


**FEATURES**

- 10 Amp to 40 Amp Output
- 3~32VDC DC Input
- Built-In RC Snubber
- Optical Isolation Between Input and Output
- TRIAC Output


**INPUT PARAMETERS (Ta = 30°C)**

Control Voltage Range	4~32 VDC with LED
Must Turn-On Voltage	4 VDC with LED
Must Turn-Off Voltage	1 VDC
Max Input Current	25 mA
Max Reverse Protection Voltage	-32 VDC

**OUTPUT CURRENT PARAMETERS (Ta = 30°C)**

Load Current (100mA min)*	10A	15A	20A	25A	40A
Max Surge Current (10 ms, Apk)	120	250	250	250	420
Max I <sup>2</sup> t (10 ms, A <sup>2</sup> s)	72	112	200	312	882
Thermal Resistance Junction to Case (R <sub>jc</sub> ) (C/W)	2.35	2.15	1.55	1.15	1.15

\*Minimum current loading over range required to fully turn on device. Standard UL endurance ratings are 6,000 cycles.

**OUTPUT VOLTAGE PARAMETERS**

	240A	380A
Load Voltage Range (VAC)	48~280	48~440
Max Transient Voltage (V <sub>pk</sub> )	600	800
Max Turn-On Time	Zero Crossing	1/2 cycle + 1 ms
	Random	1ms
Max Turn-Off Time	1/2 cycle + 1 ms	
Max Off-State Leakage Current	10 mA	
Max On-State Voltage Drop	1.5 Vrms	
Min Power Factor	0.5	
Min Off-State (dv/dt)	200 V/us	

**CHARACTERISTICS**

Dielectric Strength	2500VAC, 50~60 Hz, 1 min Input, Output to Base 4000VAC, 50~60 Hz, 1 min Input to Output
Insulation Resistance	1000MΩ at 500 VDC
Operating Temperature	-30°C ~ 80°C
Storage Temperature	-30°C ~ 100°C
Relative Humidity	45% ~ 85%
Weight	~70g

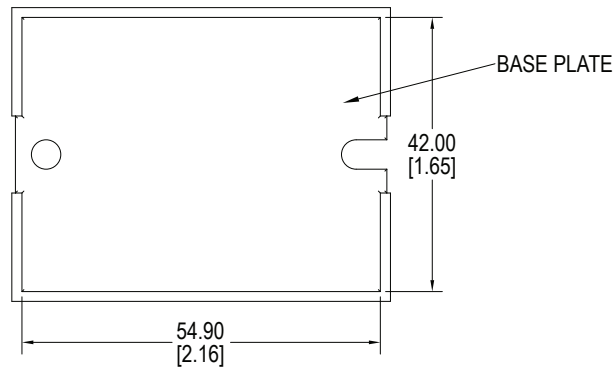
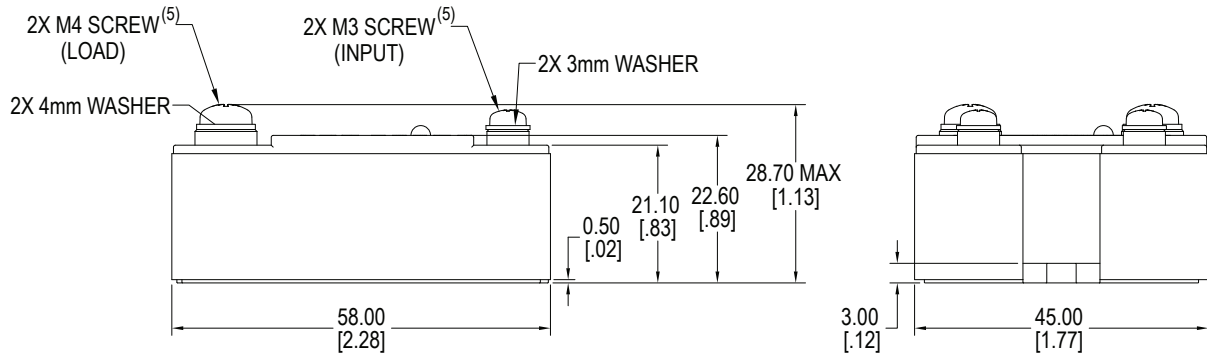
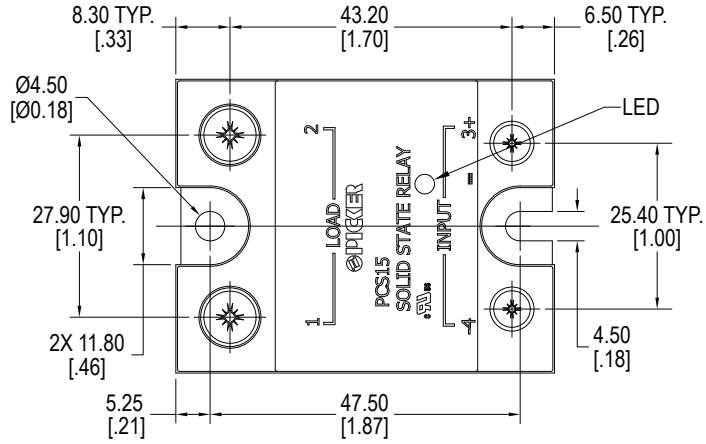
## ORDERING INFORMATION

Example	PCS15	-D	-240A	-10	Z		L
Model:	PCS15						
Control Voltage	D = 4~32VDC with LED						
Load Voltage	240A = 48~280VAC 380A = 48~440VAC						
Load Current	10 = 10 Amp 15 = 15 Amp 20 = 20 Amp 25 = 25 Amp 40 = 40 Amp						
Switching Type	Z = Zero Crossing R = Random Turn-On / Instantaneous Turn-On, See PRECAUTIONS #7						
Over Voltage Protection	Nil = None Y = With Varistor (MOV)						
Status LED	L = Indicator LED, Standard						
Terminal Type	Nil = Screw Terminal See PRECAUTIONS #5 for torque specification Q = Quick Connect 0.250 x 0.32, 4pls., Faston terminals. Input and Load. Housing is fully epoxy resin filled						

## PRECAUTIONS

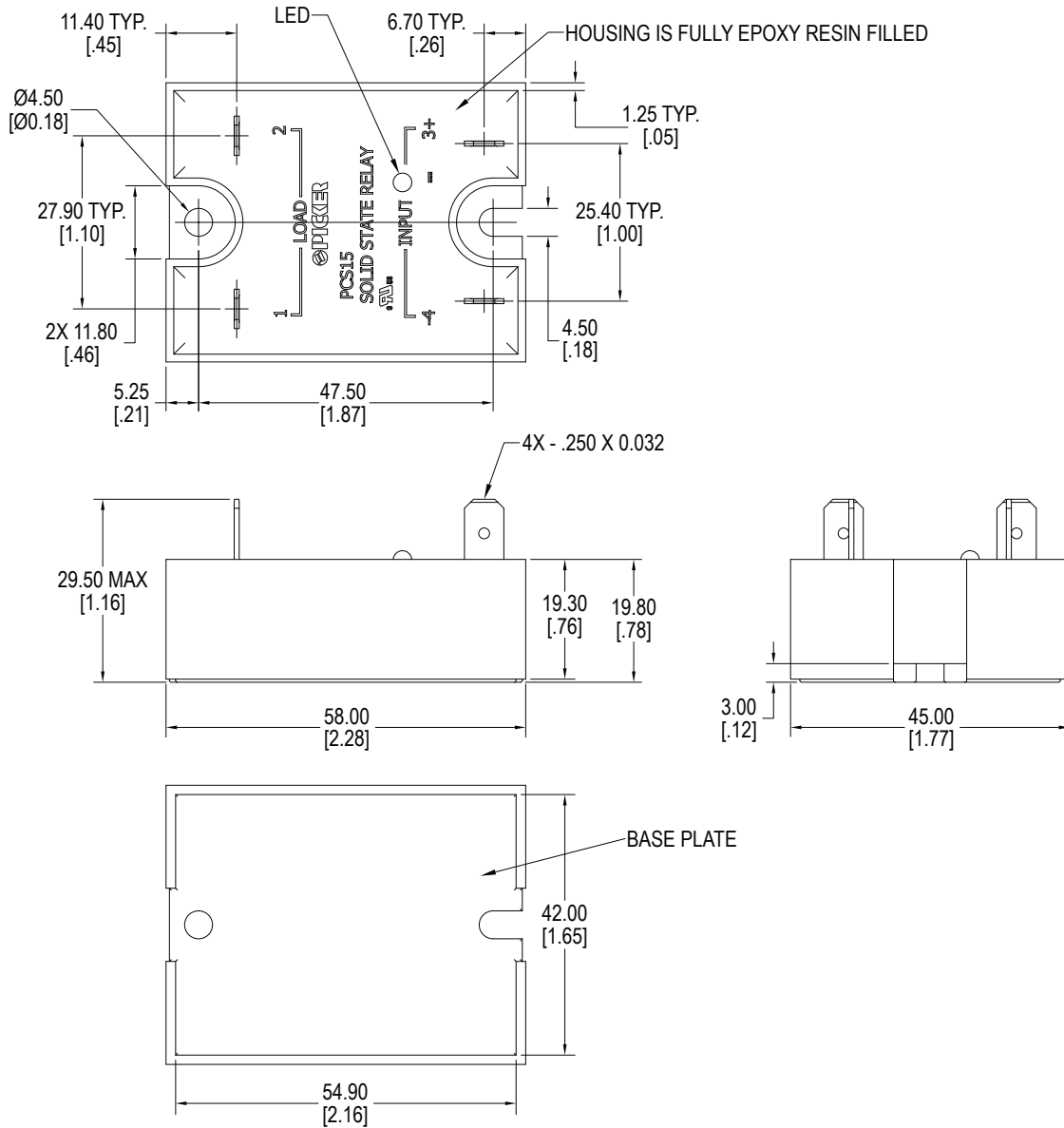
- When choosing a Solid State Relay (SSR), note the actual load current and ambient temperature and reference the Characteristic Curves.
- SSRs require an adequate heat sinking or other effective cooling measure.
- With ambient temperature above 25°C, refer to the curve of Max Load Current vs. Ambient Temperature for load current derating.
- Apply heat-conducting silicon grease or a thermal transfer pad on the space between the SSR and heat sink and screw the SSR firmly to the heat sink to avoid damage from overheating.
- Tighten the SSR terminal screws properly. We recommend 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 with heat generated from connections. Also, excessive screw torque may damage the relay's internal components.
- 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.
- When using the PCS15 relay with an inductive load, it is suggested to select Random Turn-On. (i.e. a model with "R" Switching Type)
- The PCS15 is not suitable for capacitive loads; if you must, then do not choose products with varistor protection. (i.e. a model with the "Y" Over Voltage Protection)
- 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 datasheet.

**DIMENSIONS** mm (inches)



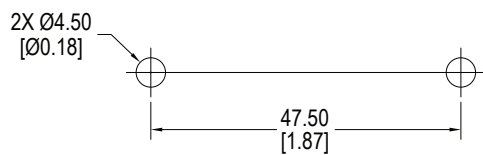
Screw Terminal

## DIMENSIONS mm (inches)

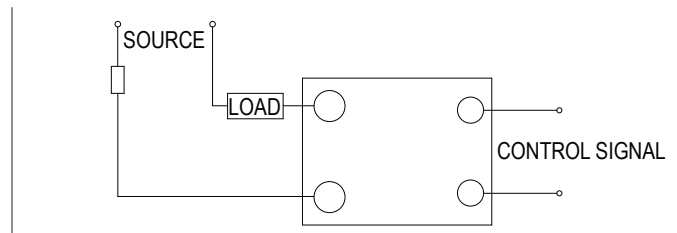


Quick Connect

## MOUNTING LAYOUT



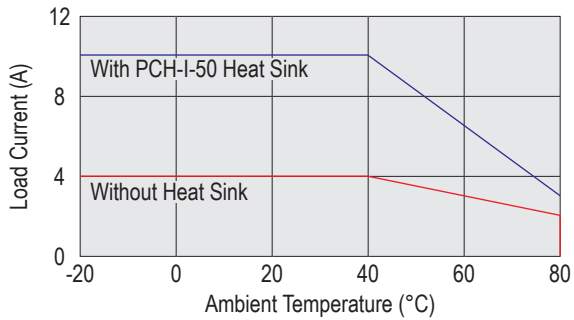
## WIRING DIAGRAM



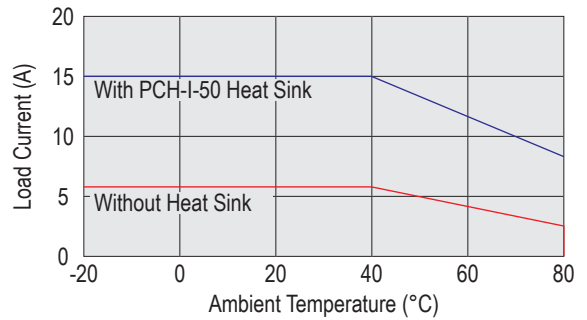
ACCESSORIES

Heat Transfer Pad	HTP100
Protective Cover	SSR100
Heat Sink	PCH-I-50 for applications up to 25 Amp @ 25°C Ambient Temperature PCH-M-120 for applications up to 35 Amp @ 25°C Ambient Temperature PCH-H-150 for applications up to 40 Amp @ 25°C Ambient Temperature

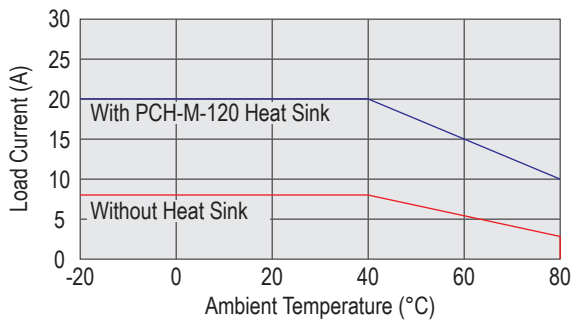
CHARACTERISTIC CURVES



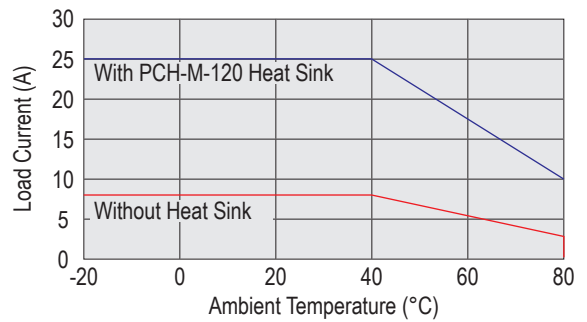
Max Load Current vs. Ambient Temperature - 10A



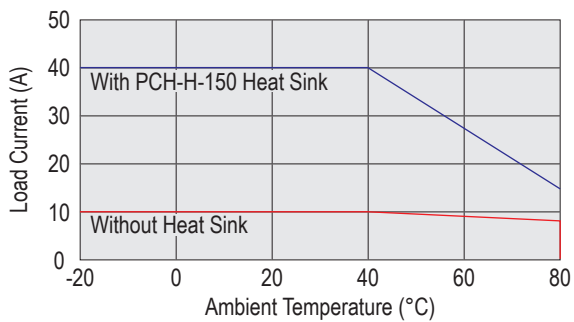
Max Load Current vs. Ambient Temperature - 15A



Max Load Current vs. Ambient Temperature - 20A



Max Load Current vs. Ambient Temperature - 25A

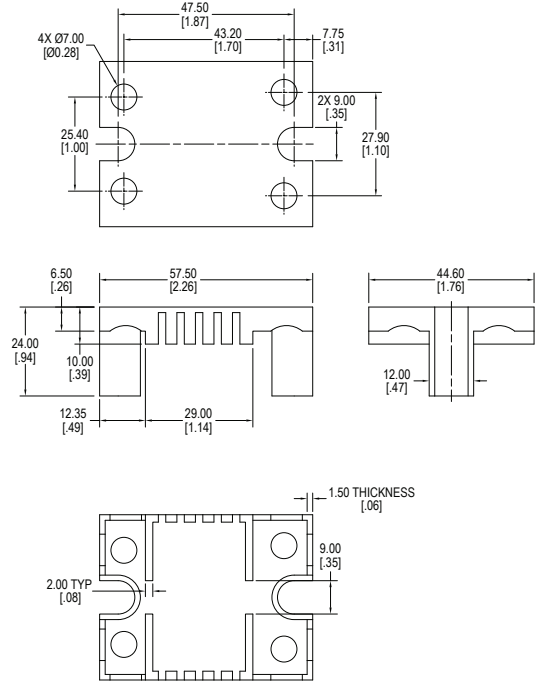


Max Load Current vs. Ambient Temperature - 40A

ACCESSORIES

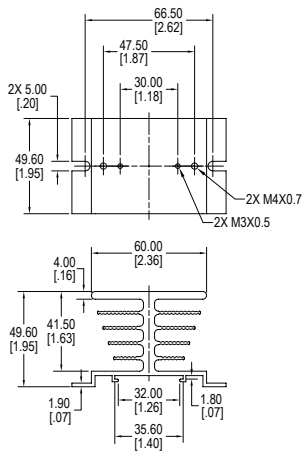


HTP100 — Heat Transfer Pad

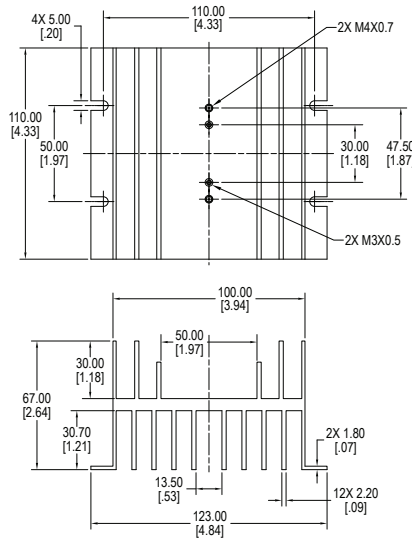


SSR100— Protective Cover

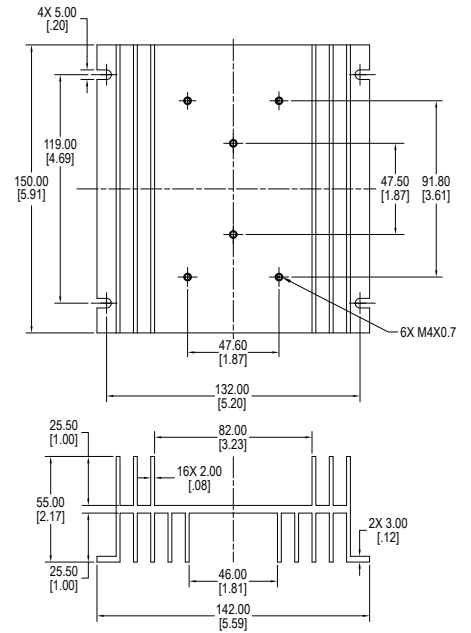
Removable, made of UL94V-O approved clear polycarbonate



PCH-I-50 Heat Sink



PCH-M-120 Heat Sink



PCH-H-150 Heat Sink