Product Description

- Zero Crossing or Random-on Switching
- SCR Output
- Optical Isolation
- Control Voltage:DC4-32V or AC 90-280VAC
- Load Current: 25A, 40A, 60A, 80A
- Dielectric Strength: 4000Vrms
- Internal RC/MOV Protection Circuit
- RoHS Compliant

Ordering Information

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	Blank: Zero Crossing R: Random-on	Customized Code

General Specifications

Input Specifications (Ta=25℃)		
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 Reverse Voltage	DC Control	32VDC
Maximum Input Current	AC Control	30mA@280VAC
	DC Control	35mA@32VDC

Output Specifications (Ta=25℃)			
Load Voltage Range		480VAC	24-530VAC
		600VAC	24-660VAC
Maximum Turn-On Time		AC Control	40ms
	DC Control	Zero Crossing	10ms
		Random-on	1ms
Maximum Turn-Off Time		AC Control	20ms
		DC Control	10ms
Maximum Surge Current (@10ms)		25A	300A
		40A	500A
		60A	860A
		80A	1280A
Transient Overvoltage		480VAC	1200Vpk
		600VAC	1600Vpk

General Specifications

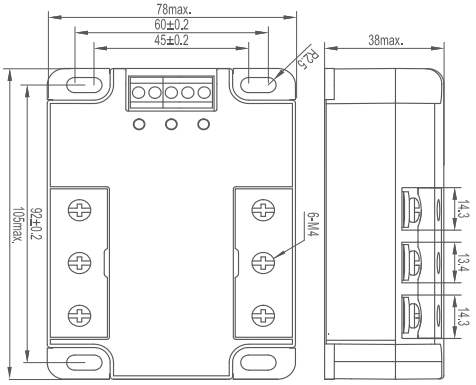
Maximum I²t for Fusing (@10ms)	25A	450A²s
	40A	1250A²s
	60A	3698A²s
	80A	8192A²s
Maximum Off-State Leakage Current@Rated Load Voltage	10mA	
Maximum On-State Voltage Drop@Rated Current	1.6Vrms	
Minimum Off-State dv/dt@Maximum Rated Voltage	≥500 V/μs	

General Specifications (Ta=25℃)		
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

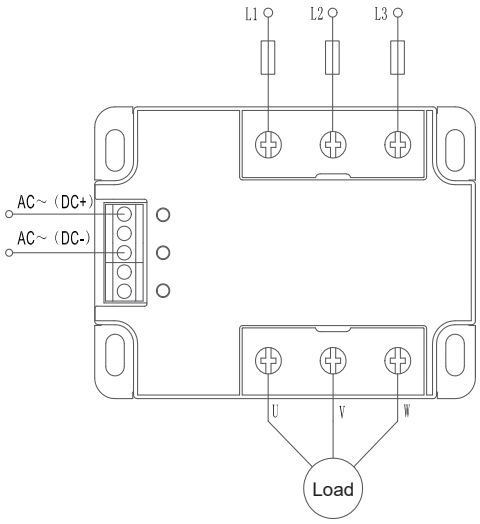
Applications

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

Outline Dimensions



Wiring Diagram

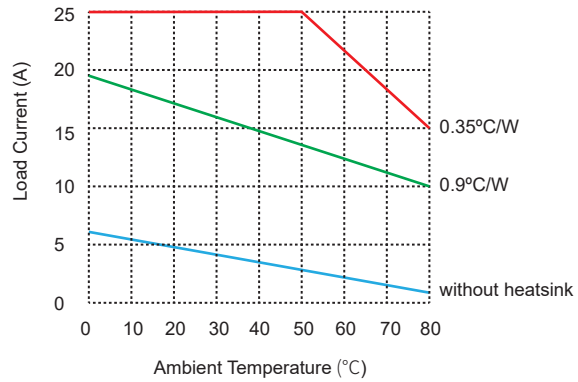


AC~ (DC+): AC Control Input (DC Control Anode Input)

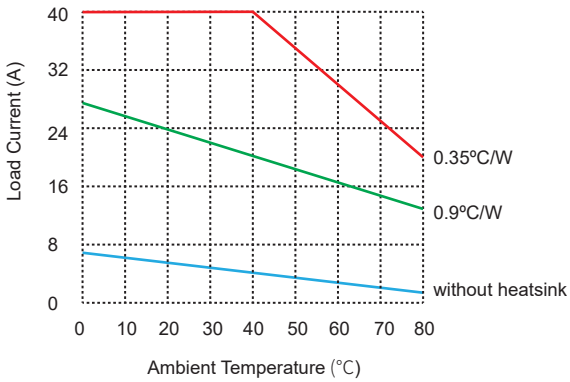
AC~ (DC-): AC Control Input (DC Control Cathod Input)

Thermal Derating Curve

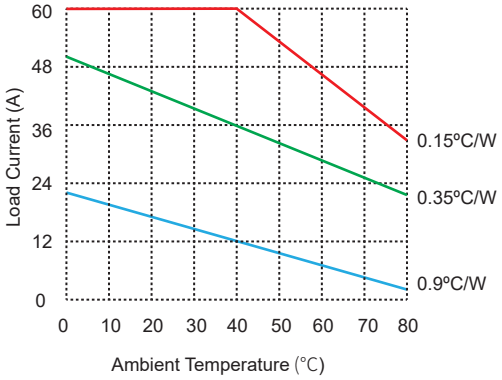
25A



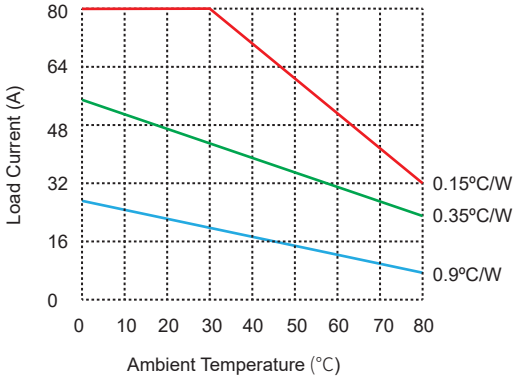
40A



60A



80A



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 18-20/2.0-2.2 in-lb/N·m.
2. When connection wiring to SSR please ensure screws are torqued down properly (input 4.43/0.5in lb/N·m, output 18-20/2.0-2.2 in-lb/N·m).
3. When Ambient temperature is above 25℃ see thermal derating.

Agency Approvals (Certification)