# Product data sheet

Specifications

## DIN rail mount relay, Harmony Solid State Relays, 35A, zeroVoltage switching, input 90â€¦280V AC/DC, output 48...600V AC

SSD1A335M7C1

## Main

| | |
|---|---|
| Range of product | Harmony Solid State Relays |
| Product or component type | Modular DIN rail relay |
| 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 IEC 60715 |
| rated current | 35 A |
| Output switching mode | Zero voltage switching |

## Complementary

| | |
|---|---|
| operating frequency | 47...440 Hz |
| Rated duty | Uninterrupted |
| Output voltage | 48...600 V AC |
| control circuit voltage | 90...280 V AC/DC |
| Tightening torque | 1.5...1.7 N.m for control input<br>13...15 lb.in for control input<br>1.5...1.7 N.m for load output<br>13...15 lb.in for load output |
| Connections - terminals | Screw terminals, clamping connection capacity:1...4 mm², AWG 18...AWG 12 for input<br>Screw terminals, clamping connection capacity:1...6 mm², AWG 18...AWG 10 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 | 90 V AC/DC turn-on |
| drop-out voltage | 5 V AC/DC turn-off |
| input current range | 6…10 mA |
| solid state switching type | Zero voltage switching |
| Load current | 0.15…35 A |
| transient overvoltage | 1200 V |

| | |
|---|---|
| **Inrush current** | 1350 A at 60 Hz |
| **Maximum voltage drop** | <1.15 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 A output ports line to line conforming to IEC 61000-4-5<br>Surge immunity test 2 kV criteria A output ports line to earth conforming to IEC 61000-4-5<br>Surge immunity test 1 kV criteria A input ports line to line conforming to IEC 61000-4-5<br>Surge immunity test 2 kV criteria A input ports line to earth conforming to IEC 61000-4-5<br>Radiated emission environment B for AC input supply conforming to IEC 60947-4-3<br>Conducted emission environment A for AC 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 I²t for fusing** | 8320 A².s for 10 ms<br>7593 A².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** | 20 ms (turn-on)<br>30 ms (turn-off) |
| **Power factor** | 0.5 with maximum load |
| **short circuit protection coordination** | Type 1<br>Type 2 |
| **Overvoltage category** | III |
| **Width** | 22.5 mm |
| **Height** | 93.2 mm |
| **Depth** | 116.5 mm |
| **test button** | Without test button |
| **Product weight** | 0.298 kg |
| **Device presentation** | Complete product |

## Environment

| | |
|---|---|
| **Flammability rating** | V-0 conforming to UL 94 |
| **Vibration resistance** | 0.75 mm (f = 10…150 Hz) conforming to IEC 60068-2-6 |
| **Shock resistance** | 50 gn for 11 ms (peak acceleration) , longitudinal position conforming to IEC 60068-2-27<br>30 gn for 11 ms (peak acceleration) , vertical position conforming to 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** | -20…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 Height** | 2.800 cm |
| **Package 1 Width** | 10.000 cm |
| **Package 1 Length** | 14.000 cm |
| **Package 1 Weight** | 320.000 g |
| **Unit Type of Package 2** | S02 |
| **Number of Units in Package 2** | 24 |
| **Package 2 Height** | 15.000 cm |
| **Package 2 Width** | 30.000 cm |
| **Package 2 Length** | 40.000 cm |
| **Package 2 Weight** | 8.083 kg |

## 🌿 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

| | |
|---|---|
| Total lifecycle Carbon footprint | **64** |

## Use Better

### ⬚ Materials and Substances

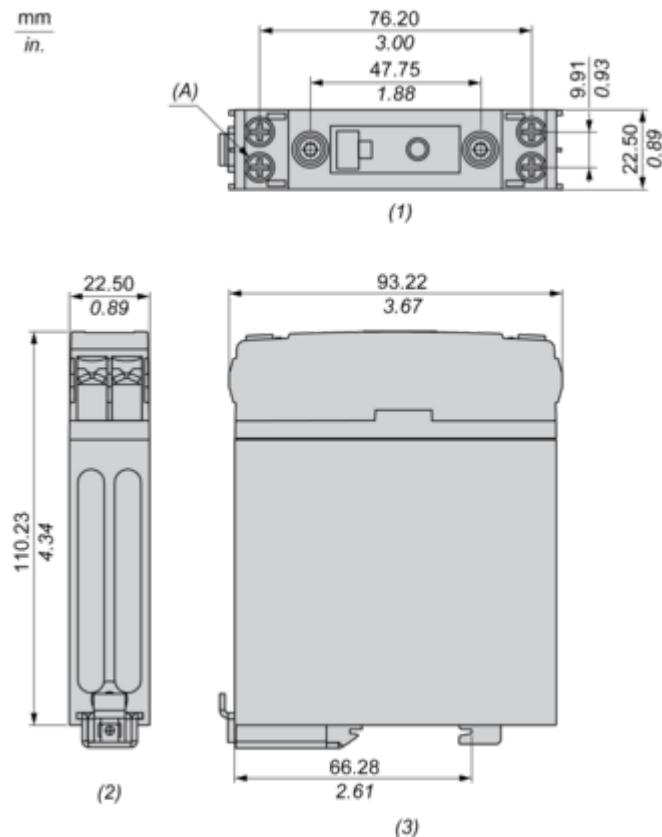| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **Yes** |
| EU RoHS Directive | **Pro-active compliance (Product out of EU RoHS legal scope)** |
| SCIP Number | **134201bc-d293-4667-9cca-10a7f11729e0** |
| California proposition 65 | **WARNING: 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** |

## Use Again

### ↻ Repack and remanufacture

| | |
|---|---|
| Take-back | **No** |

Dimensions Drawings

**Dimensions**

$\dfrac{mm}{in.}$

(A)

76.20
3.00
47.75
1.88

9.91
0.93

22.50
0.89

(1)

22.50
0.89

93.22
3.67

110.23
4.34

66.28
2.61

(2)

(3)

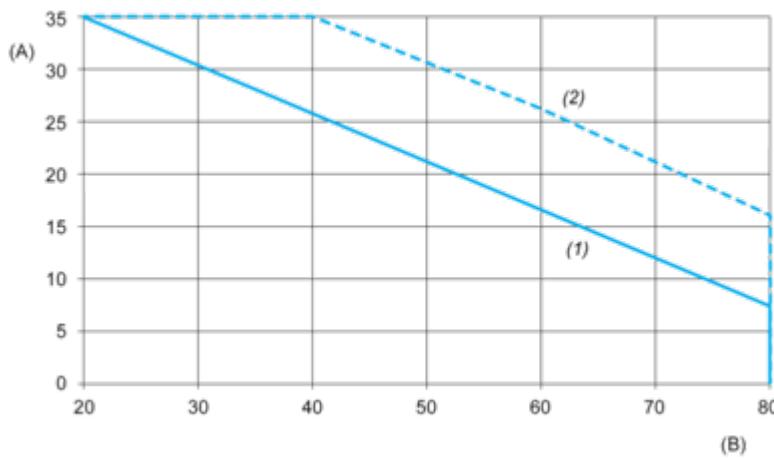**(1)** Front view
**(2)** Top view
**(3)** Side view
**(A)** Screw M4 Stud (4 Places)

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 22.5 mm
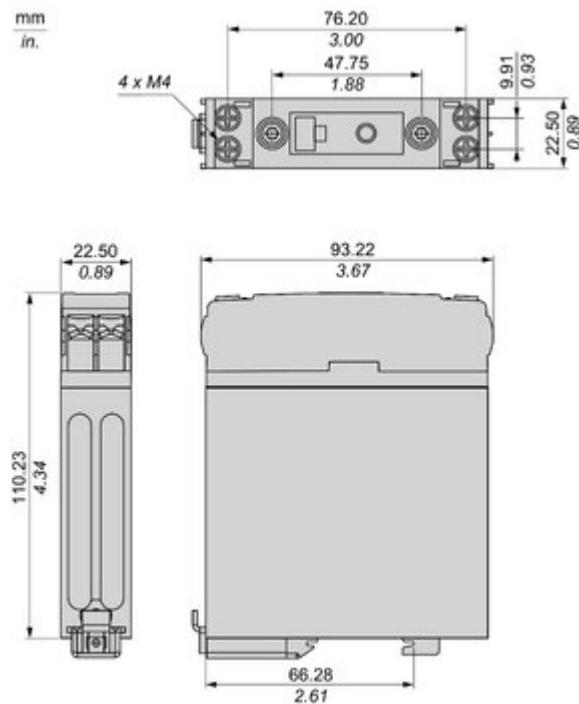
Technical Illustration

**Dimensions**

Image of product / Alternate images

**Alternative**

Image of product in real life situation