

# Product data sheet

Specifications



single phase relay, Harmony Solid State Modular Relays, 6A, DIN rail mount, zero voltage switching, input 18 to 36V AC, output 24 to 280V AC

SSM1A16B7

## Main

Range Of Product	Harmony Solid State Relays
Product Or Component Type	Solid state relay up to 10 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
[In] Rated Current	6 A
Output Voltage	24...280 V AC
[Uc] Control Circuit Voltage	18...36 V AC
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) for input Screw terminals: 1 x 0.3...1 x 2.5 mm², (AWG 22...AWG 14) for 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	18 V AC turn-on
Maximum Switching Voltage	4 V AC turn-off
Input Current	3.5...8.5 mA
Solid State Output Type	Zero voltage switching SCR output
Load Current	0.15...6 A
Transient Overvoltage	600 V
Surge Current	285 A for 16.6 ms 300 A for 20 ms
Maximum Voltage Drop	<1.3 V on-state
Motor Power Hp	0.16 hp 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
Maximum Leakage Current	0.1 mA off-state
Dv/Dt	500 V/µs off-state at maximum voltage

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

Response Time	0.5 cycle (turn-on) 30 ms (turn-off)
Power Factor	0.5 (with maximum load)
Overvoltage Category	III
Width	11 mm
Height	90.3 mm
Depth	83.7 mm
Net Weight	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 60950-1 IEC 61000 IEC 62314
Product Certifications	CSA UL
Marking	CE
Ip Degree Of Protection	IP20
Ambient Air Temperature For Operation	-30...80 °C
Ambient Air Temperature For Storage	-30...100 °C

## Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	2.000 cm
Package 1 Width	9.000 cm
Package 1 Length	9.000 cm
Package 1 Weight	65.000 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	96
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	6.760 kg

## Sustainability

**Green Premium™** label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency   RoHS/REACH

## Well-being performance

✓ Reach Free Of Svhc

✓ Mercury Free

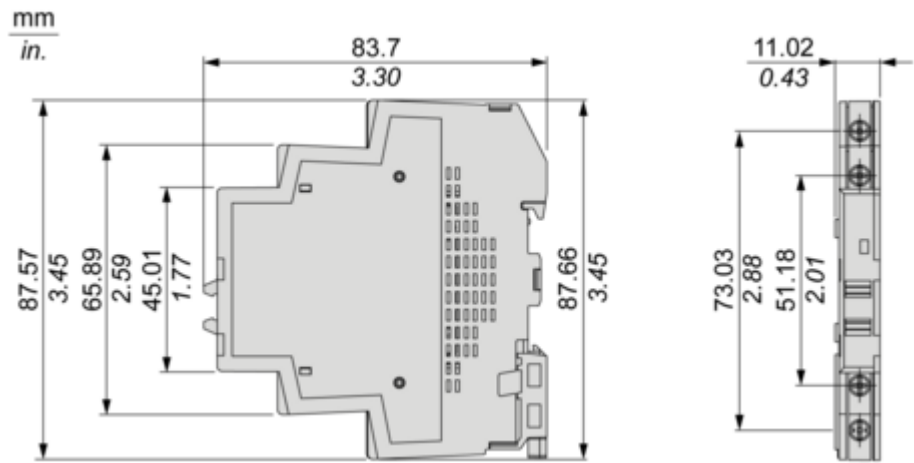
✓ Rohs Exemption Information   [Yes](#)

## Certifications & Standards

Reach Regulation	<a href="#">REACH Declaration</a>
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
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>
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>

Dimensions Drawings

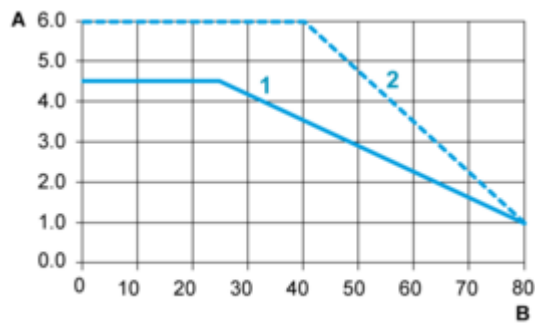
Dimensions



Performance Curves

Derating Curves

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- 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