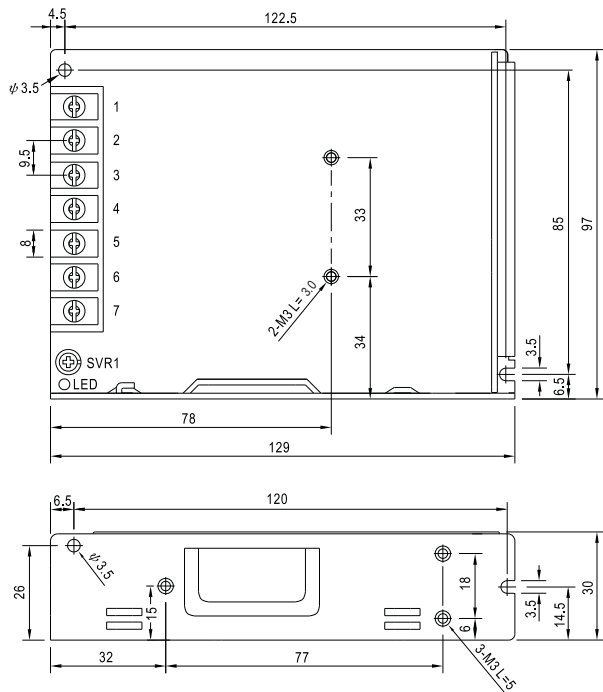
Unit:mm



## ■ 238A



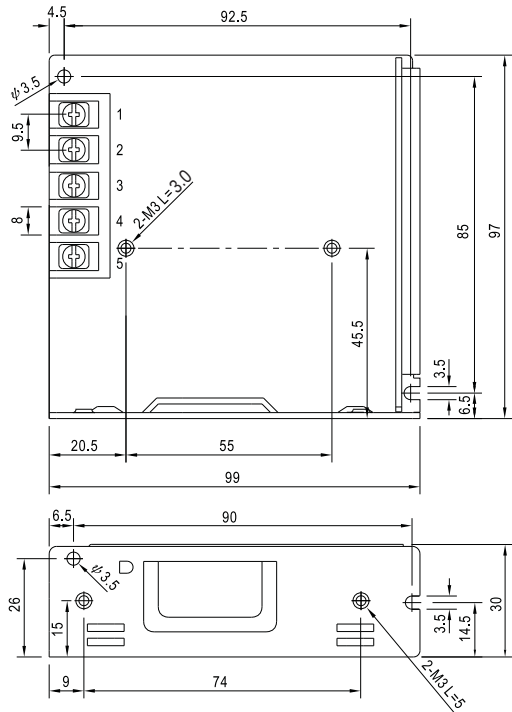
Unit:mm



## ■ 240A



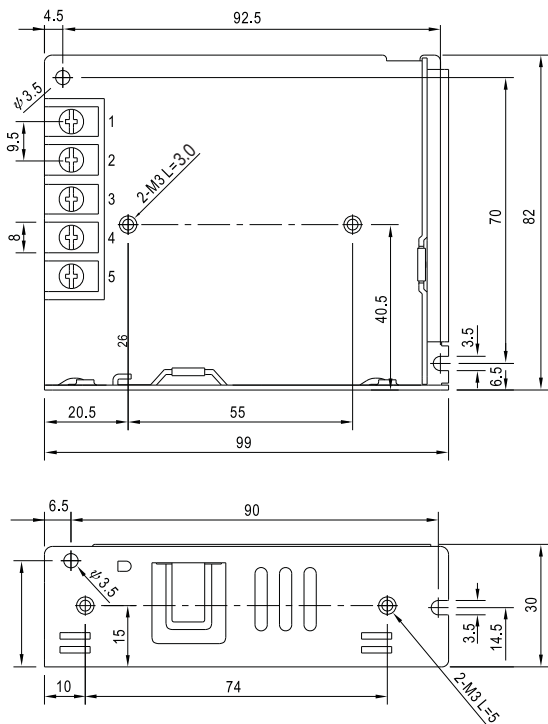
Unit:mm



## ■ 239A



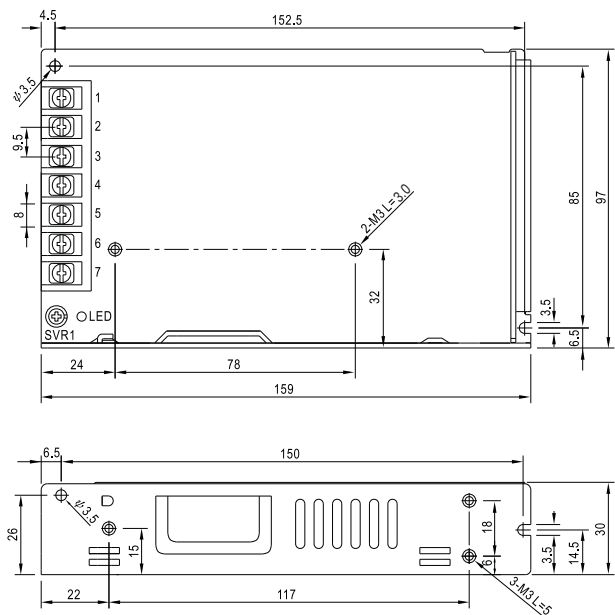
Unit:mm



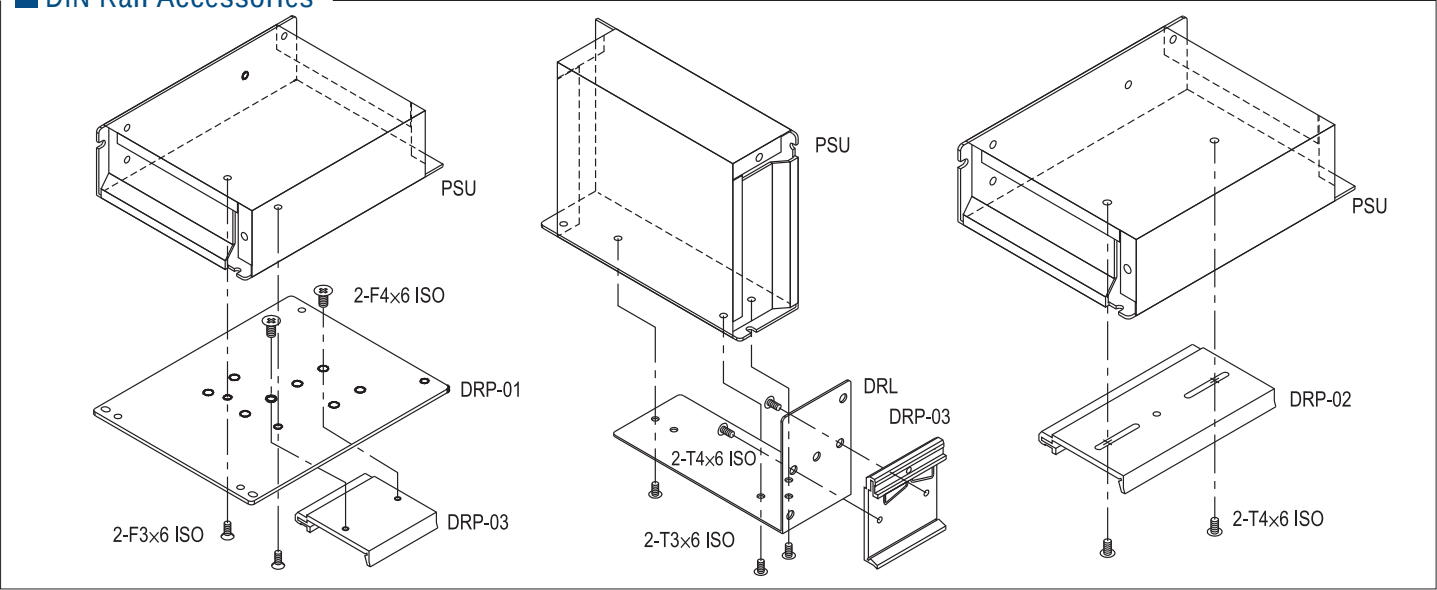
## ■ 241A



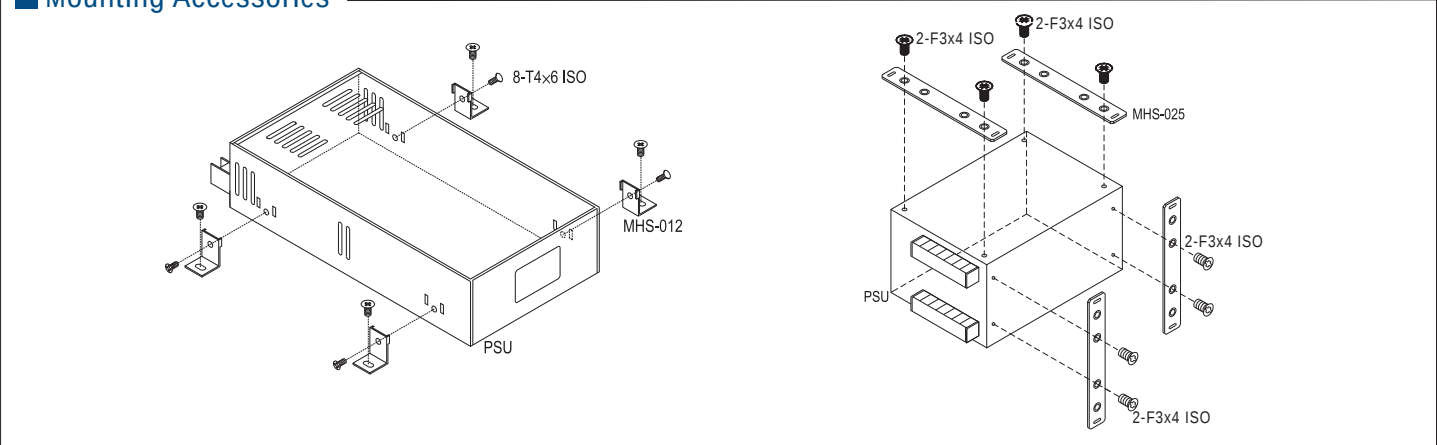
Unit:mm



DIN Rail Accessories



Mounting Accessories



| ITEM                                                                               | Order No. | Case                                                   | Model                                                                                                                                                           |
|------------------------------------------------------------------------------------|-----------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | DRL-01    | 238, 239, 240<br>903<br>905<br>931<br>932<br>971       | LRS-35/50/75/100<br>S-40, D-30, T-30, .....<br>S-15, S-25, .....<br>RS-25, NES-15<br>RS-35, NES-25<br>RS-15                                                     |
|  | DRL-02    | 241<br>901<br>902<br>906<br>915<br>916<br>920          | LRS-150/150F<br>S-50, S-60, D-60, .....<br>S-100, S-100F, SD-100, ....<br>S-150, SD-150, D-120, .....<br>SP-100, .....<br>SP-150, SP-200, .....<br>SP-75, ..... |
|  | DRL-03A   | 980<br>987                                             | SP-240, HRP(G)-300                                                                                                                                              |
|  | DRP-01    | 238, 239, 241<br>901, 902<br>903, 906<br>931, 932, 946 | LRS-35/50/100/150/150F<br>All models                                                                                                                            |
|  | DRP-01A   | 203<br>205<br>978<br>999                               | RSD-100 / 150 / 200 / 300                                                                                                                                       |
|  | DRP-02    | 240<br>905 / 915<br>916 / 920<br>928                   | LRS-75<br>S-15, S-25, ... / SP-100, ...<br>SP-150, SP-200, ... / SP-75, ...<br>USP-225, .....                                                                   |
|  | DRP-03    | DRP-01<br>DRL-01-03                                    | All models                                                                                                                                                      |
|  | DRP-04    | 203<br>205<br>978<br>999                               | RSD-100 / 150 / 200 / 300                                                                                                                                       |

| ITEM                                                                                                                       | Order No. | Case                                                                                     | Model                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                         | MHS012    | 206, 207<br>215A<br>912, 915<br>916, 935<br>939, 940<br>977, 980<br>982, 986<br>987, 995 | HDP-190, RSP-200/320, LRS-200/350<br>RSP-150<br>S-201, S-320,<br>S-350, SP-100,<br>SP-150, SP-200, SP-320,<br>SE-450/1000, MP450/650/1000,<br>SP-240, HRP-300/450/600,<br>RSP-2400/3000                                          |
|                                         | MHS013    | 919<br>926                                                                               | PSP-500, SP-750,<br>SE-600                                                                                                                                                                                                       |
|                                         | MHS014    | 212<br>952                                                                               | RSP-750<br>RSP-1000, SD-1000                                                                                                                                                                                                     |
|                                         | MHS025    | 910                                                                                      | SP-500, PSP-600.....                                                                                                                                                                                                             |
|                                         | MHS026    | 943                                                                                      | RSP-1500                                                                                                                                                                                                                         |
|                                         | MHS027    | 971<br>931                                                                               | RS-15<br>RS-25                                                                                                                                                                                                                   |
| <br>TBC is the cover for terminal block | TBC-05    | 901<br>903<br>905<br>932<br>220<br>239A<br>240A                                          | SD-50, S-60<br>S-40, NES-50, RS-75<br>S-25, SD-25, NES-35, RS-50<br>NES-25, RS-35<br>RSP-75<br>LRS-35/50<br>LRS-75                                                                                                               |
|                                                                                                                            | TBC-07    | 901<br>902<br>903<br>905<br>906<br>215A<br>227A<br>238A<br>241A                          | D//D-60, NED/T-75, RD-85,<br>NES-100, RS-100, T-60<br>S-100F, RD-125, NES-150,<br>RS-150, SD-100,<br>NED/T-50, RD/RID-65, T-40<br>NED/T-35, RD-50<br>S-150, SC-150, SD-150<br>RSP-150<br>RSP-100<br>LRS-100<br>LRS-150, LRS-150F |
|                                                                                                                            | TBC-08    | 901<br>906                                                                               | AD-155, ADD/ADS-155<br>D/T/Q-120                                                                                                                                                                                                 |
|                                                                                                                            | TBC-09    | 207                                                                                      | RSP-200/320, LRS-200/350                                                                                                                                                                                                         |
|                                                                                                                            |           |                                                                                          |                                                                                                                                                                                                                                  |

# General Information



## Quotation

- Most of our standard products are available and in stock through our global authorized distributors. Please contact your local distributor for prompt service. Please let us know if you are unable to find MEAN WELL's distributor information in your local area.
- Written quotations are valid for 60 days from the date quoted unless otherwise specified. Customers are responsible for all banking related charges outside of Taiwan.

## Order

- Orders must be placed to MEAN WELL by mail, e-mail, or fax. Please do not place your order by phone. For international business, MEAN WELL will provide order confirmations with scheduled delivery dates. If you fail to receive an order confirmation within 2 working days, please reconfirm your order.
- Minimum order amounts per shipment are determined by our local distributor's stock capability. Please contact our sales representative for details.
- We encourage customers to place long-term orders. However, order cancellations or reschedules must be made 45 days prior to the scheduled shipping date.

## Delivery

- For our standard products, MEAN WELL usually keeps around 2-8 weeks safety stock (based on the past 3 months sales record) for prompt delivery of small / medium quantity orders. For large quantity or new product orders, 3-5 weeks lead-time is needed.

## Return

- All returned goods must have a RMA (return material authorization) number marked on each carton. Contact MEAN WELL for a RMA number. All goods must be shipped as "freight prepaid" unless otherwise confirmed by our sales representatives.

## Warranty

- Products found to be defective within 30 days from the date of receipt can be returned for credit or exchange. After the initial 30 days, MEAN WELL will repair the goods according to our warranty period. Contact MEAN WELL for further information on credit or a RMA number. Goods should be shipped as "freight prepaid" to MEAN WELL and MEAN WELL will repair and return the defective units (freight prepaid) within 7 working days. If the warranty period has expired, a repair fee (depends on the condition of the product) will be charged.
- If customers do the repair by themselves, MEAN WELL can provide reasonable quantity of free components for repair purpose.
- Apart from the external type power supply, the power supply is in general one component of the final system; particularly, the compatibility between the power supply and the system is closely associated. Should you have any difficulty in normally operating the power supplies, please contact our sales representatives and figure out the root cause. If the problem results from the power supply, the warranty right will be applied; if any issues arise from inappropriate installation or incompatibility between the power supply and the system, MEAN WELL will reserve the right to fulfill the warranty.

## Attention

- We make every effort to ensure the accuracy of information in the catalog. If there is any discrepancy between the data presented in our catalog and the SPEC, the SPEC sheets should take precedence (please refer to [www.meanwell.com](http://www.meanwell.com) for the latest SPEC information). We cannot take any responsibility of any consequence arising due to error or change in specification. We suggest customers conduct a sample test for evaluation and approval before placing a formal order.
- For continuing product improvement, MEAN WELL reserves the right to revise any information in this catalog without further notification.

## The EMC directive applies to component power supplies

- MEAN WELL ensures that all of the power supplies with CE declaration are designed to meet EMC directives and are verified by an independent certified lab agent with a test report prepared. However, there are 2 categories for power supplies: One is a stand-alone power supply, such as laboratory power supplies which can be tested under EMC individually. The other category is a component power supply such as an enclosed power supply and open PCB power supply. These power supplies are considered a component which will be installed into a final equipment. Since EMC performance is affected by the final installation of a product, MEAN WELL cannot guarantee that the final equipment will meet EMC directives. Final product manufacturers must re-confirm that their product meets EMC directives.



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