

# SSD1A360BDC3

solid state relay-DIN rail, 1phase, 48-600Vac  
output, 4-32Vdc control, 60A



## Main

|                            |   |
|----------------------------|---|
| Range of product           | Harmony Relay   |
| Product or component type  | Solid state relay                                     |
| Device short name          | SSD1  |
| Number of channels         | 1   |
| Number of phases           | 1 phase   |
| Product configuration type | Contact configuration with pluggable spring input     |
| Mounting support           | 35 mm symmetrical DIN rail conforming to EN/IEC 60715 |
| Rated current              | 60 A  |
| Contact type               | 1 NO  |

## Complementary

|                                 |  |
|---------------------------------|--|
| Operating frequency             | 47...440 Hz  |
| Rated duty                      | Uninterrupted  |
| Output voltage                  | 48...600 V AC  |
| Control circuit voltage         | 4...32 V DC  |
| Tightening torque               | 2...2.2 N.m for load output<br>18...20 lb.in for load output   |
| Connections - terminals         | Plug-in spring terminals, clamping connection capacity: 0.13...3.30 mm <sup>2</sup> , AWG 26...AWG 12 for input<br>Clamp terminal, clamping connection capacity: 10...26.67 mm <sup>2</sup> , AWG 8...AWG 3 for output |
| Dielectric strength             | 4 kV AC for input/output circuit<br>4 kV AC for input or output to case  |
| Rated impulse withstand voltage | 6 kV for input/output circuit<br>6 kV for input or output to case  |
| Insulation resistance           | 1000 MOhm at 500 V DC  |
| Local signalling                | LED (green) for control voltage  |
| Pick-up voltage                 | 4 V DC turn-on   |
| Drop-out voltage                | 1 V DC turn-off  |

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

|                                       |   |
|---------------------------------------|---|
| Input current range                   | 10...15 mA  |
| Solid state output type               | SCR output  |
| Solid state switching type            | Zero voltage switching  |
| Load current                          | 0.15...60 A   |
| Transient overvoltage                 | 1200 V  |
| Inrush current                        | 1350 A at 60 Hz   |
| Maximum voltage drop                  | <1.2 V on-state   |
| Motor controller rating               | 1.5 kW/2 hp at 120 V AC<br>3.73 kW/5 hp at 240 V AC<br>7.46 kW/10 hp at 480 V AC  |
| Electromagnetic compatibility         | Electrostatic discharge 6 kV criteria A contact discharge conforming to IEC 61000-4-2<br>Electrostatic discharge 8 kV criteria A air discharge conforming to IEC 61000-4-2<br>Conducted RF disturbances 10 V, 0.15...80 MHz criteria A level 3 conforming to IEC 61000-4-6<br>Electrical fast transient/burst immunity test 2 kV, 5/100 kHz criteria B output ports conforming to IEC 61000-4-4<br>Electrical fast transient/burst immunity test 1 kV, 5/100 kHz criteria B input ports conforming to IEC 61000-4-4<br>Radiated radio-frequency electromagnetic field immunity test 10 V/m, 80 MHz...1 GHz criteria A conforming to IEC 61000-4-3<br>Radiated radio-frequency electromagnetic field immunity test 3 V/m, 1.4...2 GHz criteria A conforming to IEC 61000-4-3<br>Radiated radio-frequency electromagnetic field immunity test 1 V/m, 2...2.7 GHz criteria A conforming to IEC 61000-4-3<br>Surge immunity test 1 kV criteria B output ports line to line conforming to IEC 61000-4-5<br>Surge immunity test 2 kV criteria B output ports line to earth conforming to IEC 61000-4-5<br>Radiated emission environment B for DC input supply conforming to IEC 60947-4-3<br>Conducted emission environment B for DC input supply conforming to IEC 60947-4-3<br>Immunity to microbreaks and voltage drops 30 %, 500 ms criteria A conforming to IEC 61000-4-11<br>Immunity to microbreaks and voltage drops 100 %, 20 ms criteria B conforming to IEC 61000-4-11 |
| Device form designation               | Form 5 semiconductor output DOL contactor   |
| Maximum I <sup>2</sup> t for fusing   | 8320 A <sup>2</sup> .s for 10 ms<br>7593 A <sup>2</sup> .s for 8.33 ms  |
| Maximum leakage current               | 1 mA off-state  |
| DV/Dt                                 | 500 V/μs off-state at maximum rated voltage   |
| Response time                         | 0.5 cycle (turn-on)<br>0.5 cycle (turn-off)   |
| Power factor                          | 0.5 with maximum load   |
| Short circuit protection coordination | Type 1<br>Type 2  |
| Overvoltage category                  | III   |
| Width                                 | 45 mm   |
| Height                                | 111.5 mm  |
| Depth                                 | 154.4 mm  |
| Net weight                            | 0.507 kg  |
| Device presentation                   | Complete product  |

## Environment

|                                       |  |
|---------------------------------------|--|
| Flammability rating                   | V-0 conforming to UL 94  |
| Vibration resistance                  | 0.35 mm (f = 10...150 Hz) conforming to EN/IEC 60068-2-6   |
| Shock resistance                      | 50 gn for 11 ms (peak acceleration) , longitudinal position conforming to EN/IEC 60068-2-27<br>30 gn for 11 ms (peak acceleration) , vertical position conforming to EN/IEC 60068-2-27 |
| Pollution degree                      | 2  |
| Standards                             | IEC 61373: class B: category 1<br>IEC 60947-4-3<br>IEC 62314<br>IEC 60950-1<br>CSA C22.2 No 14-13<br>UL 508  |
| IP degree of protection               | IP20   |
| Ambient air temperature for operation | -40...80 °C  |
| Ambient air temperature for storage   | -40...100 °C   |

## Packing Units

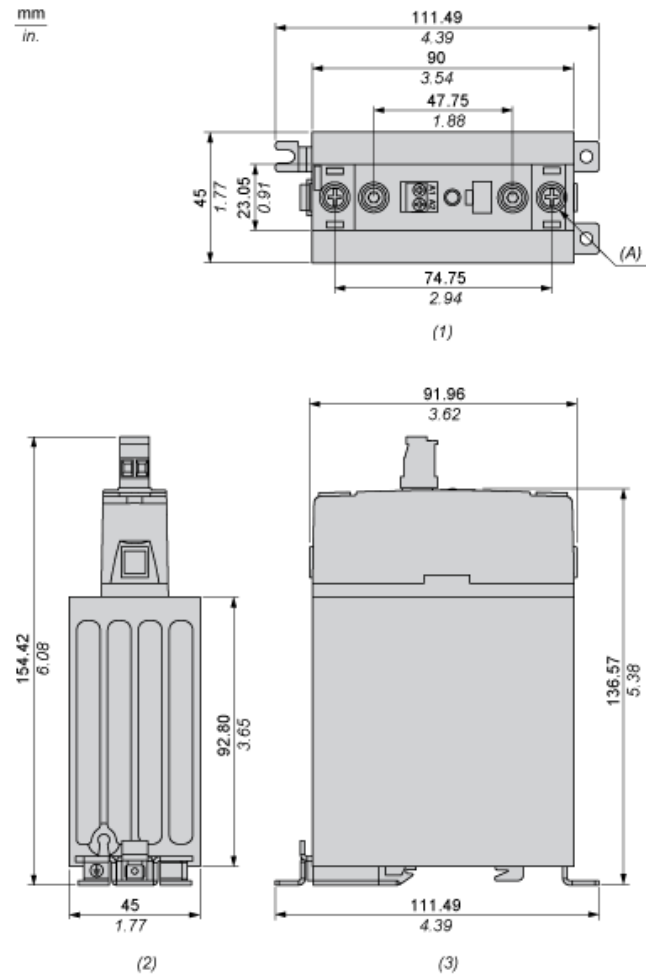
|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 560 g    |
| Package 1 Height             | 4.5 cm   |
| Package 1 width              | 11.15 cm |
| Package 1 Length             | 15.44 cm |

## 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)<br><a href="#">EU RoHS Declaration</a>                           |
| Mercury free               | Yes   |
| RoHS exemption information | <a href="#">Yes</a>   |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a>  |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>   |
| Circularity Profile        | <a href="#">End of Life Information</a>   |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

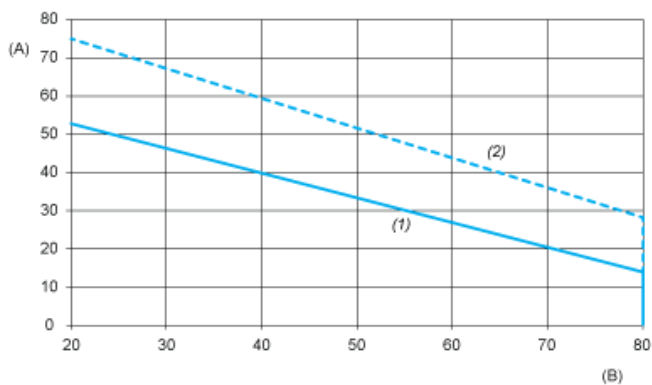
Dimensions

Dimensional Tolerances:  $\pm 0.5$  mm / 0.02 In.



- (1) Front view
- (2) Top view
- (3) Side view
- (A) Screw 8-32 Stud (2 Places)

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 22.5 mm