

Features

2,500V dielectric strength
LED status indicator
Photo isolation
Built-in snubber
Zero cross or random turn-on
PCB mounting



Ordering information

FSS40A - 220 A - 3 Z L DC5V XXX							
1	2	3	4	5	6	7	8
1 Relay model				6 LED indicator: L: With LED			
2 Load voltage: 220: 220V; 380: 380V				7 Input voltage: DC5V : DC4 - 6V;			
3 Load voltage form: A: AC				DC12V: DC9.6 - 14.4V;			
4 Load current: 2: 2A; 3: 3A				DC24V: DC19.2 - 28.8V			
5 Zero cross function: NIL: Random turn-on;				8 Special code			
Z : Zero cross turn-on				Note: RoHS: RoHS compliant relay			

Input rating (at +25°C)

Rated voltage (V)	Control voltage range (V DC)	Must operate voltage (V DC)	Input resistance (Ω)	Must release voltage (V DC)	Must reverse protection voltage (V DC)	Input current (mA)
5	4 - 6	4.0	180		-6.0	
12	9.6 - 14.4	9.6	680	1	-14.4	20 Max.
24	19.2 - 28.8	19.2	1500		-28.8	

Output (at +25°C)

Load voltage range	220A 380A	48 to 280 VAC 48 to 440 VAC
Load current range	2A type 3A type	0.1 to 2A 0.1 to 3A
Max. surge current (10ms)	2A type 3A type	30Apk 120Apk
Max. I ² t for fusing (10ms)	2A type 3A type	3.1A ² s 78A ² s
Max. leakage current	1.5mA	
Max. on-state voltage drop	1.5Vrms	
Max. turn-on time	Zero cross Random	½ cycles + 1ms 1ms
Maximum turn-off time	½ cycles + 1ms	
Max. transient over voltage	220A 380A	600Vpk 800Vpk
Min. off state dv/dt	100V/μs	
Min. power factory	0.5	

Characteristics

Dielectric strength	2,500VAC 50/60Hz/min (input to output)
Insulation resistance	1,000MΩ (500VDC)
Max. capacitance	8pF (input to output)
Vibration resistance	1.5mm Double amplitude 10-55Hz
Shock resistance	980m/s ²
Ambient temperature	Operating: -30°C to +80°C Storage : -30°C to +100°C
Humidity	45% - 85% RH
Weight	18g Approx.

(Specifications are subject to change without notices.)

Description

This SPST-NO printed circuit board mount SSR provides AC output switching in a high density package.
The FSS40A's DC input is compatible with 5, 12 and 24V logic systems.
The relays include a LED indicator to provide input status information.
All models include an internal snubber.
The relays provide 2,500VAC opto-isolation, between input and output.
Encapsulation, thermally conductive epoxy.

Applications

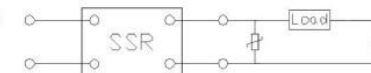
- * I/O interface
- * Programmable controllers

Precautions

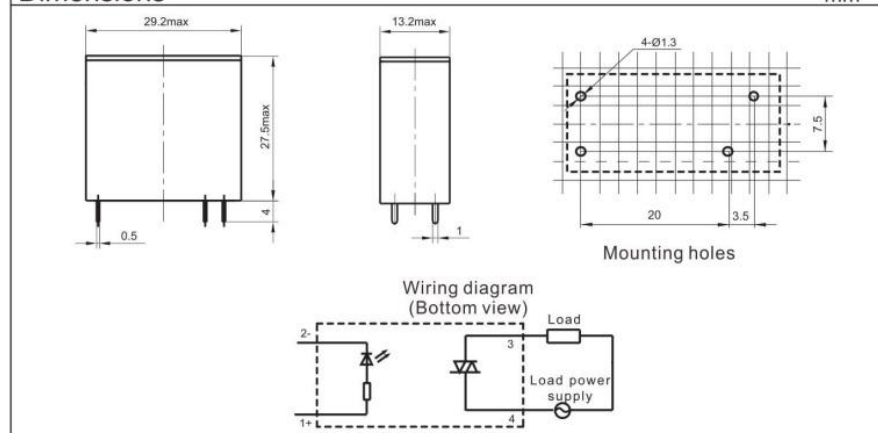
- Soldering must be completed within 10 seconds at 260°C or less or within 5 seconds at 350°C or less.
- The SSR case serves to dissipate heat. Install the relays so that they are adequately ventilated. If poor ventilation is unavoidable, reduce the load current by half.
- When using the FSS40A series for an AC load with a peak voltage of more than rated voltage, connect the load terminals of the relay to an inrush absorber (varistor). The recommended varistor voltage as follow:

The rated voltage
200VAC
380VAC

The recommended varistor voltage
470VAC
750VAC



Dimensions



Reference data

