

Product Description

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



(1)

Note: (1) Suffix T series products (TVS protection products) without TUV certification.

Ordering Information

KSI	240	D	25	R	-L	M	(068)
KSI Series	Load Voltage 240: 240VAC 480: 480VAC 600: 600VAC	D: DC Control A: AC Control	Load Current 25: 25Amp 40: 40Amp 60: 60Amp 80: 80Amp	Switching Mode Blank: Zero Crossing R: Random-on	LED Indicator	M: MOV T: TVS (Optional)	068: IP20 Customized Code

Information	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)
	KSI240D25-LM(068)	KSI240D40-LM(068)	KSI240D60-LM(068)	KSI240D80-LM(068)
	KSI240D25R-LM(068)	KSI240D40R-LM(068)	KSI240D60R-LM(068)	KSI240D80R-LM(068)
	KSI480D25-LM(068)	KSI480D40-LM(068)	KSI480D60-LM(068)	KSI480D80-LM(068)
	KSI480D25R-LM(068)	KSI480D40R-LM(068)	KSI480D60R-LM(068)	KSI480D80R-LM(068)
	KSI600D25-LM(068)	KSI600D40-LM(068)	KSI600D60-LM(068)	KSI600D80-LM(068)
	KSI600D25R-LM(068)	KSI600D40R-LM(068)	KSI600D60R-LM(068)	KSI600D80R-LM(068)

Ordering Information

Information	25A	40A	60A	80A
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)
	KSI240A25-LM(068)	KSI240A40-LM(068)	KSI240A60-LM(068)	KSI240A80-LM(068)
	KSI240A25R-LM(068)	KSI240A40R-LM(068)	KSI240A60R-LM(068)	KSI240A80R-LM(068)
	KSI480A25-LM(068)	KSI480A40-LM(068)	KSI480A60-LM(068)	KSI480A80-LM(068)
	KSI480A25R-LM(068)	KSI480A40R-LM(068)	KSI480A60R-LM(068)	KSI480A80R-LM(068)
	KSI600A25-LM(068)	KSI600A40-LM(068)	KSI600A60-LM(068)	KSI600A80-LM(068)
	KSI600A25R-LM(068)	KSI600A40R-LM(068)	KSI600A60R-LM(068)	KSI600A80R-LM(068)

Technical parameters

Input Specifications (Ta=25°C)

Control Voltage Range	DC Control	4-32VDC ⁽²⁾
	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)

Note: (2) KSI240Dxxx Series Control Voltage Range: 3-32VDC or 4-32VDC

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

Technical parameters

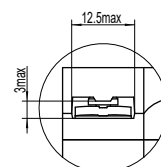
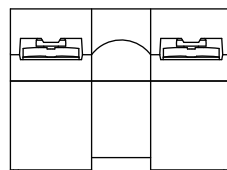
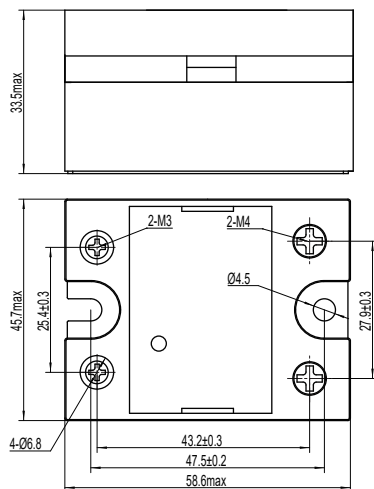
Output Specifications (Ta=25°C)		
Maximum I ² t for Fusing (@10ms)	25A	312A ² s
	40A	1250A ² s
	60A	2450A ² s
	80A	5000A ² s
Transient Overvoltage	KSI240D/AXXX-L(068) Series	600Vpk
	KSI480D/AXXX-L(068) Series	1200Vpk
	KSI600D/AXXX-L(068) Series	1600Vpk
Maximum Operating Voltage Allowed By Varistors	KSI240D/AXXX-LM(068) Series	300VAC
	KSI480D/AXXX-LM(068) Series	550VAC
	KSI600D/AXXX-LM(068) Series	680VAC
MOV Varistor Voltage Range	KSI240D/AXXX-LM(068) Series	423~517V
	KSI480D/AXXX-LM(068) Series	819~1001V
	KSI600D/AXXX-LM(068) Series	990~1210V
TVS Breakdown Voltage Range	KSI240D/AXXX-LT(068) Series	480V
	KSI480D/AXXX-LT(068) Series	960V
	KSI600D/AXXX-LT(068) Series	1100V
Maximum Off-State Leakage Current@Rated Load Voltage	10mA	
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 (50Hz/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

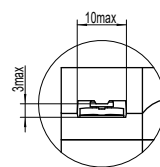
Applications

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

Outline Dimensions

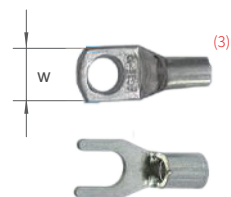


Output



Input

KSI (068) Outline Dimensions

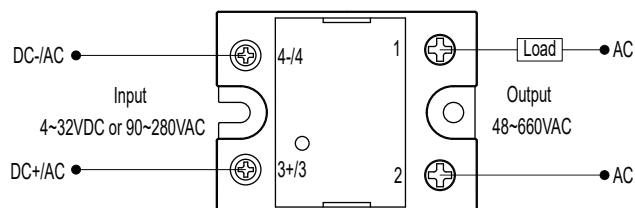


Ring terminal dimensions:
Input: W=9.5mm max.
Output: W=12mm max.

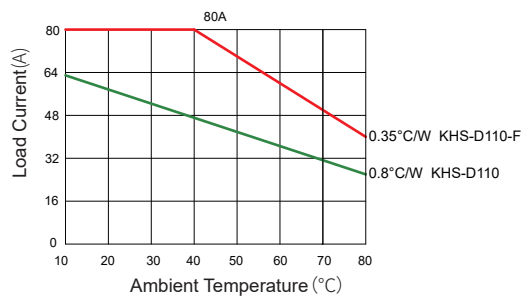
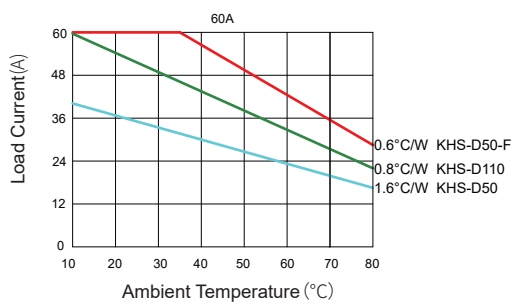
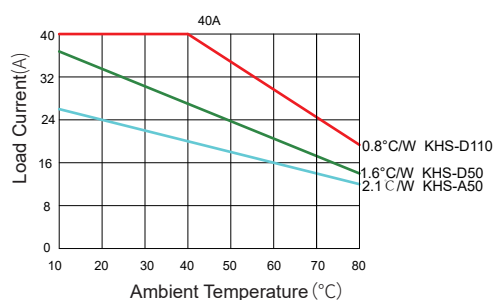
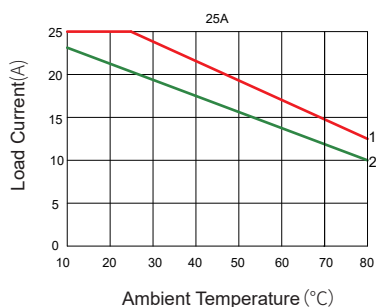
Wire dimension Input: 3mm² max
Output: 2x7mm² max
Torque Input: (0.58~0.98)N·m
Output: (0.98~1.37)N·m

Note: (3) 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.

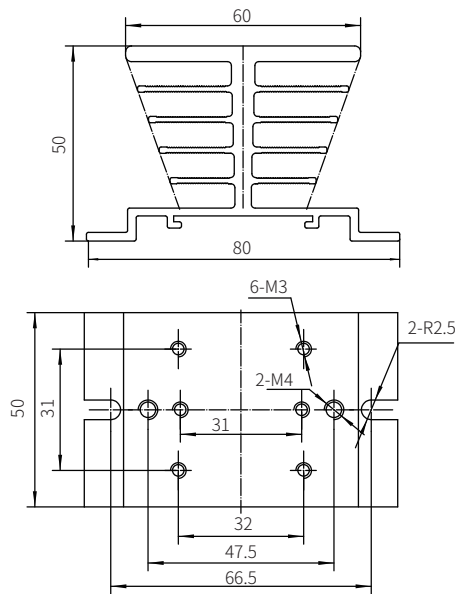
Wiring Diagram



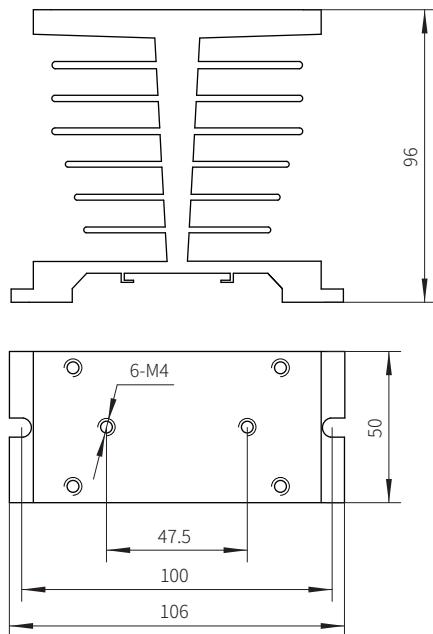
Thermal Derating Curve



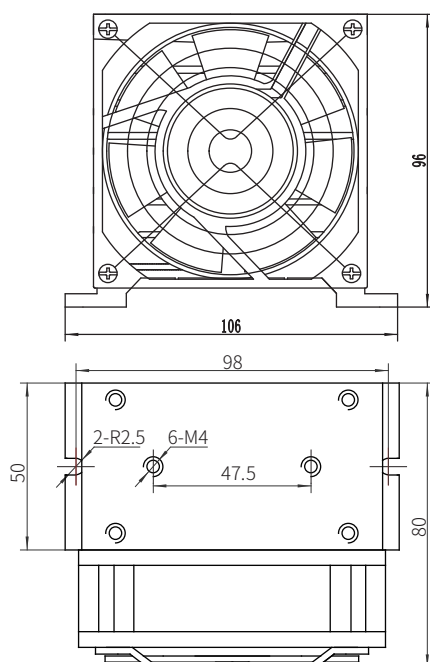
The above temperature curve is configured with radiator models as follows:



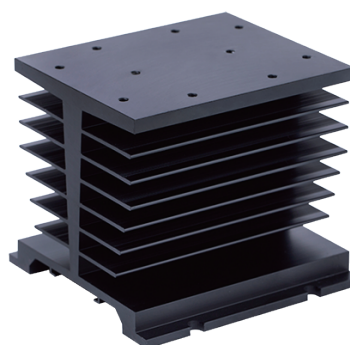
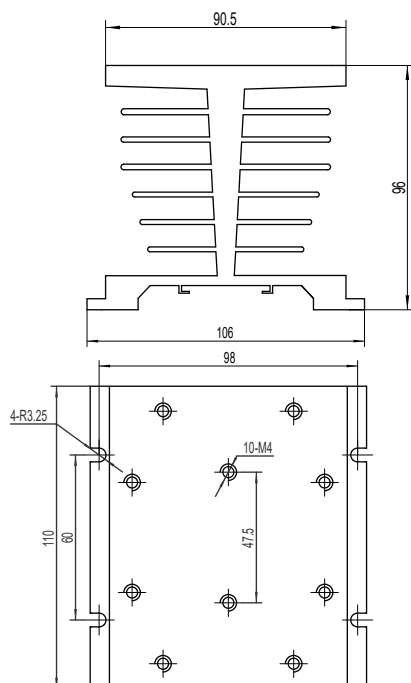
KHS-A50



KHS-D50

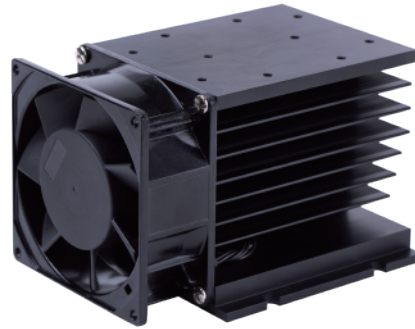
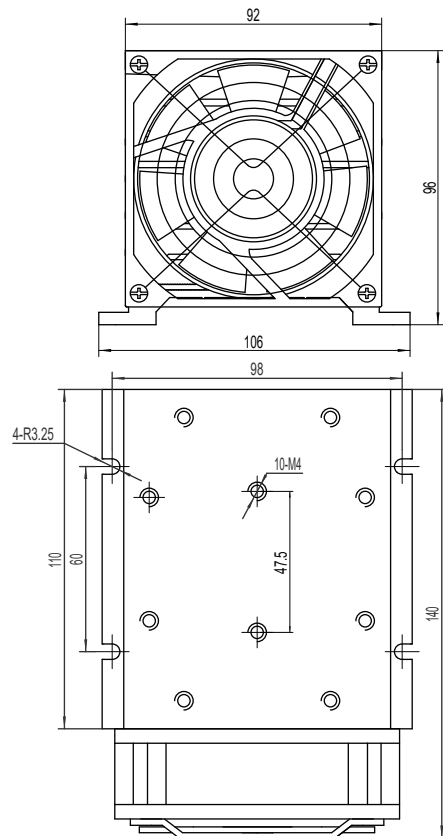


KHS-D50-F



KHS-D110

Wiring Diagram



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 18-20/2.0-2.2in-lb/Nm.
2. When connection wiring to SSR, please ensure screws are torqued down properly (input 13-15/1.5-1.7in-lb/Nm, output 18-20/2.0-2.2 in-lb/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.