

# Product data sheet

Specifications



single phase relay, Harmony Solid State Relays, 40A, panel mount, DC switching, thermal pad, input 3.5 to 32V DC, output 1 to 150V DC

SSP1D440BDT

## Main

Range Of Product	Harmony Solid State Relays
Provided Accessory	Thermal pad
Product Or Component Type	Solid state relay up to 40 A
Device Short Name	SSP1
Mounting Support	Panel
Number Of Phases	1 phase
[In] Rated Current	40 A
Solid State Output Type	Mosfet output DC switching
Output Switching Mode	DC switching

## Complementary

Minimum Switching Voltage	3.5 V DC turn-on
Maximum Switching Voltage	1 V DC turn-off
Response Time	0.1 ms (turn-on) 0.1 ms (turn-off)
Input Current	10... 15 mA
Load Current	0.001...40 A
Surge Current	106 A for 10 ms
Co-Ordination Type	Type 2 - 20 A miniature circuit breaker (MCB) - curve B Type 1 - 40 A miniature circuit breaker (MCB) - curve B
Maximum Leakage Current	0.3 mA off-state
Maximum Voltage Drop	<2.1 V on-state
Insulation Resistance	1000 MOhm at 500 V DC
Maximum Capacitance	50 pF for input/output
Dielectric Strength	2.5 kV AC for input/output 2.5 kV AC for input or output to case
[Uimp] Rated Impulse Withstand Voltage	2.5 kV output to case
Tightening Torque	1.5...1.7 N.m for input 2...2.2 N.m for output

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Connections - Terminals	Screw terminals: 0.2...3.3 mm², (AWG 24...AWG 12) with cable end for input Screw terminals: 0.5...5.26 mm², (AWG 20...AWG 10) with cable end for output Screw terminals: 0.2...3.3 mm², (AWG 24...AWG 12) without cable end for input Screw terminals: 0.5...8.26 mm², (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
Thermal Resistance	0.22 °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	-40...80 °C
Ambient Air Temperature For Storage	-40...125 °C
Pollution Degree	2
Overvoltage Category	III
Product Certifications	UL CE CSA EAC
Marking	EAC CSA UL CE
Standards	CSA C22.2 No 14-13 UL 508 IEC 62314 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	105.000 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	3.500 kg

## 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

✓	Reach Free Of Svhc	
✓	Toxic Heavy Metal Free	
✓	Mercury Free	
✓	Rohs Exemption Information	Yes

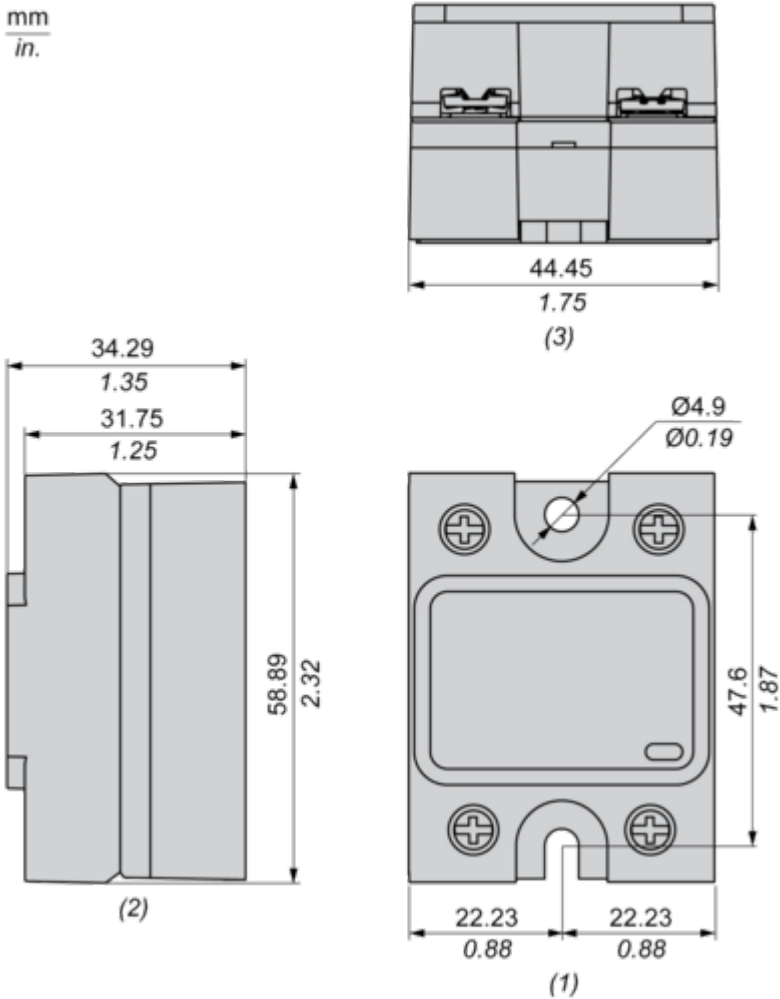
## Certifications & Standards

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>
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>
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>

Dimensions Drawings

Dimensions

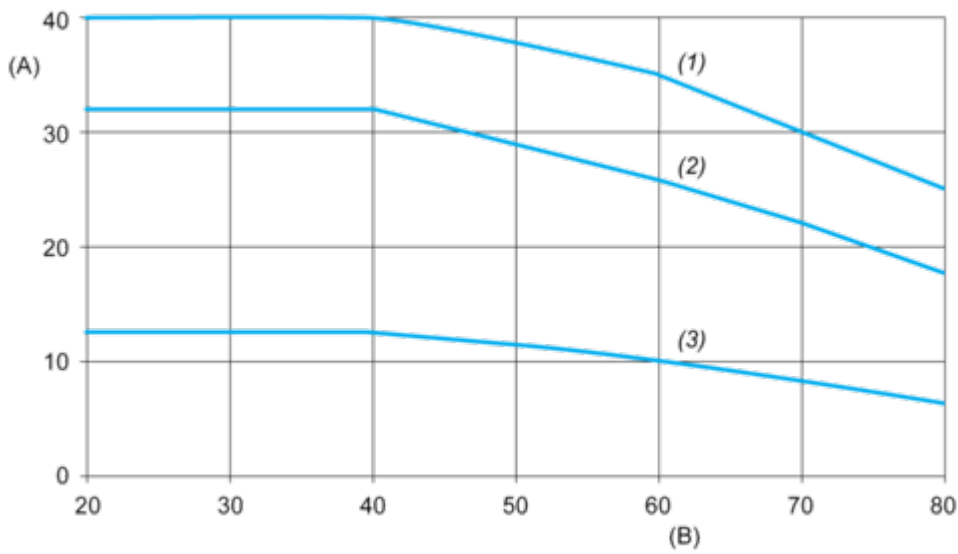
mm  
in.



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

Performance Curves

Derating Curves



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