

# Product Datasheet

## Characteristic

# SSP1A125BD

single phase relay, Harmony Solid State Relays, 25A, panel mount, zero voltage switching, input 3 to 32V DC, output 24 to 300V AC



## Main

Range of product	Harmony Solid State Relays
product or component type	Panel mount relay
Device short name	SSP1
mounting support	Panel
Network number of phases	1 phase
[In] rated current	25 A
solid state output type	Zero voltage switching SCR output
Output switching mode	Zero voltage switching

## Complementary

Control type	Without test button
[Uc] control circuit voltage	3...32 V DC
Minimum switching voltage	3 V DC turn-on
Maximum switching voltage	1 V DC turn-off
Response time	0.5 cycle (turn-on) 0.5 cycle (turn-off)
Input current limits	10 mA at 12 V DC
Output voltage	24...300 V AC
Load current	0.15...25 A
Absolute maximum voltage	600 V
Surge current	250 A for 16.6 ms
Maximum I <sup>2</sup> t for fusing	259 A <sup>2</sup> .s for 8.33 ms at 60 Hz 285 A <sup>2</sup> .s for 10 ms at 50 Hz
Protection device type	Type 1 - 25 A miniature circuit breaker (MCB) - curve B Type 2 - 20 A miniature circuit breaker (MCB) - curve B
Maximum leakage current	1 mA off-state
Maximum voltage drop	<1.15 V on-state
DV/dt	500 V/μs off-state at maximum voltage
Cos phi	0.5 (with maximum load)
Motor power hp	0.5 hp 120 V AC 1 hp 240 V AC

Insulation resistance	1000 MOhm at 500 V DC
Capacitance unbalance	10 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	6 kV output to case 6 kV input to output
Tightening torque	1.5...1.7 N.m for input 2...2.2 N.m for output
Connections - terminals	Screw terminals: 0.2...3.3 mm <sup>2</sup> , (AWG 24...AWG 12) with cable end for input Screw terminals: 0.5...5.26 mm <sup>2</sup> , (AWG 20...AWG 10) with cable end for output Screw terminals: 0.2...3.3 mm <sup>2</sup> , (AWG 24...AWG 12) without cable end for input Screw terminals: 0.5...8.26 mm <sup>2</sup> , (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	0.8 °C/W junction to case
Local signalling	LED, green for input
IP degree of protection	IP20
Safety reliability data	MTTFd = 1875.9 years B10d = 1731395
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	CSA UL CE EAC
marking	CSA CE EAC UL
Standards	UL 508 CSA C22.2 No 14-13 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	96.000 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	3.270 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
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REACH Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	X
RoHS exemption information	Yes
Environmental Disclosure	ENVPEP1505006EN
Circularity Profile	ENVEOLI1505006EN