



Solid State Relays

Integrated Heatsink



SRH48 Series

Build-In Heatsink

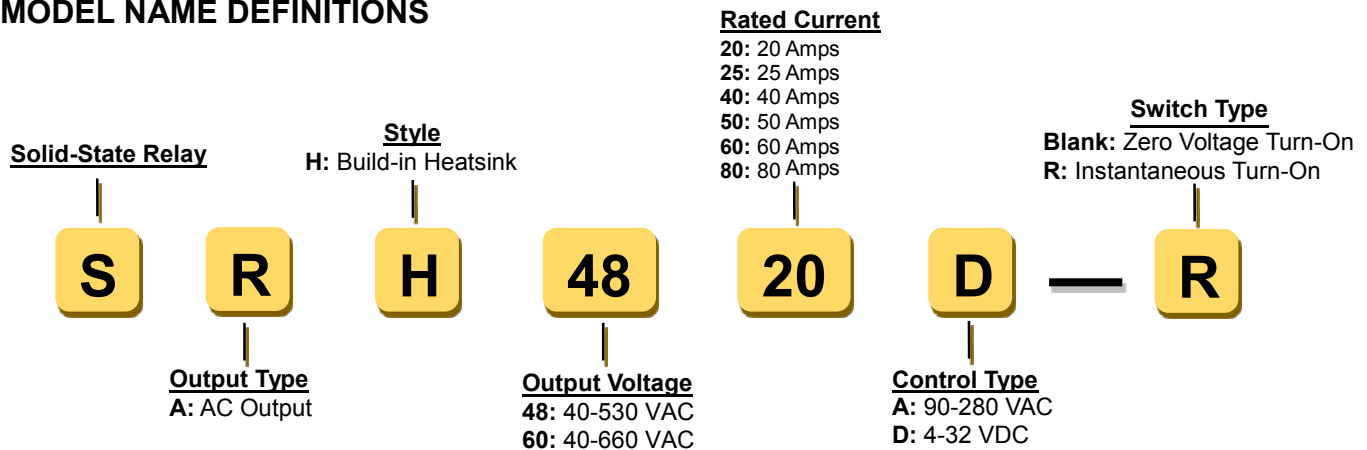
Picture is SRH4840D

- Ratings from 20A to 80A @ 40-530 VAC
- 1000 Volts transient overvoltage
- LED input status indicator
- Strengthened output design specifically for temperature control.
- CE approved, RoHS/EMC compliant.
- All-in-one SSR with build-in Heatsink
- Designed in according with the requirements of IEC 62314
- Zero-crossing (resistive loads) output

PRODUCT SELECTION

Control Voltage	20A	25A	40A	50A	60A	80A
90-280 VAC	SRH4820A	SRH4825A	SRH4840A	SRH4850A	SRH4860A	SRH4880A
4-32 VDC	SRH4820D	SRH4825D	SRH4840D	SRH4850D	SRH4860D	SRH4880D

MODEL NAME DEFINITIONS

OUTPUT SPECIFICATIONS ⁽¹⁾

Description	20A	25A	40A	50A	60A	80A
Operating Voltage (47-63Hz) [Vrms]	40-530	40-530	40-530	40-530	40-530	40-530
Transient Overvoltage [Vpk]	1000	1000	1000	1000	1000	1000
Maximum Off-State Leakage Current @ Rated Voltage [mA]	5	5	5	5	5	5
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec]	300	300	300	500	500	500
Maximum Load Current ⁽²⁾ [A]	20	25	40	50	60	80
Minimum Load Current [A]	0.15	0.15	0.15	0.15	0.15	0.15
Maximum 1 Cycle Surge Current (50/60Hz) [A]	248/260	392/410	477/500	573/600	764/800	859/900
Maximum On-State Voltage Drop @ Rated Current [Vrms]	1.15	1.15	1.15	1.2	1.2	1.2
Thermal Resistance Junction to Case (Rjc) [°C/W]	1.62	1.12	0.71	0.59	0.57	0.49
Maximum 1/2 Cycle I ² t for Fusing (50/60 Hz) [A ² sec]	234/222	285/259	1770/1629	2124/1954	2442/2247	3230/2971
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5	0.5	0.5	0.5
Weight (typical) [Gram]	175	433	433	680	680	980

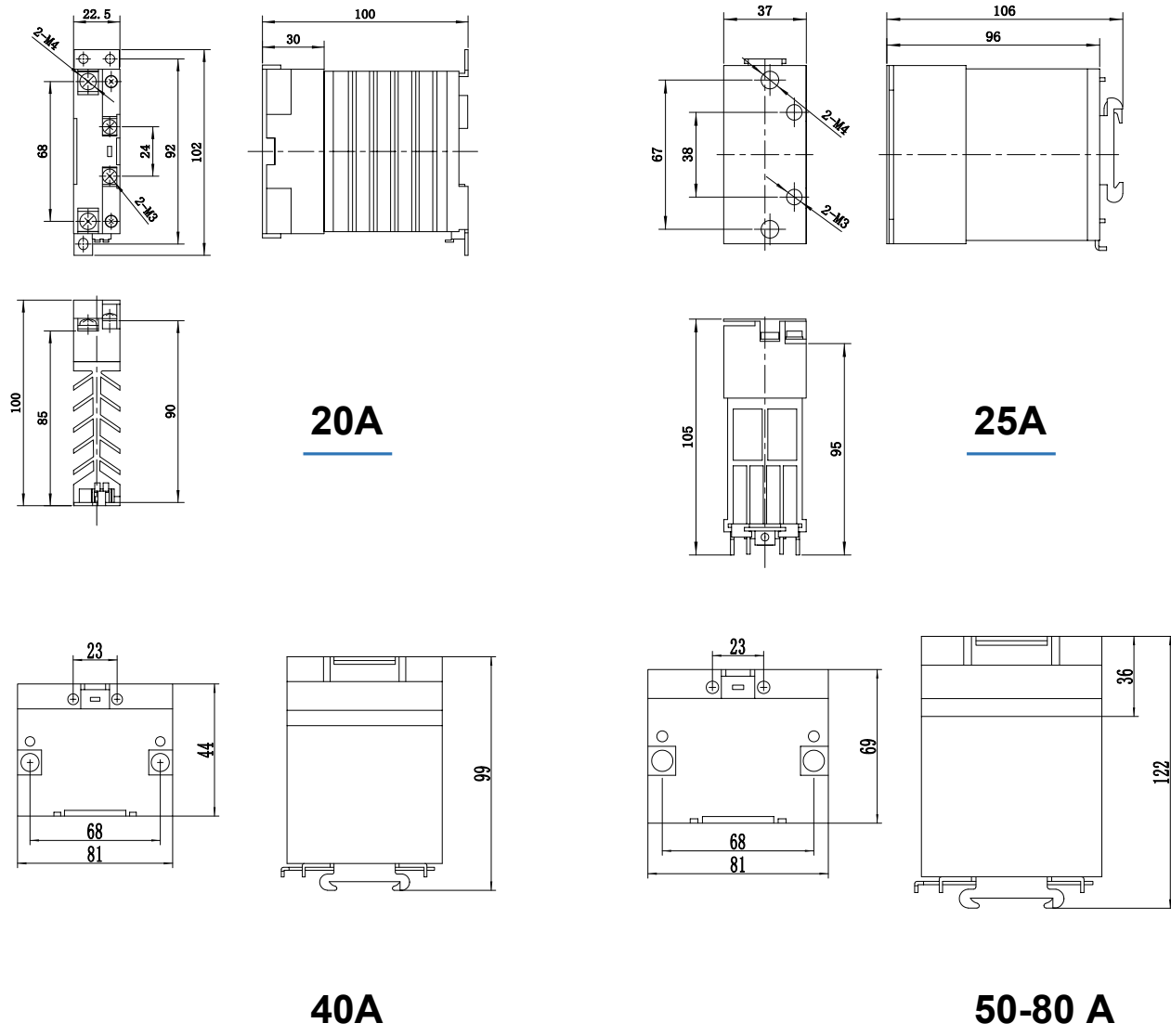
INPUT SPECIFICATIONS ⁽¹⁾

Description	SRH48xxA	SRH48xxD
Control Voltage Range	90-280 Vrms	4 32 VDC
Maximum Reverse Voltage	-	-32
Minimum Turn-On Voltage	90 Vrms	3.0 VDC
Minimum Turn-Off Voltage	10 Vrms	1.0 VDC
Minimum Input Current [mA]	5	7
Maximum Input Current [mA]	15	12
Nominal Input Impedance	Current Regulated	Current Regulated
Maximum Turn-On Time ⁽³⁾ [msec]	20	1/2 cycle
Maximum Turn-Off Time [msec]	20	1/2 cycle

GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 V DC)	10 ⁹ Ohm
Maximum Capacitance, Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80 °C
Ambient Storage Temperature Range	-40 to 125 °C
Housing Material	UL E211125: 94 V-0
Terminal Material	Gilded
Humidity	85% non-condensing
LED Input Status Indicator	Red

DIMENSION, MM



RECOMMENDED MODEL & HEATSINK

Choosing compatible current is critical in selecting a right model of solid state relay. Our engineers recommend SSR models according to actual applications and internal components of relay. For example, when solid state relay is used for electric heating, because of the cold resistance effect (the resistance value is 60% of heating wire value when it is in cold state), the SSR's current should be 1.67 times bigger than actual working current in order to prevent the over-current of solid state relay.

Application to Electric Heating

Actual Load Current	0.15A-12A	0.15A-18A	0.15A-22A	0.15A-27A	0.15A-31A	0.15A-40A
Recommended Model ⁽⁴⁾	SRH4820D	SRH4825D	SRH4840D	SRH4850D	SRH4860D	SRH4880D

Application to Single-Phase Motors

Actual Load Current	0.15A-2A	0.15A-5A	0.15A-7A	0.15A-8A	0.15A-10A	0.15A-12A
Recommended Model ⁽⁴⁾	SRH4820D-R	SRH4825D-R	SRH4840D-R	SRH4850D-R	SRH4860D-R	SRH4880D-R

Application to Transformer Loads

Actual Load Current	0.15A-4A	0.15A-10A	0.15A-12A	0.15A-15A	0.15A-17A	0.15A-22A
Recommended Model ⁽⁴⁾	SRH4820D-R	SRH4825D-R	SRH4840D-R	SRH4850D-R	SRH4860D-R	SRH4880D-R

Application to Solenoid Valves

Actual Load Current	0.15A-1.4A	0.15A-3.7A	0.15A-4.5A	0.15A-5.4A	0.15A-6.3A	0.15A-8.18A
Recommended Model ⁽⁴⁾	SRH4820D-R	SRH4825D-R	SRH4840D-R	SRH4850D-R	SRH4860D-R	SRH4880D-R

GENERAL NOTES

- (1) All parameters at 25°C and per section unless otherwise specified.
- (2) Heat sinking required, for derating curves see next page.
- (3) Turn-on time for random turn-on (-R) version is 0.1 msec.
- (4) It is DC control as a default in the recommendation table, but it can be changed to AC control according to demand.

SRH60 Series



Compact, Slim-profile SRH60 series with Heat Sinks. Models with No zero Cross for a wide range of Applications. It has high structural strength, dust-proof, moisture-proof, anti-corrosion, long service life, fast switching speed, no noise and high reliability. It has the advantages of small volume, no spark, explosion-proof, shock resistance and strong shock resistance. It is widely used in electric furnace heating constant temperature system, numerical control machinery, plastic machinery, food machinery, packaging machinery, textile machinery, petrochemical equipment, entertainment facilities and other automation control fields, suitable for all kinds of resistive, inductive and capacitive loads.

FEATURES

- Photoelectric isolation between control circuit and load circuit
- zero crossing conduction or random conduction can be selected
- Integrated design of heat dissipation to improve heat dissipation efficiency
- Guide rail installation or screw positioning installation, simple and convenient
- LED indicates the working state
- Built in RC absorption circuit, strong anti-interference ability
- The output terminal adopts copper reversed card structure, which is stable and increases the contact surface
- When using, it should be equipped with proper radiator, and air cooling should be strengthened if necessary
- Has its own fuse, over current protection and load short circuit protection
- 4-32 VDC or 90-280 VAC control

Structure

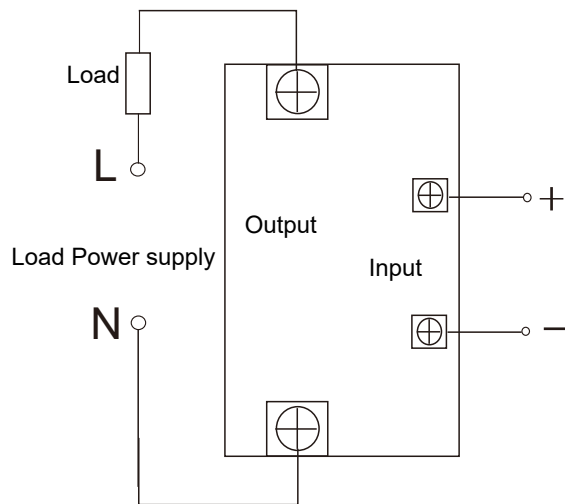
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|-------------------------------|--------------------------|
| 1. Heatsink | 5. Voltage transformer |
| 2. Loading Terminal | 6. Control Panel |
| 3. Fuse | 7. Voltage Indication |
| 4. Indication of input signal | 8. Power Supply Terminal |



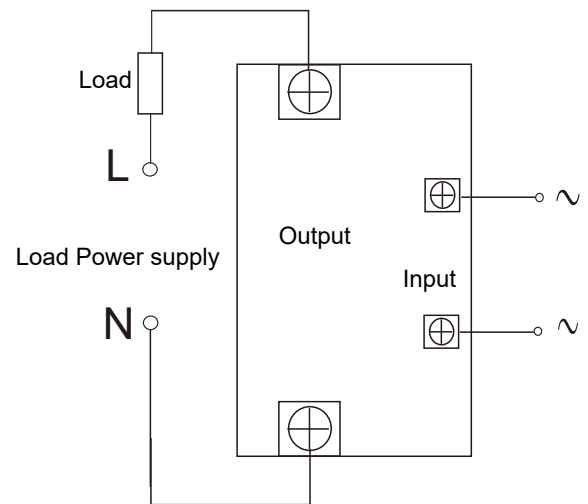
TECHNICAL PARAMETERS

Model	SRH-60100	SRH-60130	SRH-60150	SRH-60200	SRH-60300	SRH-60400
Rated Current	100A	130A	150A	200A	300A	400A
Operating Voltage / Peak Value Voltage	40 - 660 V / 1200 VAC					
Output Parameter	SCR Inverse Parallel, zero Switching					
Off State Leakage (mA) (T=25° C Vmax)	≤ 3 mA					
Turn-on Voltage (V) 1max, T=25° C	≤ 1.3 VAC					
Static (off state) dv/dt(V/us)	500 V/us					
Frequency range	47/63 Hz					
Input Voltage	3.5-32 VDC or 110 VAC ±15VAC					
Input Control Current	8-30 mA					
Response time, Close / Open	10 ms, max. 0.5 cycle					
Operating Temperature	- 40° C...80° C					
Isolation Bet. In&Out (Vrms)	≥ 2500 VAC 1min					
Insulation Voltage	≥ 2500 VAC 1min					
Heatsink Material	Aluminium					
Input Terminal / Output Terminal	Screw fixture / M8					

WIRING

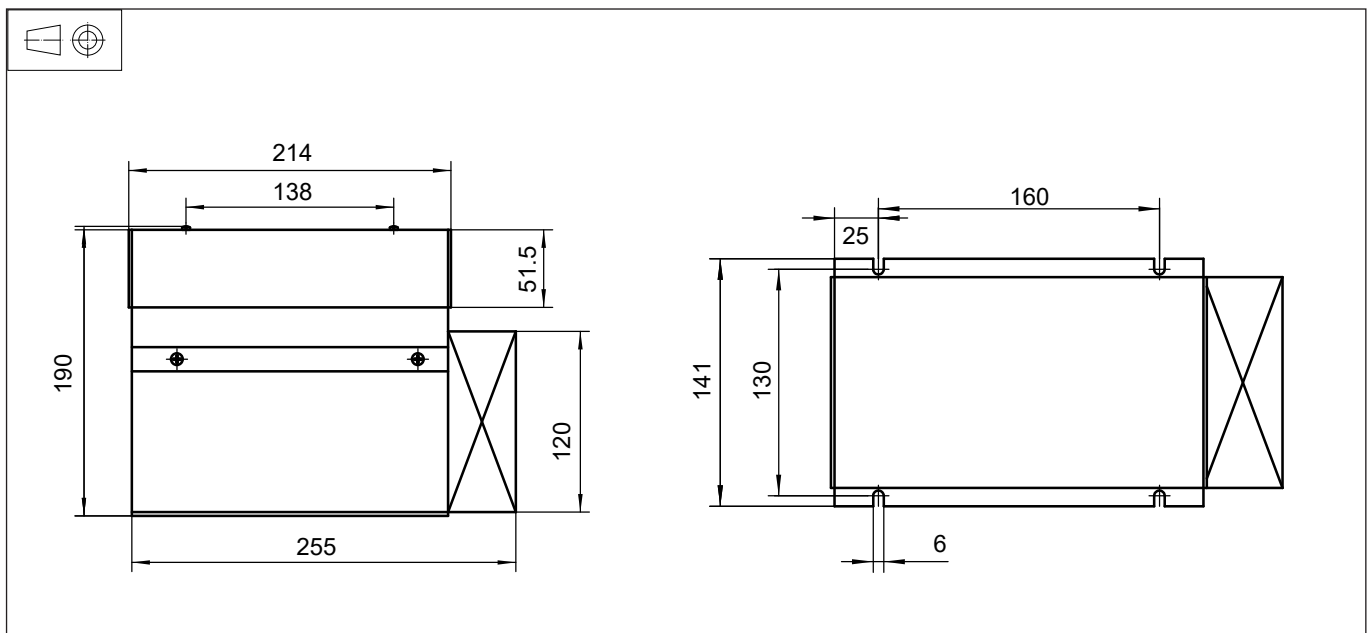


SRH60XXD (DC Method)

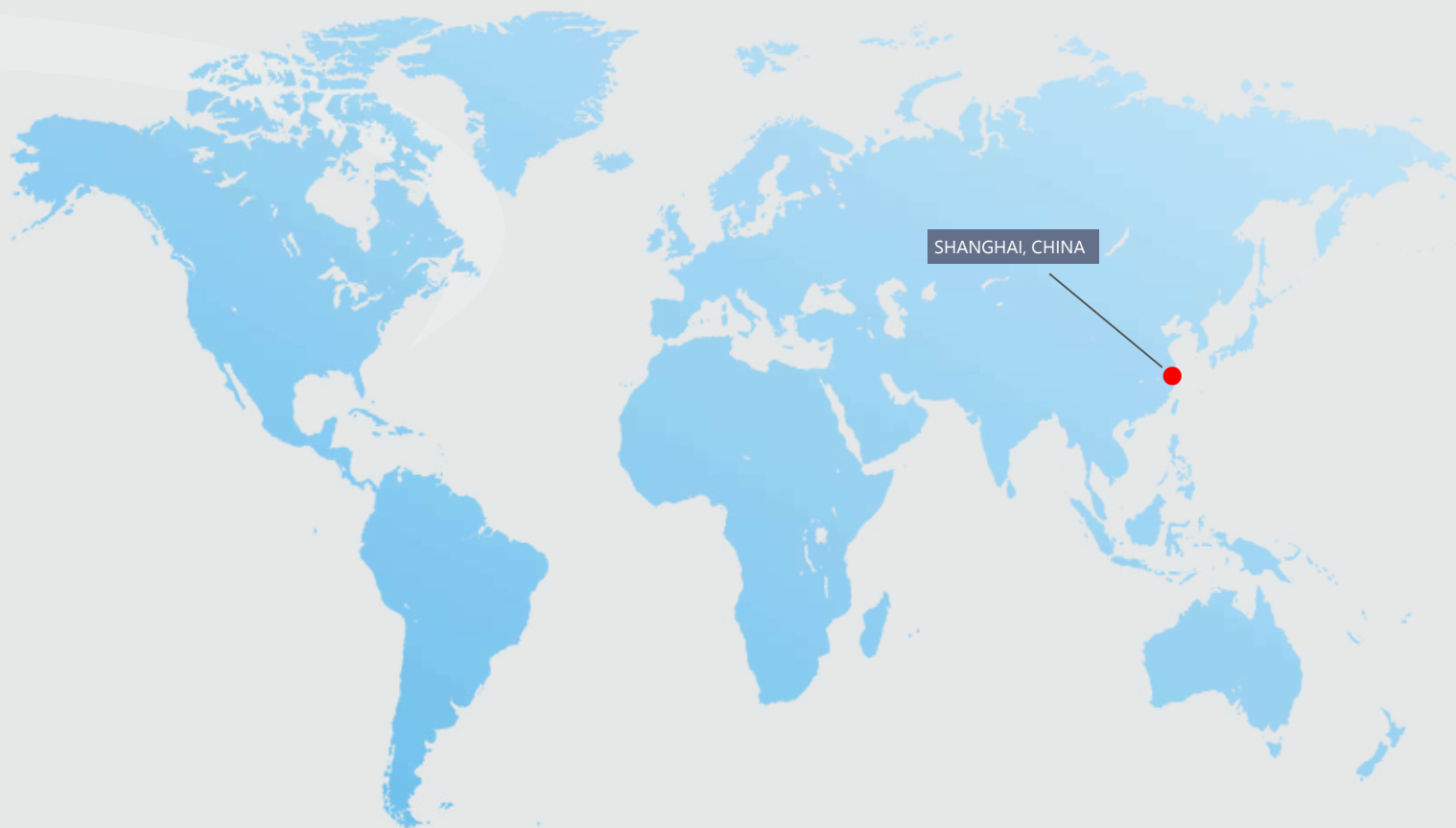


SRH60XXA (AC Method)

DIMENSION OF SRH60 (in mm)



OPTIMIZE MOTOR CONTROL



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