

Product data sheet

Specifications



single phase relay, Harmony Solid State Modular Relays, 6A, DIN rail mount, zero voltage switching, input 90 to 140V AC, output 24 to 280V AC

SSM1A16F7

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	90...140 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	90 V AC turn-on
Maximum Switching Voltage	10 V AC turn-off
Input Current	3...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

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

Dv/Dt	500 V/μs off-state at maximum voltage
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 61000 IEC 62314 IEC 60950-1
Product Certifications	UL CSA
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	1.0 cm
Package 1 Width	9.0 cm
Package 1 Length	9.3 cm
Package 1 Weight	74.0 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	96
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	7.496 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-CO₂ 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

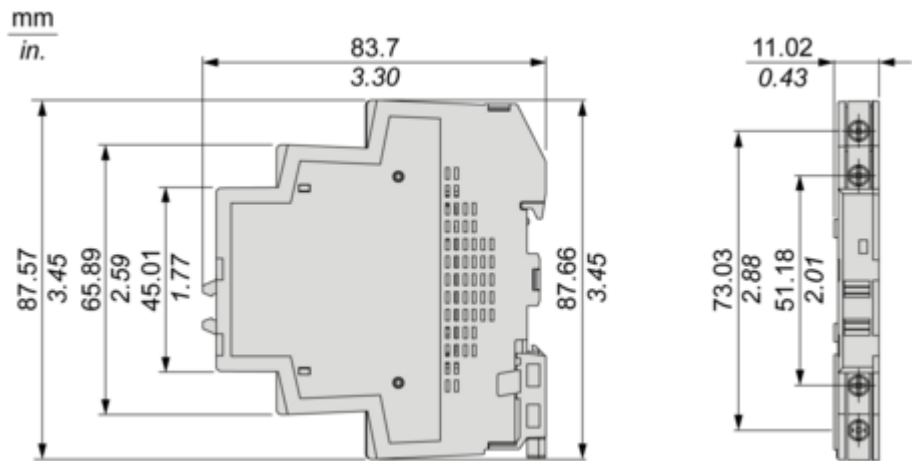
✓ Rohs Exemption Information [Yes](#)

Certifications & Standards

Reach Regulation	REACH Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
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

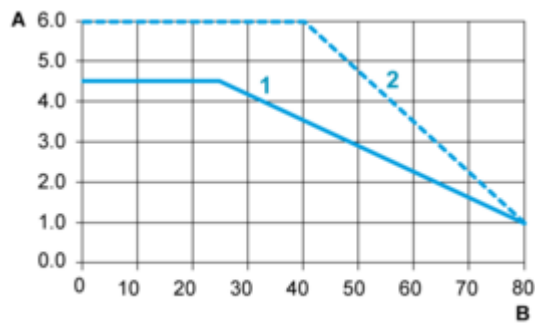
Dimensions Drawings

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