

Product Description

- ◆ Zero Crossing or Random-on Switching
- ◆ SCR Output
- ◆ DC Input Control
- ◆ Load Current: 25A, 40A, 50A, 75A
- ◆ IP20 Safety Cover Protection (Optional)
- ◆ RoHS Compliant



Note: (1) Products of IP20 structure 600V and 75A do not have S-mark certification; Quick Connection Terminal does not have S-mark certification.

Product Selection

KSID	240	LD	25	R	P	(XXX)
KSID Series	Load Voltage 240: 240VAC 480: 480VAC 600: 600VAC	Control Mode LD: 4-15 VDC HD: 15-32 VDC D: 4-32 VDC	Load Current 25: 25Amp 40: 40Amp 50: 50Amp 75: 75Amp	Switching Mode Blank: Zero Crossing R: Random-on	P: Screw Terminal (IP20) Blank: Quick Connection Terminal	Customized Code 168: With error prevention 2.54 pitch terminals

Available Part Numbers

Control Mode	Load Voltage	25A	40A	50A	75A
LD:4-15VDC	240	KSID240LD25/ (168)	KSID240LD40/ (168)	KSID240LD50P	KSID240LD75P
		KSID240LD25R/ (168)	KSID240LD40R/ (168)	KSID240LD50RP	KSID240LD75RP
		KSID240LD25P			
		KSID240LD25RP			
	480	KSID480LD25/ (168)	KSID480LD40/ (168)	KSID480LD50P	KSID480LD75P
		KSID480LD25R/ (168)	KSID480LD40R/ (168)	KSID480LD50RP	KSID480LD75RP
		KSID480LD25P			
		KSID480LD25RP			
	600	KSID600LD25/ (168)	KSID600LD40/ (168)	KSID600HD50P	KSID600HD75P
		KSID600LD25R/ (168)	KSID600LD40R/ (168)	KSID600HD50RP	KSID600HD75RP
		KSID600LD25P			
		KSID600LD25RP			
HD:15-32VDC	240	KSID240HD25/ (168)	KSID240HD40/ (168)	KSID240HD50P	KSID240HD75P
		KSID240HD25R/ (168)	KSID240HD40R/ (168)	KSID240HD50RP	KSID240HD75RP
		KSID240HD25P			
		KSID240HD25RP			
	480	KSID480HD25/ (168)	KSID480HD40/ (168)	KSID480HD50P	KSID480HD75P
		KSID480HD25R/ (168)	KSID480HD40R/ (168)	KSID480HD50RP	KSID480HD75RP
		KSID480HD25P			
		KSID480HD25RP			
	600	KSID600HD25/ (168)	KSID600HD40/ (168)	KSID600HD50P	KSID600HD75P
		KSID600HD25R/ (168)	KSID600HD40R/ (168)	KSID600HD50RP	KSID600HD75RP
		KSID600HD25P			
		KSID600HD25RP			
D:4-32VDC	240	KSID240D25 (168)	KSID240D40 (168)	KSID240D50P	KSID240D75P
		KSID240D25R (168)	KSID240D40R (168)	KSID240D50RP	KSID240D75RP
	480	KSID480D25 (168)	KSID480D40 (168)	KSID480D50P	KSID480D75P
		KSID480D25R (168)	KSID480D40R (168)	KSID480D50RP	KSID480D75RP
	600	KSID600D25 (168)	KSID600D40 (168)	KSID600D50P	KSID600D75P
		KSID600D25R (168)	KSID600D40R (168)	KSID600D50RP	KSID600D75RP

Technical Specifications

Input Specifications (Ta=25°C)		
Control Voltage Range	D	4~32VDC
	LD	4~15VDC
	HD	15~32VDC
Must Turn-on Voltage	LD/D	4VDC
	HD	15VDC
Must Turn-off Voltage		1VDC
Maximum Input Current	LD	50mA@15VDC
	HD/D	25mA@32VDC

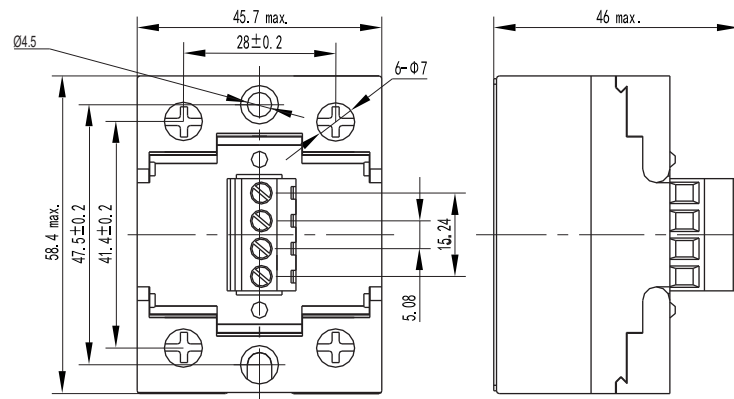
Output Specifications (Ta=25°C)		
Load Voltage Range	240VAC	24~280VAC
	480VAC	24~530VAC
	600VAC	24~660VAC
Maximum Turn-on Time	Random-on	1ms
	Zero Crossing	10ms
Maximum Turn-off Time		10ms
Maximum Surge Current (@10ms)	25A	300A
	40A (Quick Connection)	400A
	40A (168)	500A
	50A	600A
	75A	750A
Maximum I ² t for Fusing (@10ms)	25A	450A ² s
	40A (Quick Connection)	800A ² s
	40A (168)	1250A ² s
	50A	1800A ² s
	75A	2812A ² s
Transient Overvoltage	240VAC	600Vpk
	480VAC/600VAC	1200Vpk
Maximum Off-State Leakage Current (@Rated Voltage)		10mA
Maximum On-State Voltage Drop (@Rated Current)		1.5Vrms
Minimum Off-State (dv/dt)		500V/μs

General Specifications (Ta=25°C)		
Dielectric Strength (50/60Hz)	Input/Output	4000Vrms
	Input, output/Base	2500Vrms
Insulation Resistance (@500VDC)		1000MΩ
Ambient Temperature Range		-30°C~+80°C
Storage Temperature Range		-30°C~+100°C
Weight (Typical)	Quick Connection Terminal	100g
	Screw Terminal	150g

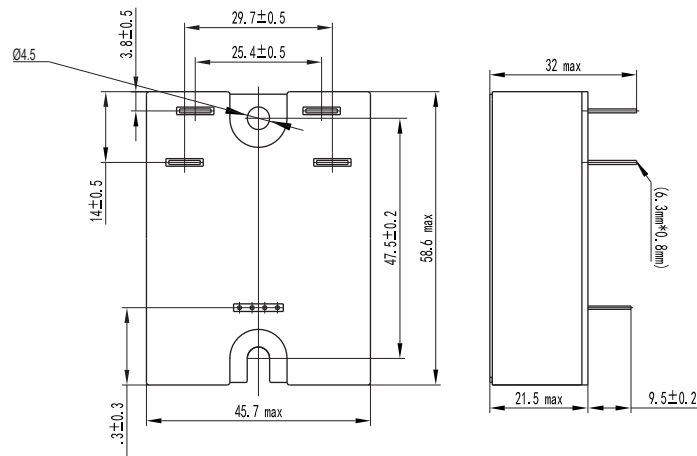
Applications

Temperature Chamber, Plastics Machinery, Food Processing Machinery, Glass Machinery, Incubator, Oiling Machines, HVAC, Lighting Controller, and etc.

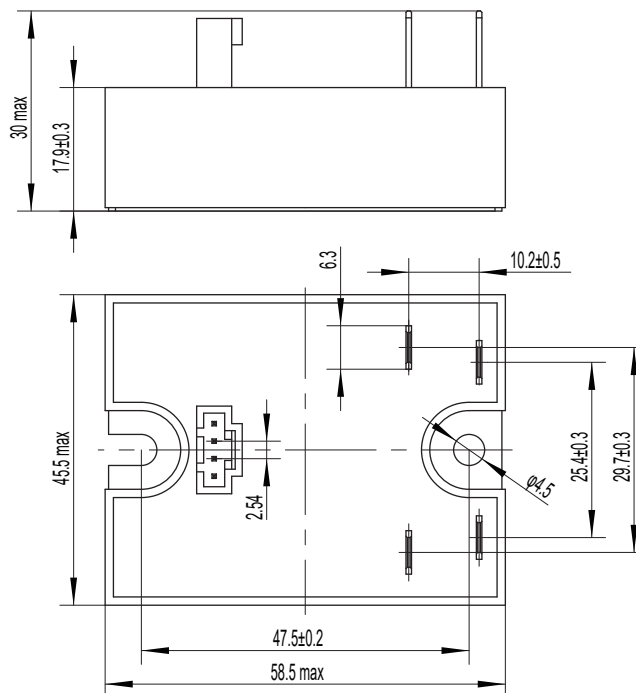
Outline Dimensions



Bolt terminal(IP20)

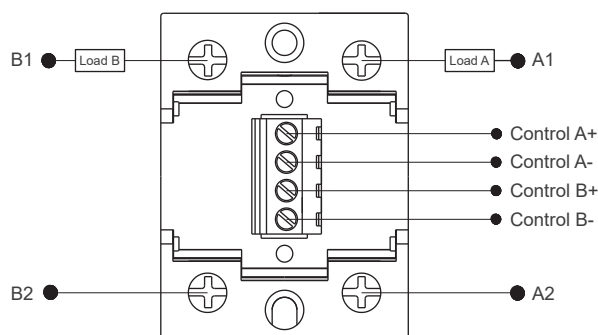


Quick connection terminal

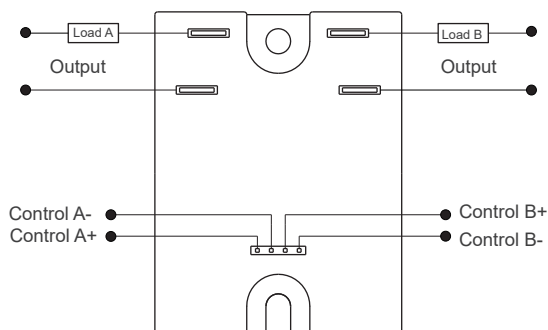


(168) Quick connection terminal

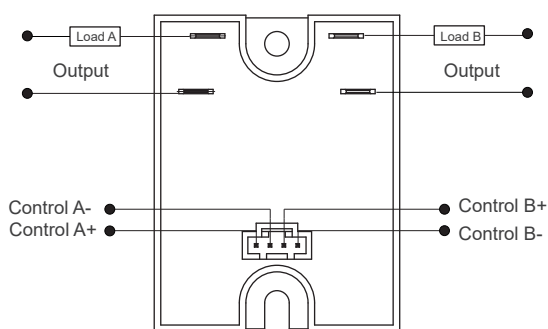
Wiring Diagram



Bolt terminal(IP20)



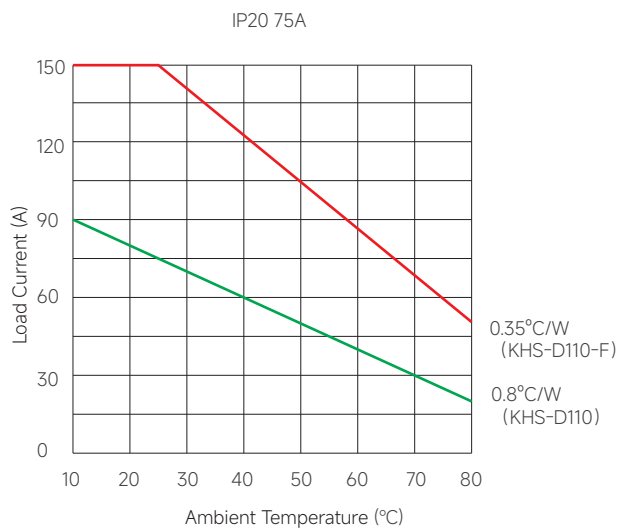
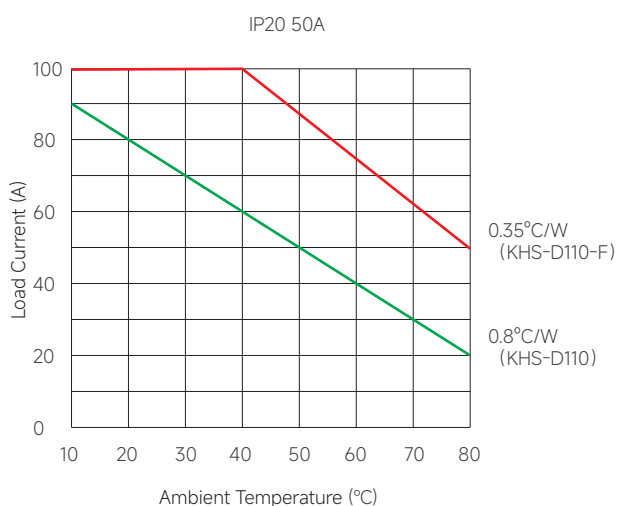
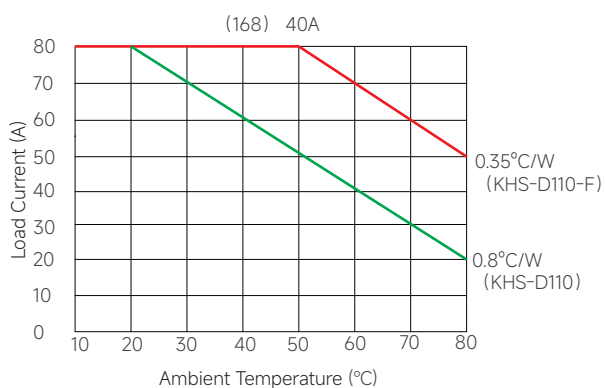
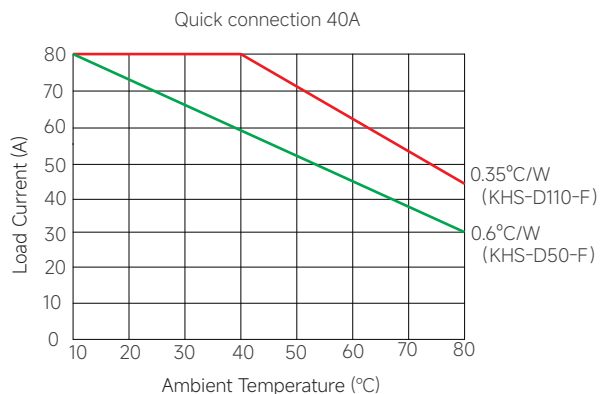
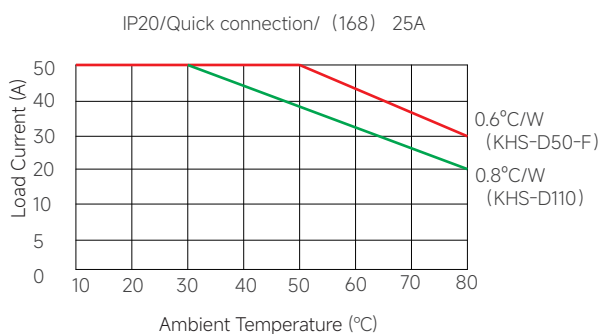
Quick connection terminal



(168) Quick connection terminal

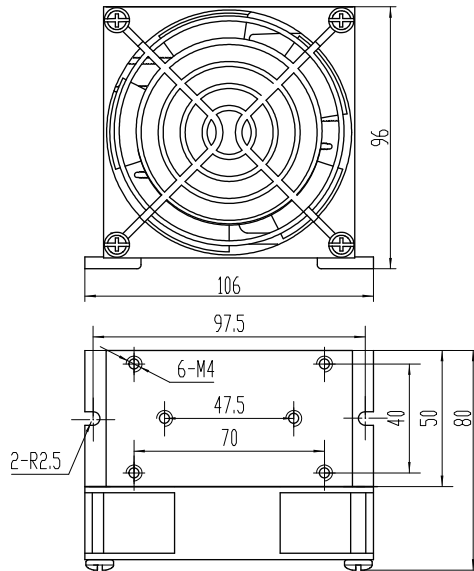
Thermal Derating Curve ⁽²⁾

Note: (2) The following load current curve shows the total current, each channel current cannot exceed 1/2 of the total current.

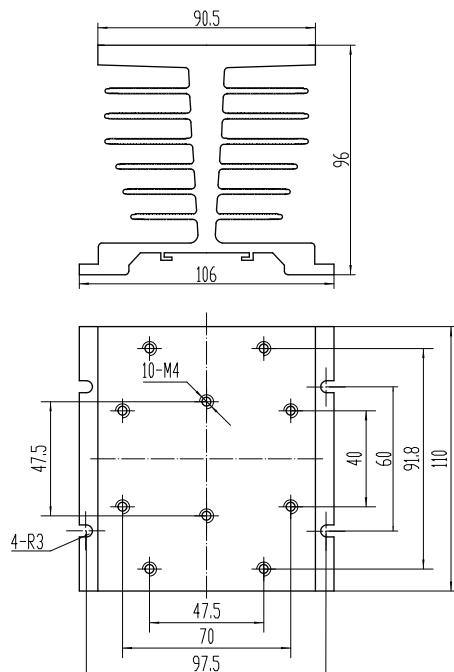


Note: The curve above shows the heatsink capability under the worst case (100% continuous operation) for a solid state relay. If your application involves intermittent operation, please contact us with your actual operating conditions (load current, on/off time, ambient temperature, etc.), and we will recommend the most suitable solution for you.

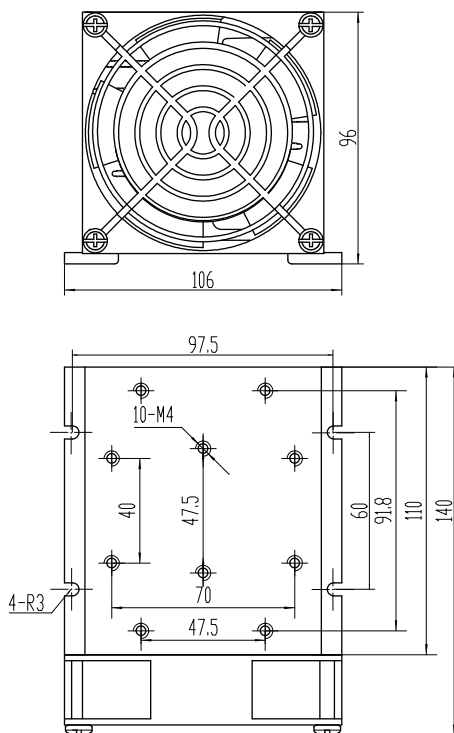
The above temperature curve is configured with radiator models as follows:



KHS-D50-F



KHS-D110



KHS-D110-F

General Notes

1. Relay must be mounted to proper sized heat sink based on thermal curves. Thermal grease or a thermal pad must be used between relay and heat sink and be torqued down to 8.7-12.1 in-lb / 0.98-1.37 Nm.
2. When connection wiring to SSR, please ensure screws are torqued down properly (input 5.1-8.7 in-lb / 0.58-0.98 Nm, output 8.7-12.1 in-lb / 0.98-1.37 Nm).
3. SSR's carrying load capacity is related to the operation ambient temperature and heat dissipation condition, please refer to the Thermal Derating Curve for derating.



Warnings

1. The product may be hot, allow the product to cool before touching.
2. Disconnect all power before installing or working with this equipment.
3. Verify all connections and replace all covers before turning on power.

Certification Standards

Certification	Test Standard
UL	UL508
	C22.2 No. 14-13
CCC	EN 62314:2006
TUV	EN 62314:2006