Product data sheet

Specifications



three phase relay, Harmony Solid State Relays, 50A, panel mount, random switching, thermal pad, input 4 to 32V DC, output 42 to 660V AC

SSP3A250BDRT

Product availability: Stock - Normally stocked in distribution facility

Main

Range of Product	Harmony Solid State Relays
Provided accessory	Thermal pad
Product or Component Type	Panel mount relay
Device short name	SSP
Mounting Support	Panel
Number of phases	3 phase
Line Rated Current	50 A
Solid state output type	Random voltage switching
Output switching mode	Random voltage switching

Complementary

test button	Without test button
[Uc] control circuit voltage	4...32 V DC
Minimum switching voltage	4 V DC turn-on
Maximum switching voltage	1 V DC turn-off
Response time	8.33 ms (turn-off) 0.1 ms (turn-on)
Input current	15…35 mA
Output voltage	42...660 V AC
Load current	0.4…50 A
Transient overvoltage	1200 V
Surge current	715 A 20 ms 750 A 16.6 ms
Maximum I²t for fusing	2520 A².s for 10 ms at 50 Hz 2320 A².s for 8.3 ms at 60 Hz
Co-ordination type	TVS
Maximum leakage current	3 mA off-state
Maximum voltage drop	<1.6 V on-state
DV/dt	500 V/µs off-state at maximum voltage
Power factor	0.5 (with maximum load)

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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

Motor controller rating	1.5 hp 104 °F (40 °C) 120 V AC 3 hp 104 °F (40 °C) 240 V AC 7.5 hp 104 °F (40 °C) 480 V AC 10 hp 104 °F (40 °C) 600 V AC
Motor power kW	1.1 kW 104 °F (40 °C) 120 V AC 2.2 kW 104 °F (40 °C) 240 V AC 5.5 kW 104 °F (40 °C) 480 V AC 7.5 kW 104 °F (40 °C) 600 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	0.8 kV for input to case 6 kV for input/output circuit 6 kV for input/output to case
Tightening torque	1.2 N.m for input 2.5 N.m for output
Connections - terminals	Screw terminals 1 x 0.2...1 x 2.5 mm², 24 AWG...14 AWG) input Screw terminals 1 x 1.5...1 x 10 mm², 16 AWG...8 AWG) output
Thermal resistance	0.15 °C/W
LED indicator	LED, green input
IP degree of protection	IP20
Electromagnetic compatibility	Electrostatic discharge 4 kV criteria B contact discharge conforming to IEC 61000-4-2 Electrostatic discharge 8 kV criteria B air discharge conforming to IEC 61000-4-2 Conducted RF disturbances 10 V, 0.15...80 MHz criteria A conforming to IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test 10 V/m, 80 MHz...1 GHz criteria A conforming to IEC 61000-4-3 Surge immunity test 1 kV criteria B output ports line to line conforming to IEC 61000-4-5 Surge immunity test 2 kV criteria B output ports line to earth conforming to IEC 61000-4-5 Surge immunity test 1 kV criteria B input ports line to earth conforming to IEC 61000-4-5 Electrical fast transient/burst immunity test 2 kV, 5kHz criteria B output ports conforming to IEC 61000-4-4 Immunity to voltage dips 0 %/20 ms criteria B conforming to IEC 61000-4-11 Immunity to voltage dips 40 %/200 ms criteria C conforming to IEC 61000-4-11 Immunity to voltage dips 70 %/500 ms criteria C conforming to IEC 61000-4-11 Immunity to short interruption 0 %/5 s criteria C conforming to IEC 61000-4-11 Electrical fast transient/burst immunity test 1 kV, 5kHz criteria B input ports conforming to IEC 61000-4-4 Radiated radio-frequency electromagnetic field immunity test 3 V/m, 1.4...6 GHz criteria A conforming to IEC 61000-4-3 Radiated emission 30...1000 Mhz environment A conforming to IEC 60947-1 Conducted emission 0.15...30 Mhz environment A conforming to IEC 60947-1
Net Weight	0.82 lb(US) (0.37 kg)
Width	4.09 in (104 mm)
Height	2.9 in (74.6 mm)
Depth	1.6 in (41 mm)
Device presentation	Complete product

Environment

Flame retardance	V0 conforming to UL 94
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	CE CSA EAC UL UKCA
Marking	CE
Standards	IEC/EN 62314 IEC/EN 60947-4-2 IEC/EN 60947-4-3 UL 60947-4-2 C22.2 No. 14

Ordering and shipping details

Category	US10CP222375
Discount Schedule	0CP2
GTIN	3606480580109
Returnability	Yes
Country of origin	MT

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	1.575 in (4.000 cm)
Package 1 Width	3.346 in (8.500 cm)
Package 1 Length	4.724 in (12.000 cm)
Package weight(Lbs)	9.559 oz (271.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	27
Package 2 Height	5.906 in (15.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	17.033 lb(US) (7.726 kg)

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**5 140 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**1 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**5 139 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.1 kg CO2 eq.**
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
EU RoHS Directive	Compliant By Exemption
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
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 www.P65Warnings.ca.gov**

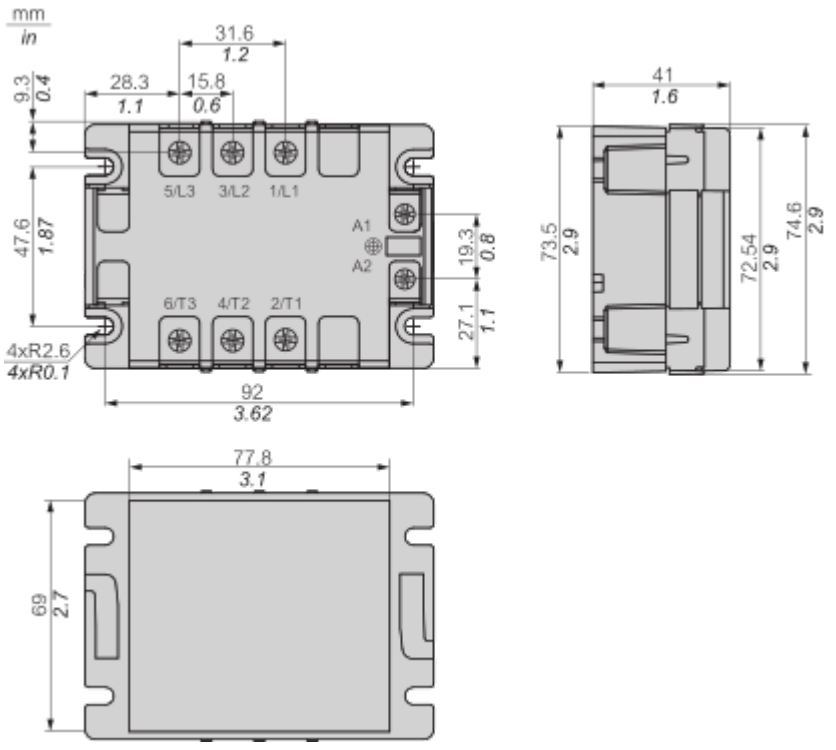
Use Again

Repack and remanufacture

Recyclability potential, in %	**29**
Circularity Profile	End of Life Information
Take-back	**No**

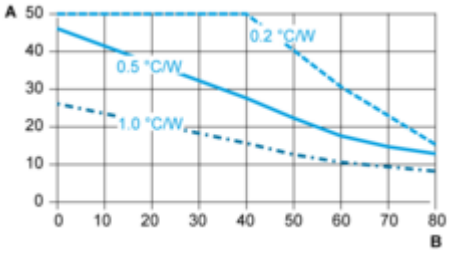
Dimensions Drawings

Dimensions



Performance Curves

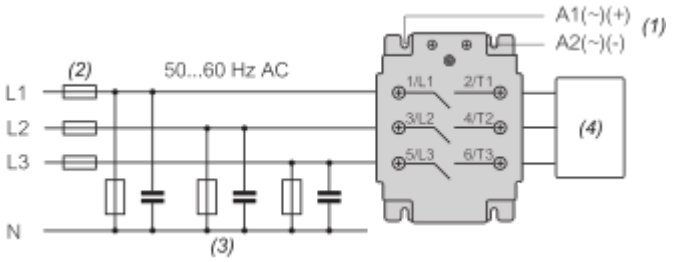
Derating Curves



A : Load Current (Amperes)
B : Ambient Temperature (°C)

Connections and Schema

Wiring



(1) Setting control voltage in between turn on and turn off voltage may cause malfunction or damage the SSR.
(2) Recommended fuses.
(3) Recommended to install filters if Conductive Emission (CE) Class A is required.
(4) Load.

Image of product / Alternate images

Alternative










8A-2023-W38-AX



