

# Product data sheet

Specifications



Repacked single phase relay,  
Harmony Solid State Modular  
Relays, 6A, DIN rail mount, zero  
voltage switching, input 4 to 32V  
DC, output 24 to 280V AC

SSM1A16BDW



This repacked option saves 0.36 over the  
standard condition

## 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

|                              |                                                                                                                                                                       |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mounting support             | Symmetrical DIN rail                                                                                                                                                  |
| [In] rated current           | 6 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<br>0.5...0.8 N.m for output                                                                                                                   |
| Connections - terminals      | Screw terminals: 1 x 0.3...1 x 1.5 mm <sup>2</sup> , (AWG 22...AWG 16) for input<br>Screw terminals: 1 x 0.3...1 x 2.5 mm <sup>2</sup> , (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                | 8...11 mA                                                                                                                                                             |
| Solid state output type      | Zero voltage switching<br>SCR output                                                                                                                                  |
| Load current                 | 0.15...6 A                                                                                                                                                            |
| transient overvoltage        | 600 V                                                                                                                                                                 |
| Surge current                | 285 A for 16.6 ms<br>300 A for 20 ms                                                                                                                                  |
| Maximum voltage drop         | <1.3 V on-state                                                                                                                                                       |
| Motor power hp               | 0.16 hp 40 °C 240 V AC                                                                                                                                                |

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

|                         |                                                              |
|-------------------------|--------------------------------------------------------------|
| Maximum I²t for fusing  | 410 A².s for 10 ms at 50 Hz<br>375 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           | 0.5 cycle (turn-on)<br>0.5 cycle (turn-off)                  |
| power factor            | 0.5 (with maximum load)                                      |
| Overvoltage category    | III                                                          |
| Width                   | 11 mm                                                        |
| Height                  | 90.3 mm                                                      |
| test button             | Without test button                                          |
| Depth                   | 83.7 mm                                                      |
| Product weight          | 0.05 kg                                                      |

## Environment

|                                       |                                                                 |
|---------------------------------------|-----------------------------------------------------------------|
| Flame retardance                      | V0 conforming to UL 94                                          |
| Dielectric strength                   | 4 kV AC for input/output<br>4 kV AC for input or output to case |
| Pollution degree                      | 2                                                               |
| Standards                             | IEC 62314<br>IEC 61000<br>IEC 60950-1                           |
| Product certifications                | CSA<br>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 cm |
| Package 1 Width              | 9 cm |
| Package 1 Length             | 9 cm |
| Package 1 Weight             | 66 g |

## Contractual warranty

|                      |    |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



## 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 >](#)

| Environmental footprint                                |                                               |
|--------------------------------------------------------|-----------------------------------------------|
| Lower carbon footprint                                 | 0.4 kg CO2 eq.                                |
| Carbon footprint of the manufacturing phase [A1 to A3] | 0.8 kg CO2 eq.                                |
| Carbon footprint of the distribution phase [A4]        | 0 kg CO2 eq.                                  |
| Carbon footprint of the installation phase [A5]        | 0 kg CO2 eq.                                  |
| Carbon footprint of the use phase [B2, B3, B4, B6]     | 114 kg CO2 eq.                                |
| Carbon footprint of the end-of-life phase [C1 to C4]   | 0 kg CO2 eq.                                  |
| Environmental Disclosure                               | <a href="#">Product Environmental Profile</a> |

## Use Longer

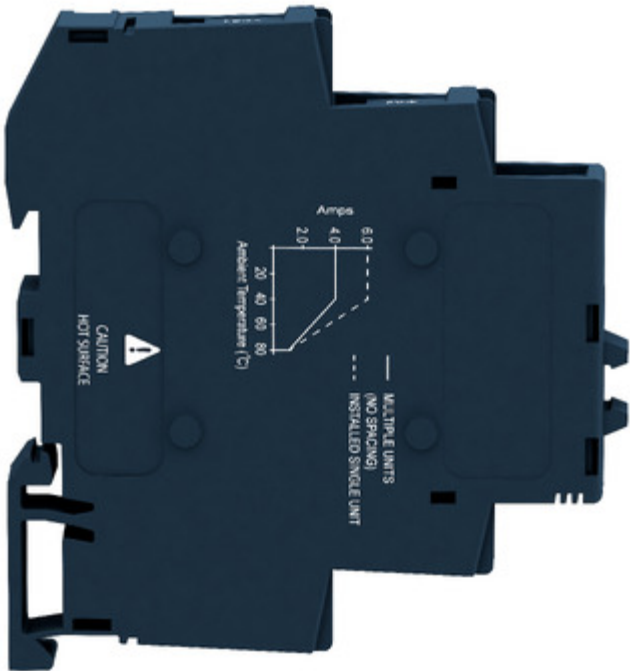
| Lifetime extension |    |
|--------------------|----|
| Repair             | No |

Image of product / Alternate images

Alternative

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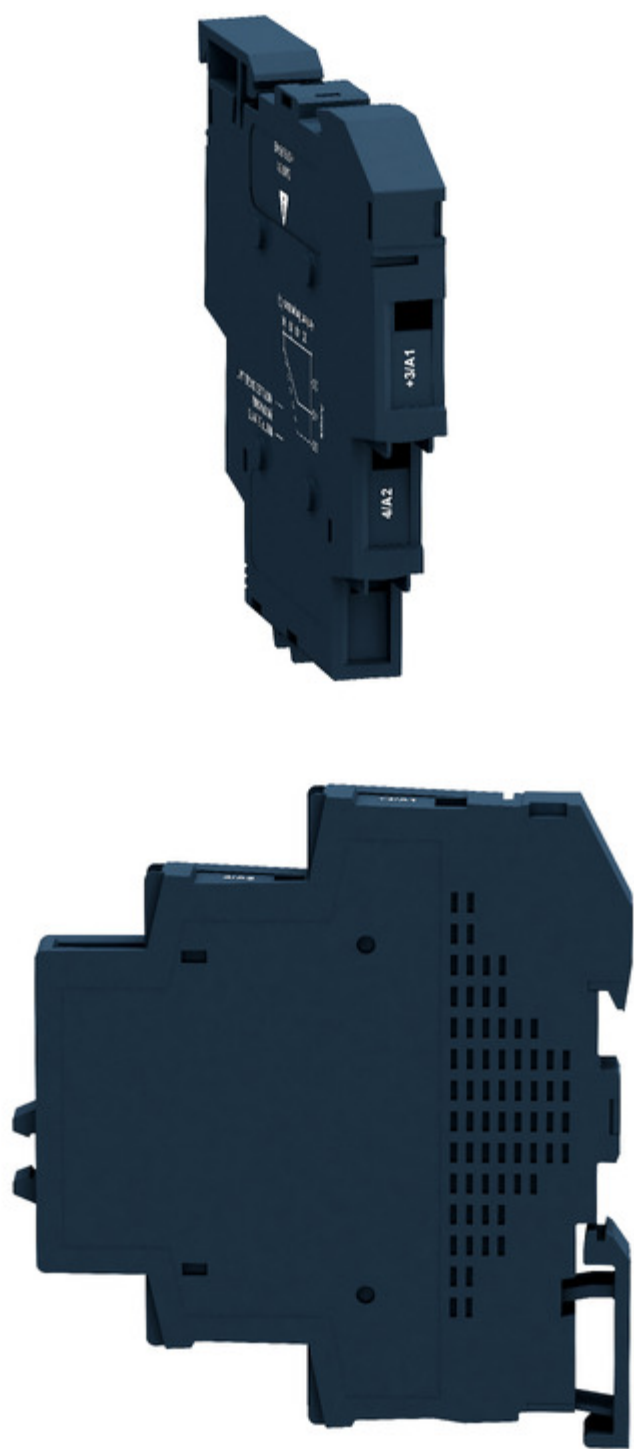






Image of product in real life situation

