

SSD1A320BDC1

Harmony, Solid state relay, 20 A, DIN rail mount, zero voltage switching, input 4...32 V DC, output 48...600 V AC



Main

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|----------------------------|-------------------------------------------------------|
| Range of Product | Harmony Solid State Relays |
| Product or Component Type | Solid state relay up to 20 A |
| Device short name | SSD1 |
| Number of Channels | 1 |
| Number of phases | 1 phase |
| Product configuration type | Relay configuration |
| Mounting support | 35 mm symmetrical DIN rail conforming to EN/IEC 60715 |
| Rated current | 20 A |
| Output switching mode | Zero voltage switching |

Complementary

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|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating frequency | 47...440 Hz |
| Rated duty | Uninterrupted |
| Output voltage | 48...600 V AC |
| Control circuit voltage | 4...32 V DC |
| Tightening torque | 1.5...1.7 N.m for control input 13...15 lb.in for control input 1.5...1.7 N.m for load output 13...15 lb.in for load output |
| Connections - terminals | Screw terminals, clamping connection capacity:1...4 mm ² , AWG 18...AWG 12 for input Screw terminals, clamping connection capacity:1...6 mm ² , AWG 18...AWG 10 for output |
| Dielectric strength | 4 KV AC for input/output circuit 4 kV AC for input or output to case |
| Rated impulse withstand voltage | 6 KV for input/output circuit 6 kV for input or output to case |
| Insulation resistance | 1000 MOhm at 500 V DC |
| Local signalling | For control voltage LED (green) |
| Pick-up voltage | 4 V DC turn-on |
| Drop-out voltage | 1 V DC turn-off |
| Input current range | 10...15 mA |
| Solid state switching type | Zero voltage switching |
| Load current | 0.1...20 A |
| Transient overvoltage | 1200 V |
| Inrush current | 300 A |
| Maximum voltage drop | <1.3 V on-state |
| Motor controller rating | 0.37 KW/0.5 Hp at 120 V AC 1.12 KW/1.5 Hp at 240 V AC 2.24 kW/3 hp at 480 V AC |

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| Electromagnetic compatibility | Electrostatic discharge 6 kV criteria A contact discharge conforming to IEC 61000-4-2 Electrostatic discharge 8 kV criteria A air discharge conforming to IEC 61000-4-2 Conducted RF disturbances 10 V, 0.15...80 MHz criteria A level 3 conforming to IEC 61000-4-6 Electrical fast transient/burst immunity test 2 kV, 5/100 kHz criteria B output ports conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test 1 kV, 5/100 kHz criteria B input ports conforming to IEC 61000-4-4 Radiated radio-frequency electromagnetic field immunity test 10 V/m, 80 MHz...1 GHz criteria A conforming to IEC 61000-4-3 Radiated radio-frequency electromagnetic field immunity test 3 V/m, 1.4...2 GHz criteria A conforming to IEC 61000-4-3 Radiated radio-frequency electromagnetic field immunity test 1 V/m, 2...2.7 GHz criteria A conforming to IEC 61000-4-3 Surge immunity test 1 kV criteria A output ports line to line conforming to IEC 61000-4-5 Surge immunity test 2 kV criteria B output ports line to earth conforming to IEC 61000-4-5 Radiated emission environment B for DC input supply conforming to IEC 60947-4-3 Conducted emission environment B for DC input supply conforming to IEC 60947-4-3 Immunity to microbreaks and voltage drops 30 %, 500 ms criteria A conforming to IEC 61000-4-11 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 ² t for fusing | 409 A ² .S for 10 ms 375 A ² .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) 0.5 cycle (turn-off) |
| Load Power Factor Range | With maximum load |
| Short circuit protection coordination | Type 1 Type 2 |
| Overvoltage category | III |
| Width | 0.89 in (22.5 mm) |
| Height | 3.67 in (93.2 mm) |
| Depth | 4.59 in (116.5 mm) |
| Net Weight | 0.66 lb(US) (0.298 kg) |
| Device presentation | Complete product |

Environment

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|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flammability rating | V-0 conforming to UL 94 |
| Vibration resistance | 0.75 mm 10...150 Hz) EN/IEC 60068-2-6 |
| Shock resistance | 50 gn for 11 ms (peak acceleration) , longitudinal position conforming to EN/IEC 60068-2-27 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 IEC 60947-4-3 IEC 62314 IEC 60950-1 CSA C22.2 No 14-13 UL 508 |
| IP degree of protection | IP20 |
| Ambient Air Temperature for Operation | -40...176 °F (-40...80 °C) |
| Ambient Air Temperature for Storage | -40...212 °F (-40...100 °C) |

Ordering and shipping details

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|-----------------------|---------------------------------|
| Category | 22375-INTERFACE MODULE(ABA,R,S) |
| Discount Schedule | CP2 |
| GTIN | 3606489807771 |
| Nbr. of units in pkg. | 1 |
| Package weight(Lbs) | 11.29 oz (320.0 g) |
| Returnability | No |

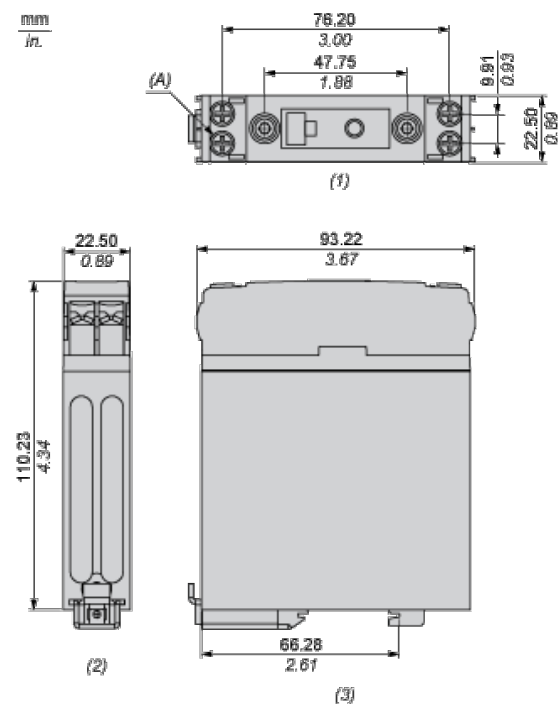
Packing Units

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|------------------------------|-----------------------|
| Unit Type of Package 1 | PCE |
| Package 1 Height | 0.98 in (2.5 cm) |
| Package 1 width | 3.62 in (9.2 cm) |
| Package 1 Length | 5.51 in (14 cm) |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 24 |
| Package 2 Weight | 17.86 lb(US) (8.1 kg) |
| Package 2 Height | 5.91 in (15 cm) |
| Package 2 width | 11.81 in (30 cm) |
| Package 2 Length | 15.75 in (40 cm) |

Offer Sustainability

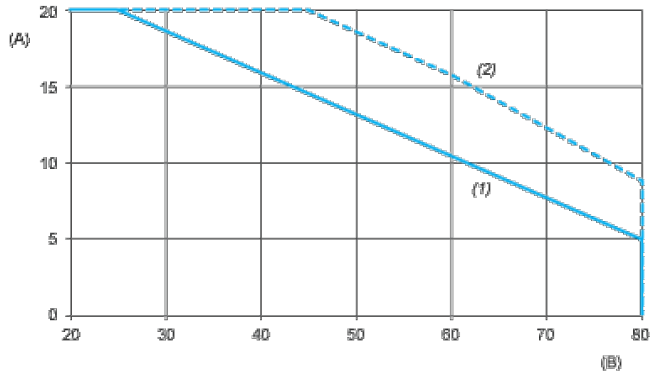
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|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status | Green Premium product |
| 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 |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS Declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End Of Life Information |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins. |

Dimensions



- (1) Front view
- (2) Top view
- (3) Side view
- (A) Screw M4 Stud (4 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