

Product data sheet

Specifications



single phase relay, Harmony Solid State Modular Relays, 6A, DIN rail mount, random switching, input 4 to 32V DC, output 24 to 280V AC

SSM1A16BDR

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	Random voltage switching

Complementary

Product configuration type	Relay configuration
Mounting Support	Symmetrical DIN rail
Line Rated Current	6 A
Output voltage	24...280 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 mm², AWG 22...AWG 16) input Screw terminals 1 x 0.3...1 x 2.5 mm², AWG 22...AWG 14) output
maximum capacitance	10 pF for input/output
Insulation resistance	1000 MOhm 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	8...11 mA
Solid state output type	SCR output Random voltage switching
Load current	0.15...6 A
transient overvoltage	600 V
Surge current	285 A 16.6 ms 300 A 20 ms
Maximum voltage drop	<1.3 V on-state
Maximum Horse Power Rating	0.16 hp 104 °F (40 °C) 240 V AC
Maximum I²t for fusing	410 A².s for 10 ms at 50 Hz 375 A².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.

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

Maximum leakage current	0.1 mA off-state
DV/dt	500 V/μs off-state at maximum voltage
Response time	0.5 cycle (turn-off) 0.1 ms (turn-on)
power factor	0.5 (with maximum load)
Overvoltage category	III
Width	0.4 in (11 mm)
Height	3.6 in (90.3 mm)
test button	Without test button
Depth	3.3 in (83.7 mm)
Product Weight	0.11 lb(US) (0.05 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 62314 IEC 60950-1 IEC 61000
Product Certifications	UL CSA
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	0CP2
GTIN	3606480579417
Returnability	Yes
Country of origin	MX

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	0.787 in (2.000 cm)
Package 1 Width	3.543 in (9.000 cm)
Package 1 Length	3.543 in (9.000 cm)
Package weight(Lbs)	2.293 oz (65.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	96
Package 2 Height	5.906 in (15.000 cm)

Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	14.808 lb(US) (6.717 kg)

Contractual warranty

Warranty (in months)	18
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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	0.8 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	0.8 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	0 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0 kg CO2 eq.

Use Better

 Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Compliant By Exemption
REACH Regulation	Reference contains Substances of Very High Concern above the threshold
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 Longer

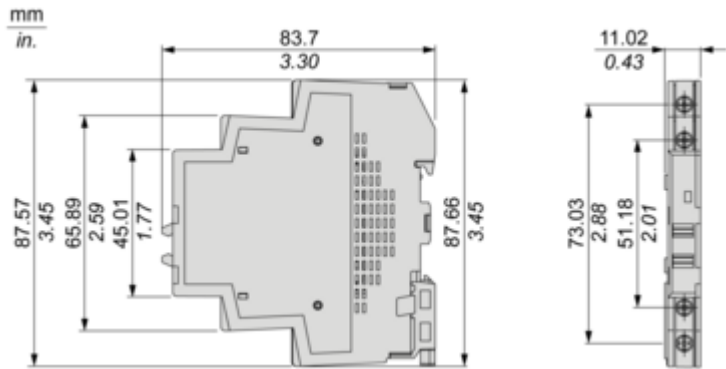
 Lifetime extension	
Repair	No

Use Again

 Repack and remanufacture	
Recyclability potential, in %	45
Circularity Profile	End of Life Information
Take-back	No

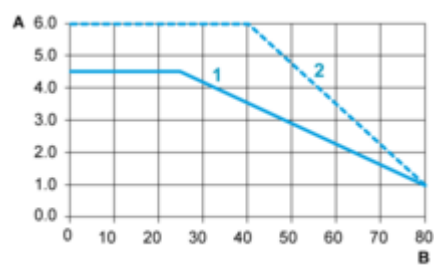
Dimensions Drawings

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 11 mm

Technical Illustration

Dimensions

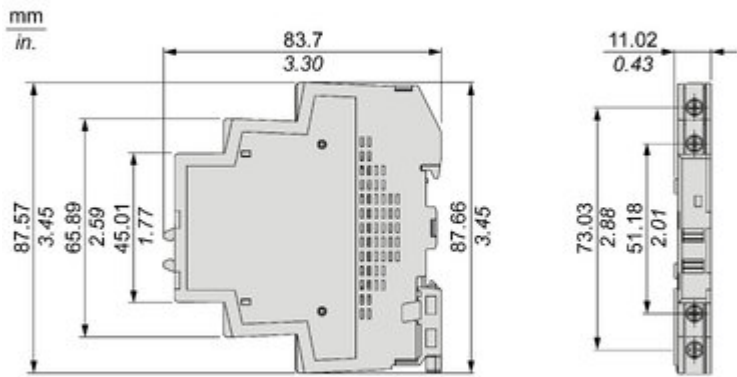


Image of product / Alternate images

Alternative



