Product data sheet

Specifications

Harmony, Solid state modular relay, 45 A, DIN rail mount, zero voltage switching, input 90…140 V DC, output 48…660 V AC

SSM1A445F7

Discontinued

⊘ Discontinued on: Oct 31, 2022

⊘ End-of-service on: Nov 29, 2022

Main

Range Of Product	Harmony Solid State Relays
Product Or Component Type	Solid state relay up to 50 A
Device Short Name	SSM1
Number Of Phases	1 phase
Output Switching Mode	Zero voltage switching

Complementary

Mounting Support	Symmetrical DIN rail
[In] Rated Current	45 A
Output Voltage	48...660 V AC
[Uc] Control Circuit Voltage	90...140 V AC
Tightening Torque	0.6...0.7 N.m for input 1.36...1.7 N.m for output
Connections - Terminals	Screw terminals: 1 x 0.2...1 x 3.3 mm², (AWG 24...AWG 12) for input Screw terminals: 1 x 0.2...1 x 8.4 mm², (AWG 24...AWG 8) for output
Maximum Capacitance	8 pF for input/output
Insulation Resistance	1000 MOhm at 500 V DC
Local Signalling	LED (green) for input status
Switching Voltage	90 V AC turn-on 10 V AC turn-off
Input Current	15 mA at 120 Vrms
Solid State Output Type	SCR output Zero voltage switching
Load Current	0.15…45 A
Transient Overvoltage	1200 V
Surge Current	625 A for 16.6 ms
Maximum Voltage Drop	<1.7 V on-state
Maximum I²T For Fusing	1620 A².s for 8.3 ms
Maximum Leakage Current	1 mA off-state
Dv/Dt	500 V/µs off-state at maximum voltage

Response Time	10 ms (turn-on)
	40 ms (turn-off)
Overvoltage Category	III
Net Weight	0.476 kg

Environment

Dielectric Strength	4 kV AC for input/output
	4 kV AC for input or output to case
Pollution Degree	2
Standards	UL 508
	IEC 60950-1
	CSA C22.2 No 14
Product Certifications	CSA
	UL
	EAC
Marking	CSA
	UL
	CE
	EAC
Ip Degree Of Protection	IP20
Ambient Air Temperature For Operation	-40…80 °C
Ambient Air Temperature For Storage	-40…125 °C

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	6.0 cm
Package 1 Width	11.5 cm
Package 1 Length	11.8 cm
Package 1 Weight	519.0 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	12
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	6.62 kg

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Sustainability

Green Premium^{TM} 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_2 products.

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Guide to assess a product's sustainability ›

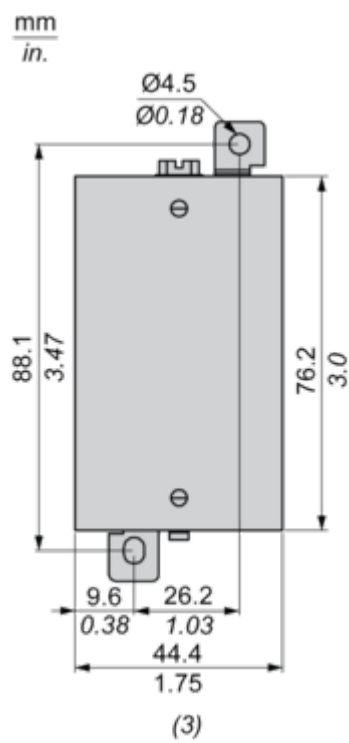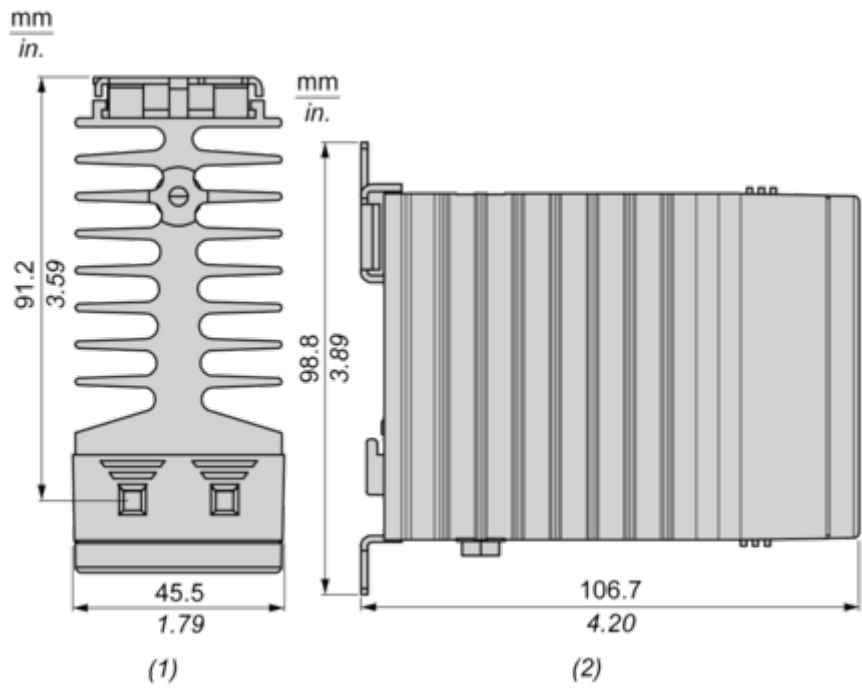Transparency   RoHS/REACh

Well-being performance

✓ 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
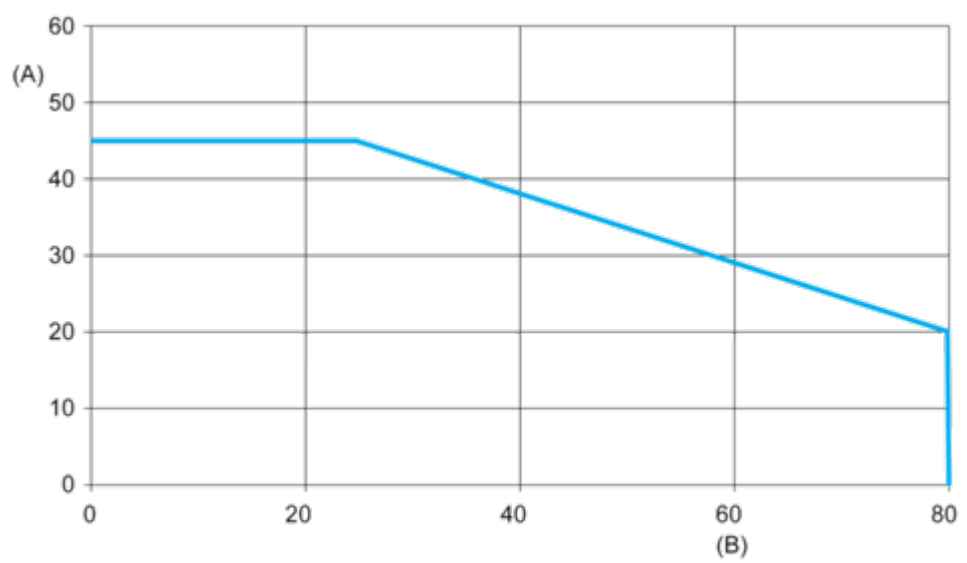

Dimensions Drawings

Dimensions

$\frac{mm}{in.}$

91.2 / 3.59

98.8 / 3.89

45.5 / 1.79

(1)

106.7 / 4.20

(2)

$\frac{mm}{in.}$

Ø4.5 / Ø0.18

88.1 / 3.47

76.2 / 3.0

9.6 / 0.38

26.2 / 1.03

44.4 / 1.75

(3)

(1) Top view
(2) Side view
(3) Front view

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Performance Curves

Derating Curves

A : Load Current (Amperes)
B : Ambient Temperature (°C)