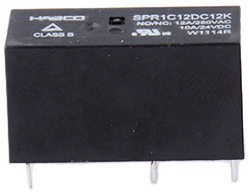
SPR SERIES SPDT/DPDT 20,8 Amp

c UL us
File No.:E75887

RoHS Compliant



FEATURES

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

CONTACT RATINGS

Contact Arrangement	1A, 1B, 1C	2A, 2B, 2C
Contact Resistance	100mΩ (at 1A 24VDC)	
Contact Material	Silver Alloy	
Contact Rating(Resistive)	20A/277VAC 16A/250VAC 16A/24VDC	8A/250VAC 8A/24VDC
Max. Switching Voltage	440VAC/300VDC	
Max. Switching Current	20A	8A
Max. Switching Power	5540VA	2000VA
Mechanical Life	1×10^7 operations	
Electrical Life	1×10^5 operations	

ORDERING INFORMATION

SPR F 1C 12 DC 12 K - E - XXXX

Model
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: 12=1 Form 12A;
16=1 Form 16A; 8=2 Form 8A
Coil: DC
Coil Voltage
Pole Distance:K=5mm R=3.5mm
E:Flux Free Type Nil:Sealed Type
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
Release time (at nomi. volt.)		≤5ms
Humidity		35% to 85% RH
Ambient temperature		-40°C to +70°C
Shock Resistance	Functional	98m/s²
	Destructive	980m/s²
Vibration resistance		10Hz to 150Hz 10g/5g
Unit weight		Approx. 13.5g
Construction		Sealed Type, Flux Free Type

COIL DATA at 23°C

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

Notes:1) The data shown above are initial values.
2) Please find coil temperature curve in the characteristic curved below.

COIL

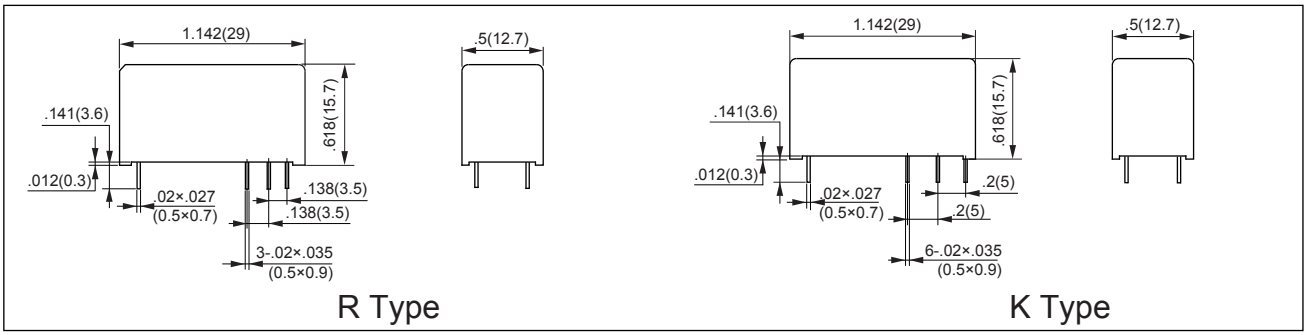
Coil Power	400mW (60V、110V:480mW)

SAFETY APPROVAL RATINGS

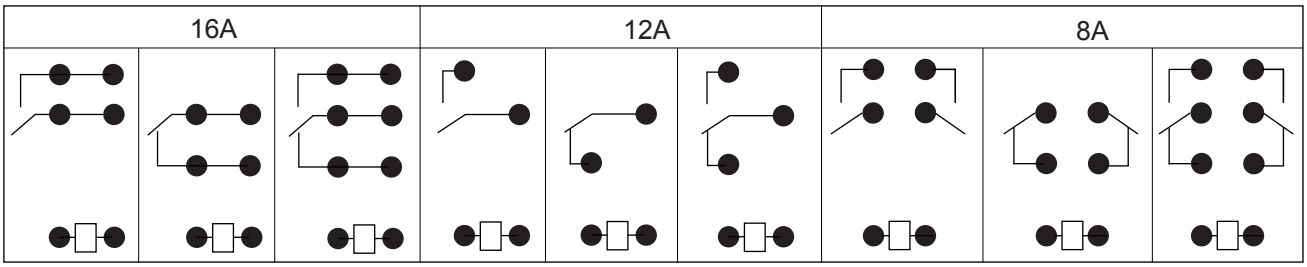
UL&CUL	1 Form	20A 277VAC (NO) 16A 250VAC/24VDC 12A 250VAC 10A 24VDC
	-W	5A 240VAC (NO) Electronic Ballast 8A 277VAC (NO) Electronic Ballast
	2 Form	8A 250VAC/24VDC 1/2HP 120VAC
TüV	1 Form	12A/240VAC, 10A/240VAC, 50/60Hz 16A/240VAC, 12A/240VAC, 50/60Hz
	2 Form	8A/240VAC, 6A/240VAC, 50/60Hz

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT. Unit: inch (mm)

OUTLINE DIMENSIONS



Wiring Diagram (Bottom view)



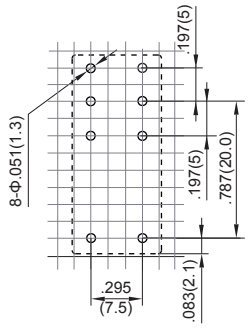
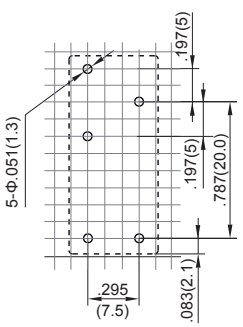
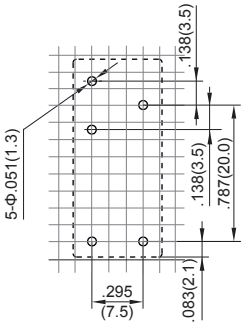
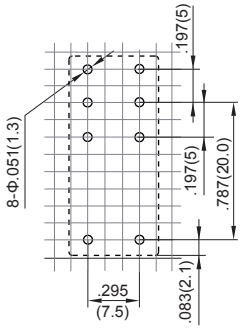
Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm,tolerance should be ±0.2mm; outline dimension ＞1mm and ≤5mm,tolerance should be ±0.3mm;outline dimension ＞5mm, tolerance should be ±0.4mm.

2) The tolerance without indicating for PCB layout is always ±0.1mm.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT.

Unit: inch (mm)

PCB Layout (Bottom view)

16A:1A,1B,1C	12A:1A,1B,1C		8A:2A,2B,2C
K Type	K Type	R Type	K Type
			

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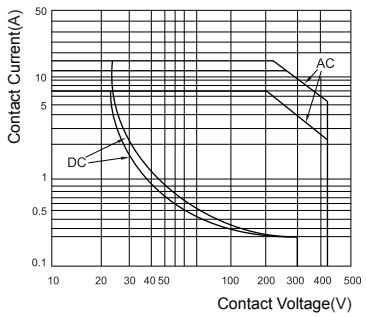
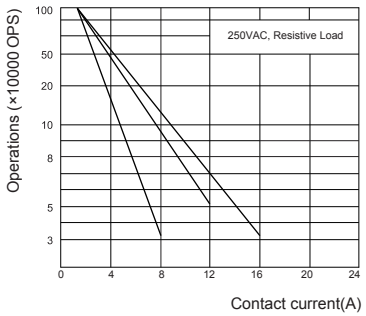
CHARACTERISTIC CURVES

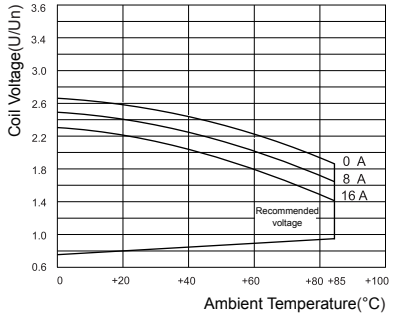
MAXIMUM SWITCHING POWER



ENDURANCE CURVE



COIL OPERATING RANGE(DC)*



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.