Solid State Relay—MOSFET DC Voltage Output PCS33

FEATURES

- Load Current: 7 to 100 A, MOSFET Output
- Load Output Range: 0-500 VDC
- DC Input: 3-32 VDC
- Panel Mount
- Dielectric Strength of 2,500 VAC
- RoHS Compliant

OUTPUT PARAMETERS (Ta = 25°C)

Load Voltage Option	30 VDC		50 VDC		100 VDC			150 VDC	200 VDC		400 VDC	500 VDC	
Load Current Option (A)	50	100	40	80	20	40	80	50	10	40	10	7	12
Load Voltage Range	3 - 30 VDC		3 - 50 VDC		3 - 100 VDC			3 - 150 VDC	3 - 200 VDC		3 - 400 VDC	3 - 500 VDC	
Max. Load Current Min. Load Current 20 mA	50 A	100 A	40 A	80 A	20 A	40 A	80 A	50 A	10 A	40 A	10 A	7 A	12 A
Max. Off-State Leakage Current	0.1 mA		0.1 mA		0.1 mA			0.1 mA	0.1 mA		0.1 mA	0.1 mA	
Max. On-State Voltage Drop	0.35 V	0.35 V	0.64 V	0.64 V	1.5 V	1.5 V	1.6 V	0.6 V	1 V	1 V	2.4 V	1.9 V	1.5 V
Max. On-State Resistance	7 mΩ	3.5 mΩ	16 mΩ	8 mΩ	75 mΩ	37.5 mΩ	20 mΩ	12 mΩ	105 mΩ	35 mΩ	240 mΩ	260 mΩ	1,250 mΩ
Max. Turn-On Time	1 ms												
Max. Turn-Off Time	0.5 ms												
Max. Surge Current (10 ms)	120 Apk	240 Apk	100 Apk	200 Apk	80 Apk	160 Apk	240 Apk	200 Apk	40 Apk	130 Apk	40 Apk	30 Apk	40 Apk

INPUT PARAMETERS (Ta = 25°C)

Control Voltage Range	3 - 32 VDC Without Led
	4 - 32 VDC With LED
Must Operate Voltage	3 VDC Without LED
	4 VDC With LED
Must Release Voltage	1.0 VDC
Maximum Input Current	28 mA at 32 VDC
Maximum Reverse Protection Voltage	-32 VDC

CROSS REFERENCES

Crouzet: GF
Example: 84134850 Crosses to PCS33-D-200-10L
Crydom: 1-DC
Example: D5D10 Crosses to PCS33-D-500-12
Crydom: 1-DCL
Example: D1D40L Crosses to PCS33-D-100-40L
Opto 22: DC Series
Example: DC60S-5 Crosses to PCS33-D-100-20

CHARACTERISTICS

Dielectric Strength	2,500 VAC, 50 Hz/60 Hz, 1 min. (Input, Output to Base)
Insulation Resistance	1,000 MΩ at 500 VDC
Vibration Resistance	10 Hz - 55 Hz 1.5 mm DA

CHARACTERISTICS CONT.

Shock Resistance	980 m/s^2
Operating Temperature	- 30°C to 80°C
Storage Temperature	- 30°C to 100°C
Weight	Approximately 100 g

ORDERING INFORMATION

Example:	PCS33	-D	-100	-80	L

Model: **PCS33**

Control Voltage: **D**: 3 - 32 VDC Without LED, 4 - 32 VDC With LED

Load Voltage:* **30**: 30 VDC; **50**: 50 VDC; **100**: 100 VDC; **150:** 150 VDC; **200**: 200 VDC; **400**: 400 VDC; **500**: 500 VDC

Load Current:* **7**: 7 A; **10**: 10 A; **12**: 12 A; **20**: 20 A; **40**: 40 A; **50**: 50 A: **80**: 80 A; **100**: 100 A

Status LED: **Nil**: Not Included; **L**: Indicator LED

Box Quantity: 100; Inner Box 2

*See options chart for available Current / Voltage ratings

OPTIONS (Load Current - A / Load Voltage - V)

A/V	30	50	100	150	200	400	500
7							X
10					X	X	
12							X
20			X				
40		X	X		X		
50	X			X			
80		X	X				X
100	X						

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Dimensions are listed for reference purposes only.

Specifications and Availability subject to change without notice.

PRECAUTIONS

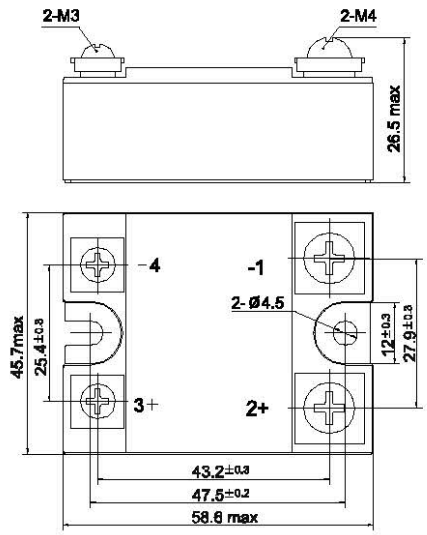
1. A diode is required for Inductive Loads.
2. When choosing a SSR, note the actual load current and ambient temperature and reference the Characteristic Curves below.
3. SSR require a adequate heat sinking or other effective cooling measures.
4. With ambient temperature above 25˚C refer to the curve of Max. Load Current vs Ambient Temperature for load current derating.
5. Apply heat-conducting silicon grease or a thermal transfer pad in the space between SSR and heat sink and screw the SCR firmly in to the heat sink to avoid damage from overheating.
6. Tighten the SSR terminal screws properly. 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.
7. Loose screws will damage the SSR with heat generated from connections. Also, excessive screw torque may damage relays internal components.
8. It's 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.
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.

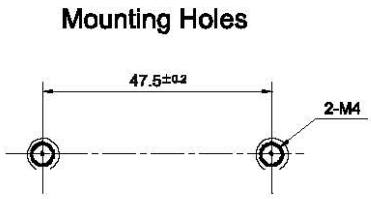
ACCESSORIES

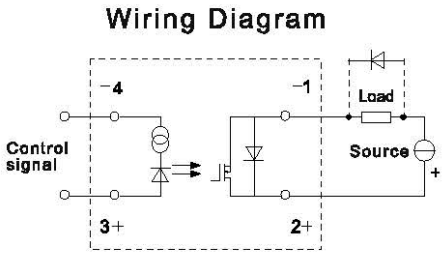
Heat Transfer Pad	HTP100
Protective Cover	SSR100
Heat Sinks	PCH-I-50 for the 30 VDC/50 Amp and 200 VDC/10 Amp Applications
	PCH-H-110 for the 400 VDC/10 Amp, 150 VDC/50 Amp, 100 VDC/20 Amp, 50 VDC/40 Amp and 30 VDC/100 Amp Application
	PCH-H-150 for the 50 VDC/80 Amp, 100 VDC/40 Amp, 200 VDC/40 Amp Application

ACCESSORIES SOLD SEPERATELY

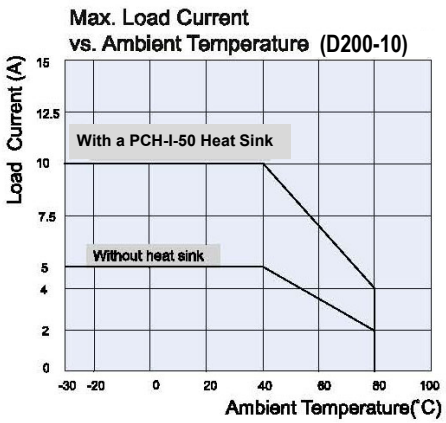
DIMENSIONS (mm)

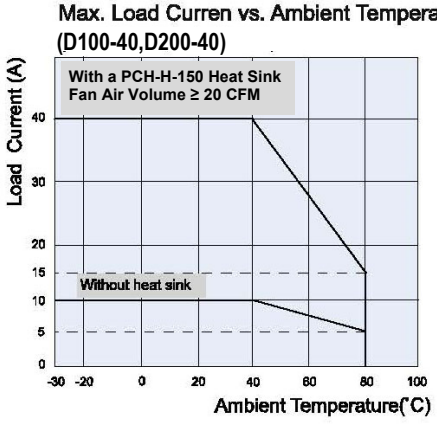


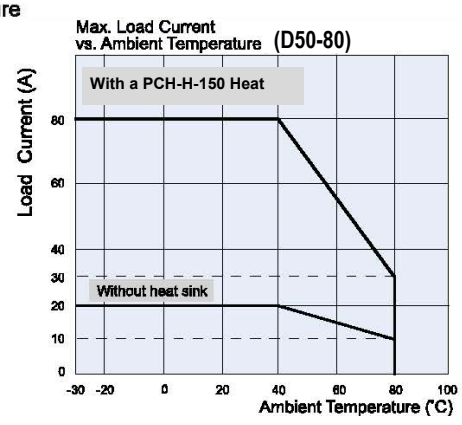




CHARACTERISTIC CURVES







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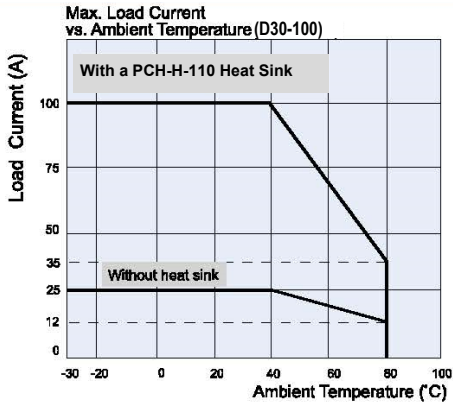

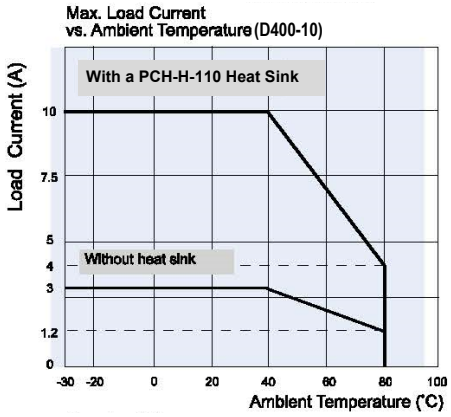

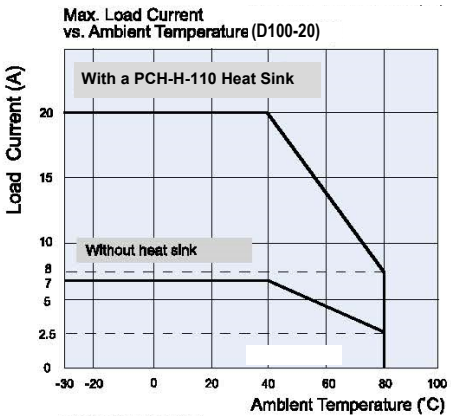

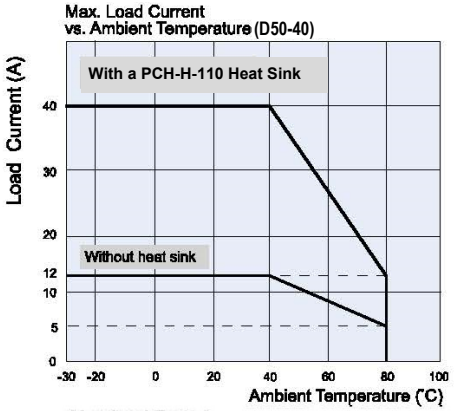

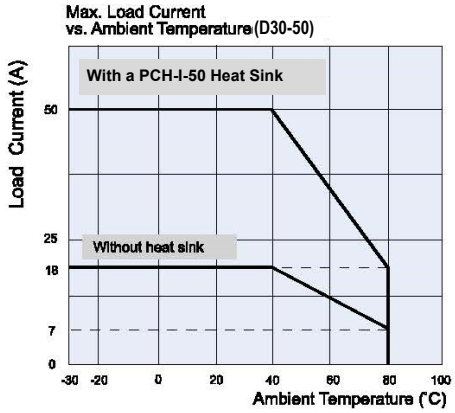

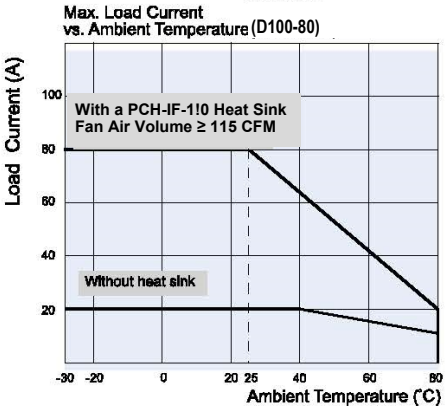

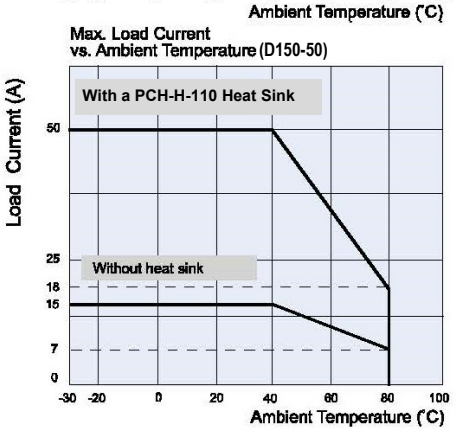

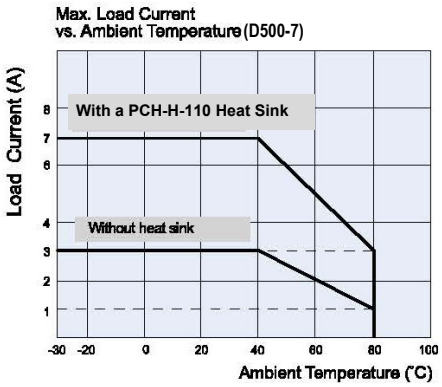

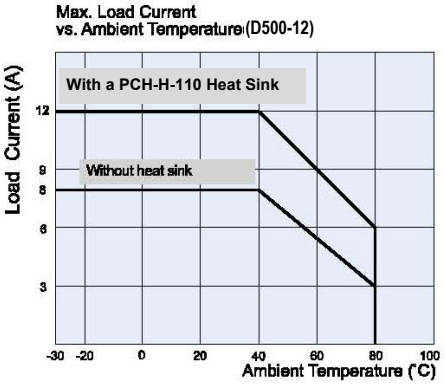

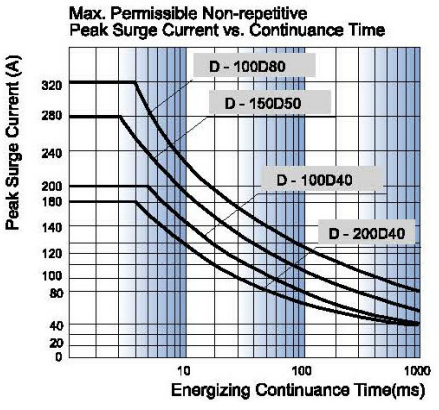

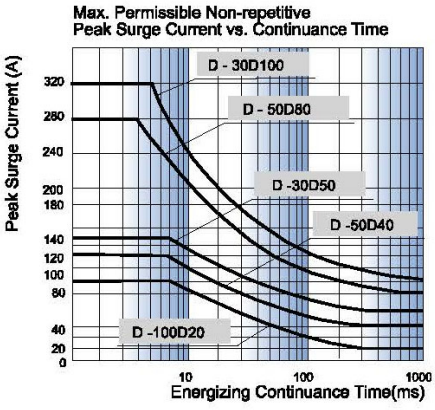

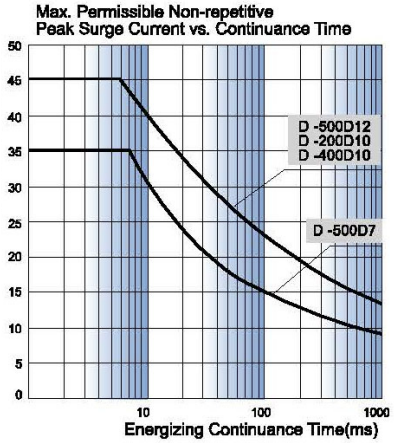

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