

Product Description

- ◆ Zero Crossing or Random-on Switching
- ◆ Load Current: 25A, 40A, 60A, 80A
- ◆ Dielectric Strength: 4000Vrms
- ◆ SCR Output
- ◆ Internal RC Circuit
- ◆ Optical Isolation
- ◆ RoHS Compliant



Notes: No TUV or S-mark for AC input.

Product Selection

KSQF	480	D	80	R	(XXX)
KSQF Series	Load Voltage 480: 480VAC 600: 600VAC	Control Mode D: DC Control A: AC Control	Load Current 25: 25Amp 40: 40Amp 60: 60Amp 80: 80Amp	Switching Mode Blank: Zero Crossing R: Random-on	Customized Code

Available Part Numbers

Control Mode	Load Current	25A	40A	60A	80A	
D:4-32VDC	480VAC	KSQF480D25	KSQF480D40	KSQF480D60	KSQF480D80	
		KSQF480D25R	KSQF480D40R	KSQF480D60R	KSQF480D80R	
	600VAC	KSQF600D25	KSQF600D40	KSQF600D60	KSQF600D80	
		KSQF600D25R	KSQF600D40R	KSQF600D60R	KSQF600D80R	
	A:90-280VAC	480VAC	KSQF480A25	KSQF480A40	KSQF480A60	KSQF480A80
			KSQF480A25R	KSQF480A40R	KSQF480A60R	KSQF480A80R
600VAC		KSQF600A25	KSQF600A40	KSQF600A60	KSQF600A80	
		KSQF600A25R	KSQF600A40R	KSQF600A60R	KSQF600A80R	

Technical Specifications

Input Specifications (Ta=25°C)		
Control Voltage Range	AC Control	90-280VAC
	DC Control	4-32VDC
Must Turn-on Voltage	AC Control	90VAC
	DC Control	4VDC
Must Turn-off Voltage	AC Control	15VAC
	DC Control	1VDC
Maximum Input Current	AC Control	30mA (@280VAC/50Hz)
	DC Control	35mA (@32VDC)
Maximum Reverse Voltage	DC Control	32VDC

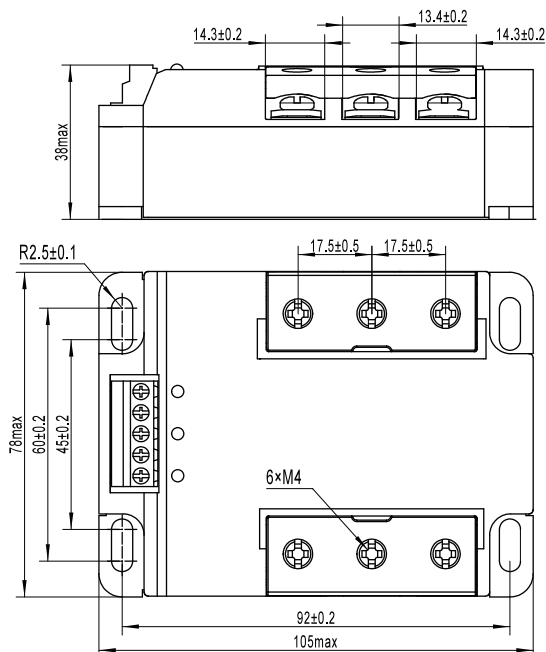
Output Specifications (Ta=25°C)			
Load Voltage Range (47~63Hz)	480VAC	24~530VAC	
	600VAC	24~660VAC	
Maximum Turn-on Time	DC Control	Random-on	1ms
		Zero Crossing	10ms
	AC Control	40ms	
Maximum Turn-off Time	DC Control	10ms	
	AC Control	20ms	
Maximum Surge Current (@10ms)	25A	300A	
	40A	500A	
	60A	700A	
	80A	1280A	
Maximum I ² t for Fusing (@10ms)	25A	450A ² s	
	40A	1250A ² s	
	60A	2450A ² s	
	80A	8192A ² s	
Transient Overvoltage	480VAC	1200Vpk	
	600VAC	1600Vpk	
Maximum Off-State Leakage Current (@Rated Voltage)			10mA
Maximum On-State Voltage Drop (@Rated Current)			1.6Vrms
Minimum Off-State (dv/dt)			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, 40A	385g
	60A, 80A	530g

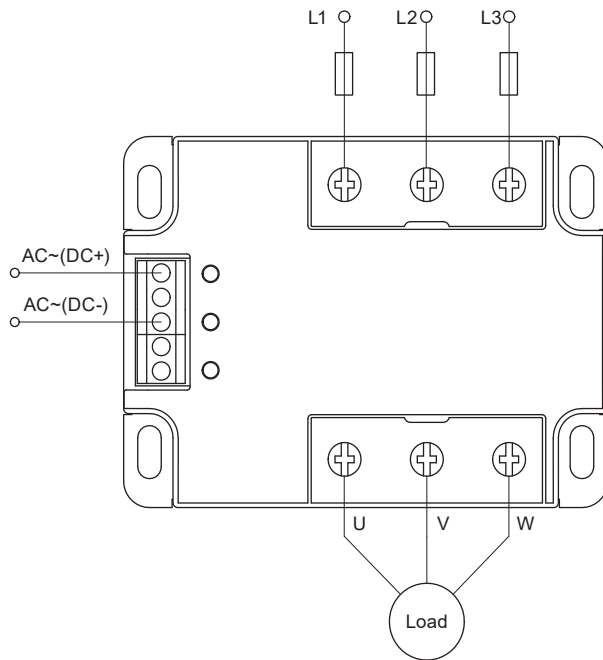
Applications

Suitable for three phase motor control, temperature control, large oven, and etc.

Outline Dimensions

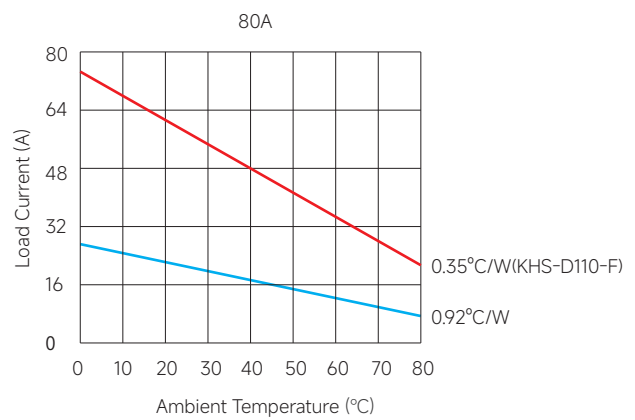
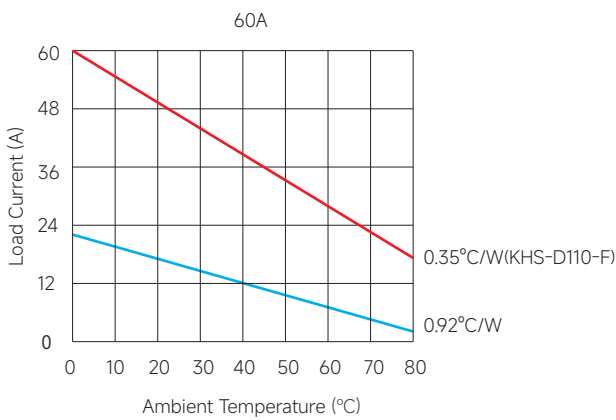
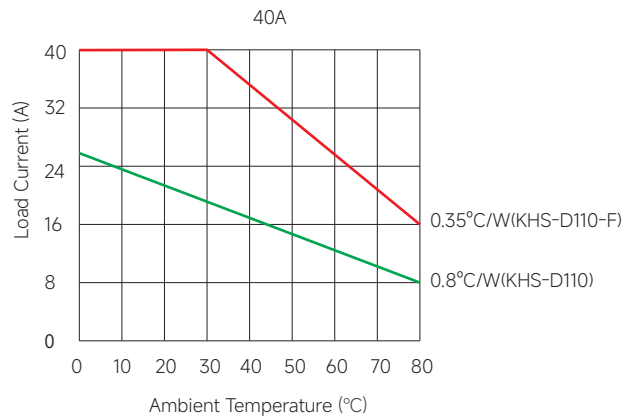
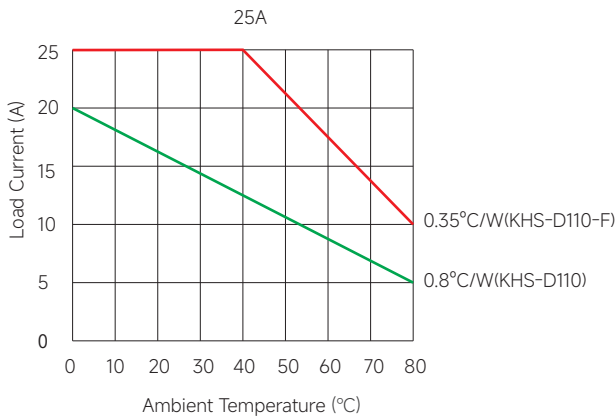


Wiring Diagram



AC~ (DC+): AC Control Input (DC Control Anode Input)
AC~ (DC-): AC Control Input (DC Control Cathod Input)

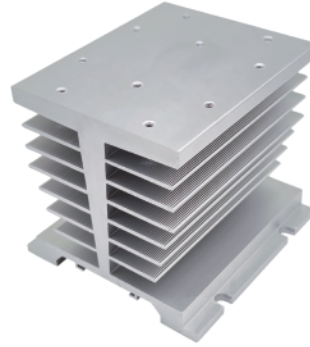
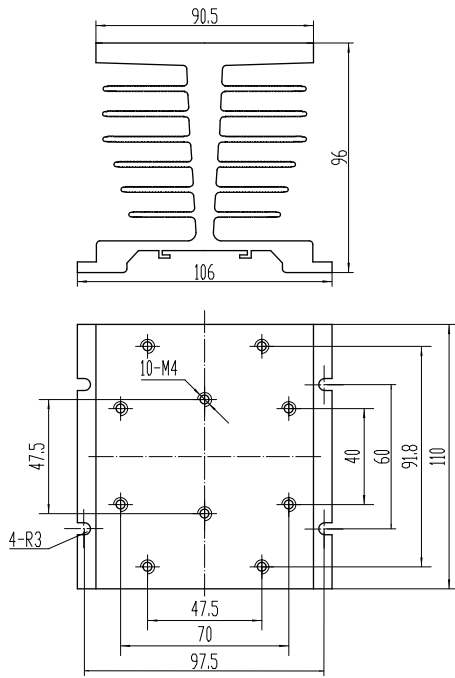
Thermal Derating Curve



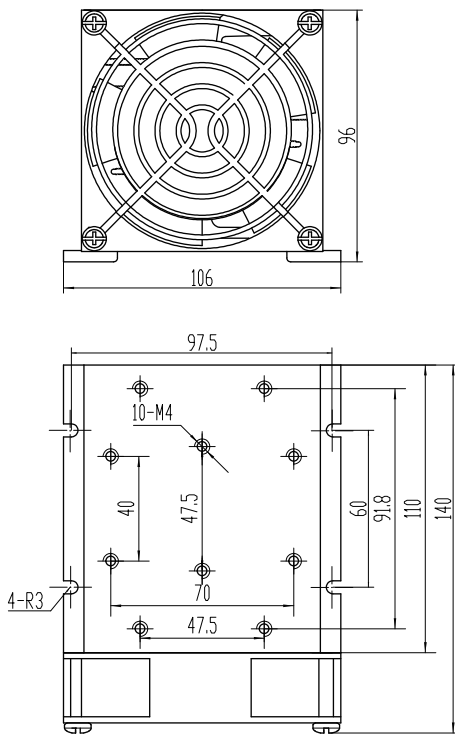
Note: KHS-D110-F is only suitable for panel installation. If rail installation is required, the radiator model is KHS-D110 (X1) - F; KHS-D110 is suitable for panel installation and rail installation.

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.

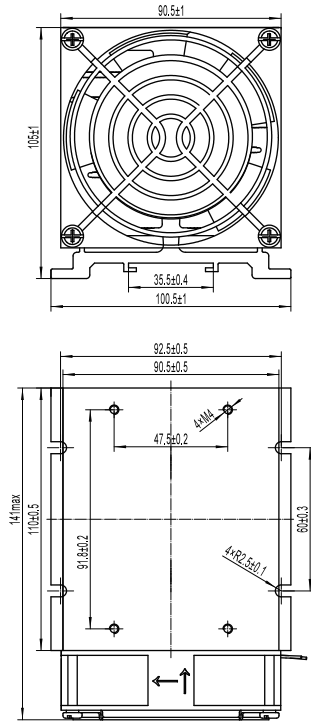
The above temperature curve is configured with radiator models as follows:



KHS-D110



KHS-D110-F



KHS-D110(X1)-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 4.43/(0.2-0.5) in-lb/N·m, 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.

! 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.