

# SSP1A490M7T

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



## Main

Range of Product	Harmony Solid State Relays
Product or Component Type	Solid state relay up to 125 A
Provided accessory	Thermal pad
Device short name	SSP1
Number of phases	1 phase
Line Rated Current	90 A
Solid state output type	Zero voltage switching SCR output
Output switching mode	Zero voltage switching

## Complementary

[Uc] control circuit voltage	90...280 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	5...10 mA
Output voltage	48...660 V AC
Load current	0.15...90 A
Transient overvoltage	1200 V
Surge current	1200 A 16.6 ms
Maximum I <sup>2</sup> t for fusing	5976 A <sup>2</sup> .S for 8.33 ms at 60 Hz 6560 A <sup>2</sup> .s for 10 ms at 50 Hz
Co-ordination type	Type 1 - 63 A miniature circuit breaker (MCB) B Type 2 - 50 A miniature circuit breaker (MCB) 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	6 KV output to case 6 kV input to output
Tightening torque	1.5...1.7 N.m for input 2...2.2 N.m for output
Connections - terminals	Screw terminals 0.2...3.3 mm <sup>2</sup> , AWG 24...AWG 12) with cable end input Screw terminals 0.5...5.26 mm <sup>2</sup> , AWG 20...AWG 10) with cable end output Screw terminals 0.2...3.3 mm <sup>2</sup> , AWG 24...AWG 12) without cable end input Screw terminals 0.5...8.26 mm <sup>2</sup> , AWG 20...AWG 8) without cable end output Forked type tag connectors 9.2 x 4 mm input Ring lugs 9.2 x 4 mm input Forked type tag connectors 11.7 x 4.5 mm output Ring lugs 11.7 x 4.5 mm output
Thermal resistance	0.27 °C/W junction to case

Thermal pad impedance	0.48 °C-in <sup>2</sup> /W at 25 psi
LED indicator	LED, green input
IP degree of protection	IP20
Safety reliability data	B10d = 1731395 MTTFd = 1875.9 years
Net Weight	3.15 oz (89.2 g)
Device presentation	Complete product

## Environment

Ambient air temperature for operation	-40...176 °F (-40...80 °C)
Ambient Air Temperature for Storage	-40...257 °F (-40...125 °C)
Pollution degree	2
Overvoltage category	III
Product Certifications	EAC CSA UL CE
Marking	UL CSA EAC CE
Standards	EN/IEC 62314 UL 508 CSA C22.2 No 14-13 EN/IEC 60950-1




## Ordering and shipping details

Category	22375 - INTERFACE MODULE(ABA,R,S)
Discount Schedule	CP2
GTIN	3606485442174
Nbr. of units in pkg.	1
Package weight(Lbs)	3.60 oz (102 g)
Returnability	Yes
Country of origin	MX

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	1.50 in (3.8 cm)
Package 1 width	1.89 in (4.8 cm)
Package 1 Length	2.56 in (6.5 cm)
Unit Type of Package 2	S01
Number of Units in Package 2	30
Package 2 Weight	7.24 lb(US) (3.285 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	5.91 in (15 cm)
Package 2 Length	15.75 in (40 cm)

## Offer Sustainability

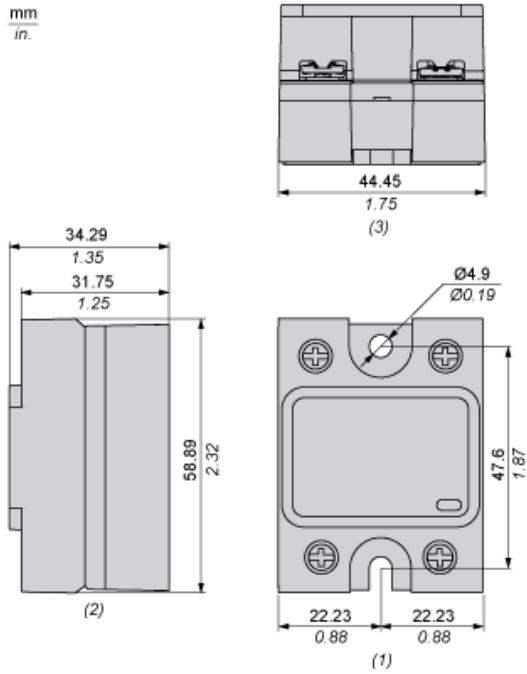
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	 <a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)  <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	 <a href="#">Yes</a>

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China RoHS Regulation	<a href="#">China RoHS Declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>

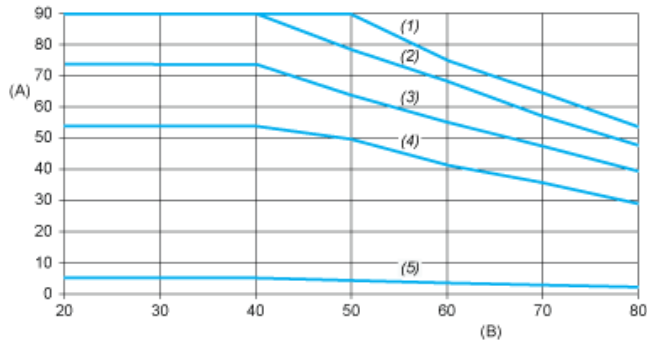
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Dimensions



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

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