

# SSM1A455BD

Solid state relay, 55 A, DIN rail mount, input  
4...32 V DC, output 48...660 V AC, 1 NO



## Main

|                           |                   |
|---------------------------|-------------------|
| Range of product          | Harmony Relay     |
| Product or component type | Solid state relay |
| Device short name         | SSM1              |
| Number of phases          | 1 phase           |

## Complementary

|                                     |                                                                                                                                                          |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mounting support                    | Symmetrical DIN rail                                                                                                                                     |
| Line Rated Current                  | 55 A                                                                                                                                                     |
| Output voltage                      | 48...660 V AC                                                                                                                                            |
| [Uc] control circuit voltage        | 4...32 V DC                                                                                                                                              |
| Contacts type and configuration     | 1 NO                                                                                                                                                     |
| Tightening torque                   | 0.6...0.7 N.m input<br>1.36...1.7 N.m output                                                                                                             |
| Connections - terminals             | Screw terminals 1 x 0.2...1 x 3.3 mm <sup>2</sup> , AWG 24...AWG 12) input<br>Screw terminals 1 x 0.2...1 x 8.4 mm <sup>2</sup> , AWG 24...AWG 8) output |
| Maximum capacitance                 | 8 pF input/output                                                                                                                                        |
| Insulation resistance               | 1000 MOhm 500 V DC                                                                                                                                       |
| Local signalling                    | Input status LED (green)                                                                                                                                 |
| Switching voltage                   | 4 V DC turn-on<br>1 V DC turn-off                                                                                                                        |
| Input current                       | 14...17 mA                                                                                                                                               |
| Solid state output type             | SCR output<br>Zero voltage switching                                                                                                                     |
| Load current                        | 0.15...55 A                                                                                                                                              |
| Transient overvoltage               | 1200 V                                                                                                                                                   |
| Surge current                       | 1000 A 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 8.3 ms                                                                                                                            |
| Maximum leakage current             | 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)                                                                                                                |
| Overvoltage category                | III                                                                                                                                                      |
| Net Weight                          | 1.05 lb(US) (0.476 kg)                                                                                                                                   |

## Environment

|                                       |                                                         |
|---------------------------------------|---------------------------------------------------------|
| Dielectric strength                   | 4 KV AC input/output<br>4 kV AC input or output to case |
| Pollution degree                      | 2                                                       |
| Standards                             | UL 508<br>IEC 60950-1<br>CSA C22.2 No 14                |
| Product certifications                | UL<br>CSA<br>EAC                                        |
| Marking                               | UL<br>EAC<br>CE<br>CSA                                  |
| IP degree of protection               | IP20                                                    |
| Ambient air temperature for operation | -40...176 °F (-40...80 °C)                              |
| Ambient air temperature for storage   | -40...257 °F (-40...125 °C)                             |

## Ordering and shipping details

|                       |                                   |
|-----------------------|-----------------------------------|
| Category              | 22375 - INTERFACE MODULE(ABA,R,S) |
| Discount Schedule     | CP2                               |
| GTIN                  | 00785901416081                    |
| Nbr. of units in pkg. | 1                                 |
| Package weight(Lbs)   | 1.16 lb(US) (0.53 kg)             |
| Returnability         | Yes                               |
| Country of origin     | MX                                |

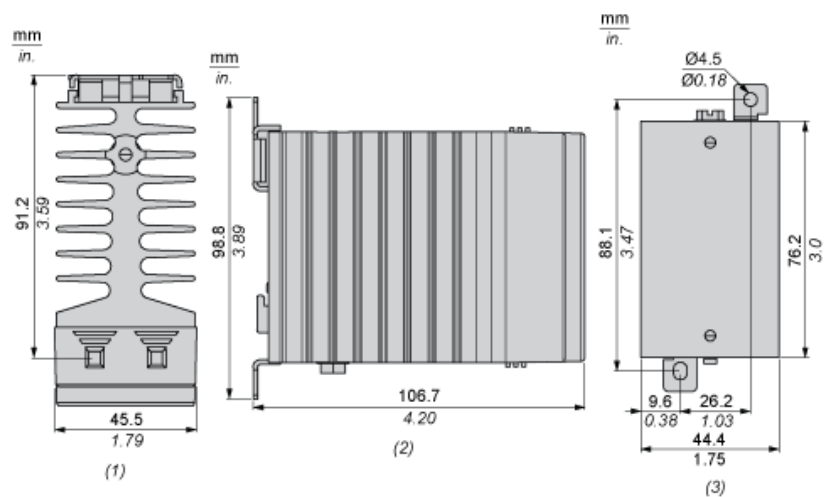
## Packing Units

|                  |          |
|------------------|----------|
| Package 1 Height | 0.600 dm |
| Package 1 width  | 1.100 dm |
| Package 1 Length | 1.180 dm |

## Offer Sustainability

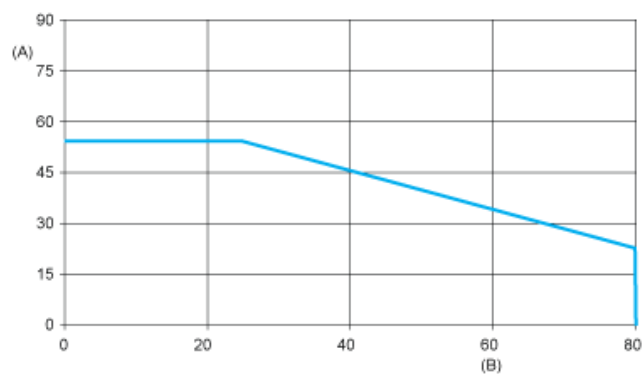
|                            |                                                                                                                                                                                                                                                                                             |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| 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                                                                                                                                                                                                                                                                                         |
| 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



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

### Derating Curves



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