

# Product data sheet

Specifications



Harmony, Solid state modular modular relay, 55 A, DIN rail mount, zero voltage switching, input 4...32 V DC, output 48...660 V AC

SSM1A455BD

⚠ Discontinued

⚠ Discontinued on: 31 October 2022

⚠ End-of-service on: 29 November 2022

## Main

Range of product	Harmony Solid State Relays
Product or component type	Solid state relay up to 75 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	55 A
Output voltage	48...660 V AC
[Uc] control circuit voltage	4...32 V DC
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 <sup>2</sup> , (AWG 24...AWG 12) for input Screw terminals: 1 x 0.2...1 x 8.4 mm <sup>2</sup> , (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	4 V DC turn-on 1 V DC turn-off
Input current	14...17 mA
Solid state output type	SCR output Zero voltage switching
Load current	0.15...55 A
Transient overvoltage	1200 V
Surge current	1000 A for 16.6 ms
Maximum voltage drop	<1.7 V on-state
Maximum I <sup>2</sup> t for fusing	4150 A <sup>2</sup> .s for 8.3 ms
Maximum leakage current	1 mA off-state

DV/Dt	500 V/ $\mu$ s off-state at maximum voltage
Response time	0.5 cycle (turn-on) 0.5 cycle (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	UL CSA EAC
Marking	UL EAC CE CSA
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	11.0 cm
Package 1 Length	11.8 cm
Package 1 Weight	517.0 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	6.664 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a>
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>

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**WEEE**

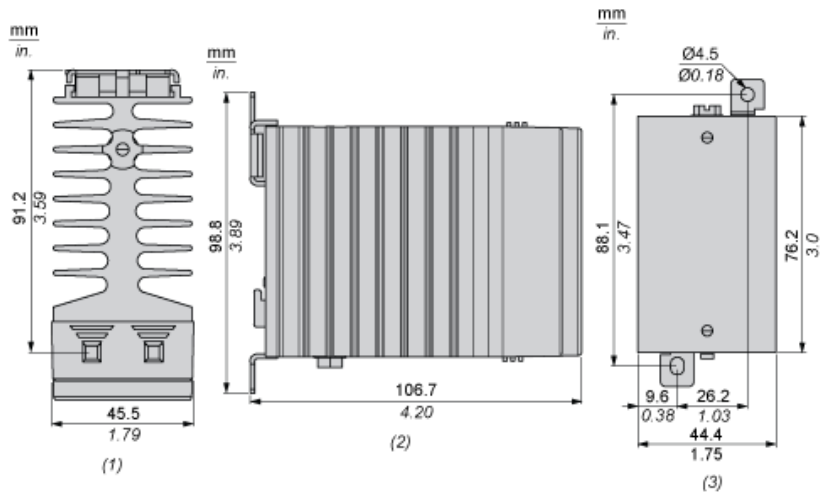
The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

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**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](http://www.P65Warnings.ca.gov)

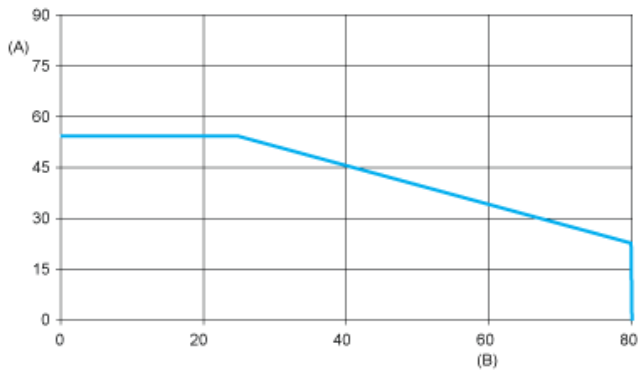
## Dimensions



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

**Derating Curves**

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

**Recommended replacement(s)**

SSM1A455BD is replaced by:

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1x



Harmony, Solid state relay, 60 A, DIN rail mount, zero voltage switching, input 4...32 V DC, output 48...600 V AC  
SSD1A360BDC2

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