

Product datasheet

Specifications



Solid state modular relay, 12 A, zero voltage switching, input 4...32 V DC, output 24...280 V AC

Local distributor code:

403013885

SSM1A112BD

EAN Code: 3606480579486

Main

| | |
|---------------------------|----------------------------|
| Range of product | Harmony Solid State Relays |
| Device short name | SSM |
| Product or component type | Modular DIN rail relay |
| Number of channels | 1 |
| Number of phases | 1 phase |
| Output switching mode | Zero voltage switching |

Complementary

| | |
|-------------------------------------|---|
| Product configuration type | Relay configuration |
| Mounting support | Symmetrical DIN rail |
| [In] rated current | 12 A |
| Output voltage | 24...280 V AC |
| [Uc] control circuit voltage | 4...32 V DC |
| 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 mm ² , (AWG 22...AWG 16) for input Screw terminals: 1 x 0.3...1 x 2.5 mm ² , (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 | 4 V DC turn-on |
| Maximum switching voltage | 1 V DC turn-off |
| input current | 9...11 mA |
| Solid state output type | Zero 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 |
| Motor power hp | 0.33 hp 40 °C 240 V AC |
| Maximum I ² t for fusing | 2560 A ² .s for 10 ms at 50 Hz 2330 A ² .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) 0.5 cycle (turn-off) |
| 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 60950-1 IEC 61000 IEC 62314 |
| 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 | 2.500 cm |
| Package 1 Width | 9.000 cm |
| Package 1 Length | 9.500 cm |
| Package 1 Weight | 90.000 g |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 72 |
| Package 2 Height | 15.000 cm |
| Package 2 Width | 30.000 cm |
| Package 2 Length | 40.000 cm |
| Package 2 Weight | 6.989 kg |

Contractual warranty

| | |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

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.

How this information helps you >

Environmental footprint

| | |
|--|-----|
| Carbon footprint (kg CO2 eq, Total Life cycle) | 137 |
|--|-----|

| | |
|--------------------------|---|
| Environmental Disclosure | Product Environmental Profile |
|--------------------------|---|

Use Better

Materials and Substances

| | |
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| Packaging made with recycled cardboard | No |
|--|----|

| | |
|--------------------------------------|-----|
| Packaging without single use plastic | Yes |
|--------------------------------------|-----|

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|-------------------|--|
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
|-------------------|--|

| | |
|-------------|--------------------------------------|
| SCIP Number | 134201bc-d293-4667-9cca-10a7f11729e0 |
|-------------|--------------------------------------|

| | |
|------------------|-----------------------------------|
| REACH Regulation | REACH Declaration |
|------------------|-----------------------------------|

| | |
|-----------------------|--|
| China RoHS Regulation | China RoHS declaration |
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Use Again

Repack and remanufacture

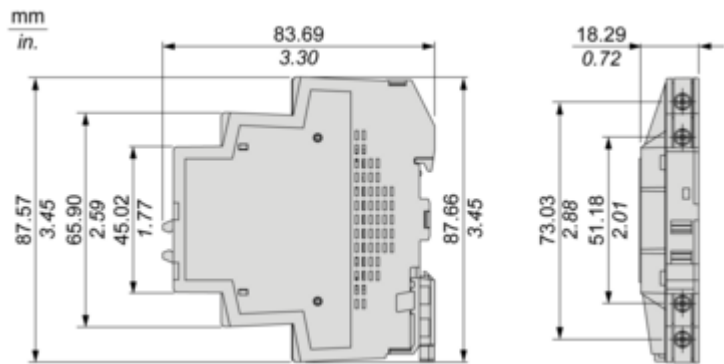
| | |
|---------------------|---|
| Circularity Profile | End of Life Information |
|---------------------|---|

Take-back

No

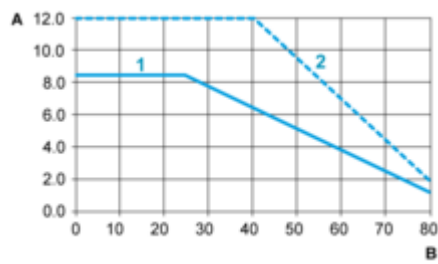
Dimensions Drawings

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 18 mm

Technical Illustration

Dimensions

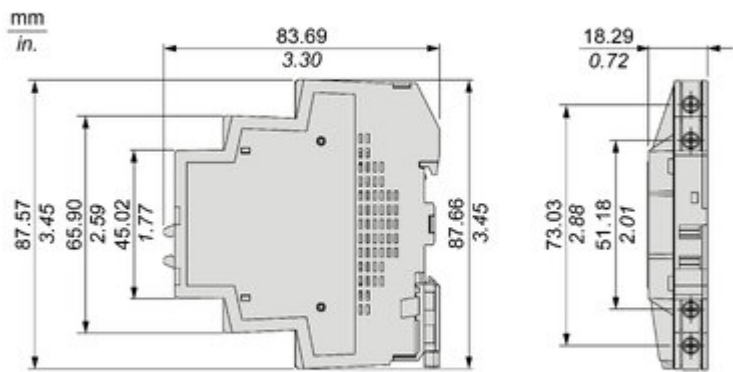


Image of product / Alternate images

Alternative



