

# Product datasheet

Specifications



solid state relay-panel-input  
180-280VAC, output 48-530VAC,  
25A-Thermal Interface

SSP3A225P7T

## 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	Zero voltage switching
Output switching mode	Zero voltage switching

## Complementary

test button	Without test button
[Uc] control circuit voltage	90...280 V AC 50/60 Hz
Minimum switching voltage	90 V AC turn-on
Maximum switching voltage	9 V AC turn-off
Response time	20 ms (turn-on) 30 ms (turn-off)
Input current	7...20 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 I²t for fusing	380 A².s for 10 ms at 50 Hz 370 A².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

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 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	4 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, (AWG 24...AWG 14) for input Screw terminals: 1 x 1.5...1 x 10 mm², (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	4.000 cm
Package 1 Width	8.500 cm
Package 1 Length	12.000 cm
Package 1 Weight	273.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	27
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	7.770 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 >](#)

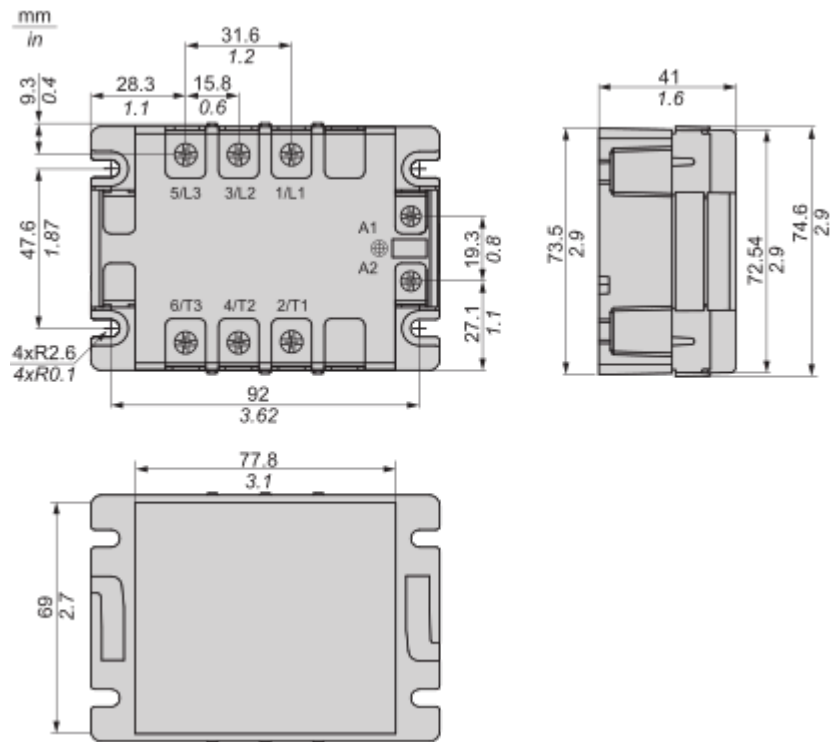
[Guide to assess a product’s sustainability >](#)

## Well-being performance

 Lead Free	
 Rohs Exemption Information	<a href="#">Yes</a>
Reach Regulation	<a href="#">REACH Declaration</a>
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	<a href="#">China RoHS declaration</a>

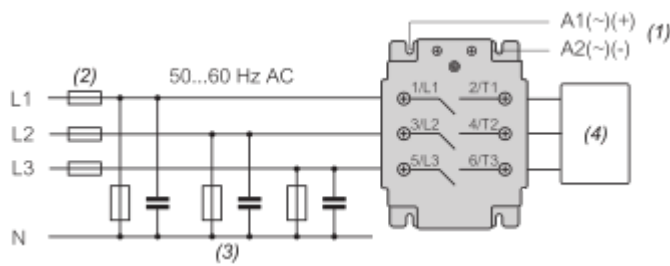
Dimensions Drawings

Dimensions



Connections and Schema

Wiring

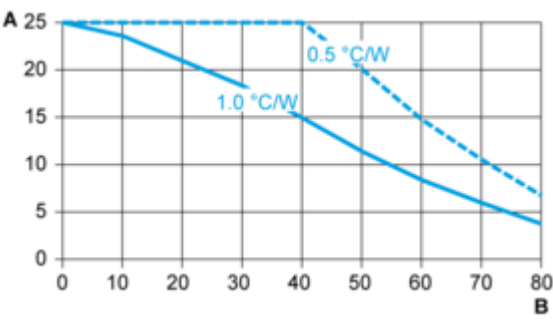


- (1) Setting control voltage in between turn on and turn off voltage may cause malfunction or damage the SSR.
- (2) Recommended fuses.
- (3) Recommended to install filters if Conductive Emission (CE) Class A is required.
- (4) Load.

Performance Curves

Derating Curves

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