

Product data sheet

Specifications



three phase relay, Harmony Solid State Relays, 25A, panel mount, random switching, thermal pad, input 4 to 32V DC, output 42 to 660V AC

SSP3A225BDRT

Main

Range Of Product	Harmony Solid State Relays
Provided Accessory	Thermal interface
Product Or Component Type	Panel mount relay
Device Short Name	SSP
Mounting Support	Panel
Number Of Phases	3 phases
[In] Rated Current	25 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	0.15...25 A
Transient Overvoltage	1200 V
Surge Current	275 A 20 ms 300 A 16.6 ms
Maximum I²T For Fusing	380 A².s 10 ms 50 Hz 370 A².s 8.3 ms 60 Hz
Co-Ordination Type	TVS
Maximum Leakage Current	3 mA off-state
Maximum Voltage Drop	<1.4 V on-state
Dv/Dt	500 V/µs off-state at maximum voltage
Power Factor	0.5 with maximum load)

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	0.75 hp 104 °F (40 °C) 120 V AC 1 hp 104 °F (40 °C) 240 V AC 3 hp 104 °F (40 °C) 480 V AC 5 hp 104 °F (40 °C) 600 V AC
Motor Power Kw	0.55 kW 104 °F (40 °C) 120 V AC 0.75 kW 104 °F (40 °C) 240 V AC 2.2 kW 104 °F (40 °C) 480 V AC 3.7 kW 104 °F (40 °C) 600 V AC
Insulation Resistance	>= 1000 MOhm 500 V DC
Maximum Capacitance	8 pF input/output
Dielectric Strength	4 kV AC input/output 4 kV AC 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 input 2.5 N.m output
Connections - Terminals	Screw terminals 1 x 0.2...1 x 2.5 mm², AWG 24...AWG 14) input Screw terminals 1 x 1.5...1 x 10 mm², AWG 16...AWG 8) output
Thermal Resistance	0.24 °C/W
Led Indicator	LED, green input
Ip Degree Of Protection	IP20
Electromagnetic Compatibility	Electrostatic discharge 4 kV criteria B contact discharge IEC 61000-4-2 Electrostatic discharge 8 kV criteria B air discharge IEC 61000-4-2 Conducted RF disturbances 10 V, 0.15...80 MHz criteria A IEC 61000-4-6 Radiated radio-frequency electromagnetic field immunity test 10 V/m, 80 MHz...1 GHz criteria A IEC 61000-4-3 Surge immunity test 1 kV criteria B output ports line to line IEC 61000-4-5 Surge immunity test 2 kV criteria B output ports line to earth IEC 61000-4-5 Surge immunity test 1 kV criteria B input ports line to earth IEC 61000-4-5 Electrical fast transient/burst immunity test 2 kV, 5kHz criteria B output ports IEC 61000-4-4 Immunity to voltage dips 0 %/20 ms criteria B IEC 61000-4-11 Immunity to voltage dips 40 %/200 ms criteria C IEC 61000-4-11 Immunity to voltage dips 70 %/500 ms criteria C IEC 61000-4-11 Immunity to short interruption 0 %/5 s criteria C IEC 61000-4-11 Electrical fast transient/burst immunity test 1 kV, 5kHz criteria B input ports IEC 61000-4-4 Radiated radio-frequency electromagnetic field immunity test 3 V/m, 1.4...6 GHz criteria A IEC 61000-4-3 Radiated emission 30...1000 Mhz environment A IEC 60947-1 Conducted emission 0.15...30 Mhz environment A IEC 60947-1
Net Weight	0.82 lb(US) (0.37 kg)
Width	4.09 in (104 mm)
Height	2.94 in (74.6 mm)
Depth	1.61 in (41 mm)
Device Presentation	Complete product

Environment

Flame Retardance	V0 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

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	1.8 in (4.6 cm)
Package 1 Width	3.1 in (8.0 cm)
Package 1 Length	4.5 in (11.5 cm)
Package 1 Weight	12.84 oz (364 g)
Unit Type Of Package 2	S02
Number Of Units In Package 2	24
Package 2 Height	5.9 in (15 cm)
Package 2 Width	11.8 in (30 cm)
Package 2 Length	15.7 in (40 cm)
Package 2 Weight	20.049 lb(US) (9.094 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-CO₂ 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 >](#)

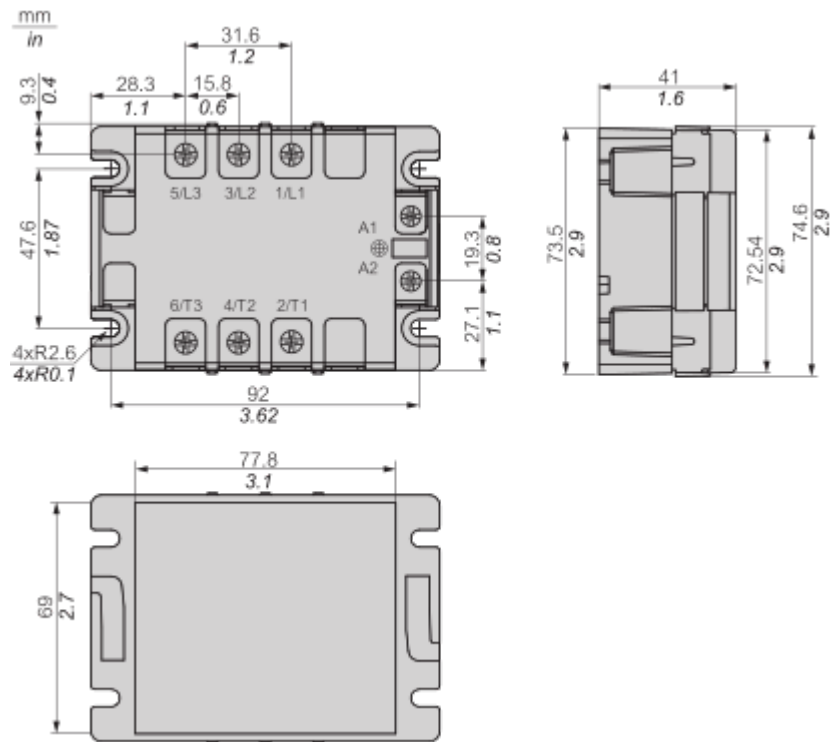
[Guide to assess a product’s sustainability >](#)

Well-being performance

 Lead Free	
 Rohs Exemption Information	Yes
Reach Regulation	REACH Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration

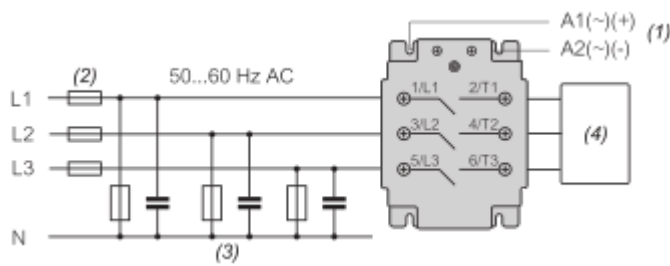
Dimensions Drawings

Dimensions



Connections and Schema

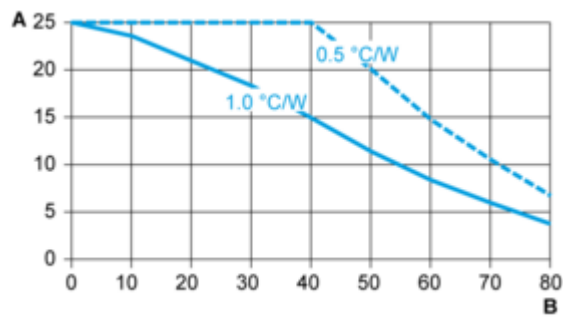
Wiring



- (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.

Performance Curves

Derating Curves



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