

Product datasheet

Specifications



solid state relay - DIN rail mount -
input 90-140Vac, output 24-280Vac,
45A

SSM1A145F7

⚠ Discontinued on: Oct 20, 2020 AD

⚠ Discontinued

Main

Range of product	Harmony Relay
Device short name	SSM1
Product or component type	Solid state relay
Number of phases	1 phase

Complementary

Mounting support	Symmetrical DIN rail
[In] rated current	45 A
Output voltage	24...280 V AC
[Uc] control circuit voltage	90...140 V AC
contacts type and configuration	1 NO
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 mm ² , (AWG 24...AWG 12) for input Screw terminals: 1 x 0.2...1 x 8.4 mm ² , (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	600 V
Surge current	625 A for 16.6 ms
Maximum voltage drop	<1.6 V on-state
Maximum I ² t for fusing	1620 A ² .s for 8.3 ms
Maximum leakage current	10 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

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

Product weight	0.476 kg
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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	EAC UL CSA
Marking	CE EAC CSA UL
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 cm
Package 1 Width	11 cm
Package 1 Length	11.8 cm
Package 1 Weight	517 g

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 >](#)

Use Better

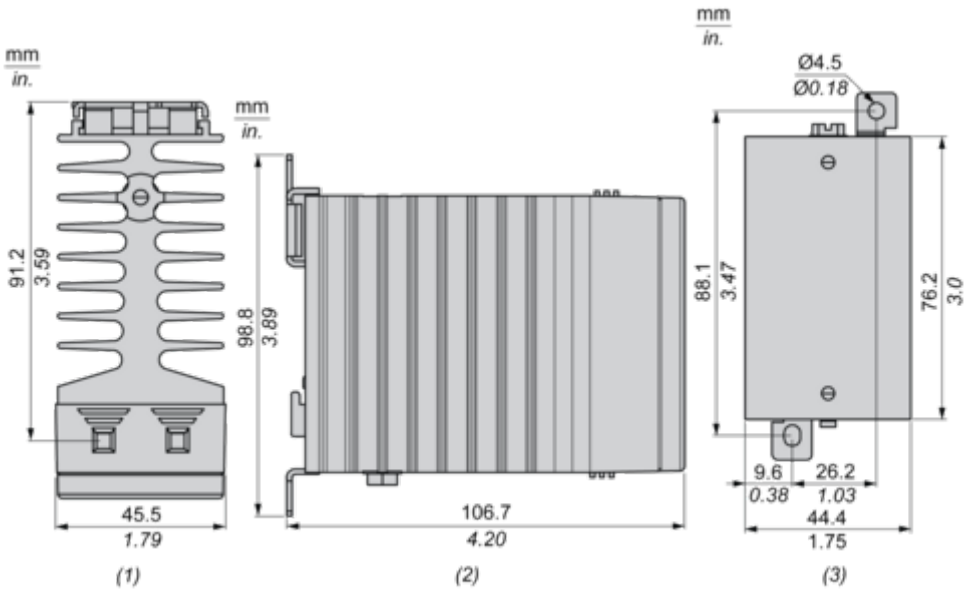
Materials and Substances	
SCIP Number	134201bc-d293-4667-9cca-10a7f11729e0
EU RoHS Directive	Compliant By Exemption

Use Longer

Lifetime extension	
Repair	No

Dimensions Drawings

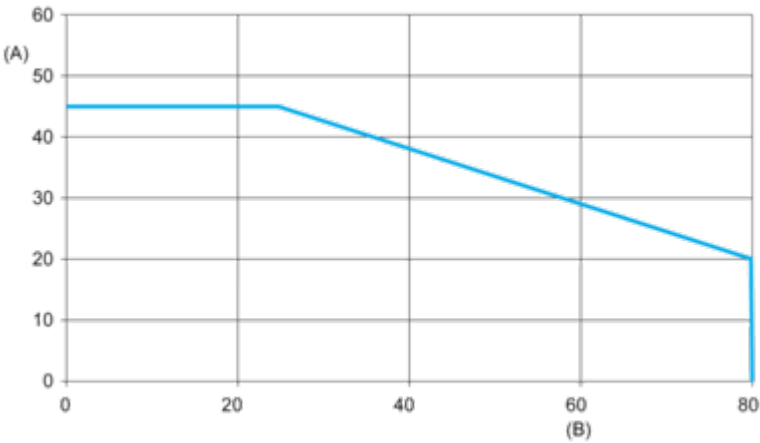
Dimensions



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

Performance Curves

Derating Curves



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

Technical Illustration

Dimensions

