

# SSM1A312BD

Harmony, Solid state modular relay, 12 A, DIN rail mount, zero voltage switching, input 4...32 V DC, output 48...600 V AC



## Main

Range of Product	Harmony Solid State Relays
Product or Component Type	Solid state relay up to 20 A
Device short name	SSM
Number of Channels	1
Number of phases	1 phase
Output switching mode	Zero voltage switching

## Complementary

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 <sup>2</sup> , AWG 22...AWG 16) input Screw terminals 1 x 0.3...1 x 2.5 mm <sup>2</sup> , AWG 22...AWG 14) output
Maximum capacitance	10 pF for input/output
Insulation resistance	1000 MOhm at 500 V DC
Local signalling	For input status LED (green)
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 <sup>2</sup> t for fusing	2560 A <sup>2</sup> .S for 10 ms at 50 Hz 2330 A <sup>2</sup> .s for 8.33 ms at 60 Hz
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	0.71 in (18 mm)
Height	3.56 in (90.3 mm)
Depth	3.30 in (83.7 mm)
Net Weight	0.20 lb(US) (0.09 kg)

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

## 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	22375 - INTERFACE MODULE(ABA,R,S)
Discount Schedule	CP2
GTIN	3606480579523
Nbr. of units in pkg.	1
Package weight(Lbs)	3.46 oz (98 g)
Returnability	Yes
Country of origin	MX

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	0.79 in (2 cm)
Package 1 width	3.54 in (9 cm)
Package 1 Length	3.54 in (9 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	72
Package 2 Weight	15.88 lb(US) (7.204 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)

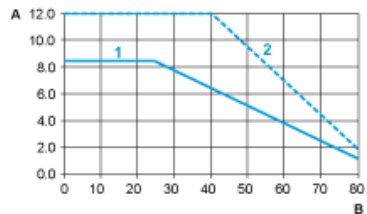
## Offer Sustainability

Sustainable offer status	Green Premium product
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>

## Dimensions



## 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