



DELPHI SERIES



Delphi Series V36SE, 1/16th Brick DC/DC Power Modules: 18~75Vin, up to 50W

The Delphi Series V36SE, 1/16th Brick, 18~75V wide input, single output, isolated DC/DC converter, is the latest offering from a world leader in power systems technology and manufacturing — Delta Electronics, Inc. This product family provides up to 50 watts of power in the industry standard 1/16th brick form factor (1.30"x0.90") and pinout. The V36SE series delivers 50W output with 36 to 75V input and delivers 40W output while the input is 18 to 36V to the same module. Typical efficiency of the 3.3V/15A & 5.0V/10A module is greater than 90.5%. With creative design technology and optimization of component placement, these converters possess outstanding electrical and thermal performance, as well as extremely high reliability under highly stressful operating conditions. All modules are protected from abnormal input/output voltage, current, and temperature conditions. For lower power needs, but in a similar small form factor, please check out Delta S48SP (36W or 10A) and S36SE (17W or 5A) series standard DC/DC modules.

FEATURES

- High efficiency: 90.5% @ 3.3V/15A, 48Vin
88.5% @ 3.3V/12A, 24Vin
91.0% @ 5.0V/10A, 48Vin
90.0% @ 5.0V/8A, 24Vin
- Size: 33.0 x22.8 x8.7mm(1.30" x0.90" x0.34")
- Industry standard 1/16th brick size & pinout
- Input UVLO
- OTP and output OCP, OVP (default is auto-recovery)
- Output voltage trim: -20%, +10%
- Monotonic startup into normal and pre-biased loads
- 2250V isolation and basic insulation
- No minimum load required
- SMD and Through-hole versions
- ISO 9001, TL 9000, ISO 14001, QS 9000, OHSAS 18001 certified manufacturing facility
- UL/cUL 60950-1 (US & Canada), TUV (EN60950-1) and CE mark pending

OPTIONS

- SMD module available

APPLICATIONS

- Optical Transport
- Data Networking
- Communications
- Servers

SPECIFICATIONS

GENERAL SPECIFICATIONS			OUTPUT SPECIFICATIONS		
Input Voltage		18~75V	Voltage Accuracy	Typical	±1%
Switching Frequency		580KHz	Line Regulation	Typical	±0.1%
Isolation Voltage	In/Out	2250V	Load Regulation	Typical	±0.1%
Isolation Capacitance	Typical	1000pF	Ripple & Noise	Typical	±1.5%
Isolation Resistance	Minimum	10MΩ	Current Limits	Typical	125%
MTBF	TBD	TBD	Over Voltage	Typical	130%
Size:	33.0x22.8x8.7 (mm)	1.30"x0.90"x0.34"	Voltage Trim		+10%, -20%

PART NUMBERING SYSTEM

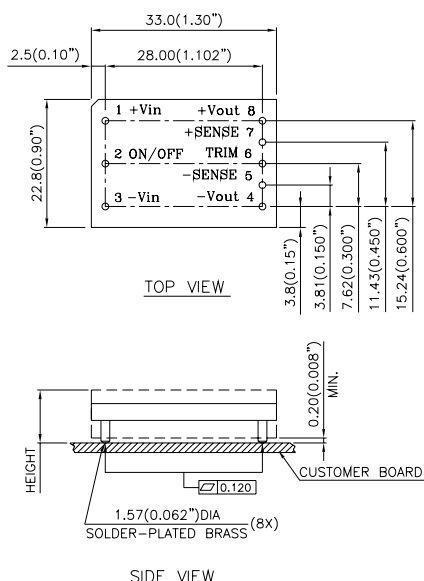
V	36	S	E	120	04	N	R	F	A
Product Type	Input Voltage	Number of Outputs	Product Series	Output Voltage	Output Current	ON/OFF Logic	Pin Length/Type		Option Code
V - 1/16th Brick	36 - 18V ~ 75V	S - Single	E - Regular	3R3 - 3.3V 050 - 5V 120 - 12V	04 - 4.2A 10 - 10A 15 - 15A	N - Negative P - Positive	R - 0.170"	Space-RoHS 5/6 F- RoHS 6/6 (Lead Free)	A - Standard Functions

MODEL LIST

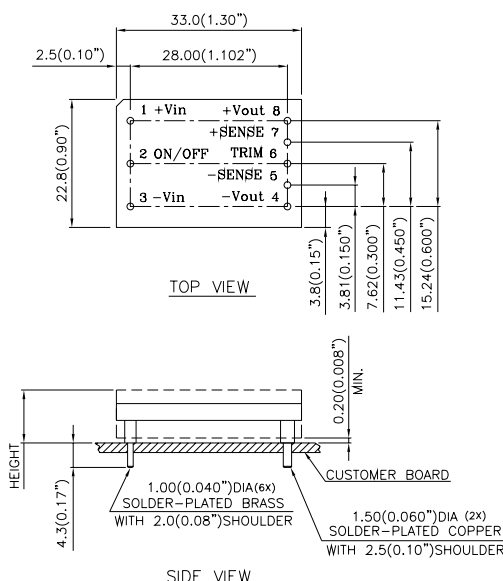
MODEL NAME	INPUT		OUTPUT			EFF @ 100% LOAD
V36SE3R315NRFA	18V~75V	3.9A	3.3V	12A (18~36Vin) & 15A(36~75Vin)		88.5% @ 24Vin, 90.5% @ 48Vin
V36SE05010NRFA	18V~75V	3.9A	5V	8A (18~36Vin) & 10A(36~75Vin)		90.0% @ 24Vin, 91.0% @ 48Vin
V36SE12004NRFA	18V~75V	3.9A	12V	3.5A (18~36Vin) & 4.2A(36~75Vin)		86.0% @ 24Vin, 88.0% @ 48Vin

MECHANICAL DRAWING

Surface-mount module



Through-hole module



NOTES:
 DIMENSIONS ARE IN MILLIMETERS AND (INCHES)
 TOLERANCES: X.Xmm±0.5mm(X.XX in.±0.02 in.)
 X.XXmm±0.25mm(X.XXX in.±0.010 in.)

Module Name	Height (MAX.)
V36SE120XXXXXX	8.7(0.34")
V36SE050XXXXXX	9.3(0.37")
V36SE3R3XXXXXX	9.3(0.37")

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WARRANTY

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