

Product Description

- ◆ Zero Crossing or Random-on Switching
- ◆ Load Current: 25A, 50A, 75A
- ◆ SCR Output
- ◆ DC Input Control
- ◆ Dielectric Strength: 4000Vrms
- ◆ RoHS Compliant

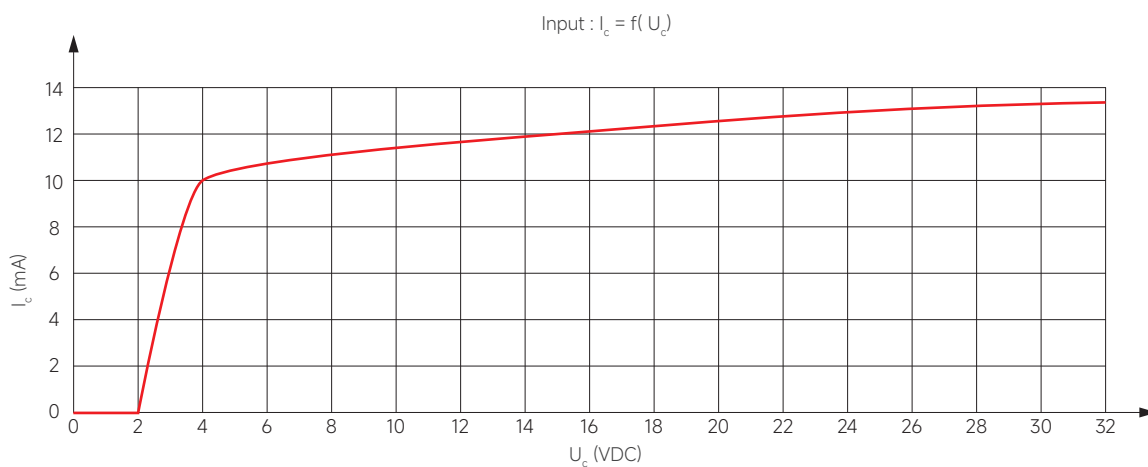


Product Selection

KSID	480	D	50	Q	(XXX)
KSID Series	Load Voltage 240: 240VAC 480: 480VAC 600: 600VAC	Control Mode D: 4-32 VDC	Load Current 25: 25Amp 50: 50Amp 75: 75Amp	Terminal type Q: Screw Terminal	Customized Code

Technical Specifications

Input Specifications (Ta=25°C)	Condition	Symbol	Model	Min	Typ	Max	Unit
Control Voltage		U_c		4	24	32	VDC
Input Current (Typ)	@ U_c	I_c				25	mA
Must Turn-on Voltage		$U_{c\ on}$			4		VDC
Must Turn-off Voltage		$U_{c\ off}$			1		VDC



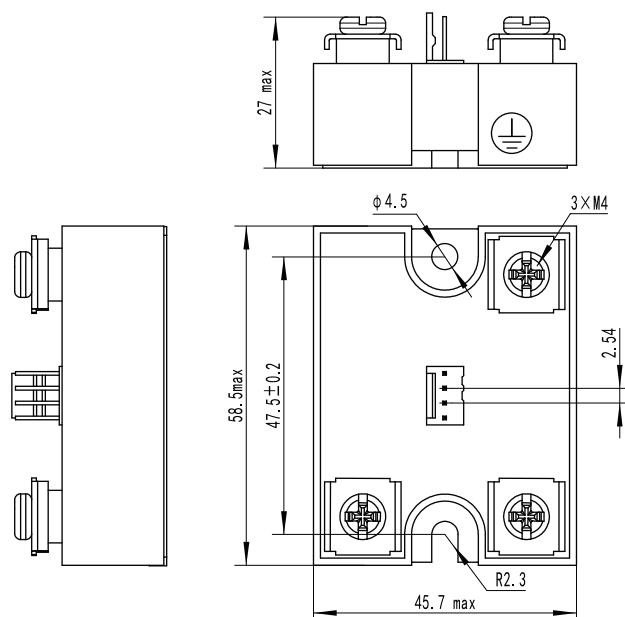
Output Specifications (Ta=25°C)	Condition	Symbol	Model	Min	Typ	Max	Unit
Load Voltage		U_e	240VAC	24		280	VAC
			480VAC	24		530	VAC
			600VAC	24		660	VAC
Load Current		I_e	25A	0.1		25	A
			50A	0.1		50	A
			75A	0.1		75	A
Turn-On Time		t_{on}	Zero Crossing			1/2cycle+1ms	ms
			Random-on			1	ms
Turn-Off Time		t_{off}				1/2cycle+1ms	ms
On-State Voltage Drop	@ Rated Load Current	U_d			1.1	1.5	Vrms
Off-State Leakage Current	@ Rated Load Voltage	I_{lk}				0.1	mA
Operational Frequency		f		47		63	Hz
Non-repetitive Surge Current	@10ms	I_{TSM}	25A		300		A
			50A		600		A
			75A		750		A
Maximum I^2t for Fusing	@10ms	I^2t	25A		450		A ² s
			50A		1800		A ² s
			75A		2812		A ² s
Maximum Transient Overvoltage		U_P	240VAC		600		Vpk
			480VAC/600VAC		1200		Vpk
TVS Breakdown Voltage		V_{BR}	240VAC		480		V
			480VAC		960		V
			600VAC		1100		V
Minimum Off-State dv/dt		dv/dt			500		V/ μ s
Minimum Power Factor		cos ϕ			0.5		

General Specifications (Ta=25°C)	Condition	Symbol	Model	Min	Typ	Max	Unit
Dielectric Strength	50/60Hz, Input/Output	V_{ISO}			4000		Vrms
	50/60Hz, Input, Output/Base				2500		Vrms
Insulation Resistance	@500VDC	R_{ISO}			1000		MΩ
Operating Temperature		T_{OPR}		-30		+80	°C
Storage Temperature		T_{SPR}		-30		+100	°C
Weight					100		g

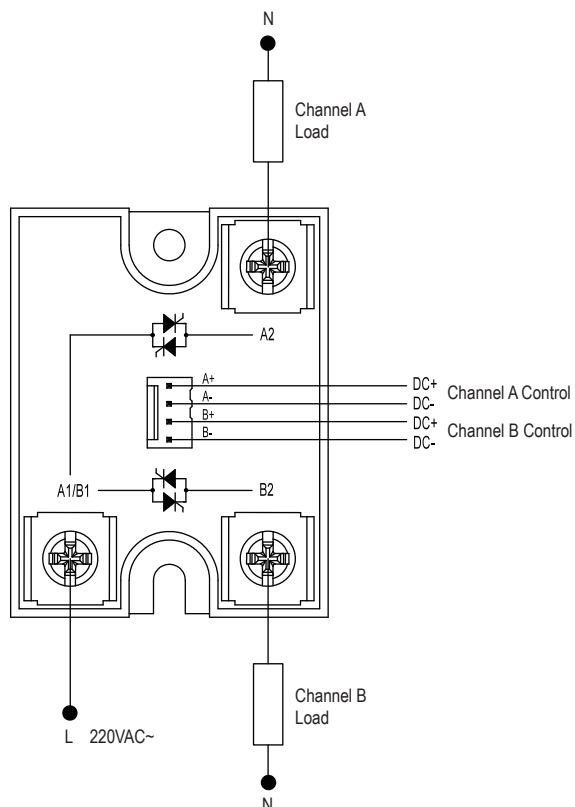
Applications

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

Outline Dimensions

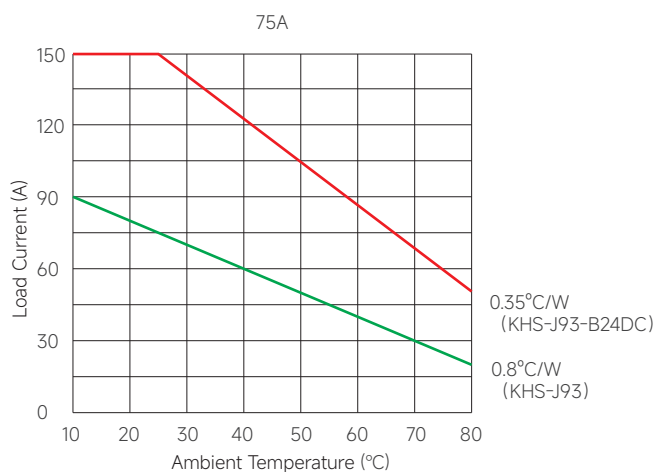
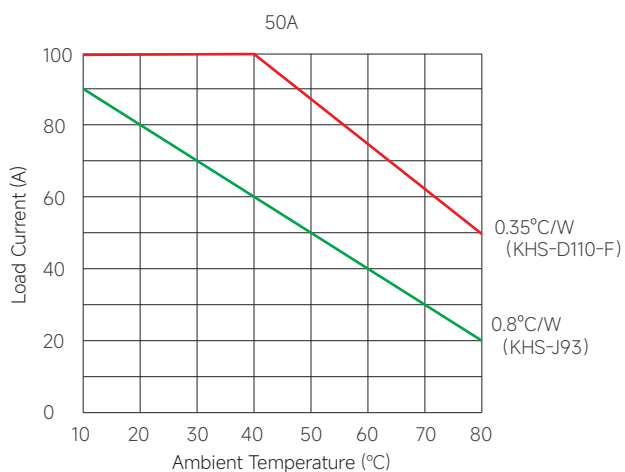
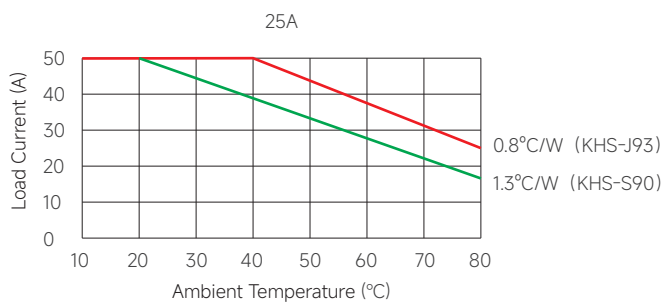


Wiring Diagram

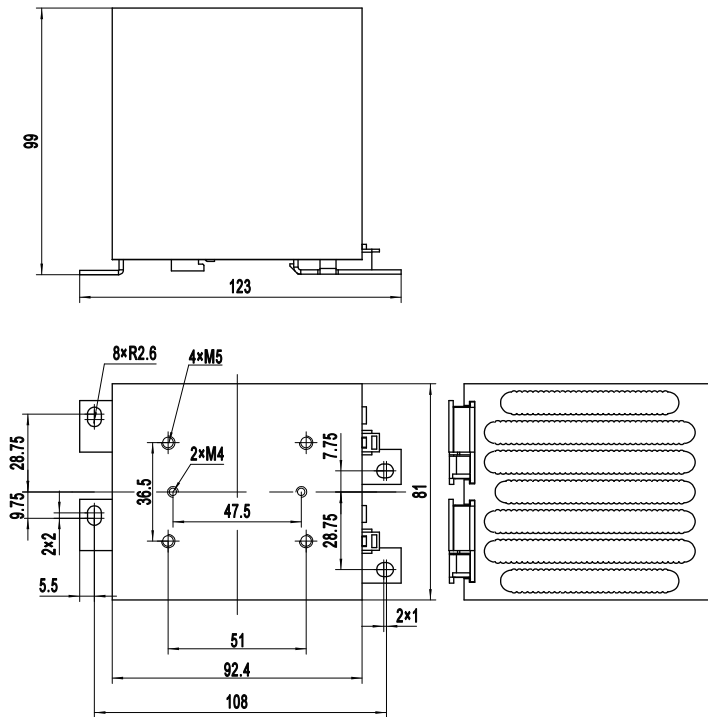


Thermal Derating Curve

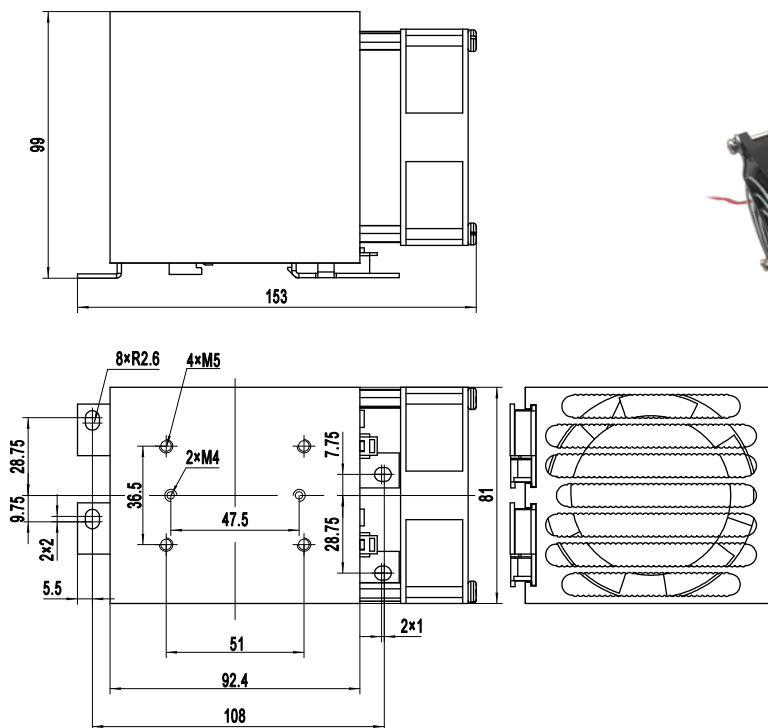
Note: The following load current curve shows the total current, each channel current cannot exceed 1/2 of the total current.



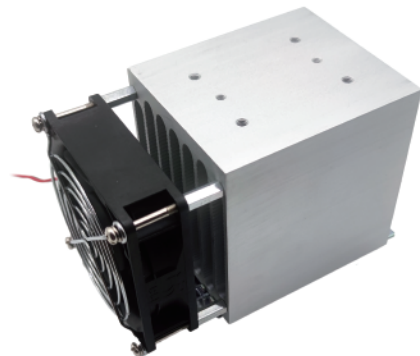
The above temperature curve is configured with radiator models as follows:

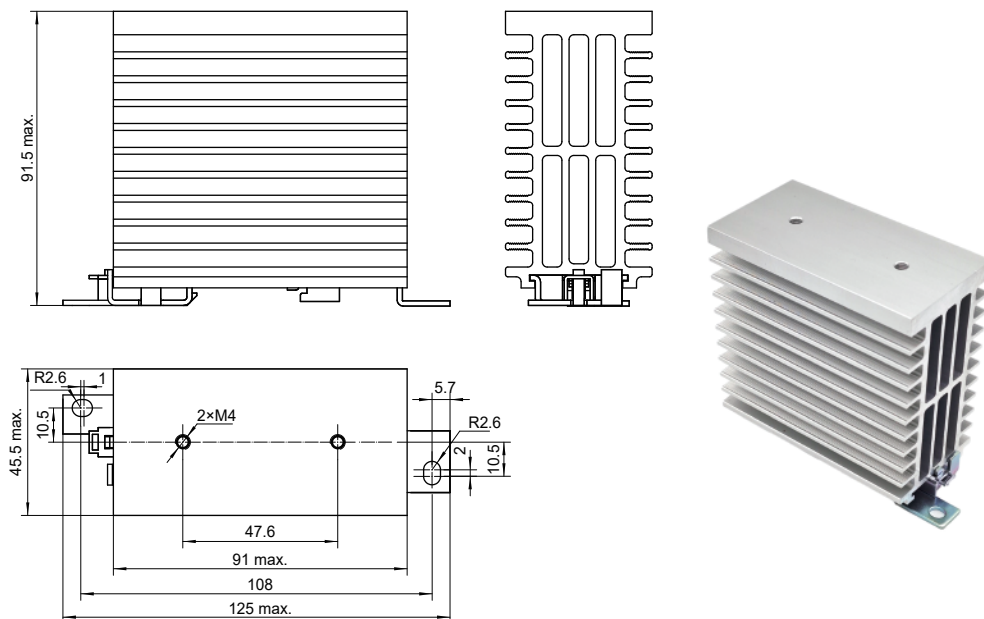


KHS-J93



KHS-J93-B24DC





KHS-S90

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.