AC Output Solid State Relay — PCS32 AC Output

Horizontal

Vertical

FEATURES

- Small Dimension for High Packing Density PCB Assembly or Socket Mount
- 2,500 VRMS Opto-Isolation Between Input and Output
- TTL and CMOS compatible
- For Interface Application Between PLC and External Loads
- RoHS Compliant

c UL us E93379

INPUT PARAMETERS (Ta = 25°C)

Control Voltage Range		5D	4 - 6 VDC
		12D	9.6 - 14.4 VDC
		24D	19.2 - 28.8 VDC
		60D	48 - 72 VDC
Must Turn-On Voltage		5D	4 - 6 VDC
		12D	9.6 - 14.4 VDC
		24D	19.2 - 28.8 VDC
		60D	48 - 72 VDC
Must Turn-Off Voltage	Zero Cross turn-on	5D	1 VDC
		12D	3 VDC
		24D	10 VDC
		60D	20 VDC
	Random Turn-On	1 VDC	
Max. Input Current		25 mA	
Max. Reverse Protection Voltage		5D	-6 VDC
		12D	-14.4 VDC
		24D	-28.8 VDC
		60D	-72 VDC

OUTPUT PARAMETERS (Ta = 25°C)

Load Voltage Range	48 VAC to 280 VAC	
Max. Transient Voltage	600 Vpk	
Load Current Range	1 Amp	0.1 A to 1 A
	2 Amp	0.1 A to 2 A
Max. Surge Current (10 ms)	1 Amp	30 A
	2 Amp	80 A
Max. On-State Voltage Drop	1.2 VRMS	
Max. I^2t (10 ms, A^2s)	A1	4.5
	A2	32
Max. Turn-On Time	1/2 Cycles + 1 ms	
	1 ms	
Max. Turn-Off Time	1/2 Cycles + 1 ms	
Frequency Range	47 Hz to 63 Hz	
Min. Off-State dv/dt	100 V/us	
Max. Off-State Leakage Current	1 mA	

CHARACTERISTICS

Dielectric Strength	2,500 VAC, 1 min. Input to Output
Insulation Resistance	1,000 MΩ at 500 VDC
Max. Capacitance	5 pF (Input to Output)

CHARACTERISTICS Continued

Vibration Resistance	10 Hz - 55 Hz 1.5 mmm DA
Shock Resistance	Acceleration 980 m/s², Continuous Surge 6 ms
Operating Temperature	-30°C to 80°C
Storage Temperature	-30°C to 100°C
Relative Humidity	45% - 85%
Weight	11 g (Horizontal), 4g (Vertical)

ORDERING INFORMATION

Example: PCS32 -12D -240A -2 Z

Model: **PCS32 AC Output**

Control Voltage: **5D**: 4 - 6 VDC**; 12D**: 9.6 - 14.4 VDC; **24D**: 19.2 - 28.8 VDC; **60D**: 48 - 72 VDC

Load Voltage: **240A**: 240 VAC

Load Current: **1**: 1 A; **2**: 2 A

Switching Type: **Z**: Zero Crossing; **R**: Random Turn-On

Overvoltage Protection: **Nil**: Without; **Y***: With Varistor

Mounting Mode: **Nil**: Vertical (PC Pins In Line); **H**: Horizontal (PC Pins Dual In Line)

Vertical Box Quantity: 2,000; Inner Box 100, Horizontal Box Quantity: 500; Inner Box: 50

Notes:

*Varistor Version (Y) available only in 1 Amp, Zero Crossing

**Horizontal Version (H) available only in 2 Amp Version

3220 Commander Drive, Suite 102 Carrollton, TX 75006
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www.PickerComponents.com
e-mail: sales@pickercomponents.com

Dimensions are listed for reference purposes only.

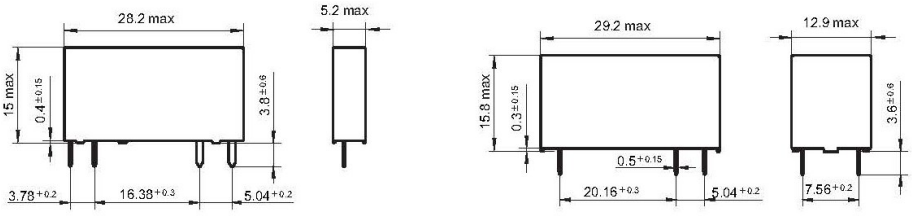
Specifications and Availability subject to change without notice.

PRECAUTIONS

1. Soldering must be completed within 10s at 260 or less or within 5s at 350 or less.
2. The SSR case serves to dissipate heat. Install the relays so that they are adequately ventilated. If poor ventilation is unavoidable, the load current must be reduced. Please refer to the curve of Max. Load current Vs. Ambient Temperature.
3. If the output transient voltage exceeds the nominal value, a varistor should be mounted on the SSR output terminal in parallel to prevent the relay being breakdown. 240VAC output relays are suggested to use 470 VDC varistors.
4. Please do not use the relay beyond the descriptions in the datasheet.

DIMENSIONS (mm)

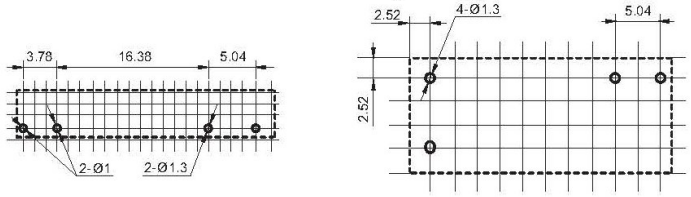
Outline Dimensions



Vertical Type Horizontal Type

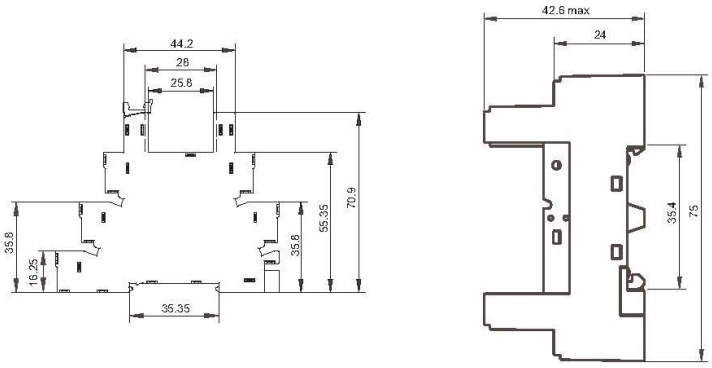
PCB and Socket Layout

PCB Layout
(Bottom view)



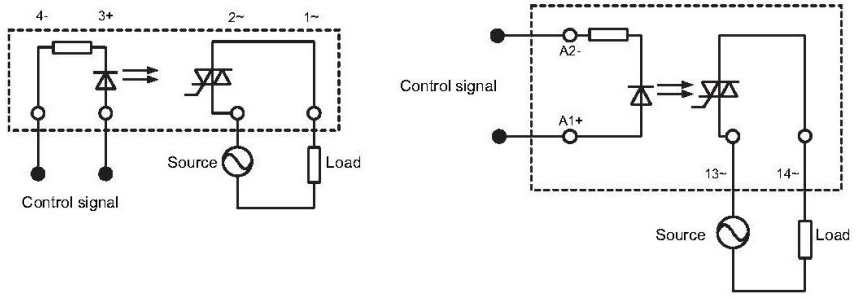
Vertical Type Horizontal Type

Socket Layout



Socket Model:41F-1Z-C2-5 Socket Model:14FF-2Z-C2

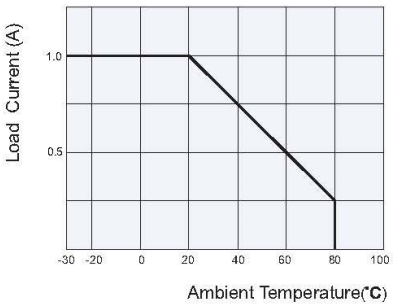
Wiring Diagram



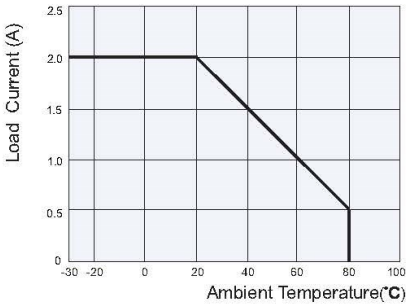
Vertical Type Horizontal Type

CHARACTERISTIC CURVES

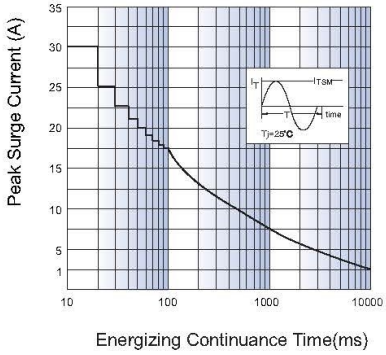
Max. Load Current
vs. Ambient Temperature(1A)



Max. Load Current
vs. Ambient Temperature(2A)



Max. Permissible Non-repetitive
Peak Surge Current vs. Continuance Time(1A)



Max. Permissible Non-repetitive
Peak Surge Current vs. Continuance Time(2A)