

# Product datasheet

Specifications



Harmony. Solid state relay. 50 A. panel mount. zero voltage switching. thermal pad. input 90...280 V AC. output 48...660 V AC

SSP1A450M7T

**Price: 1,747.04 ZAR**

## Main

Range Of Product	Harmony Solid State Relays
Provided Accessory	Thermal pad
Product Or Component Type	Solid state relay up to 50 A
Device Short Name	SSP1
Number Of Phases	1 phase
[In] Rated Current	50 A
Solid State Output Type	SCR output Zero voltage switching
Output Switching Mode	Zero voltage switching

## Complementary

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	5...10 mA
Load Current	0.15...50 A
Transient Overvoltage	1200 V
Surge Current	625 A for 16.6 ms
Maximum I <sup>2</sup> T For Fusing	1770 A <sup>2</sup> .s for 10 ms at 50 Hz 1629 A <sup>2</sup> .s for 8.33 ms at 60 Hz
Co-Ordination Type	Type 1 - 40 A miniature circuit breaker (MCB) - curve B Type 2 - 32 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	0.75 hp 120 V AC 2 hp 240 V AC 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

Excluding VAT and subject to change. Please check with your local distributor through "Where to buy"

<b>[Uimp] Rated Impulse Withstand Voltage</b>	6 kV output to case 6 kV input to output
<b>Tightening Torque</b>	1.5...1.7 N.m for input 2...2.2 N.m for output
<b>Connections - Terminals</b>	Screw terminals: 0.2...3.3 mm <sup>2</sup> , (AWG 24...AWG 12) with cable end for input Screw terminals: 0.5...5.26 mm <sup>2</sup> , (AWG 20...AWG 10) with cable end for output Screw terminals: 0.2...3.3 mm <sup>2</sup> , (AWG 24...AWG 12) without cable end for input Screw terminals: 0.5...8.26 mm <sup>2</sup> , (AWG 20...AWG 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
<b>Thermal Resistance</b>	0.45 °C/W junction to case
<b>Thermal Pad Impedance</b>	0.48 °C-in <sup>2</sup> /W at 25 psi
<b>Led Indicator</b>	LED, green for input
<b>Ip Degree Of Protection</b>	IP20
<b>Safety Reliability Data</b>	B10d = 1731395 MTTFd = 1875.9 years
<b>Net Weight</b>	89.2 g
<b>Device Presentation</b>	Complete product

## Environment

<b>Ambient Air Temperature For Operation</b>	-40...80 °C
<b>Ambient Air Temperature For Storage</b>	-40...125 °C
<b>Pollution Degree</b>	2
<b>Overvoltage Category</b>	III
<b>Product Certifications</b>	CE UL CSA EAC
<b>Marking</b>	EAC UL CSA CE
<b>Standards</b>	IEC 60950-1 CSA C22.2 No 14-13 UL 508 IEC 62314

## Packing Units

<b>Unit Type Of Package 1</b>	PCE
<b>Number Of Units In Package 1</b>	1
<b>Package 1 Height</b>	3.800 cm
<b>Package 1 Width</b>	4.800 cm
<b>Package 1 Length</b>	6.500 cm
<b>Package 1 Weight</b>	101.900 g
<b>Unit Type Of Package 2</b>	S01
<b>Number Of Units In Package 2</b>	30
<b>Package 2 Height</b>	15.000 cm
<b>Package 2 Width</b>	15.000 cm

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<b>Package 2 Length</b>	40.000 cm
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<b>Package 2 Weight</b>	3.232 kg
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## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> 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](#)

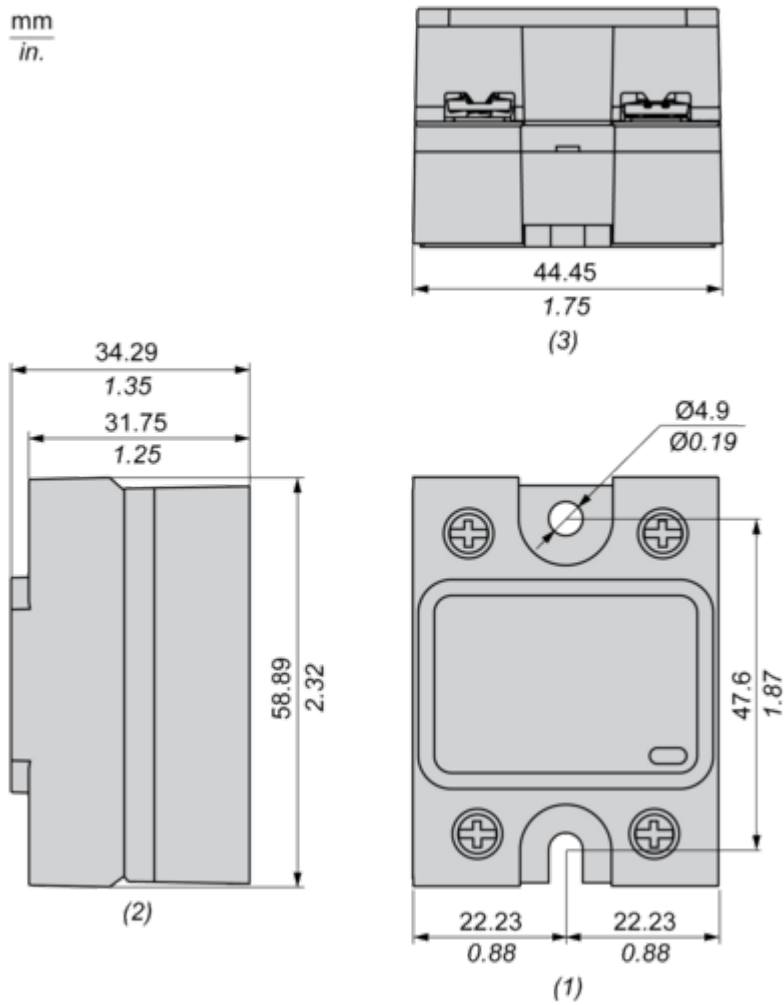
Environmental Disclosure [Product Environmental Profile](#)

Circularity Profile [End of Life Information](#)

Dimensions Drawings

Dimensions

mm  
in.

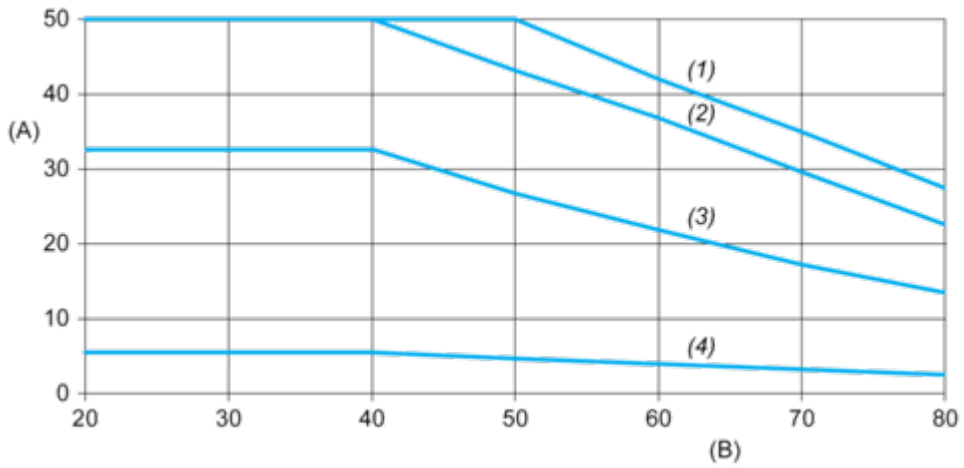


- (1) Front view
- (2) Side view
- (3) Bottom view

Performance Curves

Derating Curves

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- A : Load Current (Arms)
- B : Ambient Temperature (°C)
- (1) For Heatsink SSRHP07
- (2) For Heatsink SSRHD10
- (3) For Heatsink SSRHP17
- (4) No Heatsink