Product data sheet

Specifications

solid state relay, Easy Harmony Solid State Relays, input 5 to 24V DC, output 24 to 240V AC, 25A, Zero cross switching

SSP1A125BDE

Main

Range of product	Easy Harmony Solid State Relays
Provided accessory	Thermal pad
Device short name	SSP1E
Mounting support	Panel
Number of phases	1 phase
Contacts type and conifguration	1 NO
[In] rated current	25 A
Solid state output type	SCR output
Output switching mode	Zero voltage switching

Complementary

Control type	Electronic controller
Control input voltage	4...32 V DC
Minimum switching voltage	4 V DC turn-on
Maximum switching voltage	2 V DC turn-off
Response time	0.5 cycle (turn-on)
Input voltage	5...24 V DC
Load current	0.1…25 A
Transient overvoltage	530 V
Surge current	250 A for 1/2 Cycle
Maximum I²t for fusing	900 A².s for 10 ms at 50 Hz
Maximum leakage current	1 mA off-state
Maximum voltage drop	<1.6 V on-state
DV/dt	500 V/µs off-state at maximum voltage
Power factor	0.8 (with maximum load)
Insulation resistance	500 MOhm at 500 V DC
Dielectric strength	3.8 kV AC for input/output 2 kV AC for output connection
[Uimp] rated impulse withstand voltage	8 kV output to case 6 kV input to output
Tightening torque	1.5...1.7 N.m for input 2...2.4 N.m for output

Connections - terminals	Screw terminals: 0.2...3.3 mm², (AWG 24...AWG 12) with cable end Screw terminals: 0.5...5.26 mm², (AWG 20...AWG 10) with cable end Screw terminals: 0.2...3.3 mm², (AWG 24...AWG 12) without cable end Screw terminals: 0.5...8.26 mm², (AWG 20...AWG 8) without cable end Forked type tag connectors: 9.2 x 4 mm Ring lugs: 9.2 x 4 mm Forked type tag connectors: 11.7 x 4.5 mm Ring lugs: 11.7 x 4.5 mm
LED indicator	LED, green for input
IP degree of protection	IP10
Product weight	115 g
Width	59 mm
Height	45 mm
Depth	29 mm
Device presentation	Complete product

Environment

Ambient air temperature for operation	-30…80 °C
Ambient air temperature for storage	-30…100 °C
Pollution degree	2
Overvoltage category	III
Product certifications	UL CE UKCA TÜV RoHS REACH
Marking	UL CE UKCA TÜV
Standards	UL 508 EN/IEC 60947-4-3 EN/IEC 62314 CSA C22.2 No 14

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.000 cm
Package 1 Width	6.000 cm
Package 1 Length	4.500 cm
Package 1 Weight	130.000 g
Unit Type of Package 2	BB1
Number of Units in Package 2	8
Package 2 Height	4.000 cm
Package 2 Width	14.000 cm
Package 2 Length	19.000 cm
Package 2 Weight	1100.000 kg
Unit Type of Package 3	S02

Number of Units in Package 3	64
Package 3 Height	15.000 cm
Package 3 Width	30.000 cm
Package 3 Length	40.000 cm
Package 3 Weight	9.140 kg

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	1416
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	No
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
REACh Regulation	REACh Declaration
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

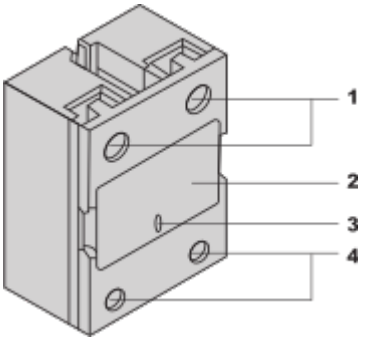
Use Again

Repack and remanufacture

End of life manual availability	End of Life Information
Take-back	No

Technical Description

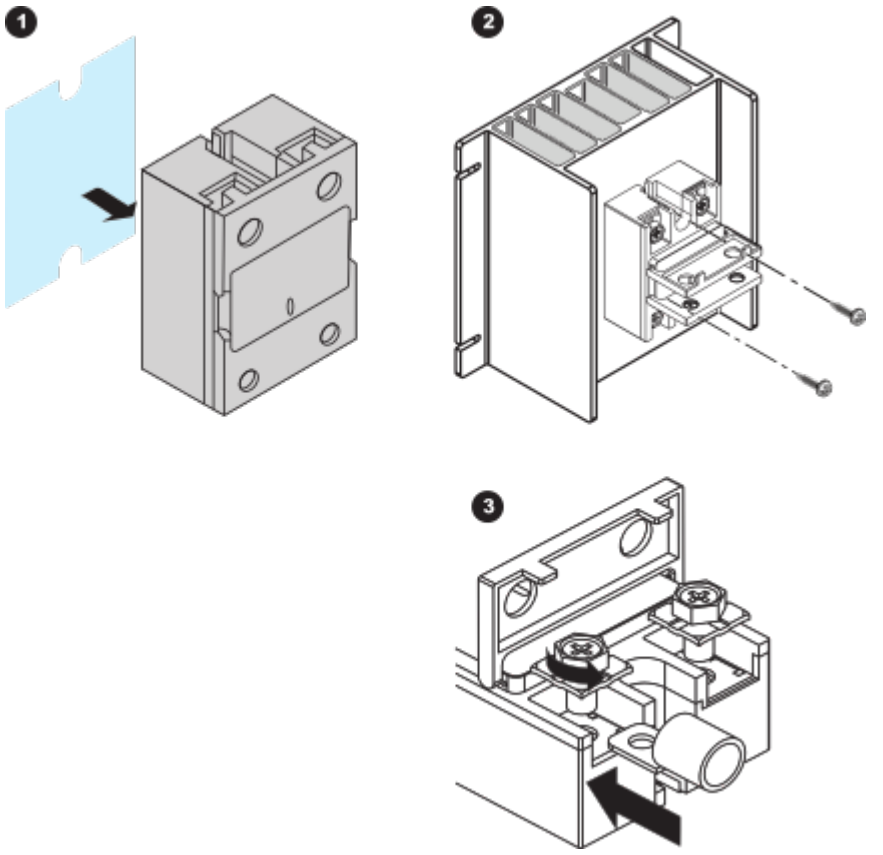
Description



(1) Load output connection screw terminals.
(2) Indication area for product label or markings.
(3) Control input voltage LED indicator.
(4) Control input connection screw terminals.

Mounting and Clearance

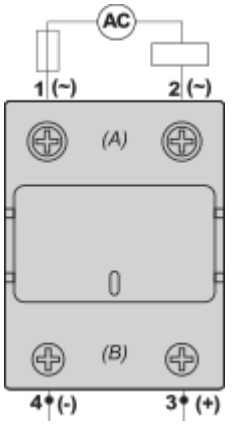
Mounting



NOTE 1: Tear the films on both side of the thermal pad and attach one side to the metal back of the relay.
NOTE 2: Attach the relay to the heatsink. Heatsink fins should always be positioned in vertical orientation in order to ensure proper heat ventilation. The product may be hot, please allow time for product to cool before touching.
NOTE 3: Maximum screw torque follow the spec using less than 500 RPM electric / pneumatic screwdriver. Fully un-tightened the screw for lug installation.

Connections and Schema

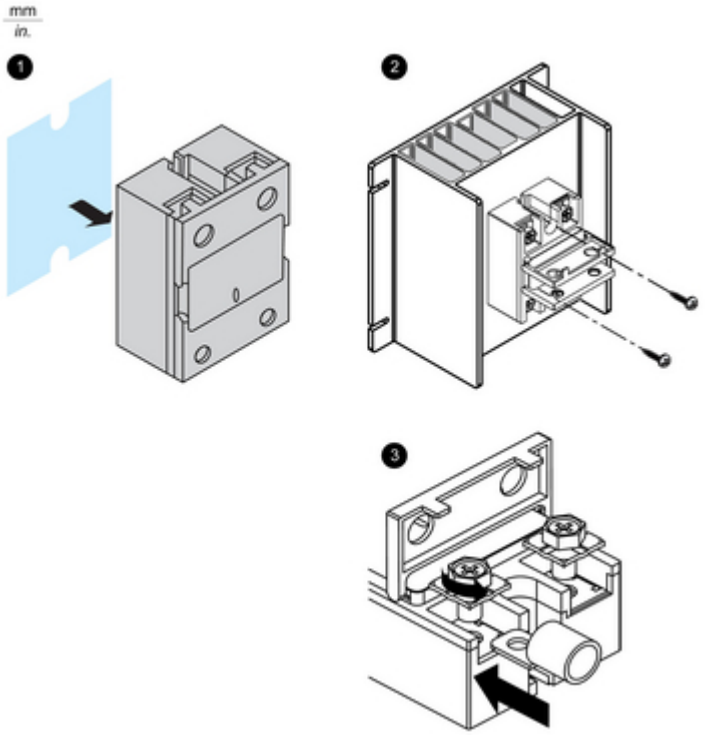
Wiring



(A) LOAD
(B) INPUT

Technical Illustration

Dimensions



Technical Illustration

Wiring diagram

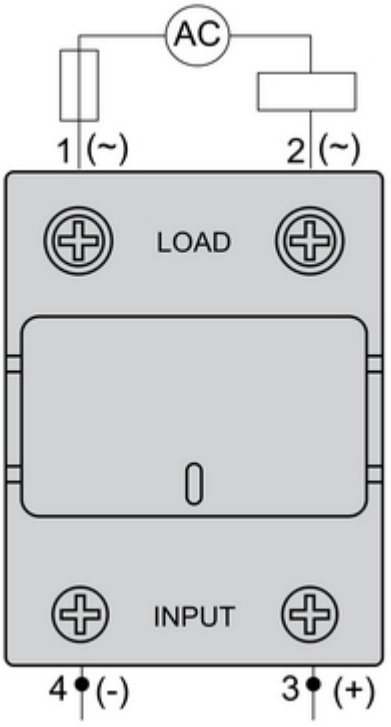
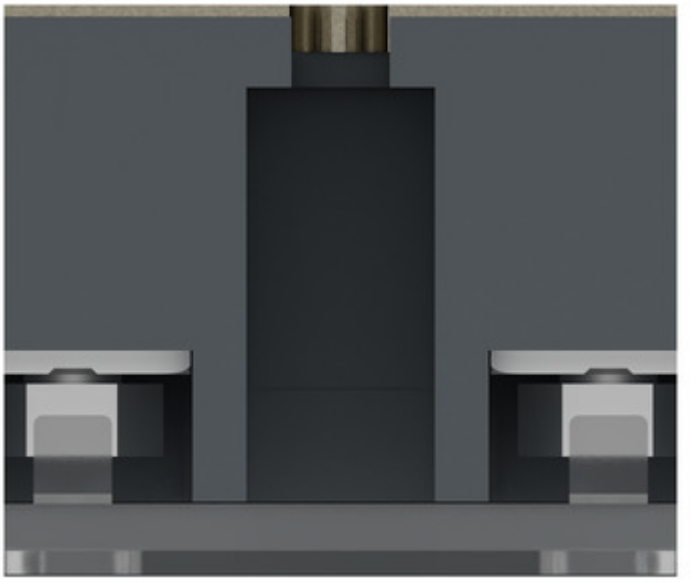
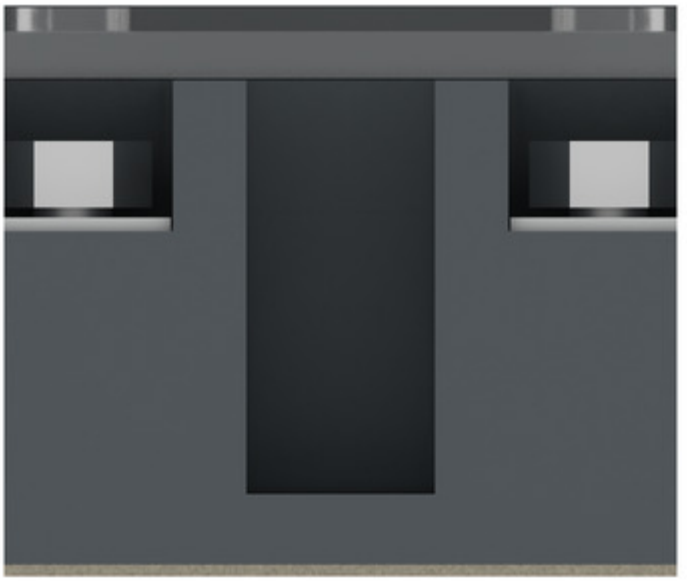


Image of product / Alternate images

Alternative






1
LOAD
2
SSP1A1●●●
Solid State Relays
Schneider Electric
LOAD
24-480VAC~ ●●A
INPUT
5-24VDC
IEC/EN 60947-4-3
8A-YY-WW-X-Z
-4
INPUT
3+