

SSM1A312F7

Solid state modular relay, Harmony, 12A, DIN rail mount, zero voltage switching, input 90...140V AC, output 48...600V AC



Main

Range of Product	Harmony Solid State Relays
Product or Component Type	Solid state relay up to 20 A
Device short name	SSM
Number of Channels	1
Number of phases	1 phase
Output switching mode	Zero voltage switching

Complementary

Mounting Support	Symmetrical DIN rail
Line Rated Current	12 A
Output voltage	48...600 V AC
[Uc] control circuit voltage	90...140 V AC
Tightening torque	0.5...0.8 N.m for input 0.5...0.8 N.m for output
Connections - terminals	Screw terminals 1 x 0.3...1 x 1.5 mm ² , AWG 22...AWG 16) input Screw terminals 1 x 0.3...1 x 2.5 mm ² , AWG 22...AWG 14) output
Maximum capacitance	10 pF for input/output
Insulation resistance	1000 MOhm at 500 V DC
Local signalling	For input status LED (green)
Minimum switching voltage	90 V AC turn-on
Maximum switching voltage	10 V AC turn-off
Input current	3...5 mA
Solid state output type	SCR output Zero voltage switching
Load current	0.15...12 A
Transient overvoltage	1200 V
Surge current	715 A 16.6 ms 750 A 20 ms
Maximum voltage drop	<1.3 V on-state
Maximum Horse Power Rating	0.33 hp 104 °F (40 °C) 240 V AC
Maximum I ² t for fusing	2560 A ² .S for 10 ms at 50 Hz 2330 A ² .s for 8.33 ms at 60 Hz
Maximum leakage current	0.2 mA off-state
DV/dt	500 V/μs off-state at maximum voltage
Response time	0.5 cycle (turn-on) 30 ms (turn-off)
Power factor	0.5 (with maximum load)
Overvoltage category	III
Width	0.71 in (18 mm)
Height	3.56 in (90.3 mm)
Depth	3.30 in (83.7 mm)
Net Weight	0.20 lb(US) (0.09 kg)

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Environment

Flame retardance	V0 conforming to UL 94
Dielectric strength	4 KV AC for input/output 4 kV AC for input or output to case
Pollution degree	2
Standards	IEC 60950-1 IEC 61000 IEC 62314
Product Certifications	UL CSA
Marking	CE
IP degree of protection	IP20
Ambient Air Temperature for Operation	-22...176 °F (-30...80 °C)
Ambient Air Temperature for Storage	-22...212 °F (-30...100 °C)

Ordering and shipping details

Category	22375-INTERFACE MODULE(ABA,R,S)
Discount Schedule	CP2
GTIN	3606480579530
Returnability	No

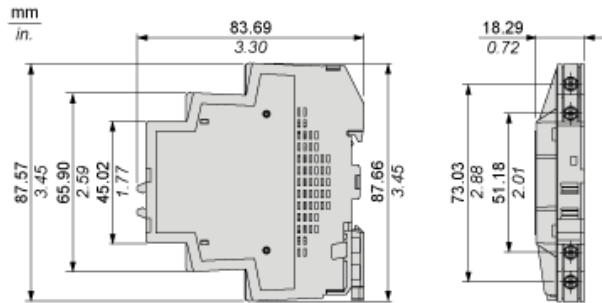
Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	0.79 in (2.0 cm)
Package 1 Width	3.54 in (9.0 cm)
Package 1 Length	3.74 in (9.5 cm)
Package 1 Weight	3.53 oz (100.0 g)
Unit Type of Package 2	S02
Number of Units in Package 2	72
Package 2 Height	5.91 in (15.0 cm)
Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	16.73 lb(US) (7.588 kg)

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 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
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information

Dimensions



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 18 mm