

Product data sheet

Specifications



single phase relay, Harmony Solid State Modular Relays, 12A, DIN rail mount, zero voltage switching, input 4 to 32V DC, output 48 to 600V AC

SSM1A312BD

Product availability: Stock - Normally stocked in distribution facility

Main

Range of Product	Harmony Solid State Relays
Device short name	SSM
Product or Component Type	Modular DIN rail relay
Number of channels	1
Number of phases	1 phase
Output switching mode	Zero voltage switching

Complementary

Product configuration type	Relay configuration
Mounting Support	Symmetrical DIN rail
Line Rated Current	12 A
Output voltage	48...600 V AC
[Uc] control circuit voltage	4...32 V DC
Tightening torque	0.5...0.8 N.m for input 0.5...0.8 N.m for output
Connections - terminals	Screw terminals 1 x 0.3...1 x 1.5 mm ² , AWG 22...AWG 16) input Screw terminals 1 x 0.3...1 x 2.5 mm ² , AWG 22...AWG 14) output
maximum capacitance	10 pF for input/output
Insulation resistance	1000 MΩ at 500 V DC
Local signalling	LED (green) for input status
Minimum switching voltage	4 V DC turn-on
Maximum switching voltage	1 V DC turn-off
input current	9...11 mA
Solid state output type	SCR output Zero voltage switching
Load current	0.15...12 A
transient overvoltage	1200 V
Surge current	715 A 16.6 ms 750 A 20 ms
Maximum voltage drop	<1.3 V on-state
Maximum Horse Power Rating	0.33 hp 104 °F (40 °C) 240 V AC
Maximum I ² t for fusing	2560 A ² .s for 10 ms at 50 Hz 2330 A ² .s for 8.33 ms at 60 Hz

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Maximum leakage current	0.2 mA off-state
DV/dt	500 V/μs off-state at maximum voltage
Response time	0.5 cycle (turn-on) 0.5 cycle (turn-off)
power factor	0.5 (with maximum load)
Overvoltage category	III
Width	0.7 in (18 mm)
Height	3.6 in (90.3 mm)
test button	Without test button
Depth	3.3 in (83.7 mm)
Net Weight	0.20 lb(US) (0.09 kg)

Environment

Flame retardance	V0 conforming to UL 94
Dielectric strength	4 kV AC for input/output 4 kV AC for input or output to case
Pollution degree	2
Standards	IEC 60950-1 IEC 61000 IEC 62314
Product Certifications	CSA UL
Marking	CE
IP degree of protection	IP20
Ambient Air Temperature for Operation	-22...176 °F (-30...80 °C)
Ambient Air Temperature for Storage	-22...212 °F (-30...100 °C)

Ordering and shipping details

Category	US10CP222375
Discount Schedule	OCP2
GTIN	3606480579523
Returnability	Yes
Country of origin	MX

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	0.79 in (2.0 cm)
Package 1 Width	3.54 in (9.0 cm)
Package 1 Length	3.54 in (9.0 cm)
Package weight(Lbs)	3.3 oz (94.0 g)
Unit Type of Package 2	S02
Number of Units in Package 2	72
Package 2 Height	5.91 in (15.0 cm)

Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	15.882 lb(US) (7.204 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

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)
SCIP Number	134201bc-d293-4667-9cca-10a7f11729e0
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

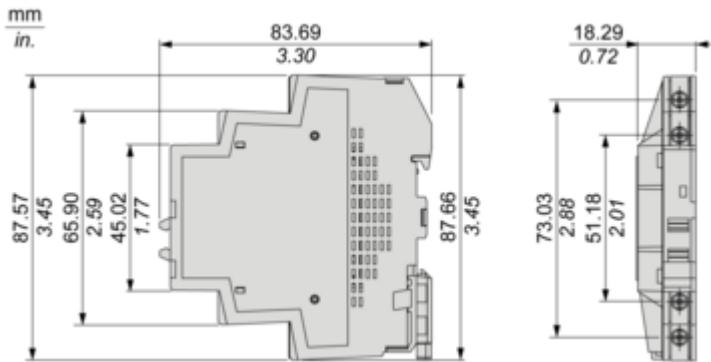
Use Again

Repack and remanufacture

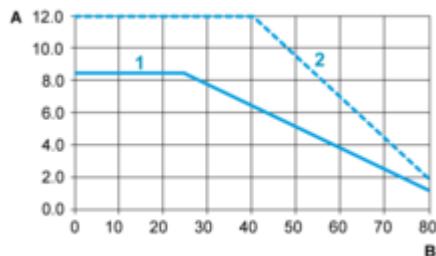
Circularity Profile	End of Life Information
Take-back	No

Dimensions Drawings

Dimensions



Performance Curves

Derating Curves

A : Load Current (Amperes)

B : Ambient Temperature (°C)

1 : Multiple units, no minimum spacing between components

2 : Installed single unit, distance to adjacent components more than 18 mm

Technical Illustration

Dimensions

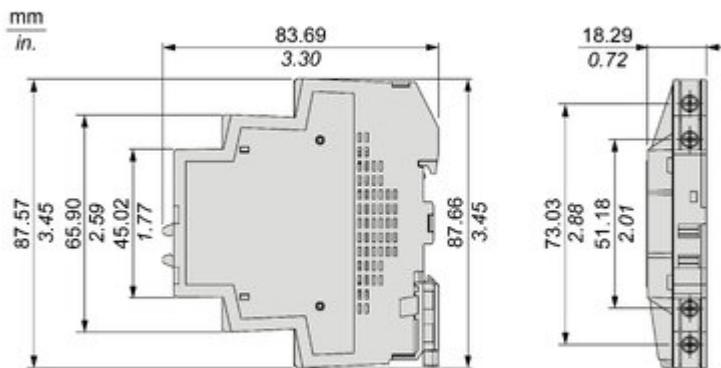


Image of product / Alternate images

Alternative

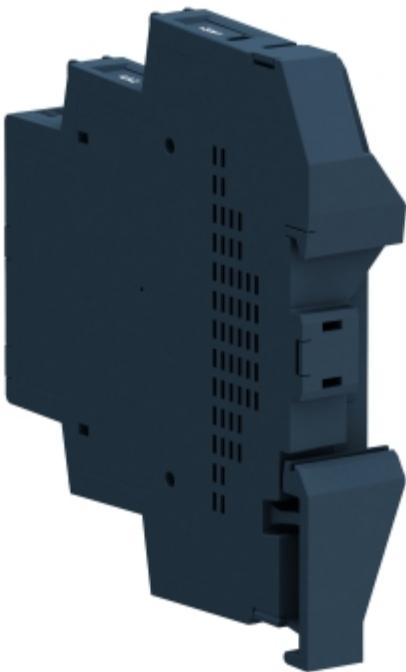




Image of product in real life situation

