

Single-Phase Top / Bottom Terminal SSR with Integrated Heatsink (Current Input Type)

SRH1 Series



Features

- High heat dissipation efficiency with ceramic PCB and integrated heatsink
- Input Indicator (green)
- DIN rail mount or panel mount installation
- Phase control (power equality division / phase equality division), cycle control (fixed cycle/variable cycle)
- Improved dielectric strength: 4,000 VAC~

Specifications

[Input]

Rated input current	4 - 20 mA
Allowable input voltage range	50 mA
Pick-up current	≥ 4.2 mA
Static off current	≤ 4.0 mA
Power factor	≥ 0.9 (difference between voltage phase and current phase: ≤ 25 °)
Start-up time	60 Hz: 200 ms / 50 Hz: 250 ms
Operating time	60 Hz: 16.6 ms / 50 Hz: 20 ms
Operating mode ⁰¹⁾	Phase control (power equality division type / phase equality division type) Cycle control (variable cycle / fixed cycle)

⁰¹⁾ You can change operation mode by jumper pin. Default is Phase control (power equality division type).
For more information, see the 'Operation Mode.'

[Output]

Rated load voltage range		100 - 240 VACrms~ (50 / 60 Hz)			200 - 480 VACrms~ (50 / 60 Hz)		
Allowable load voltage range		90 - 264 VACrms~ (50 / 60 Hz)			200 - 528 VACrms~ (50 / 60 Hz)		
Rated load current	Resistive load (AC-51) ⁰¹⁾	20 Arms	30 Arms	60 Arms	20 Arms	30 Arms	60 Arms
Min. load current		0.5 Arms			0.5 Arms		
Max. 1 cycle surge current (60 Hz)		300 A	500 A	1000 A	300 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	4000 A ² s	350 A ² s	1000 A ² s	4000 A ² s
Peak voltage (non-repetitive)		600 V			1000 V		
Leakage current (Ta = 25 °C)		≤ 10 mA Arms (240 VAC~/ 60 Hz)			≤ 10 mA Arms (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.



View product detail

[General specifications]

Output range (phase control)	0 - 99 %
Frequency reading function	YES
Dielectric strength (Vrms)	Input-output, input/output-case : 4000 VAC~ 50 / 60 Hz for 1 min
Insulation resistance	≥ 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
Ambient temperature ⁰¹⁾	-20 to 70 °C, storage: -20 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), ≤ 1×16 mm ² (1×AWG 6) 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  ENEC
Weight	Rated load current 20 / 30 A: ≈ 410 g Rated load current 60 A: ≈ 680 g

01) See the 'SSR Derating Curve' in the product manual because the capacity of the rated load current is differ depending on the ambient temperature.

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