



File No.:E75887



FEATURES

- Small size for high density mounting
- Up to 5000VAC Dielectric strength
- Fully Sealed

CONTACT RATINGS

Contact Arrangement	1A, 1B, 1C	2A, 2B, 2C
Contact Resistance	50mΩ(at 1A 6VDC)	
Contact Material	AgSnO, Gold FLash, Silver Alloy	
Contact Rating(Resistive)	20A 277VAC 16A 240VAC 16A 24VDC	8A 240VAC 8A 24VDC
Max. Switching Voltage	440VAC/300VDC	
Max. Switching Current	12A/16A	8A
Max. Switching Power	3000VA/4000VA	2000VA
Mechanical Life	1×10 ⁷ operations	
Electrical Life	1×10 ⁵ operations	

ORDERING INFORMATION

Model **SPR F 1C 12 DC 12 K - XXX**

F:Class F Nil:Class B

Contact arrangement:
1A=1 Form A;2A=2 Form A
1B=1 Form B;2B=2 Form B
1C=1 Form C;2C=2 Form C

Contact Rating:1 Form 12A/16A,
2 Form 8A

Coil:AC or DC

Coil Voltage

Pole Distance:K=5mm R=3.5mm

Customer Code

CHARACTERISTICS

Insulation Resistance	1000MΩ (at 500VDC)	
Dielectric Strength	Between coil & contacts	5000VAC 1min
	Between open contacts	1000VAC 1min
	Between contacts sets	2500VAC 1min
Operate time (at nomi. volt.)	10ms max.	
Release time (at nomi. volt.)	5ms max.	
Humidity	35% to 85% RH	
Ambient temperature	Class B:-40°C to 85°C Class F:-40°C to 105°C	
Shock Resistance	Functional	98m/s ²
	Destructive	980m/s ²
Vibration resistance	10Hz to 150Hz 10g/5g	
Unit weight	Approx. 13.5g	
Construction	Sealed	

Notes:1) The data shown above are initial values.

2) Please find coil temperature curve in the characteristic curved below.

This datasheet is for customers' reference. All the specifications are subject to change without notice.

COIL DATA

at 23°C

DC

Nominal Voltage VDC	Pick-up Voltage (Max.) VDC	Drop-out Voltage (Min.) VDC	Max. Allowable Voltage VDC	Coil Resistance Ω±10%
5	3.5	0.5	6.5	62
6	4.2	0.6	7.8	90
12	8.4	1.2	15.6	360
24	16.8	2.4	31.2	1440
48	33.6	4.8	62.4	5760
60	42.0	6.0	78.0	7500
110	77.0	11.0	143.0	25200

AC

Nominal Voltage VAC	Pick-up Voltage (Max.) VAC	Drop-out Voltage (Min.) VAC	Coil Current mA	Coil Resistance Ω
24	18.0	3.6	31.6	350(1±10%)
115	86.3	17.3	6.6	8100(1±15%)
230	172.5	34.5	3.2	32500(1±15%)



* SINCE 1976 *

RELAYS & ELECTRONICS INT'L. CORP. TEL:(516) 328-9292 FAX:(516)326-9125 www.hascorelays.com email:info@hascorelays.com

RELAYS

COIL

Coil Power	DC:400mW (60V、110V:480mW) AC:Approx. 0.75VA
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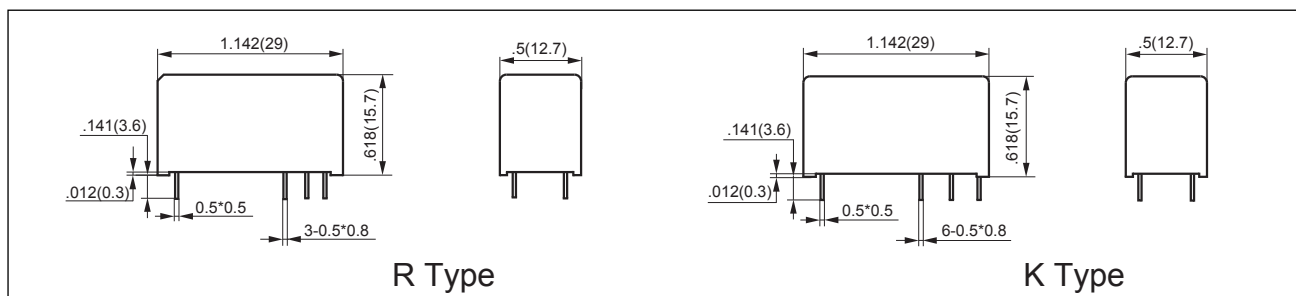
SAFETY APPROVAL RATINGS

UL&CUL	1A,1B,1C:20A 277VAC;16A 240VAC;16A 24VDC 2A,2B,2C:8A 240VAC; 8A 24VDC
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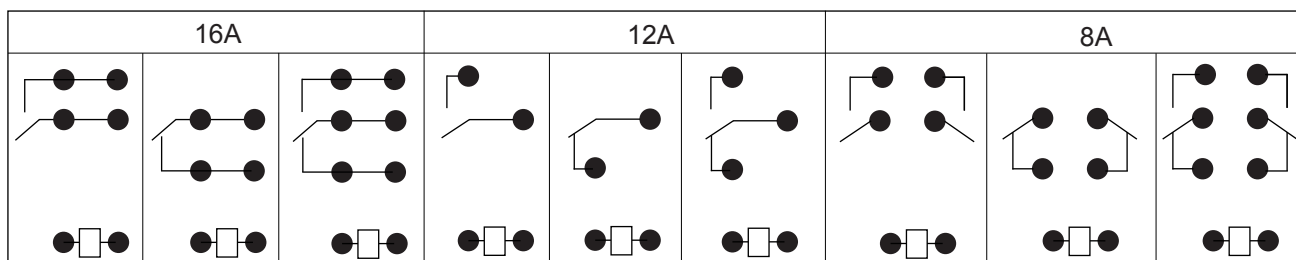
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT.

Unit: inch(mm)

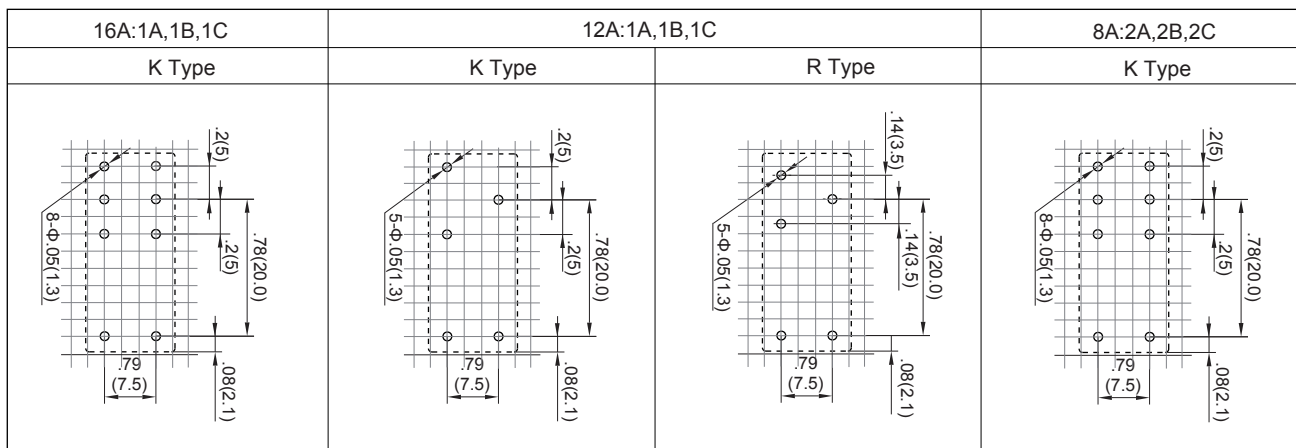
OUTLINE DIMENSIONS



Wiring Diagram (Bottom view)



PCB Layout (Bottom view)



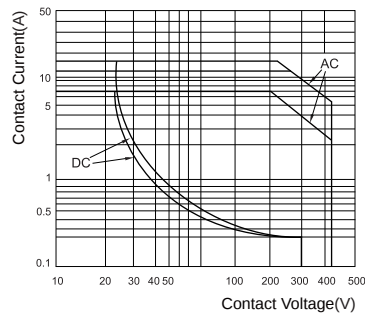
Remark:1) In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$.

2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

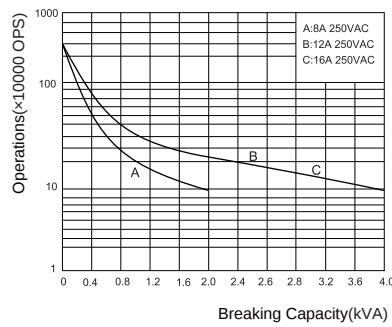
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CHARACTERISTIC CURVES

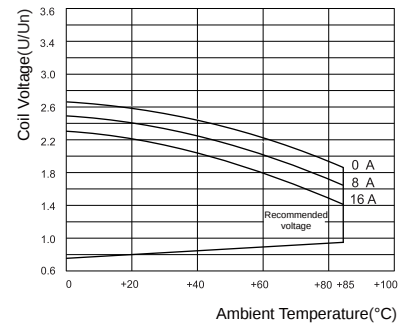
MAXIMUM SWITCHING POWER



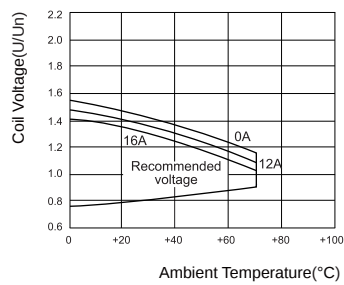
ENDURANCE CURVE



COIL OPERATING RANGE(DC)*



COIL OPERATING RANGE (AC)*



Notes:*The use of a relay with an energising voltage other than the rated coil voltage may lead to reduced electrical life.

An energising voltage over the abver range may damage the insulation of relay coil.

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