

Product Description

- ◆ Zero-crossing or Random-on Switching
- ◆ Load current: 25A-60A @48-660VAC
- ◆ TRIAC or SCR Output
- ◆ AC or DC Input Control
- ◆ Dielectric Strength: 4000Vrms
- ◆ LED Indicator
- ◆ Internal TVS Protection (Optional)
- ◆ Protective cover KPC-0A (Optional)



Product Selection

KSI	240	D	25	R	-L	T	(XXX)	+KPC-0A
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	Switching Mode R: Random-on Blank: Zero Crossing	L:LED	Protection Mode T: TVS Protection Blank: Without TVS	Blank: Standard 016: Quick Connection Other: Customized Code	Optional

Note:

1. The feature number (016) series is the structure of fast connection terminal, the current optional range is 25A-40A, among which the products of KSI(240/380)...25...(016) series are TRIAC output, the products of KSI(480/600)...25...(016) series and KSI(480,600)...40...(016) series are SCR output.
2. Conventional KSI series are bolt structure, and the current range is 25A-60A, among which KSI(240/380)...25... series products are TRIAC output, KSI(480/600)xxx25xxx series, KSI...40... series and KSI...60... series products are SCR output.

KSI Series Available Part Numbers

Control Mode	25A	40A	60A
D:4-32VDC	KSI240D25-L	KSI240D40-L	KSI240D60-L
	KSI240D25R-L	KSI240D40R-L	KSI240D60R-L
	KSI480D25-L	KSI480D40-L	KSI480D60-L
	KSI480D25R-L	KSI480D40R-L	KSI480D60R-L
	KSI600D25-L	KSI600D40-L	KSI600D60-L
	KSI600D25R-L	KSI600D40R-L	KSI600D60R-L
	KSI240D25-LT	KSI240D40-LT	KSI240D60-LT
	KSI240D25R-LT	KSI240D40R-LT	KSI240D60R-LT
	KSI480D25-LT	KSI480D40-LT	KSI480D60-LT
	KSI480D25R-LT	KSI480D40R-LT	KSI480D60R-LT
A:90-280VAC	KSI240A25-L	KSI240A40-L	KSI240A60-L
	KSI240A25R-L	KSI240A40R-L	KSI240A60R-L
	KSI480A25-L	KSI480A40-L	KSI480A60-L
	KSI480A25R-L	KSI480A40R-L	KSI480A60R-L
	KSI600A25-L	KSI600A40-L	KSI600A60-L
	KSI600A25R-L	KSI600A40R-L	KSI600A60R-L
	KSI240A25-LT	KSI240A40-LT	KSI240A60-LT
	KSI240A25R-LT	KSI240A40R-LT	KSI240A60R-LT
	KSI480A25-LT	KSI480A40-LT	KSI480A60-LT
	KSI480A25R-LT	KSI480A40R-LT	KSI480A60R-LT
KSI600A25-LT	KSI600A40-LT	KSI600A60-LT	
KSI600A25R-LT	KSI600A40R-LT	KSI600A60R-LT	

KSI(016) Series Available Part Numbers

Control Mode	25A	40A
D:4-32VDC	KSI240D25-L(016)	KSI240D40-L(016)
	KSI240D25R-L(016)	KSI240D40R-L(016)
	KSI480D25-L(016)	KSI480D40-L(016)
	KSI480D25R-L(016)	KSI480D40R-L(016)
	KSI600D25-L(016)	KSI600D40-L(016)
	KSI600D25R-L(016)	KSI600D40R-L(016)
	KSI240D25-LT(016)	KSI240D40-LT(016)
	KSI240D25R-LT(016)	KSI240D40R-LT(016)
	KSI480D25-LT(016)	KSI480D40-LT(016)
	KSI480D25R-LT(016)	KSI480D40R-LT(016)
	KSI600D25-LT(016)	KSI600D40-LT(016)
	KSI600D25R-LT(016)	KSI600D40R-LT(016)

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)

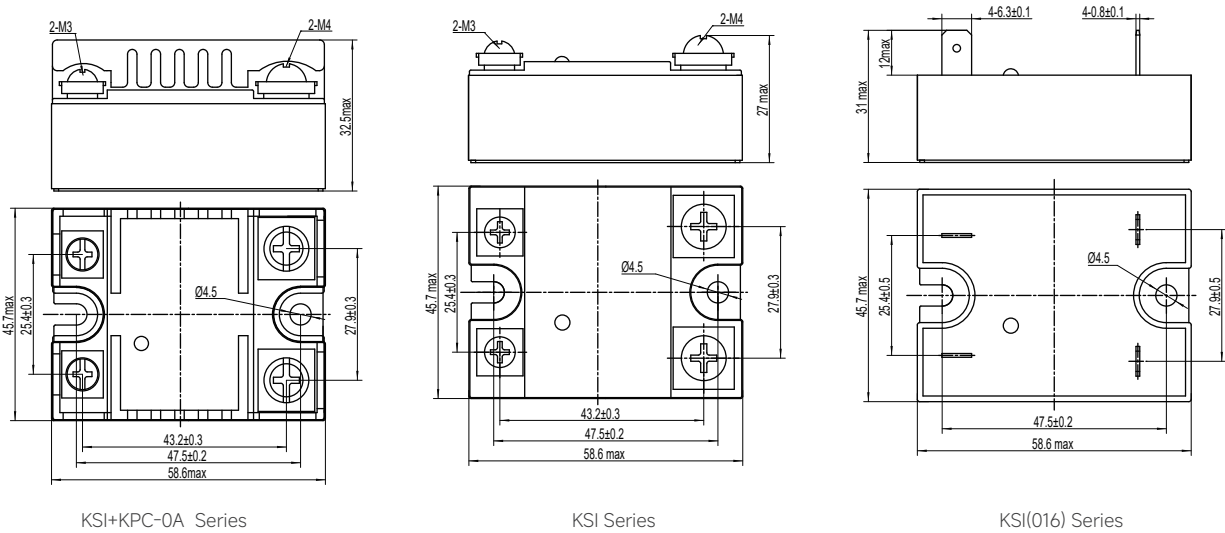
Output Specifications (Ta=25°C)		
Load Voltage Range (47~63Hz)	240VAC	48-280VAC
	480VAC	48-530VAC
	600VAC	48-660VAC
Load Current Range	25A	0.1-25A
	40A	0.1-40A
	60A	0.1-60A
Maximum Turn-on Time	Random-on	1ms
	Zero Crossing	1/2cycle+1ms
	AC Control	40ms
Maximum Turn-off Time	DC Control	1/2cycle+1ms
	AC Control	40ms
Maximum Surge Current (@10ms)	25A	250A
	40A	500A
	60A	700A
Maximum I ² t for Fusing (@10ms)	25A	312A ² s
	40A	1250A ² s
	60A	2450A ² s
Transient Overvoltage	KSI240(D/A)...-L... Series	600Vpk
	KSI480(D/A)...-L... Series	1200Vpk
	KSI600(D/A)...-L... Series	1600Vpk
TVS Breakdown Voltage Range	KSI240(D /A)...-LT... Series	456-504V
	KSI480(D /A)...-LT... Series	912-1008V
	KSI600(D /A)...-LT... Series	1045-1155V
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)	TRIAC Output	200V/μs
	SCR Output	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)	KSI Series	96g
	KSI...(016) Series	100g

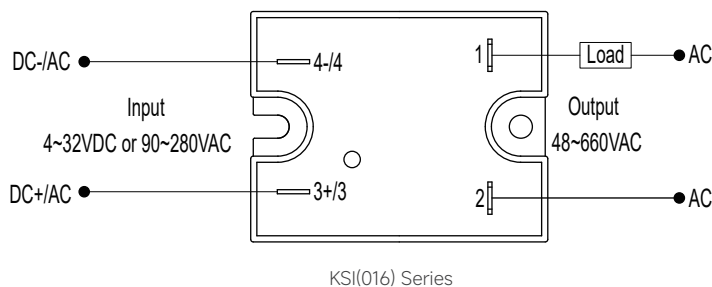
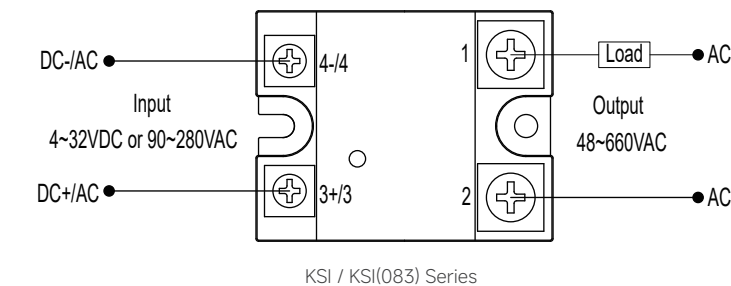
Applications

Suitable for temperature chamber, oiler, air conditioning, lighting, fountain controller and other occasions.

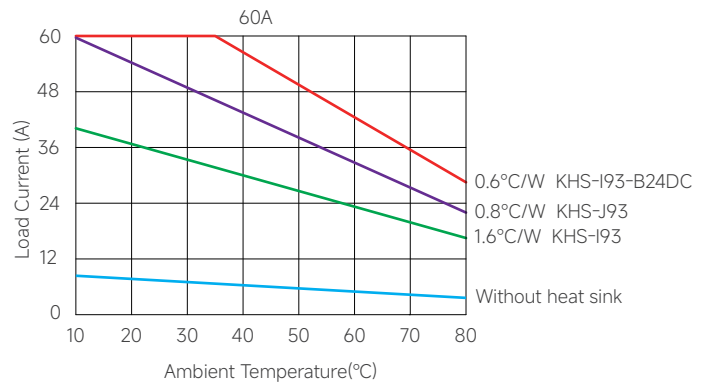
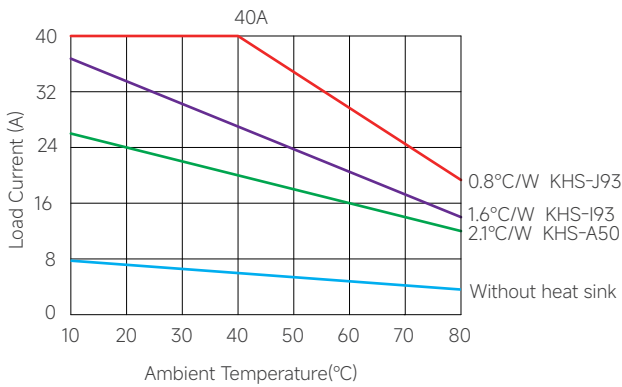
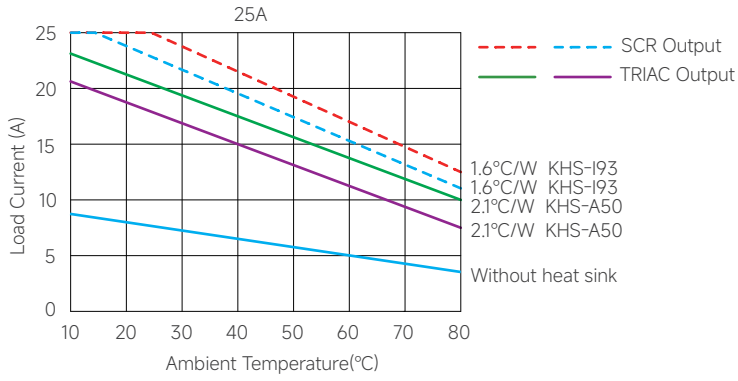
Outline Dimensions



Wiring Diagram

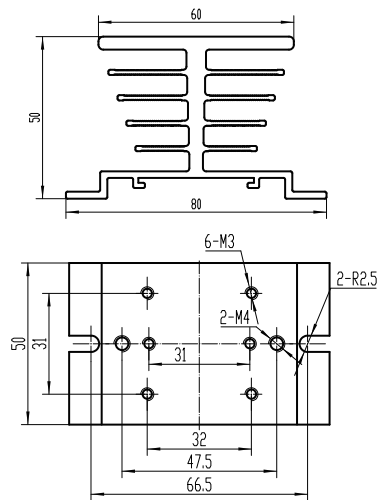


Thermal Derating Curve

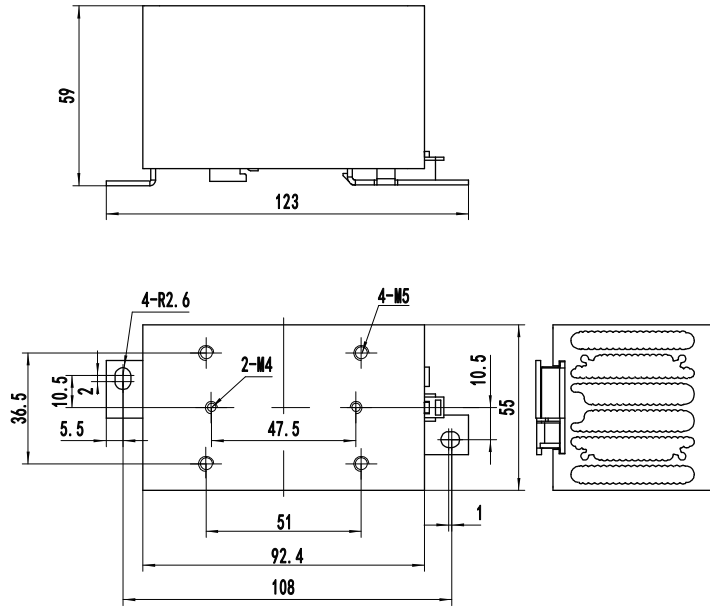


Note: The curve above shows the heatsink capability under the worst case (100% continuous operation) for a solid state relay. If your application involves intermittent operation, please contact us with your actual operating conditions (load current, on/off time, ambient temperature, etc.), and we will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

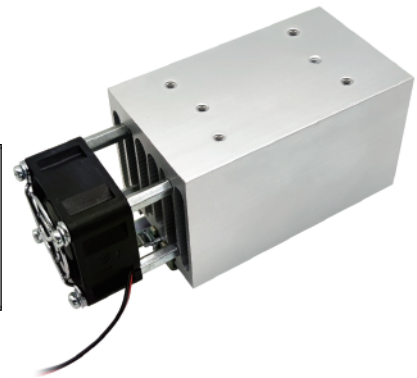
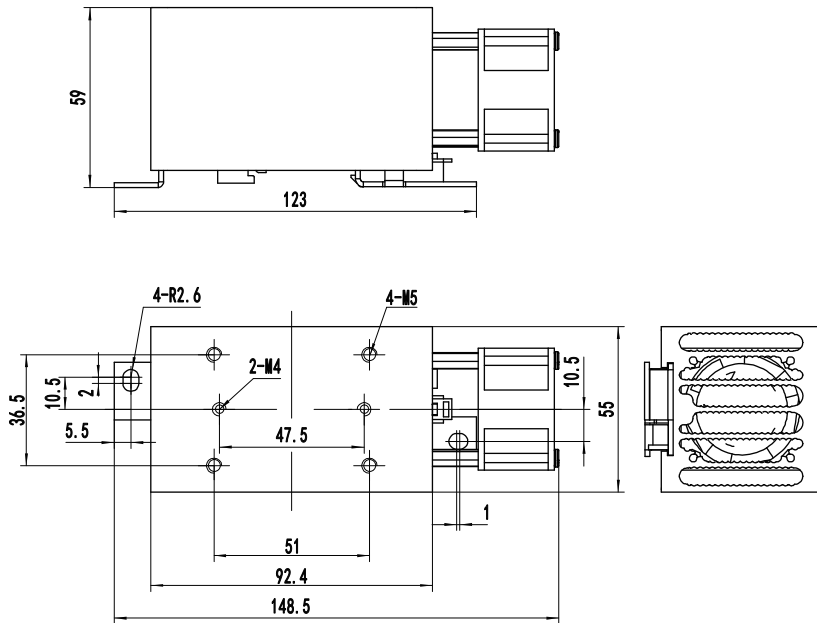
The above temperature curve is configured with radiator models as follows:



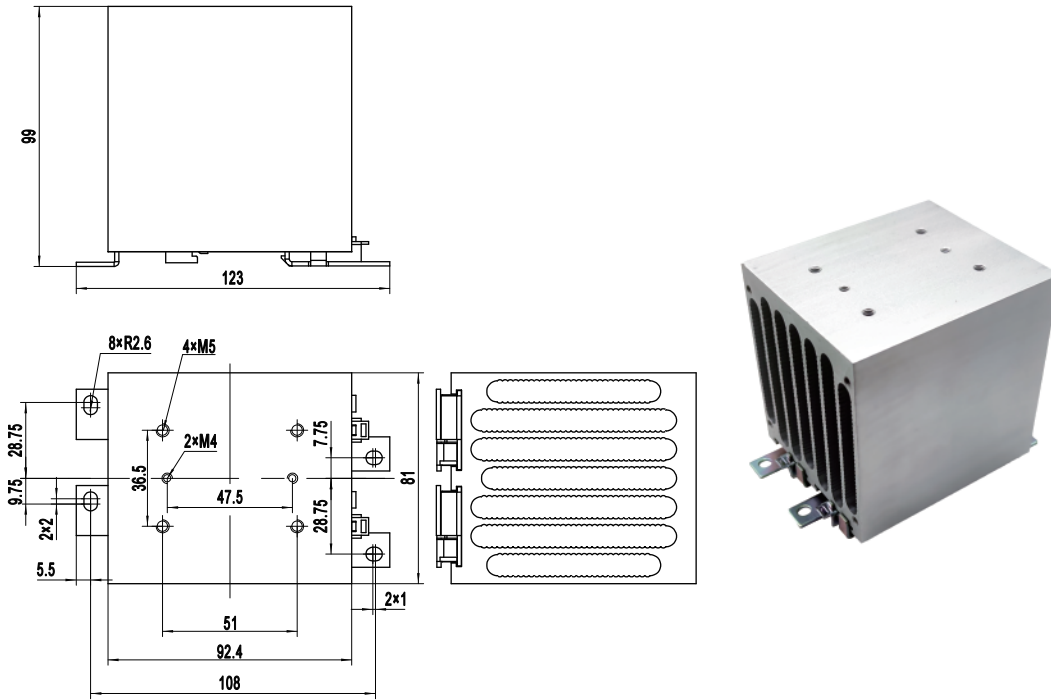
KHS-A50



KHS-193



KHS-193-B24DC



KHS-J93

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.

Certification Standards

Certification	Test Standard
UL	UL508
	C22.2 No. 14-13
CCC	GB/T14048.5-2017
TUV	EN 62314:2006