

Product Description

- ◆ Zero-crossing or Random-on Switching
- ◆ Load current: 25A~80A
- ◆ SCR Output
- ◆ AC or DC Input Control
- ◆ Dielectric Strength: 4000Vrms
- ◆ Internal TVS Protection Circuit (Optional)
- ◆ LED Indicator
- ◆ Protective cover IP20



Product Selection

KSI	240	D	25	R	-L	T	(068)
KSI Series	Load Voltage 240:240VAC 480:480VAC 600:600VAC	Control Mode D:DC Control A:AC Control	Load Current 25:25Amp 40:40Amp 60:60Amp 80:80Amp	Switching Mode R: Random-on Blank: Zero Crossing	L:LED	Protection Type T: TVS Protection Blank: Without Protection	(068): IP20 Cover Customized Code

Available Part Numbers

Control Mode	25A	40A	60A	80A
D:4-32VDC	KSI240D25-L(068)	KSI240D40-L(068)	KSI240D60-L(068)	KSI240D80-L(068)
	KSI240D25R-L(068)	KSI240D40R-L(068)	KSI240D60R-L(068)	KSI240D80R-L(068)
	KSI480D25-L(068)	KSI480D40-L(068)	KSI480D60-L(068)	KSI480D80-L(068)
	KSI480D25R-L(068)	KSI480D40R-L(068)	KSI480D60R-L(068)	KSI480D80R-L(068)
	KSI600D25-L(068)	KSI600D40-L(068)	KSI600D60-L(068)	KSI600D80-L(068)
	KSI600D25R-L(068)	KSI600D40R-L(068)	KSI600D60R-L(068)	KSI600D80R-L(068)
	KSI240D25-LT(068)	KSI240D40-LT(068)	KSI240D60-LT(068)	KSI240D80-LT(068)
	KSI240D25R-LT(068)	KSI240D40R-LT(068)	KSI240D60R-LT(068)	KSI240D80R-LT(068)
	KSI480D25-LT(068)	KSI480D40-LT(068)	KSI480D60-LT(068)	KSI480D80-LT(068)
	KSI480D25R-LT(068)	KSI480D40R-LT(068)	KSI480D60R-LT(068)	KSI480D80R-LT(068)
	KSI600D25-LT(068)	KSI600D40-LT(068)	KSI600D60-LT(068)	KSI600D80-LT(068)
	KSI600D25R-LT(068)	KSI600D40R-LT(068)	KSI600D60R-LT(068)	KSI600D80R-LT(068)
A:90-280VAC	KSI240A25-L(068)	KSI240A40-L(068)	KSI240A60-L(068)	KSI240A80-L(068)
	KSI240A25R-L(068)	KSI240A40R-L(068)	KSI240A60R-L(068)	KSI240A80R-L(068)
	KSI480A25-L(068)	KSI480A40-L(068)	KSI480A60-L(068)	KSI480A80-L(068)
	KSI480A25R-L(068)	KSI480A40R-L(068)	KSI480A60R-L(068)	KSI480A80R-L(068)
	KSI600A25-L(068)	KSI600A40-L(068)	KSI600A60-L(068)	KSI600A80-L(068)
	KSI600A25R-L(068)	KSI600A40R-L(068)	KSI600A60R-L(068)	KSI600A80R-L(068)
	KSI240A25-LT(068)	KSI240A40-LT(068)	KSI240A60-LT(068)	KSI240A80-LT(068)
	KSI240A25R-LT(068)	KSI240A40R-LT(068)	KSI240A60R-LT(068)	KSI240A80R-LT(068)
	KSI480A25-LT(068)	KSI480A40-LT(068)	KSI480A60-LT(068)	KSI480A80-LT(068)
	KSI480A25R-LT(068)	KSI480A40R-LT(068)	KSI480A60R-LT(068)	KSI480A80R-LT(068)
	KSI600A25-LT(068)	KSI600A40-LT(068)	KSI600A60-LT(068)	KSI600A80-LT(068)
	KSI600A25R-LT(068)	KSI600A40R-LT(068)	KSI600A60R-LT(068)	KSI600A80R-LT(068)

Technical Specifications

Input Specifications (Ta=25°C)		
Control Voltage Range	DC Control	4-32VDC
	AC Control	90-280VAC
Must Turn-on Voltage	DC Control	4VDC
	AC Control	90VAC
Must Turn-off Voltage	DC Control	1VDC
	AC Control	10VAC
Maximum Input Current	DC Control	25mA (@32VDC)
	AC Control	25mA (@280VAC/50Hz)

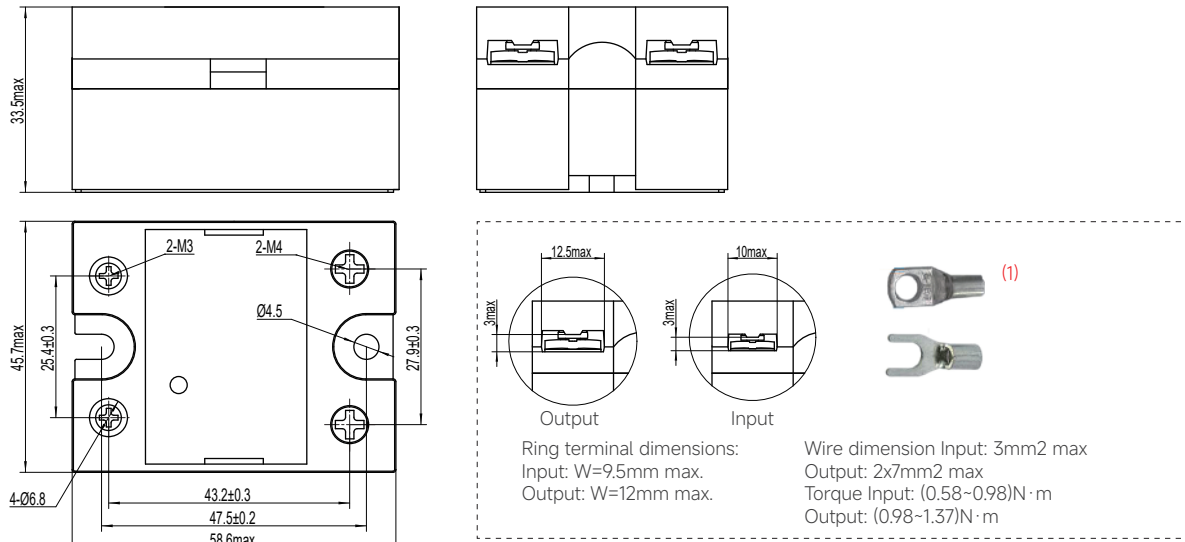
Output Specifications (Ta=25°C)		
Load Voltage Range (47~63Hz)	240VAC	48-280VAC
	480VAC	48-530VAC
	600VAC	48-660VAC
Load Current Range	25A	0.1-25A
	40A	0.1-40A
	60A	0.1-60A
	80A	0.1-80A
Maximum Turn-on Time	Random-on	1ms
	Zero Crossing	1/2cycle+1ms
	AC Control	40ms
Maximum Turn-off Time	DC Control	1/2cycle+1ms
	AC Control	40ms
Maximum Surge Current (@10ms)	25A	250A
	40A	500A
	60A	700A
	80A	1000A
Maximum I ² t for Fusing (@10ms)	25A	312A ² s
	40A	1250A ² s
	60A	2450A ² s
	80A	5000A ² s
Transient Overvoltage	KSI240(D/A)...-L(068) Series	600Vpk
	KSI480(D/A)...-L(068) Series	1200Vpk
	KSI600(D/A)...-L(068) Series	1600Vpk
TVS Breakdown Voltage Range	KSI240(D /A)...-LT(068) Series	456-504V
	KSI480(D /A)...-LT(068) Series	912-1008V
	KSI600(D /A)...-LT(068) Series	1026-1134V
Maximum Off-State Leakage Current (@Rated Voltage)		10mA
Off-State Leakage Current (@220VAC/50Hz)	KSI240/480... Series	1.6mA (Typical)
	KSI600... Series	0.6mA (Typical)
Maximum On-State Voltage Drop (@Rated Current)		1.7Vrms
Minimum Off-State (dv/dt @Maximum Rated Voltage)		500V/μs

General Specifications (Ta=25°C)		
Dielectric Strength (50/60Hz)	Input/Output	4000Vrms
	Input,Output/Base	2500Vrms
Minimum Insulation Resistance (@500VDC)		1000mΩ
Ambient Temperature Range		-30°C~+80°C
Storage Temperature Range		-30°C~+100°C
Weight (Typical)	25A	113g
	40A / 60A	120g
	80A	170g

Applications

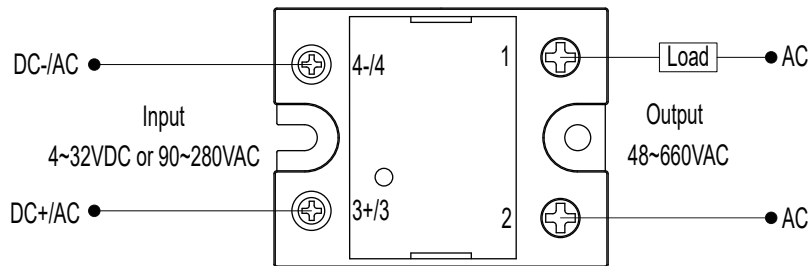
Temperature Chamber, Plastics Machinery, Food Processing Machinery, Incubator, Oiling machines, HVAC, Lighting, Fountain Controller and etc.

Outline Dimensions

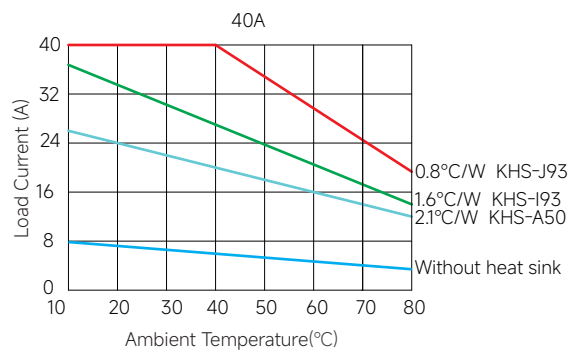
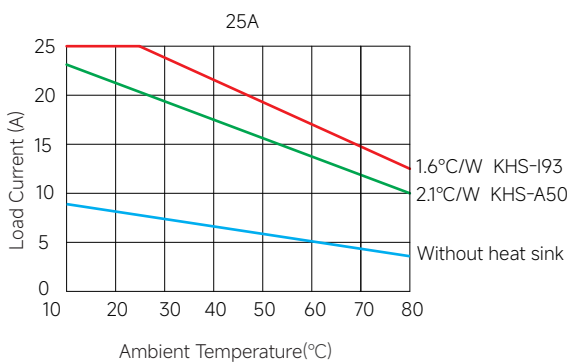


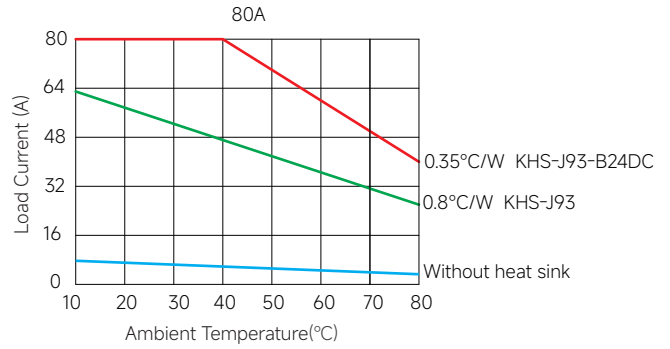
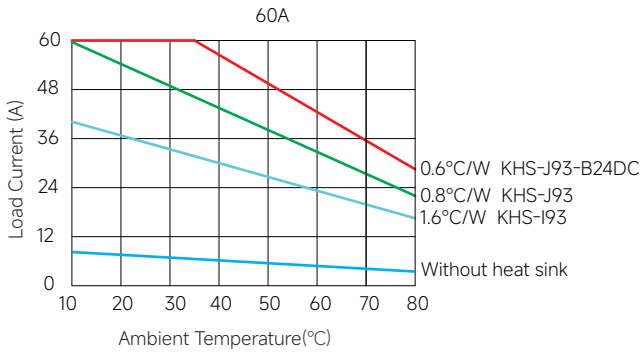
Note: (1) When SSR is connected to the cold rolled copper nose of TYPE TO1, the IP20 protection cover shall be removed first. After wiring is completed, install the IP20 protection cover.

Wiring Diagram



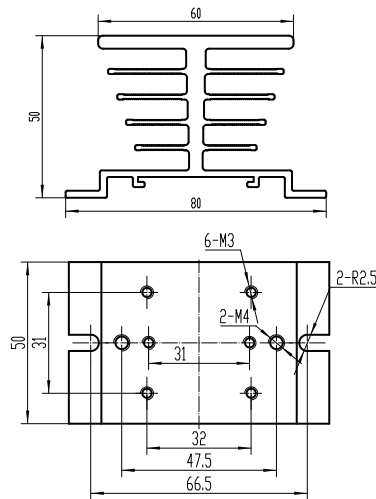
Thermal Derating Curve



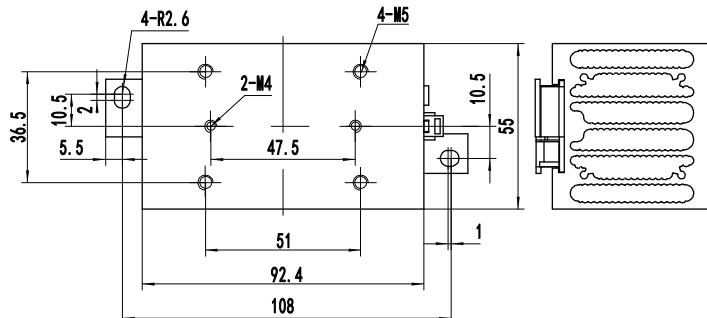
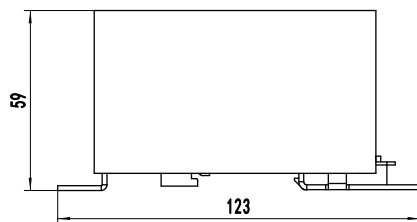


Note: The curve above shows the heatsink capability under the worst case (100% continuous operation) for a solid state relay. If your application involves intermittent operation, please contact us with your actual operating conditions (load current, on/off time, ambient temperature, etc.), and we will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

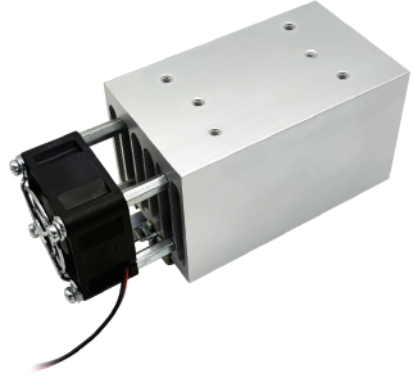
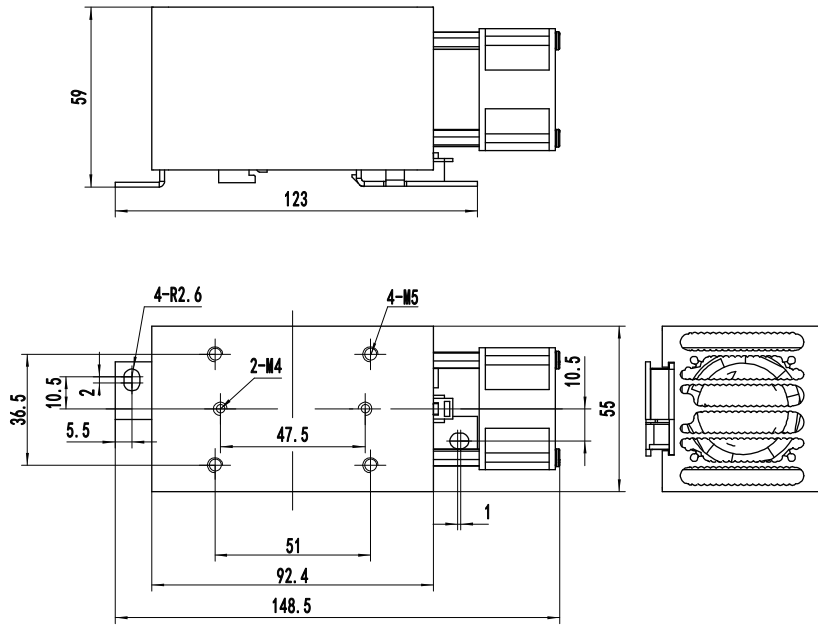
The above temperature curve is configured with radiator models as follows:



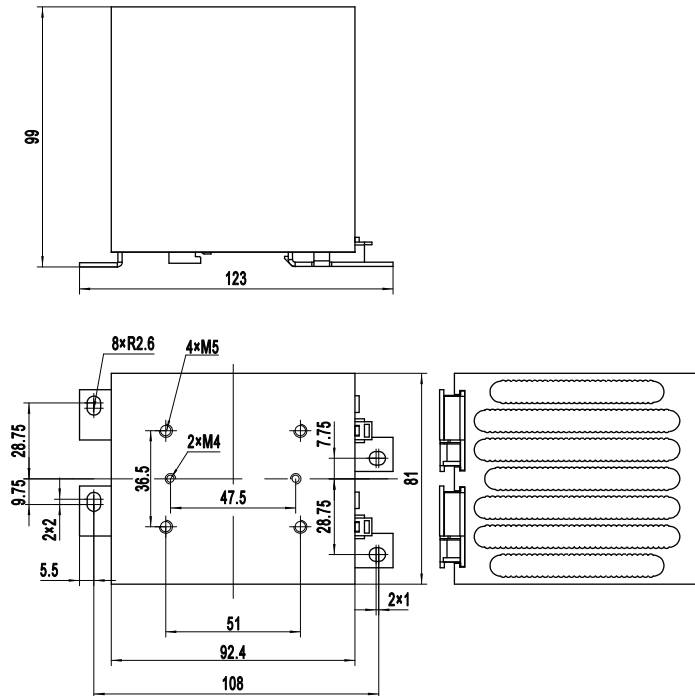
KHS-A50



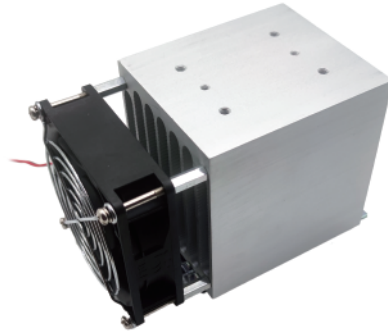
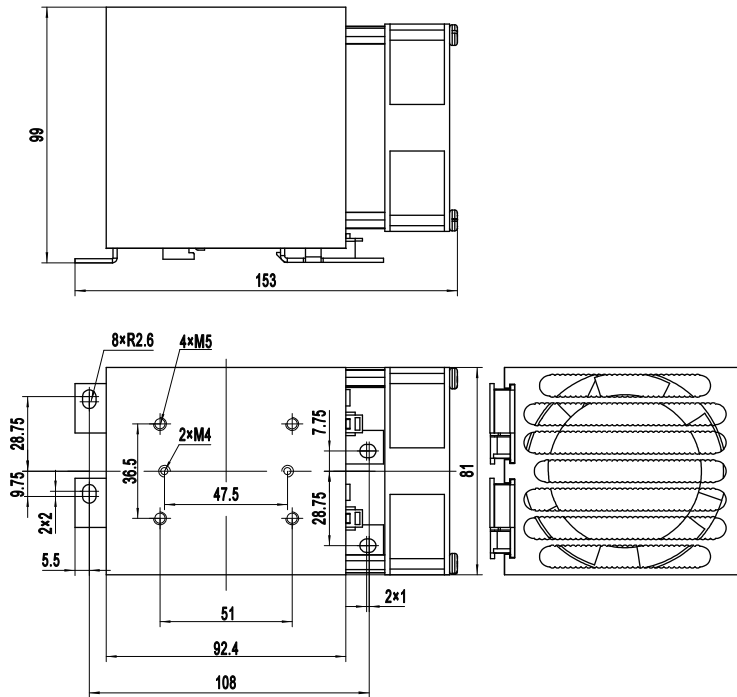
KHS-I93



KHS-I93-B24DC



KHS-J93



KHS-J93-B24DC

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's side panels 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.