

Single-Phase
SSR with
Detachable
Heatsink

SR1 Series



Features

- Compact, universal design for flexible installation
- High heat dissipation efficiency with ceramic PCB
- Zero cross turn-on, random turn-on models available
- Input Indicator (green)

Specifications

[Input]

Rated input voltage range		4 - 30 VDC~	90 - 240 VACrms~ (50 / 60 Hz)
Allowable input voltage range		4 - 32 VDC~	85 - 264 VACrms~ (50 / 60 Hz)
Max. input current		18 mA	18 mA rms (240 VACrms~)
Operating voltage		≥ 4 VDC~	≥ 85 VACrms~
Releasing voltage		≤ 1 VDC~	≤ 10 VACrms~
Operating time	Zero cross turn-on	≤ 0.5 cycle of load power + 1 ms	≤ 2 cycle of load power + 1 ms
	Random turn-on	≤ 1 ms	-
Releasing time		≤ 0.5 cycle of load power + 1 ms	≤ 2 cycle of load power + 1 ms

[Output]

Rated load voltage range		24 ~ 240 VACrms~ (50 / 60 Hz)							
Allowable load voltage range		24 - 264 VACrms~ (50 / 60 Hz)							
Rated load current	Resistive load (AC-51) ⁽¹⁾	10 Arms	15 Arms	20 Arms	25 Arms	30 Arms	40 Arms	50 Arms	75 Arms
Min. load current		0.15 Arms		0.2 Arms		0.2 Arms		0.5 Arms	
Max. 1 cycle surge current(60 Hz)		160 A		250 A		400 A		1000 A	
Max. non-repetitive surge current (I ² t, t = 8.3 ms)		130 A ² s		300 A ² s		910 A ² s		4000 A ² s	
Peak voltage (non-repetitive)		600 V							
Leakage current (Ta = 25 °C)		≤ 10 mArms (240 VAC~/60 Hz)							
Output ON voltage drop [Vpk] (max. load current)		≤ 1.6 V							
Static off state dv/dt		500 V/μs							



View product detail

Rated load voltage range		48 - 480 VACrms~(50 / 60 Hz)							
Allowable load voltage range		48 - 528 VACrms~ (50 / 60 Hz)							
Rated load current	Resistive load (AC-51) ⁰¹⁾	10 Arms	15 Arms	20 Arms	25 Arms	30 Arms	40 Arms	50 Arms	75 Arms
Min. load current		0.5 Arms		0.5 Arms		0.5 Arms		0.5 Arms	
Max. 1 cycle surge current (60 Hz)		300 A		500 A		500 A		1000 A	
Max. non-repetitive surge current (I ² t, t = 8.3 ms)		350 A ² s		1000 A ² s		1000 A ² s		4000 A ² s	
Peak voltage (non-repetitive)		1200 V (zero cross turn-on), 1000 V (random turn-on)							
Leakage current (Ta = 25 °C)		≤ 10 mArms (480 VAC~/ 60 Hz)							
Output ON voltage drop[Vpk] (max. load current)		≤ 1.6 V							
Static off state dv / dt		500 V/μs							

01) AC-51 is utilization category at IEC60947-4-3.

[General specifications]

Dielectric strength (Vrms)	Input-output, input / output-case : 2500 VAC~ 50 / 60 Hz for 1 min
Insulation resistance	Input-output, input / output-case : ≥ 100 MΩ (500 VDC≡ megger)
Indicator	Input indicator (green)
Vibration	0.75 mm double amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 1 hour
Vibration (malfunction)	0.5 mm double amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 10 min
Shock	300 m/s ² (≈ 30 G) in each X, Y, Z direction for 3 times
Shock (malfunction)	100 m/s ² (≈ 10 G) in each X, Y, Z direction for 3 times
Ambient temperature ⁰¹⁾	-30 to 80 °C (in case of the rated input voltage 90 - 240 VAC~: -20 to 70 °C), storage: -30 to 100 °C (no freezing or condensation)
Ambient humidity	45 to 85 %RH, storage: 45 to 85 %RH (no freezing or condensation)
Input terminal connection	≥ 1×0.5 mm ² (1×AWG 20), ≤ 1×1.5 mm ² (1×AWG 16) or ≤ 2×1.5 mm ² (2×AWG 16)
Output terminal connection ⁰²⁾	≥ 1×1.5 mm ² (1×AWG 16), ≤ 1×16 mm ² (1×AWG 6) or ≤ 2×6 mm ² (2×AWG 10)
Input terminal fixed torque	0.75 to 0.95 N m
Output terminal fixed torque	1.6 to 2.2 N m
Approval	CE, RoHS, ENEC
Weight (packaged)	≈ 73 g (≈ 111g)

01) Please refer to Autonics website.

02) Connect the wire met the capacity of the load current to the output terminal.