

# Product datasheet

Specifications



Harmony Solid State Relays, Solid state modular relay, 12A, DIN rail mount, random swtching, input 90...140V AC, output 24...280V AC

SSM1A112F7R

! Discontinued

! Discontinued on: 31 Oct 2013

! End-of-service on: 15 Apr 2023

## Main

Range Of Product	Harmony Solid State Relays
Product Or Component Type	Modular DIN rail relay
Device Short Name	SSM
Number Of Channels	1
Number Of Phases	1 phase
Output Switching Mode	Random voltage switching

## Complementary

Mounting Support	Symmetrical DIN rail
[In] Rated Current	12 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	Random voltage switching SCR output
Load Current	0.15...12 A
Transient Overvoltage	600 V
Surge Current	715 A for 16.6 ms 750 A for 20 ms
Maximum Voltage Drop	<1.3 V on-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

Motor Power Hp	0.33 hp 40 °C 240 V AC
Maximum I²T For Fusing	2560 A².s for 10 ms at 50 Hz 2330 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
Response Time	30 ms (turn-off) 20 ms (turn-on)
Power Factor	0.5 (with maximum load)
Overvoltage Category	III
Width	18 mm
Height	90.3 mm
Test Button	Without test button
Depth	83.7 mm
Net Weight	0.09 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	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	2.5 cm
Package 1 Width	9 cm
Package 1 Length	9.5 cm
Package 1 Weight	98 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	72
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	7.426 kg

Sustainability



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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](#)

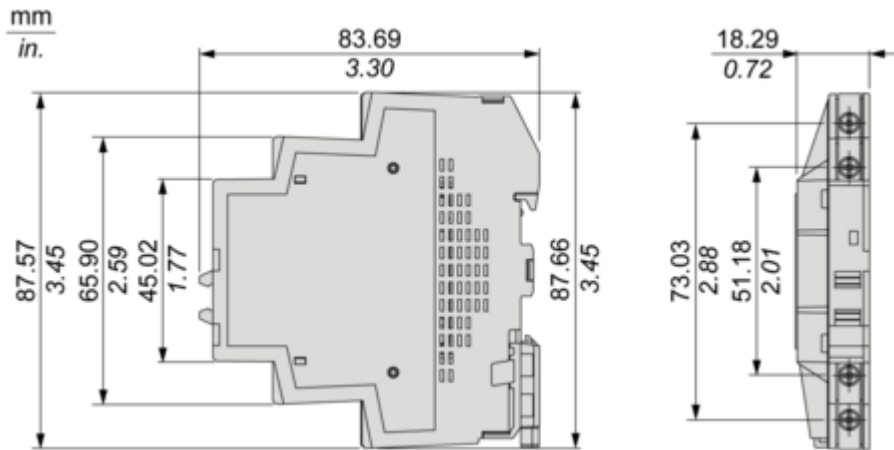
Environmental Disclosure

[Product Environmental Profile](#)

Circularity Profile

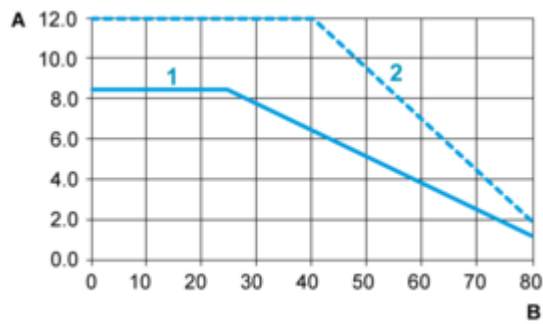
[End of Life Information](#)

## 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 18 mm