



FEATURES

- Dual Solid State
- Two Separate SCR Output Relays
- Screw Terminal Version Available
- Panel Mount
- Built in Snubber
- Opto-Isolation Between Input and Output

CROSS REFERENCES

Crouzet: Dual Output
Example: 84140210 Crosses to PCS28-24D-240A-40Z
Crydom: Dual
Example: D2440DE-10 Crosses to PCS28-24D-240A-40R
Crydom: Evolution Dual
Example: CD2425W2V Crosses to PCS28-24D-240A-25

INPUT PARAMETERS (Ta = 25°C) US E93379

Control Voltage Range	12D	4 - 15 VDC
	24D	15 - 32 VDC
Must Turn-On Voltage	12D	4 VAC
	24D	15 VAC
Control Current	12D	8 - 50 mA
	24D	6 - 30 mA
Input Resistance	12D	330 Ω
	24D	1.5 kΩ
Must Turn-Off Voltage		1 VDC

CHARACTERISTICS

Dielectric Strength	4000 VAC, 50 Hz/60 Hz, 1 min. (Input to Output)
	2500 VAC, 50 Hz/60 Hz, 1 min. (Input, Output to Output)
Insulation Resistance	1000 MΩ at 500 VDC
Operating Temperature	- 30°C to 80°C
Storage Temperature	- 30°C to 100°C
Weight	Approximately 83 g

OUTPUT PARAMETERS (Ta = 25°C)

Load Current Ordering	25A		40A		50A	
	240A	380A	240A	380A	240A	380A
Load Voltage Ordering (VAC)	48-280	48-440	48-280	48-440	48-280	48-440
Max. Transient Voltage (Vpk)	600	800	600	800	600	800
Load Current Range	0.1 - 25 A		0.1 - 40 A		0.1 - 50 A	
Max. Surge Current (10 ms)	300		400		500	
Max. I ² t (10 ms, A ² s)	450		800		1250	
Max. On-State Voltage	1.5 VRMS					
Max. Off-State Leakage Current	10 mA					
Min. Off-State dv/dt	500 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					
Frequency Range	47 - 63 Hz					
Min. Power Factor	0.5					

ORDERING INFORMATION

Example:	PCS28	-12D	-240A	-25	Z	-1SE
Model:	PCS28					
Control Voltage:	12D: 4 - 15 VDC; 24D: 15 - 32 VDC					
Load Voltage:	240A: 48 - 280 VAC; 380A: 48 - 440 VAC					
Load Current:	25: 25 A; 40: 40 A; 50: 50 A					
Switching Type:	Z: Zero Crossing; R: Random Turn-On					
Package:	Nil: Quick Connect, Standard Package; 1SE: Single Input Control for Dual Output, Screw Terminal Input, Screw Terminal Outputs, with LED					
	Box Quantity: 80; Inner Box 2					

For Accessories and Heat Sinks see Page 2

PRECAUTIONS

- 1) When choosing a Solid State Relay (SSR), note the actual load current and ambient temperature and reference the Characteristic Curves on page 3.
- 2) SSRs require an adequate heat sinking or other effective cooling measures.
- 3) With ambient temperature above 25°C refer to the curve of Max. Load Current vs Ambient Temperature for load current derating.
- 4) Apply heat-conducting silicon grease or a thermal transfer pad on the space between the SSR and the heatsink and screw the SSR firmly into the heat sink to avoid damage from overheating.
- 5) Tighten the SSR terminal screws properly. We recommended screw installation torque as follows :
 M4 screw mounting torque range is (0.98-1.37)N • m,
 M3 screw mounting torque range is (0.56-0.98)N • m.
 Loose screws will damage the SSR when heat is generated from the connection. Also, excessive screw torque may damage relays internal components.
- 6) It is recommended to use a heat sink matched to the Current Load. With any heat sink test that the SSR base temperature does not exceed 65°C.
- 7) When using the PCS28 relay with an inductive load, it is suggested to select random turn-on (i.e., a model with "R" letter).
- 8) The PCS28 is not suitable for capacitive loads; if you must then do not choose products with varistor protection (i.e., a model with "Y" letter).
- 9) Listed parameters are based on resistive loads. Do not use the relay beyond the described current, temperature, load or voltage limits as described in this data sheet.

ACCESSORIES

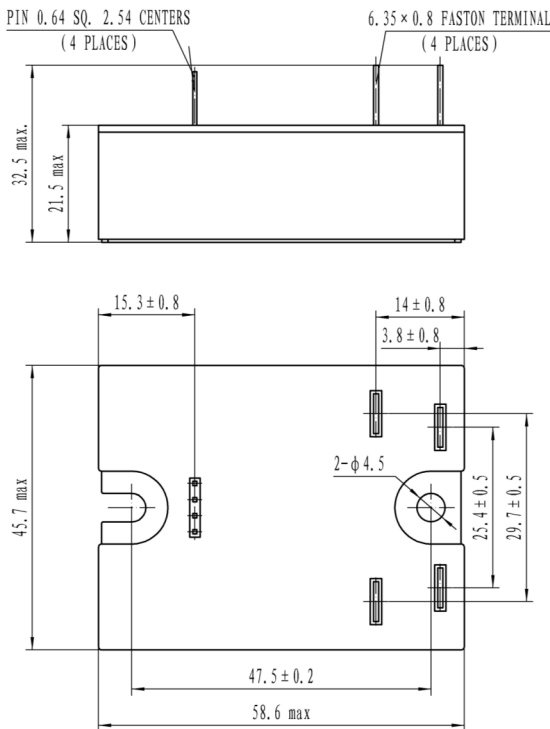
Heat Transfer Pad	HTP100 https://www.pickercomponents.com/pdf/Relays/HTP.pdf
Heat Sinks https://www.pickercomponents.com/pdf/Relays/PCH.pdf	PCH-I-50 for applications up to 20 Amps @ 25°C Ambient Temperature
	PCH-H-110 for applications up to 35 Amps @ 25°C Ambient Temperature
	PCH-H-150 for applications up to 50 Amps @ 25°C Ambient Temperature

ACCESSORIES SOLD SEPERATELY

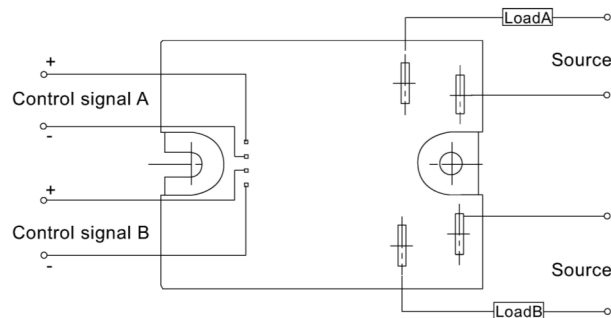
DIMENSIONS (mm)

Standard Package

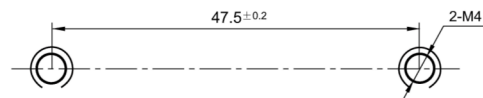
Outline Dimensions



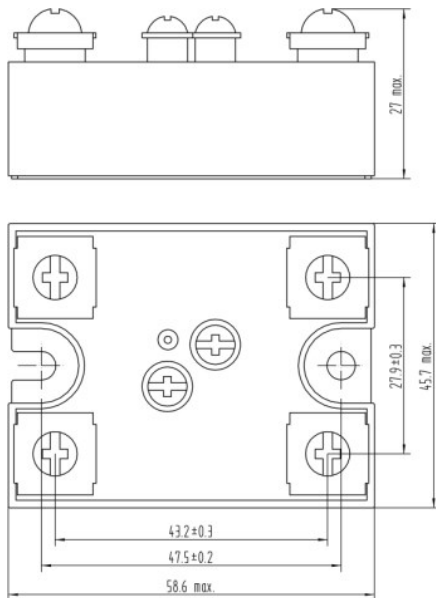
Wiring Diagram



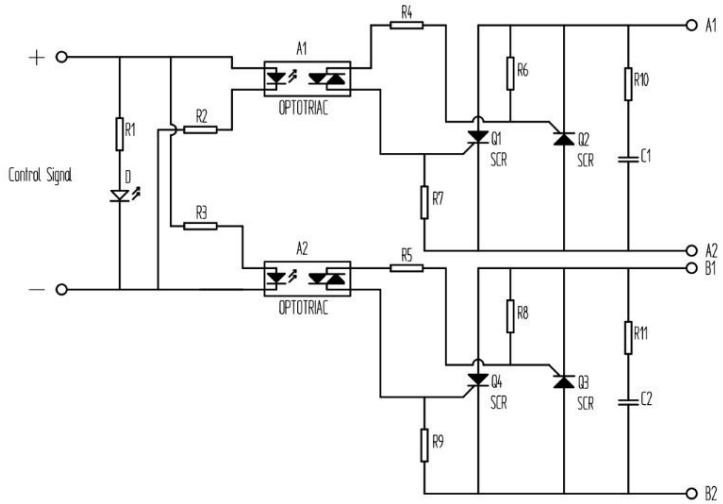
Mounting Holes



1SS Package Dimensions

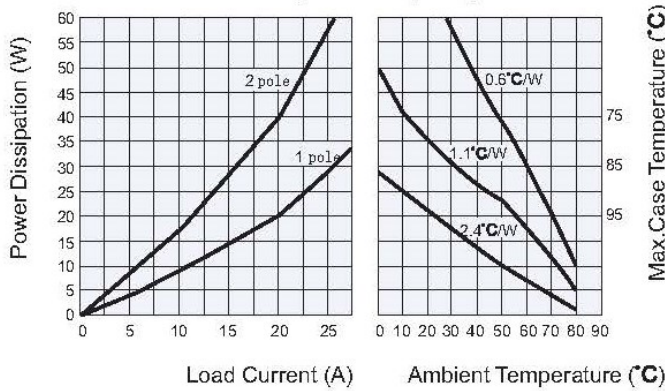


1SS Schematic

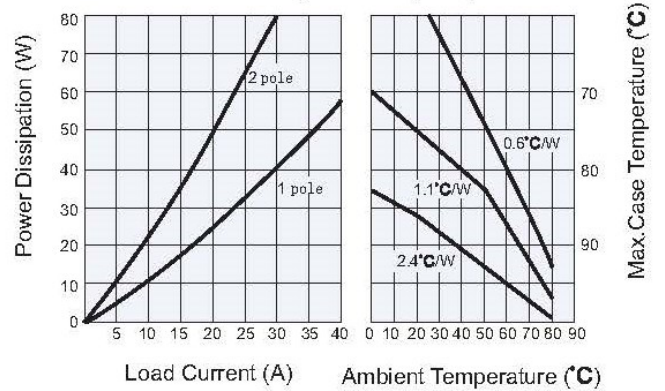


CHARACTERISTIC CURVES

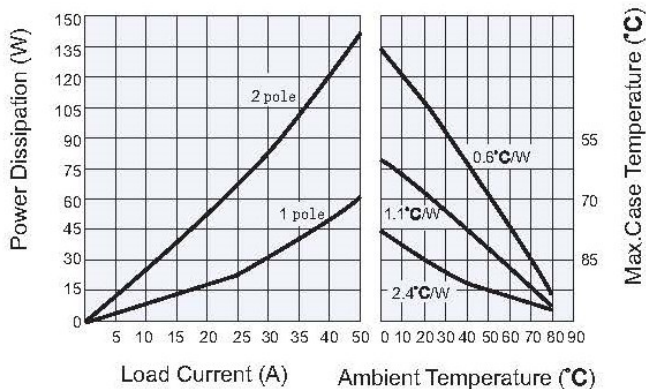
Max. Load Current vs. Ambient Temperature(25A)



Max. Load Current vs. Ambient Temperature(40A)



Max. Load Current vs. Ambient Temperature(50A)



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Dimensions are listed for reference purposes only.

Specifications and Availability subject to change without notice.