

# SSP1A150M7T

Harmony, Solid state relay, 50 A, panel mount, zero voltage switching, thermal pad, input 90...280 V AC, output 24...300 V AC



## Main

|                           |                                      |
|---------------------------|--------------------------------------|
| Range of Product          | Harmony Solid State Relays           |
| Product or Component Type | Solid state relay up to 50 A         |
| Provided accessory        | Thermal pad                          |
| Device short name         | SSP1                                 |
| Number of phases          | 1 phase                              |
| Line Rated Current        | 50 A                                 |
| Solid state output type   | Zero voltage switching<br>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)<br>25 ms (turn-on)   |
| Input current                          | 5...10 mA   |
| Output voltage                         | 24...300 V AC   |
| Load current                           | 0.15...50 A   |
| Transient overvoltage                  | 600 V   |
| Surge current                          | 625 A 16.6 ms   |
| Maximum I <sup>2</sup> t for fusing    | 1621 A <sup>2</sup> .S for 8.33 ms at 60 Hz<br>1770 A <sup>2</sup> .s for 10 ms at 50 Hz  |
| Co-ordination type                     | Type 1 - 40 A miniature circuit breaker (MCB) B<br>Type 2 - 32 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                | 0.75 Hp 120 V AC<br>2 hp 240 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<br>4 kV AC for input or output to case   |
| [Uimp] rated impulse withstand voltage | 6 KV output to case<br>6 kV input to output   |
| Tightening torque                      | 1.5...1.7 N.m for input<br>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<br>Screw terminals 0.5...5.26 mm <sup>2</sup> , AWG 20...AWG 10) with cable end output<br>Screw terminals 0.2...3.3 mm <sup>2</sup> , AWG 24...AWG 12) without cable end input<br>Screw terminals 0.5...8.26 mm <sup>2</sup> , AWG 20...AWG 8) without cable end output<br>Forked type tag connectors 9.2 x 4 mm input<br>Ring lugs 9.2 x 4 mm input<br>Forked type tag connectors 11.7 x 4.5 mm output<br>Ring lugs 11.7 x 4.5 mm output |
| Thermal resistance                     | 0.45 °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 | MTTFd = 1875.9 years<br>B10d = 1731395 |
| 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                | UL<br>CSA<br>CE<br>EAC   |
| Marking                               | CE<br>UL<br>CSA<br>EAC   |
| Standards                             | UL 508<br>CSA C22.2 No 14-13<br>EN/IEC 60950-1<br>EN/IEC 62314 |




## Ordering and shipping details

|                       |                                   |
|-----------------------|-----------------------------------|
| Category              | 22375 - INTERFACE MODULE(ABA,R,S) |
| Discount Schedule     | CP2                               |
| GTIN                  | 3606485442136                     |
| 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             | 7.38 lb(US) (3.346 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

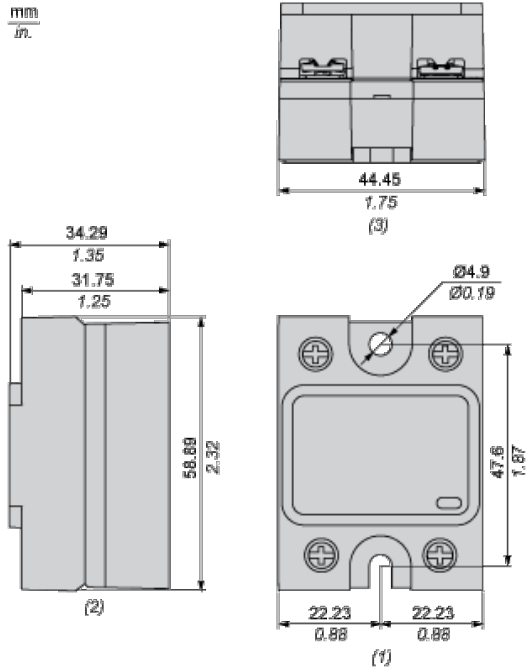
|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer 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>       |

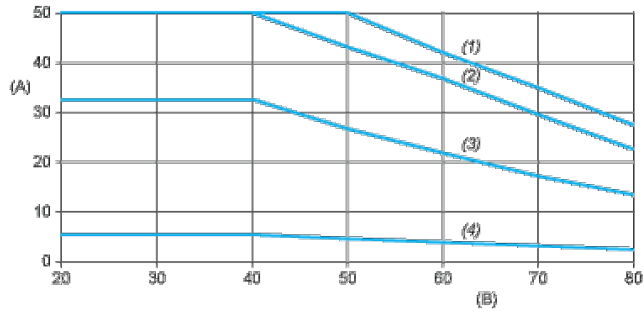
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Dimensions



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

Derating Curves



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