



## 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 type
Mounting support	35 mm symmetrical DIN rail EN/IEC 60715
Rated current	45 A
Contact type	1 NO

## 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	2...2.2 N.m load output 18...20 lb.in load output
Connections - terminals	Input spring terminals Output clamp terminal
Dielectric strength	4 kV AC input/output circuit 4 kV AC input or output to case
Rated impulse withstand voltage	6 kV input/output circuit 6 kV input or output to case
Insulation resistance	1000 MOhm 500 V DC
Local signalling	Control voltage LED green)
Pick-up voltage	90 V AC/DC turn-on
Drop-out voltage	5 V AC/DC turn-off
Input current range	3...4 mA
Solid state output type	SCR output
Solid state switching type	Zero voltage switching
Load current	0.1...45 A
Transient overvoltage	1200 V
Inrush current	750 A
Maximum voltage drop	<1.25 V on-state
Motor controller rating	0.75 KW 1 hp 120 V AC 2.24 KW 3 hp 240 V AC 3.73 kW 5 hp 480 V AC

Electromagnetic compatibility	Electrostatic discharge 6 kV criteria A contact discharge IEC 61000-4-2 Electrostatic discharge 8 kV criteria A air discharge IEC 61000-4-2 Conducted RF disturbances 10 V, 0.15...80 MHz criteria A level 3 IEC 61000-4-6 Electrical fast transient/burst immunity test 2 kV, 5/100 kHz criteria B output ports IEC 61000-4-4 Electrical fast transient/burst immunity test 1 kV, 5/100 kHz criteria B input ports IEC 61000-4-4 Radiated radio-frequency electromagnetic field immunity test 10 V/m, 80 MHz...1 GHz criteria A IEC 61000-4-3 Radiated radio-frequency electromagnetic field immunity test 3 V/m, 1.4...2 GHz criteria A IEC 61000-4-3 Radiated radio-frequency electromagnetic field immunity test 1 V/m, 2...2.7 GHz criteria A IEC 61000-4-3 Surge immunity test 1 kV criteria B output ports line to line IEC 61000-4-5 Surge immunity test 2 kV criteria B output ports line to earth IEC 61000-4-5 Surge immunity test 1 kV criteria B input ports line to line IEC 61000-4-5 Surge immunity test 2 kV criteria B input ports line to earth IEC 61000-4-5 Radiated emission environment B for AC input supply IEC 60947-4-3 Conducted emission environment A for AC input supply IEC 60947-4-3 Immunity to microbreaks and voltage drops 30 %, 500 ms criteria A IEC 61000-4-11 Immunity to microbreaks and voltage drops 100 %, 20 ms criteria B IEC 61000-4-11
Device form designation	Form 5
Maximum I <sup>2</sup> t for fusing	2563 A <sup>2</sup> .S 10 ms 2343 A <sup>2</sup> .s 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) 30 ms turn-off)
Load Power Factor Range	With maximum load
Short circuit protection coordination	Type 1 Type 2
Overvoltage category	III
Width	1.77 in (45 mm)
Height	4.39 in (111.5 mm)
Depth	6.08 in (154.4 mm)
Net weight	1.12 lb(US) (0.507 kg)
Device presentation	Complete product

## Environment

Flammability rating	V-0 UL 94
Vibration resistance	0.35 mm 10...150 Hz) EN/IEC 60068-2-6
Shock resistance	Peak acceleration EN/IEC 60068-2-27 Peak acceleration 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

Category	22375 - INTERFACE MODULE(ABA,R,S)
Discount Schedule	CP2
Nbr. of units in pkg.	1
Package weight(Lbs)	1 lb(US) (0.45 kg)
Returnability	No

## Packing Units

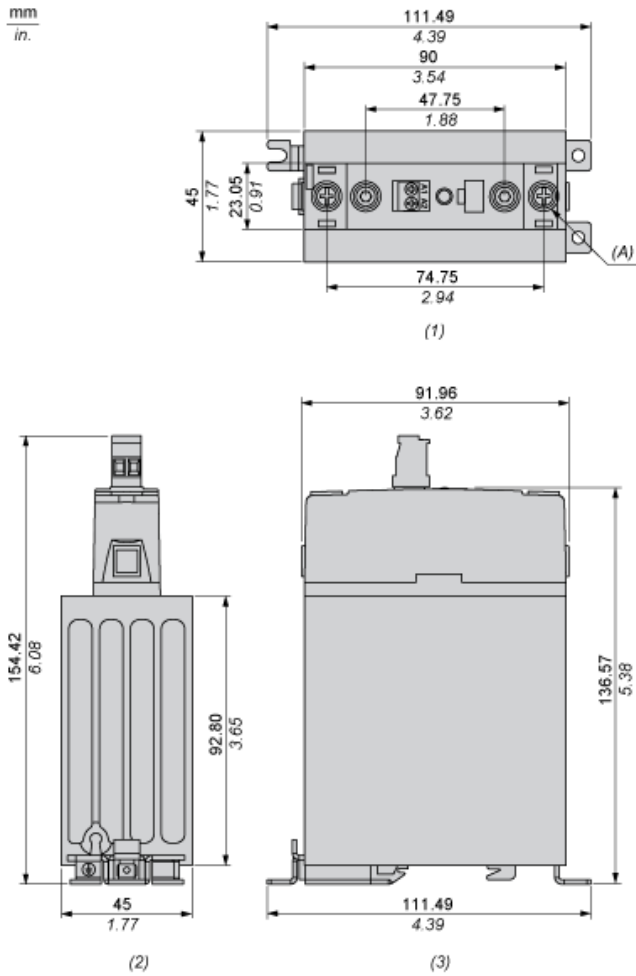
Unit Type of Package 1	PCE
Package 1 Height	1.77 in (4.5 cm)
Package 1 width	4.39 in (11.15 cm)
Package 1 Length	6.08 in (15.44 cm)

## 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

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