Product datasheet

Specification





solid state relay-panel mountthermal pad-input 90-280VAC, output 48-660VAC,90 A

SSP1A490M7T

Main

Range of product	Harmony Solid State Relays	
Provided accessory	Thermal pad	
Product or component type	Panel mount relay	
Device short name	SSP1	
Number of phases	1 phase	
[In] rated current	90 A	
solid state output type	Zero voltage switching SCR output	
Output switching mode	Zero voltage switching	

Complementary

,		
test button	Without test button	
[Uc] control circuit voltage	90280 V AC	
Minimum switching voltage	90 V AC turn-on	
Maximum switching voltage	10 V AC turn-off	
Response time	30 ms (turn-off) 25 ms (turn-on)	
Input current	510 mA	
Output voltage	48660 V AC	
load current	0.1590 A	
Transient overvoltage	1200 V	
Surge current	1200 A for 16.6 ms	
Maximum I²t for fusing	5976 A².s for 8.33 ms at 60 Hz 6560 A².s for 10 ms at 50 Hz	
Co-ordination type	Type 1 - 63 A miniature circuit breaker (MCB) - curve B Type 2 - 50 A miniature circuit breaker (MCB) - curve B	
Maximum leakage current	1 mA off-state	
Maximum voltage drop	<1.15 V on-state	
DV/dt	500 V/μs off-state at maximum voltage	
Power factor	0.5 (with maximum load)	
Motor controller rating	1.5 hp 120 V AC 3 hp 240 V AC 7.5 hp 480 V AC	
Insulation resistance	1000 MOhm at 500 V DC	

Maximum capacitance	8 pF for input/output	
Dielectric strength	4 kV AC for input/output 4 kV AC for input or output to case	
[Uimp] rated impulse withstand voltage	d 6 kV output to case 6 kV input to output	
Tightening torque	1.51.7 N.m for input 22.2 N.m for output	
Connections - terminals	Screw terminals: 0.23.3 mm², (AWG 24AWG 12) with cable end for input Screw terminals: 0.55.26 mm², (AWG 20AWG 10) with cable end for output Screw terminals: 0.23.3 mm², (AWG 24AWG 12) without cable end for input Screw terminals: 0.58.26 mm², (AWG 20AWG 8) without cable end for output Forked type tag connectors: 9.2 x 4 mm for input Ring lugs: 9.2 x 4 mm for input Forked type tag connectors: 11.7 x 4.5 mm for output Ring lugs: 11.7 x 4.5 mm for output	
Thermal resistance	0.27 °C/W junction to case	
thermal pad impedance	0.48 °C-in²/W at 25 psi	
LED indicator	LED, green for input	
IP degree of protection	IP20	
Safety reliability data	B10d = 1731395 MTTFd = 1875.9 years	
Net weight	89.2 g	
Device presentation	Complete product	

Environment

Ambient air temperature for operation	-4080 °C
Ambient air temperature for storage	-40125 °C
Pollution degree	2
Overvoltage category	III
product certifications	EAC CSA UL CE
marking	UL CSA EAC CE
Standards	IEC 62314 UL 508 CSA C22.2 No 14-13 IEC 60950-1

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.800 cm
Package 1 Width	4.800 cm
Package 1 Length	6.500 cm
Package 1 Weight	101.900 g
Unit Type of Package 2	S01
Number of Units in Package 2	30

Package 2 Height	15.000 cm
Package 2 Width	15.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	3.356 kg

Sustainability Green Premium

Green PremiumTM **label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >





Transparency RoHS/REACh

Well-being performance



Mercury Free



Rohs Exemption Information

Yes

Certifications & Standards

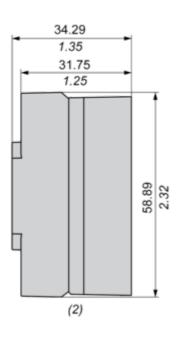
Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information

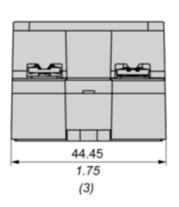
12 Sept 2024

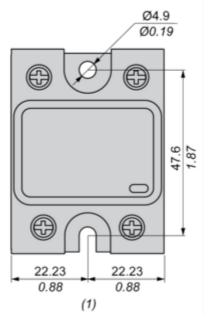
Dimensions Drawings

Dimensions

 $\frac{\text{mm}}{in.}$



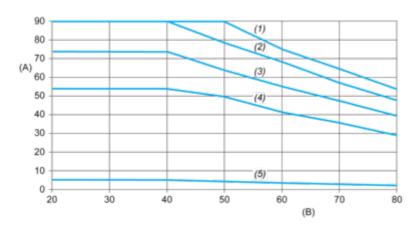




- (1) Front view
- (2) Side view
- (3) Bottom view

Performance Curves

Derating Curves



- A: Load Current (Arms)
- **B**: Ambient Temperature (°C)
- (1) For Heatsink SSRHP02
- (2) For Heatsink SSRHP05
- (3) For Heatsink SSRHP07
- (4) For Heatsink SSRHD10
- (5) No Heatsink