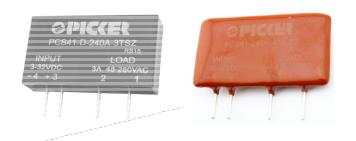


AC Output Solid State Relay/Output Module



INPUT PARAMETERS (Ta = 25°C) c Sus E93397 D 3 VDC - 32 VDC

	5	0180 02180
Control Voltage Range	12D [#]	4 VDC - 15 VDC
	24D [#]	15 VDC - 32 VDC
Must Turn-On Voltage	D	3 VDC
	12D [#]	5 VDC
	24D [#]	15 VDC
Must Turn-Off Voltage		1.0 VDC
Max. Input Current	D	25 mA
	12D [#]	40 mA
	24D [#]	20 mA

AVAILABILITY TABLE

	Control Voltage		
Load Voltage	D: 3-32 VDC	12D: 4-15 VDC	24D: 15-32 VDC
24: 240 VAC	Triac Only	SCR or Triac	SCR or Triac
38: 380 VAC	Triac Only	SCR or Triac	SCR or Triac
48: 480 VAC	-	SCR Only	SCR Only

ORDERING INFORMATION

Example:	PCS41	-12D	-240A	-3	Т	S	Z	-P
Model:	PCS41							
Control Voltage:	D : 3 - 32 VDC;							
	12D : 4 - 15 VDC#; 24D : 15 - 32	VDC#						
Load Voltage*:	240A : 48 - 280 VAC; 380A : 48 - 440 VAC;							
	480A : 48 - 530 VAC							
Load Current:	3: 3 Amp**; 4: 4 Amp#; 5: 5 Amp**							
Output Component*:	Nil: SCR; T: Triac							
RC Snubber: Nil: Without RC Snubbers; S With RC Snubbers								
Switching Type: Z: Zero Crossing, R: Random Turn-On***								
Housing:	Housing: Nil: Silicon Epoxy; -P: Output Module Plastic							

*Notes: See Availability Table for Options in Production

**3 Amp and 5 Amp Versions are not UL

*** Random Turn On is Available for 240 VAC and 380 VAC

Box Quantity: XXX; Inner Box YYY

20550 Commerce Blvd, Rogers, MN 55374 USA

Dimensions are listed for reference purposes only.

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FEATURES

- 3 Amp, 4 Amp and 5 Amp Rating @ 30° C
- Compatible with AC Type I/O Modules
- 4,000 Volt Dielectric Strength
- Back to Back SCR or Triac Output
- Optional RC Snubber
- Optional I/O Module Package
- Epoxy Encapsulated
- RoHS Compliant

OUTPUT PARAMETERS (Ta = 25°C)

Rated Voltage	240 VAC	380 VAC	480 VAC	
Load Voltage Range VAC	48 - 280	48 - 440	48 - 530	
Max. Transient Overvoltage	600 Vpk	800 Vpk	1,200 Vpk	
Load Current Range	0.1 A to 5 A			
	Triac Output:120 Apk			
Max. Surge Current (10 ms)	SCR OutPut: 250 Apk			
Max. On-State Voltage Drop	1.5 VRMS			
Max. Off-State Leakage Current	1.5 mA			
Min. Off-State dv/dt	200 V/us			
Max. Turn-On Time	Zero Cross: 1/2 Cycles + 1 ms;			
	Random: 1 ms			
Max. Turn-Off Time	1/2 Cycles + 1 ms			
Min. Power Factor	0.5			
	Triac Output: 78 A ² s			
Max. I ² t (10 ms)	SCR Output: 310 A ² s			

#4 Amp, 12D and 24D Only

www.PickerComponents.com e-mail: sales@pickercomponents.com Specifications and Availability subject to change without notice.

CHARACTERISTICS

Dielectric Strength	4,000 VAC, 50 Hz/60 Hz, 1 min. (Input to Output)
Insulation Resistance	1,000 MΩ at 500 VDC
Shock Resistance	980 m/s²
Vibration Resistance	10 Hz - 55 Hz, 1.5 mm DA

CHARACTERISTICS Continued

Operating Temperture	- 30°C to 80°C
Storage Temperature	- 30°C to 100°C
Relative Humidity	45% - 85%
Weight	Approximately 15 g

The use of the PCS41 with an AC Voltage Surge load greater than the rated voltage is possible with the use of a varistor for transient voltage suppression. For 220 VAC applications, a 470 VAC varistor is recommended.

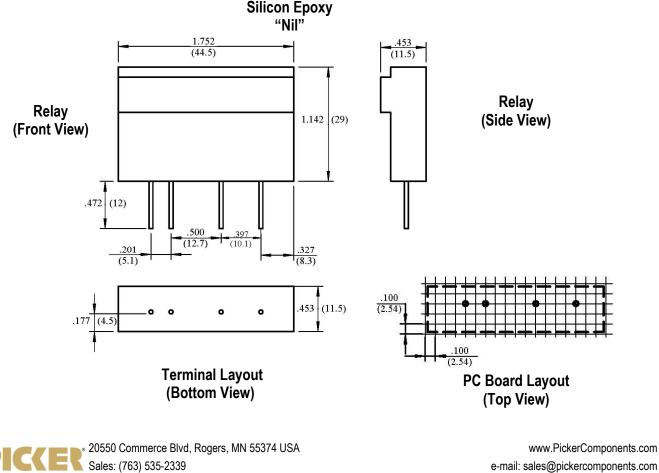
For 380 VAC applications, a 750 VAC varistor is recommended.

For 480 VAC applications, a 1,100 VAC varistor is recommended.

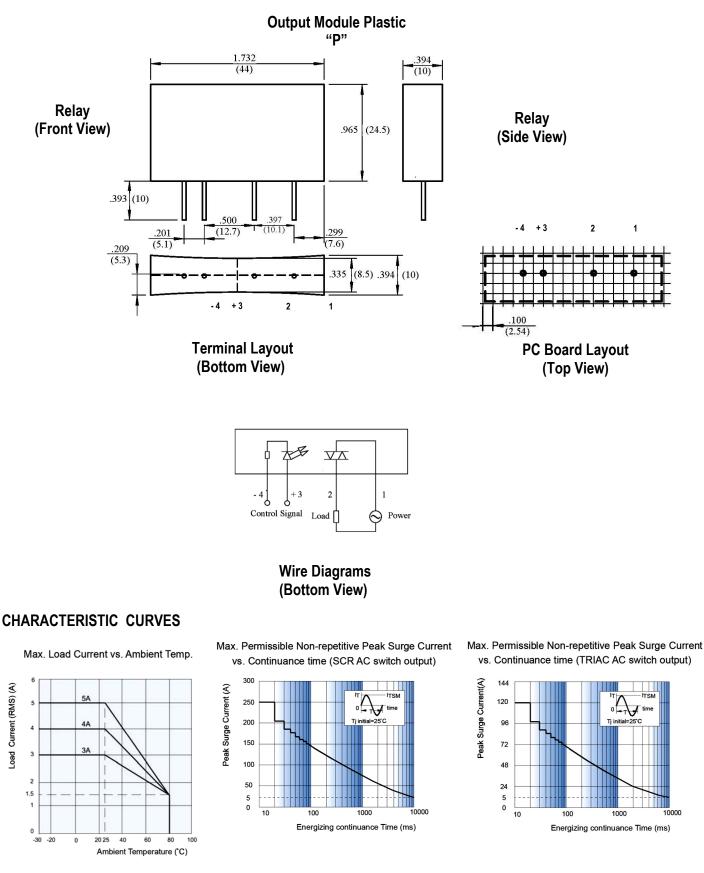
PRECAUTIONS

- 1. Maximum Soldering Temperatures: 260°C for a maximum of 10 seconds or 350°C for a maximum of 5 seconds.
- 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. The input circuitry does not incorporate a circuit protecting the SSR from being damaged due to a reversed connection. Make sure that the polarity and the input and output are correct when connecting.
- 4. If the output transient voltage exceeds the nominal value a varistor should be mounted on the SSR output terminals in parallel to prevent a breakdown of the triac output junction. The result could be a permanent short of the output. The recommended varistor voltage 470V.
- 5. When using the relay in phase control applications, at a phase control angle close to 180 degrees the relay's input signal will turn off at the trailing edge of the AC sine wave. The phase delay must be limited to end 200us before AC zero cross. This assures that the relay has time to switch off. Shorter times may cause loss of control at the following half cycle.

DIMENSIONS in Inches (mm)



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