

HSR-SL series

Slim-type single-phase Solid State Relay



- 22.4mm slim type
- Optimal heat dissipation design, semi-permanent lifespan
- Selectable integrated/separate heat sink
- Bolt, DIN Rail attachment method
- High insulation between input/output

Specification

DC input

Model	Low	HSR-SLD15LR□□	HSR-SLD25LR□□	HSR-SLD40LR□□
		HSR-SLD15LZ□□	HSR-SLD25LZ□□	HSR-SLD40LZ□□
	High	HSR-SLD15HR□□	HSR-SLD25HR□□	HSR-SLD40HR□□
		HSR-SLD15HZ□□	HSR-SLD25HZ□□	HSR-SLD40HZ□□
Certification				
Weight Integrated heat sink (with box)	CE, UL	Approx. 226g		Approx. 266g

S-MARK certified products (DC input)

Model	Low	HSR-SLD15LZ□-S	HSR-SLD25LZ□-S	HSR-SLD40LZ□-S
	High	HSR-SLD15HZ□-S	HSR-SLD25HZ□-S	HSR-SLD40HZ□-S
certification				
Weight Integrated heat sink (with box)	S-MARK	Approx. 226g	Approx. 440g	Approx. 745g


DC input Common specifications

LOAD	Rated Load Voltage	Low	24 - 240 V a.c. 50/60 Hz		
		High	24 - 480 V a.c. 50/60 Hz		
	Peak Voltage (Non-repetition)	Low	1,200 V		
		High	1,200 V		
	Rated load current		15A	25A	40A
	Surge current 60 Hz (8.3 ms No repetition)	Low	170A	260A	420A
		High	170A	250A	370A
	Surge current 50 Hz (10 ms No repetition)	Low	160A	250A	400A
		High	170A	230A	350A
	Leakage current		Less than 20 mA		
Output ON voltage dropping		Less than 1.6 V (R.M.S)			
INPUT	Rated Voltage		5 - 24 V d.c.		

Operating Voltage Range (ON Voltage)	4 - 32 V d.c.
return voltage (OFF Voltage)	Less than 3 V
Impedance	Less than 4 kΩ
Current consumption	Constant current method : Less than 14 mA
Response Time	1/2 Cycle + 1 ms max. ("R" type below 1 ms)
Insulating Resistance	500 V d.c., 100 MΩ (Between the input / output and case)
Dielectric strength	2,500 V a.c. (For 1 min at 60 Hz)
Rated impulse withstand voltage (Uimp)	2,500 V
Vibration resistance	10 - 55 Hz, Constant current method : 1.5 mm, X·Y·Z each axis direction for 2 hours
Shock resistance	1,000 m/s ² , X·Y·Z each axis 3 times
Storage Temperature	-30 ~ 90 °C
Ambient Temperature	-30 ~ 80 °C (no condensation)
Ambient Humidity	45 ~ 85 % RH
Pollution level grade	2 Level
bolt tightening torque	Input terminal : 0.05 Nm / Output terminal : 0.25 Nm
Usage	Resistive load
Weight Heating plate removal (with box)	Approx. 94g

■ AC input

Model	Low	HSR-SLA15LR□□	HSR-SLA25LR□□	HSR-SLA40LR□□	
		HSR-SLA15LZ□□	HSR-SLA25LZ□□	HSR-SLA40LZ□□	
	High	HSR-SLA15HR□□	HSR-SLA25HR□□	HSR-SLA40HR□□	
		HSR-SLA15HZ□□	HSR-SLA25HZ□□	HSR-SLA40HZ□□	
LOAD	Rated Load Voltage	Low	24 - 240 V a.c. 50/60 Hz		
		High	24 - 480 V a.c. 50/60 Hz		
	Peak Voltage (Non-repetition)	Low	1,200 V		
		High	1,200 V		
	Rated load current		15A	25A	40A
	Surge current 60 Hz (8.3 ms No repetition)	Low	170A	260A	420A
		High	170A	250A	370A
	Surge current 50 Hz (10 ms No repetition)	Low	160A	250A	400A
		High	170A	230A	350A
	Leakage current		Less than 20 mA		
Output ON voltage dropping		Less than 1.6 V (R.M.S)			
INPUT	Rated Voltage	100 - 240 V a.c. 50/60 Hz			
	Operating Voltage Range (ON Voltage)	90 - 264 V a.c. 50/60 Hz			

return voltage (OFF Voltage)	Less than 50 V	
Impedance	Less than 40 kΩ	
Current consumption	Less than 14 mA	
Response Time	1/2 Cycle + 1 ms max. ("R" type below 1 ms)	
Insulating Resistance	500 V d.c., 100 MΩ (Between the input / output and case)	
Dielectric strength	2,500 V a.c. (For 1 min at 60 Hz)	
Rated impulse withstand voltage (Uimp)	2,500 V	
Vibration resistance	10 - 55 Hz, Constant current method : 1.5 mm, X·Y·Z each axis direction for 2 hours	
Shock resistance	1,000 m/s ² , X·Y·Z each axis 3 times	
Storage Temperature	-30 ~ 90 °C	
Ambient Temperature	-30 ~ 80 °C (no condensation)	
Ambient Humidity	45 ~ 85 % RH	
Pollution level grade	2 Level	
bolt tightening torque	Input terminal : 0.05 Nm / Output terminal : 0.25 Nm	
Usage	Resistive load	
certification		
Weight Integrated heat sink (with box)	Approx. 226g	Approx. 266g
Weight Heating plate removal (with box)	Approx. 94g	

Suffix code

■ CE, UL certified products

Model	Code						Content
HSR-SL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Slim-type single-phase Solid State Relay
Control input voltage	D						4 - 32 V d.c.
	A						90 - 240 V a.c.
Rated load current	15						15A
	25						25A
	40						40A
Operating load voltage	L						24 - 240 V a.c. (Low voltage)
	H						24 - 480 V a.c. (High voltage)
Method of operation	Z						Zero-cross switching (standard product)
	R						Random switching
Heat sink & Option	S						Integrated heat sink (standard product)
	T						Heat sink + Bimetal mounted
	N						No heat sink ※ CAUTION 1) When using a separate heat sink, you must use a heat sink that meets the thermal resistance table.
point of contact	1C						1 Point of contact (Unmarked)
	2C						2 Point of contact (Unmarked) ※ CAUTION 2) Only for 15 A

※ CAUTION 2) 2 contact : Only available for 15 A items (HSR-SL□15LZS2C, HSR-SL□15HZS2C)

■ S-MARK certified products

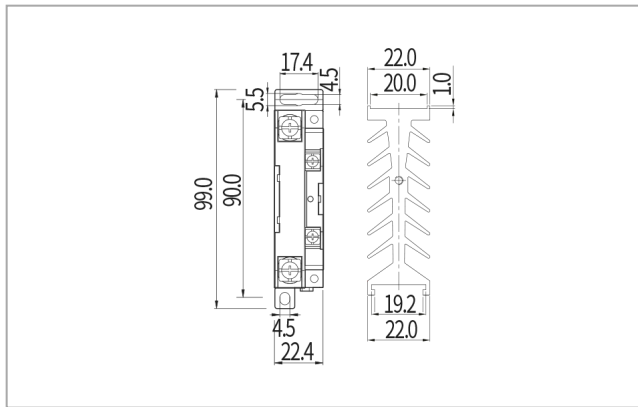
Model	Code						Content
HSR-SL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-S	Slim-type single-phase Solid State Relay
Control input voltage	D						4 - 32 V d.c.
Rated load current		15					15A
		25					25A
		40					40A
Operating load voltage		L					24 - 240 V a.c. (Low voltage)
		H					24 - 480 V a.c. (High voltage)
Method of operation			Z				Zero-cross switching (standard product)
Heat sink & Option				S			Integrated heat sink (standard product) ※ CAUTION 2) Please refer to the dimensions of the 25A and 40A heat sink.
				T			Heat sink + Bimetal mounted
				N			No heat sink ※ CAUTION 1) When using a separate heat sink, you must use a heat sink that meets the thermal resistance table.

Dimension

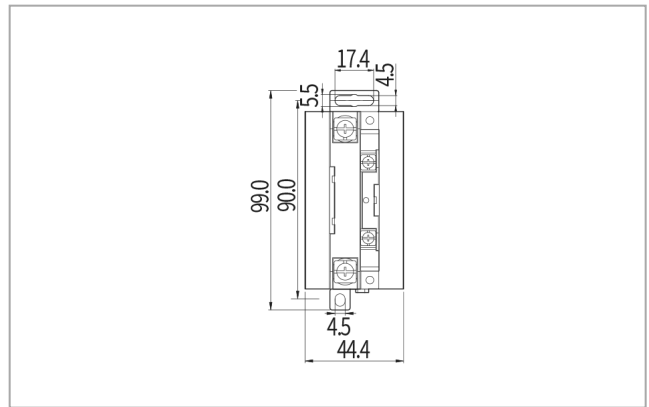
[Unit : mm]

■ CE, UL certified products

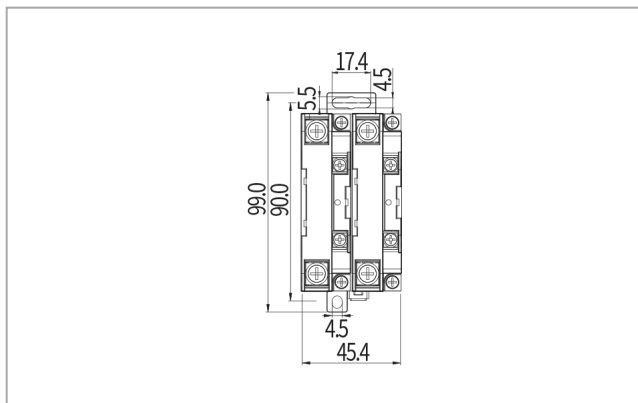
■ 15A, 25A



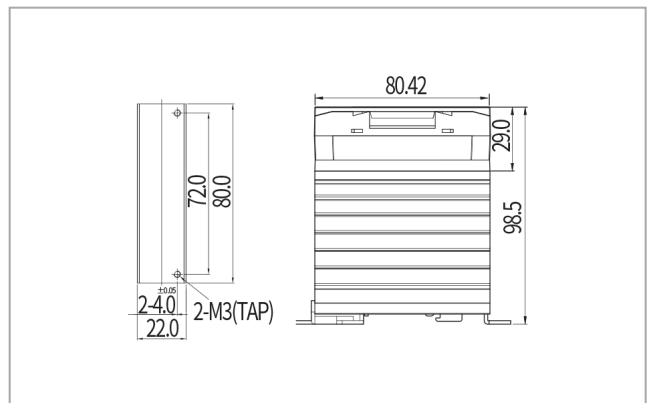
■ 40A



■ 2C (2 Point of contact)

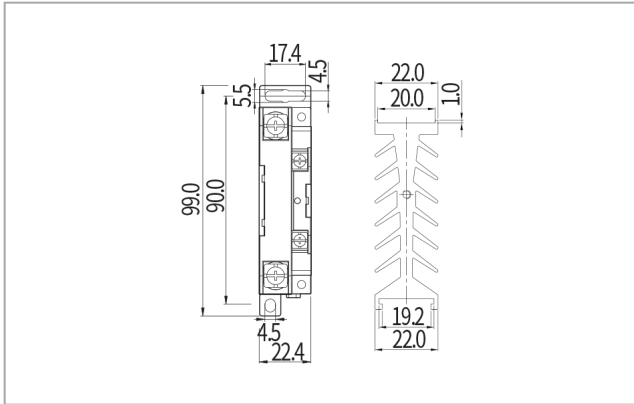


■ N (Heating plate removal)

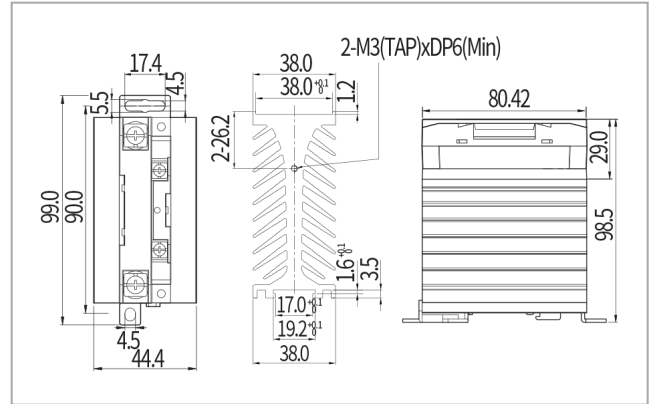


■ S-MARK certified products

■ 15A



■ 25A



■ 40A

