

Product datasheet

Specifications



Solid state panel mount relay, 25 A,
random switching, thermal pad,
input 4...32 V DC, output 48...530 V
AC

Local distributor code:

403015388

SSP3A225BDRT

EAN Code: 3606480580062

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 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 for 20 ms 300 A for 16.6 ms
Maximum I ² t for fusing	380 A ² .s for 10 ms at 50 Hz 370 A ² .s for 8.3 ms at 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)
Motor controller rating	0.75 hp 40 °C 120 V AC 1 hp 40 °C 240 V AC 3 hp 40 °C 480 V AC 5 hp 40 °C 600 V AC

Motor power kW	0.55 kW at 40 °C 120 V AC 0.75 kW at 40 °C 240 V AC 2.2 kW at 40 °C 480 V AC 3.7 kW at 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 mm ² , (AWG 24...AWG 14) for input Screw terminals: 1 x 1.5...1 x 10 mm ² , (AWG 16...AWG 8) for output
Thermal resistance	0.24 °C/W
LED indicator	LED, green for 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	0.37 kg
Width	104 mm
Height	74.6 mm
Depth	41 mm
Device presentation	Complete product

Environment

Flame retardance	V0 conforming to UL 94
Ambient air temperature for operation	-40...80 °C
Ambient air temperature for storage	-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	4.600 cm
Package 1 Width	8.000 cm
Package 1 Length	11.600 cm
Package 1 Weight	387.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	24
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	9.648 kg

Contractual warranty

Warranty (in months)	18
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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 2602

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](#) Pro-active compliance (Product out of EU RoHS legal scope)

REACH Regulation [REACH Declaration](#)

Use Longer



Lifetime extension

Repair No

Use Again



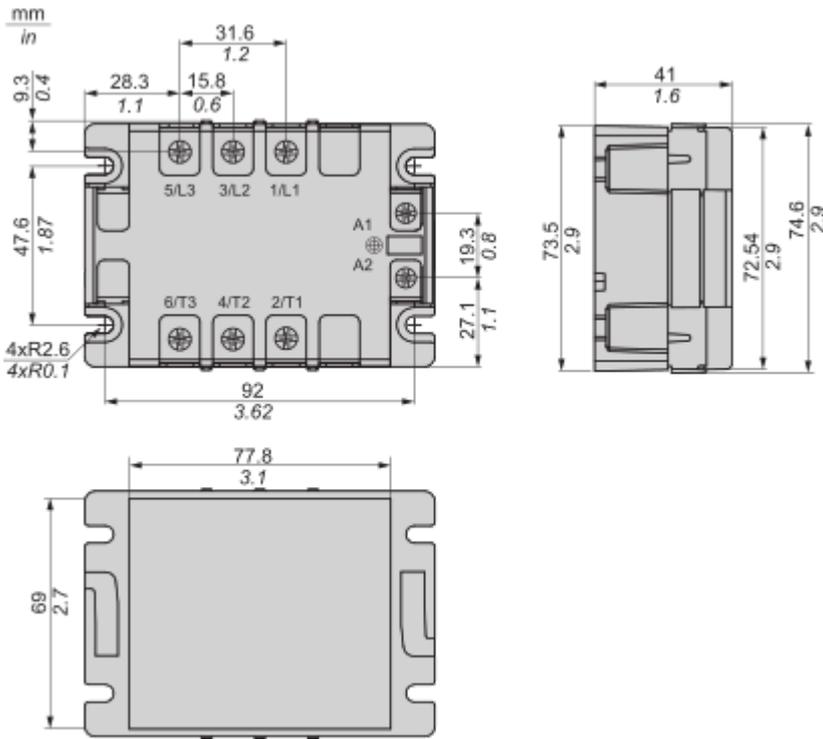
Repack and remanufacture

End of life manual availability [End of Life Information](#)

Take-back No

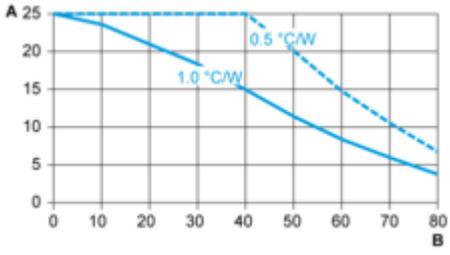
Dimensions Drawings

Dimensions



Performance Curves

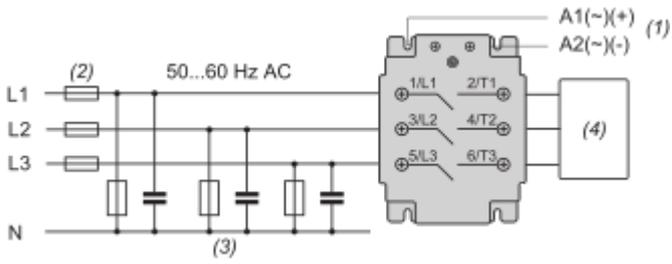
Derating Curves



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

Connections and Schema

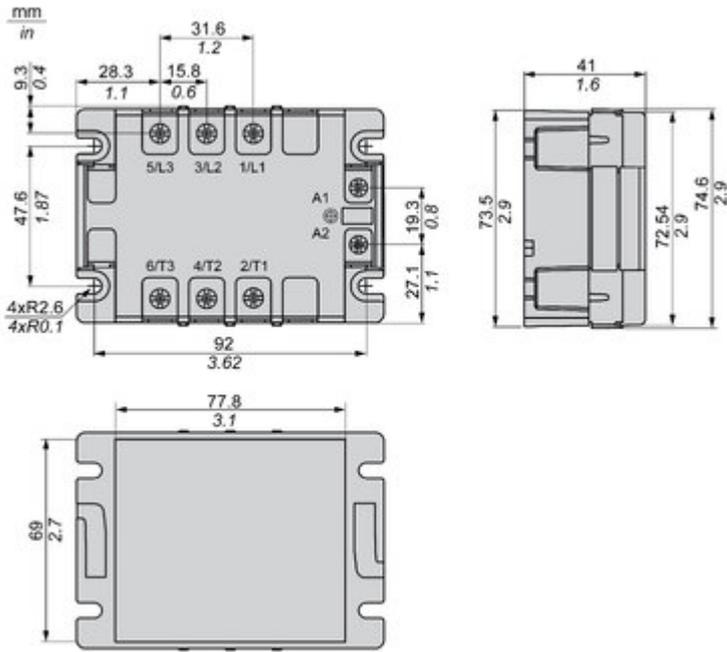
Wiring



- (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.

Technical Illustration

Dimensions

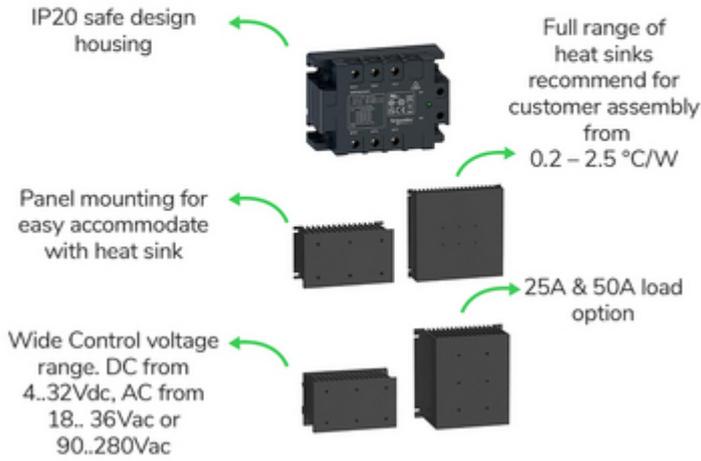


Offer Marketing Illustration

Product benefits / Features

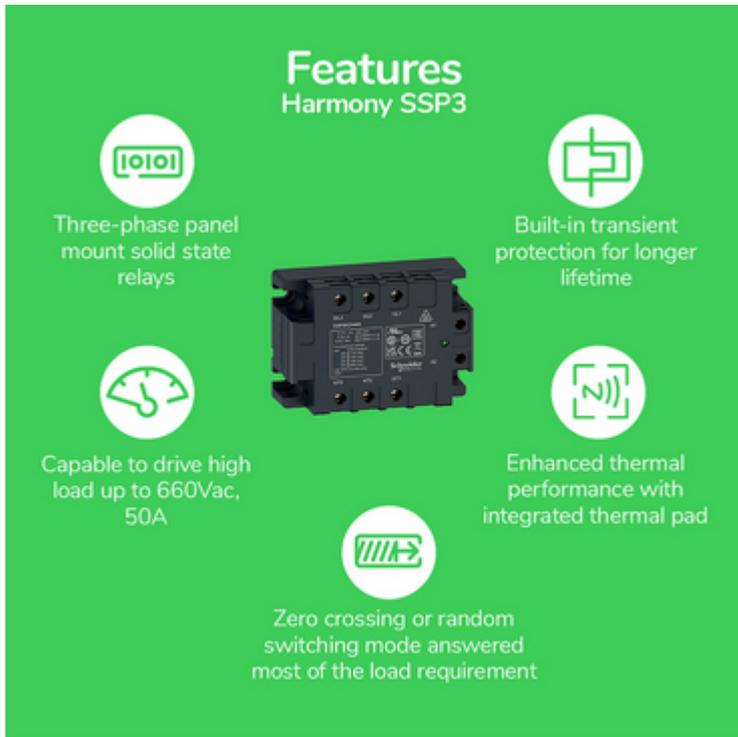
Technical benefits

Harmony SSP3



Offer Marketing Illustration

Product benefits / Features



The infographic features a central image of the SSP3A225BDRT relay. It is surrounded by five feature icons and their descriptions: 1. Top-left: A square wave icon representing three-phase panel mount solid state relays. 2. Top-right: A lightning bolt icon representing built-in transient protection for longer lifetime. 3. Middle-left: A gauge icon representing the capability to drive high load up to 660Vac, 50A. 4. Middle-right: A square wave with a double arrow icon representing enhanced thermal performance with an integrated thermal pad. 5. Bottom: A square wave with a double arrow icon representing zero crossing or random switching mode answered most of the load requirement.

Features Harmony SSP3

- Three-phase panel mount solid state relays
- Built-in transient protection for longer lifetime
- Capable to drive high load up to 660Vac, 50A
- Enhanced thermal performance with integrated thermal pad
- Zero crossing or random switching mode answered most of the load requirement

Image of product / Alternate images

Alternative





