

SOLID STATE RELAY

Fuji Electric now offers a complete line of solid state relays to its line of control products. These triac-based switches [single pole, 1 element, 10-30A] are ideal for applications in temperature control-based systems where frequent switching and long service life are required. Being solid state in nature, there are no moving parts to wear out and no mercury is involved.

■ FEATURES

- Introducing a power element (Triac) which withstands high overvoltage and high overcurrent.
- Cooling fin is available as an option.
- Operating indication LED is provided as a standard feature.
- Provided with Zero-cross function.
- A terminal cover is available as an option.
- "CE"-making, UL Listed, CSA Certified.



TYPE NUMBER NOMENCLATURE

SS 10 1 C-3 Z-D3/V

● **SOLID STATE RELAY**

● **RATED THERMAL CURRENT**

10A
20A
30A

● **NO. OF MAIN CIRCUIT ELEMENT**

1: 1-pole, 1-element

● **APPLICATION**

C: Cube Type

● **APPROVALS**

V: CE, UL, CSA

● **CONTROL VOLTAGE**

D3: 5-24V DC
A2: 100-240V AC

● **ZERO-CROSS FUNCTION**

Z: Provided

● **CONTROL CIRCUIT**

3: Isolation Method
photocoupler

SOLID STATE RELAY

Technical Specifications

■ RATINGS SPECIFICATIONS

Type		SS101~301C-3Z-D3, -A2		
Main Circuit	Rated operating voltage (Vn)	200 to 240V AC		
	Operating voltage range	170 to 264V AC		
	Rated frequency	50/60Hz		
	Rated thermal current (In)	10A	20A	30A
	Minimum load current	0.1A	0.1A	0.1A
	Voltage drop in ON state (rms) (at 100% Vn 60Hz)	1.55V		
	Leakage current in OFF state (max) (at 100% Vn 60Hz)	15mA		
	Surge-on current in no repeat, 50Hz one cycle at sine-wave	150A	225A	300A
Zero cross function	Provided			

Type		SS101~301C-3Z-D3	SS101~301C-3Z-A2
Control (input) Circuit	Isolation method	Photocoupler transistor	
	Control method	DC operated	AC operated
	Rated operating voltage (Vn)	5-24V DC	100-240V AC
	Operating voltage range	4 to 30V DC	85-264V AC
	Rated frequency	–	50/60Hz
	Pick-up voltage	4V or less	85V or less
	Drop-out voltage	1.5V or more	30V or less
	Operating time	15ms or less	30ms or less
	Reset time	15ms or less	30ms or less
	Current consumption	7mA or less (at 30V DC)	5mA or less (at 246V AC)
Operation indication	LED (red)		

■ GENERAL SPECIFICATION

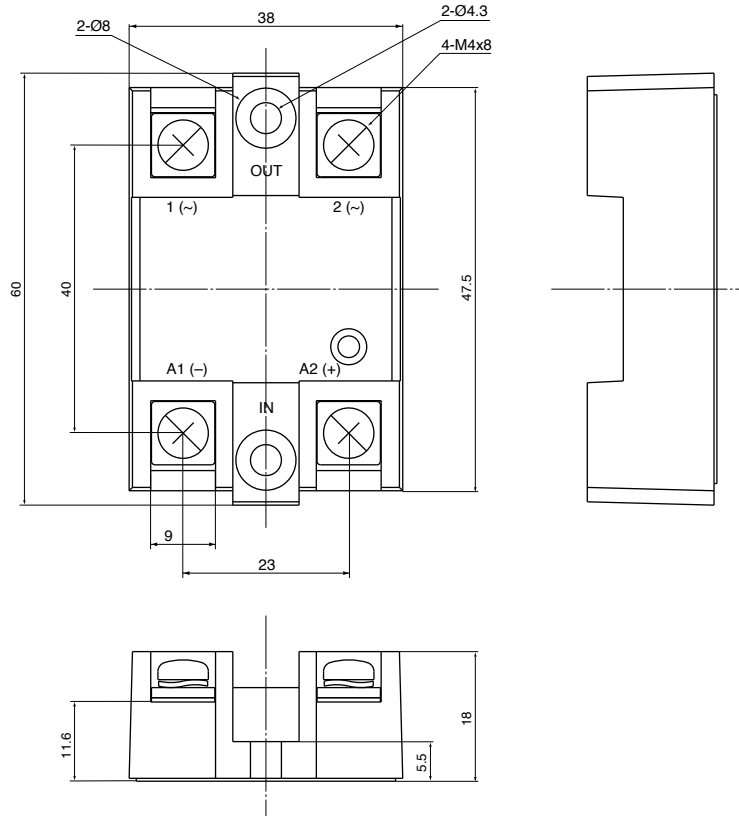
Type		All Products
Ambient temperature		-20°C to + 80°C
Relative humidity		45 to 85% RH (no condensation)
Altitude		Below 2000m
Temperature rise (100% In, 100% Vn)	Main terminal	65°C or less
	Control terminal	65°C or less
Withstand voltage	Between the integrated main and control circuits and the base	2000V AC, 1 min
	Between main circuit and control circuit	2000V AC, 1 min
Insulation level	Between the integrated main and control circuits and the base	Over 100 MΩ (measured by 500V DC Megger)
	Between main circuit and control circuit	Over 100 MΩ (measured by 500V DC Megger)
Vibration		Durability: 10 to 50Hz, 0.75mm double amplitude (Approx. 3.8G)
Shock		Durability: 300m/s ² (Approx. 30G)

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Dimensions

■ Approximate Dimensions, mm

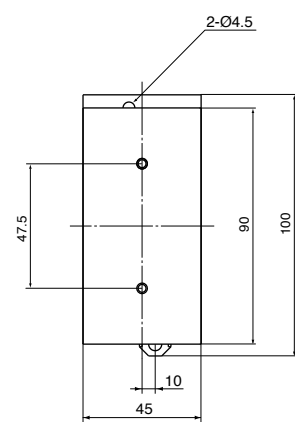
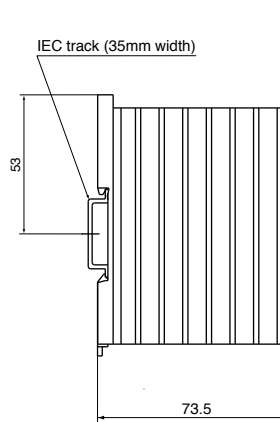
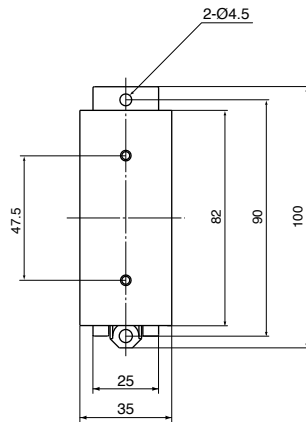
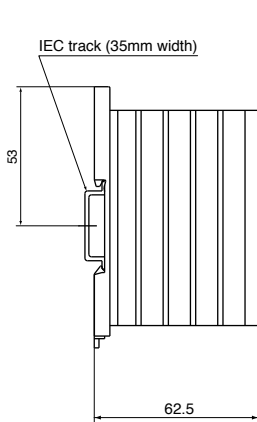
SSC



COOLING FIN (option)

SX-H9X

SX-I9X

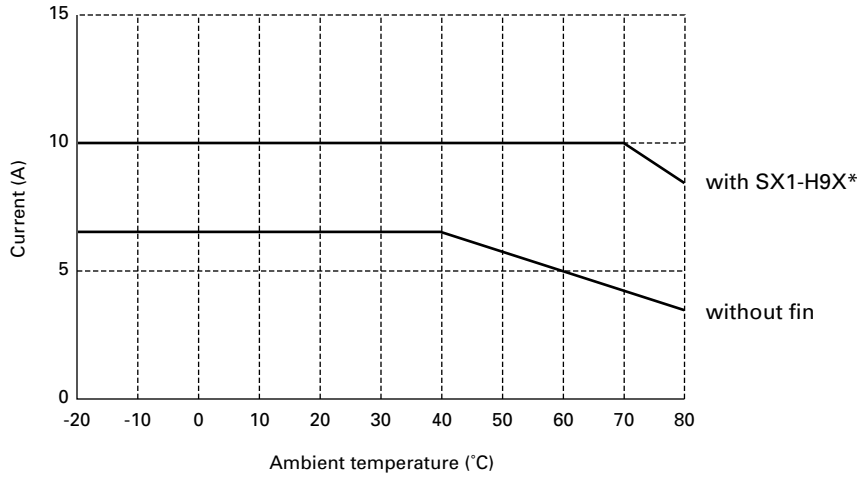


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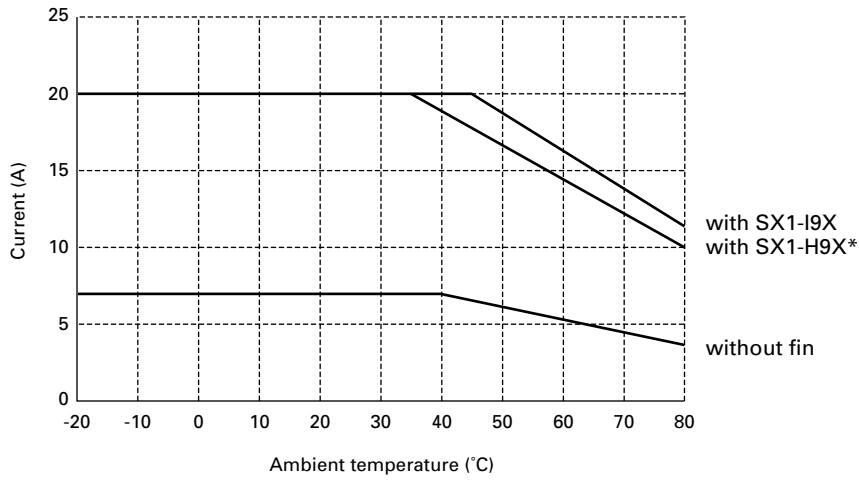
Thermal Data

THE RELATION BETWEEN THERMAL CURRENT, AMBIENT TEMPERATURE AND HEAT SINKS.

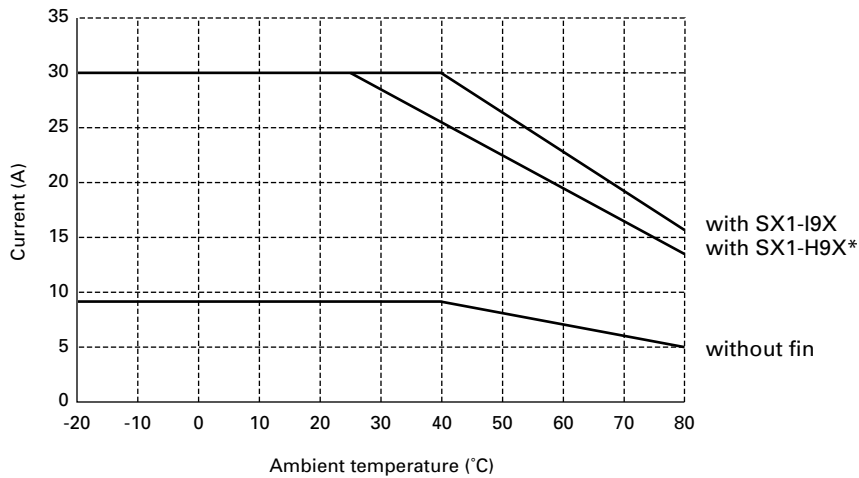
1. Type: SS101C



2. Type: SS201C



3. Type: SS301C



* Equivalent ampacity can be achieved through the use of a flat aluminum plate measuring 6" x 6" with a thickness of .080".