Product Description

- Zero Crossing or Random-on
- Load Current: 25-80A
- Over-temperature Protection
- Phase-loss Detection Function
- Fault Indication Function
- SCR Failure Detection Function
- Load Disconnection Detection Function
- Alarm Contact Output (Optional)
- Internal RC/MOV Protection Circuit
- RoHS Compliant

Ordering Information

KSQC	600	D	60	R	-C	(XXX)
KSQC Series (1)	Load Voltage 480: 200-480VAC 600: 200-600VAC	DC Control	Load Current 25: 25Amp 40: 40Amp 60: 60Amp 80: 80Amp	Blank: Zero Crossing R: Random-on	C: Alarm Output Blank: without Alarm Output	Customized Code

	25A	40A	60A	80A
480VAC	KSQC480D25	KSQC480D40	KSQC480D60	KSQC480D80
	KSQC480D25R	KSQC480D40R	KSQC480D60R	KSQC480D80R
	KSQC480D25-C	KSQC480D40-C	KSQC480D60-C	KSQC480D80-C
	KSQC480D25R-C	KSQC480D40R-C	KSQC480D60R-C	KSQC480D80R-C
600VAC	KSQC600D25	KSQC600D40	KSQC600D60	KSQC600D80
	KSQC600D25R	KSQC600D40R	KSQC600D60R	KSQC600D80R
	KSQC600D25-C	KSQC600D40-C	KSQC600D60-C	KSQC600D80-C
	KSQC600D25R-C	KSQC600D40R-C	KSQC600D60R-C	KSQC600D80R-C

General Specifications

Input Specifications (Ta=25℃)		
External Power Parameters	Rated Voltage Range	10-32VDC
	Max Current Consumption	70mA
Control Voltage	Control Voltage Range	10-32VDC
	Must Turn-on Voltage	10VDC
	Must Turn-off Voltage	2VDC
	Maximum Input Current	10mA

General Specifications

Output Specifications (Ta=25℃)		
Load Voltage Range	480VAC	200-530VAC
	600VAC	200-660VAC
Transient Overvoltage	480VAC	1200Vpk
	600VAC	1600Vpk
Minimum Load Current	200mA	
Maximum Turn-on Time	100ms	
Maximum Turn-off Time	100ms	
Maximum Surge Current (@10ms)	25A	300A
	40A	500A
	60A	700A
	80A	1280A
Maximum I^2t for Fusing (@10ms)	25A	450A^2s
	40A	1250A^2s
	60A	2450A^2s
	80A	8192A^2s
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	

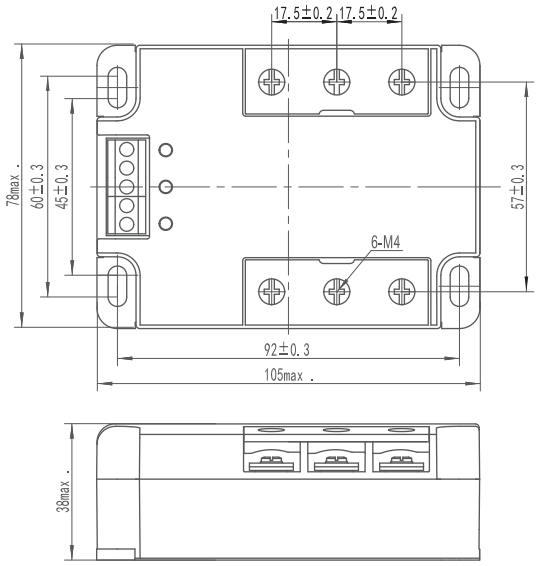
General Specifications (Ta=25℃)		
Alarm Contact Parameters	Contact Resistance	<70mΩ
	Maximum Current	1A @250VAC/30VDC
Dielectric Strength (50/60Hz)	Input/Output	4000Vrms
	Input,output/Base	2500Vrms
Minimum Insulation Resistance (@500VDC)	1000MΩ	
Ambient Temperature Range	-30℃ ～ +80℃	
Storage Temperature Range	-30℃ ～ +100℃	
Weight (Typical)	290g	

Function Introduction	
Over-temperature Protection	When the product is working, the temperature of the relay power component is monitored in real time. When the base temperature exceeds the set value, the output of the product is cut off. At the same time, the fault indicator light is on and the fault signal is output.
SCR Failure and Load Disconnection Detection	When no control signal is added, in case of SCR short circuit or load breakage, the product will output the fault state and the fault indicator light will be on at the same time.
Phase-loss Detection	If the three-phase voltage input fault occurs, the product will automatically cut off the output, and the fault indicator light will be on and the fault signal will be output.

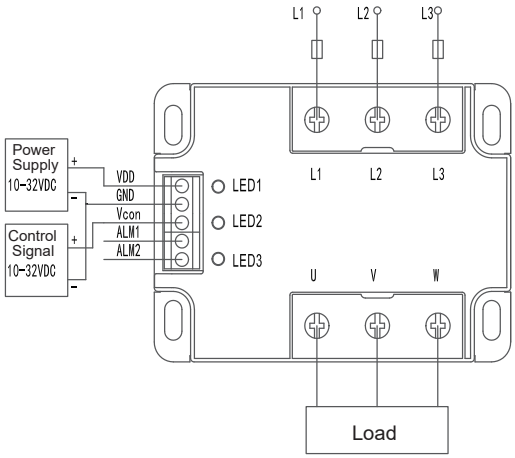
Applications

Suitable for Motor control, Kiln temperature control system, Large oven, and etc.

Outline Dimensions



Wiring Diagram



VDD: External DC power anode (10-32VDC)

GND: External DC power cathode (0V)

V_{CON}: Control voltage input (10-32VDC)

ALM1, ALM2: Failure alarm signal output

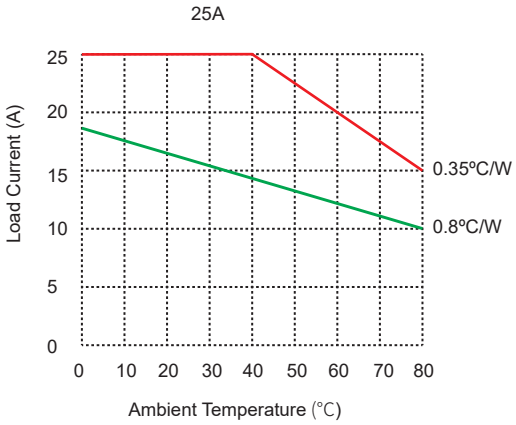
Short-circuited during failure

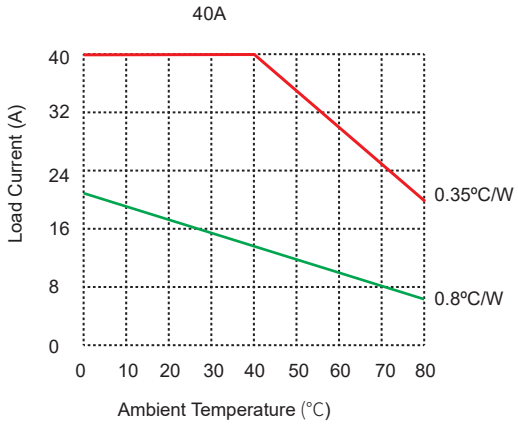
LED1: Power indication of external power supply

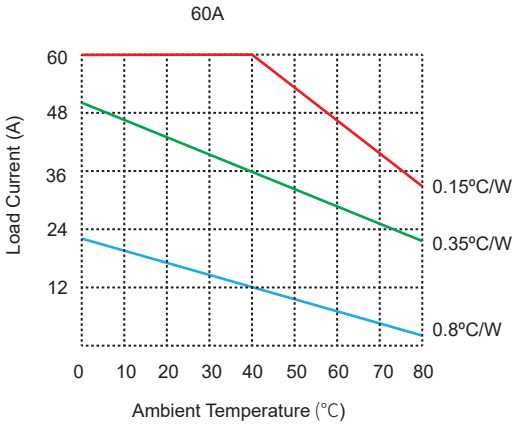
LED2: Control signal indication

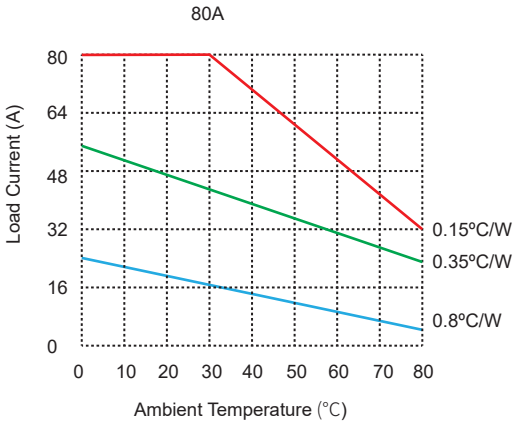
LED3: Failure indication

Thermal Derating Curve









General Notes

1. L1, L2 and L3 of the product must connect the phase line, U, V and W to connect the load, and the phase line side and the load side can't work normally.
2. Temperature protection of the product shall be automatically restored after the base plate temperature drops to the set value.
3. The heat generated by the relay shall be distributed through the bottom plate, and the bottom plate of the relay shall be in close contact with the radiator and firmly installed, and the contact surface shall be added with heat conducting pads or coated with heat conducting silicone grease.
4. The terminal of relay should ensure the wiring is firm. Loose wiring will lead to abnormal heating of the product and damage the product. The recommended installation torque of the input terminal is 0.5n ·m, and the recommended installation of the output terminal. The torque is (0.98 ~ 1.37) N·m.
5. When the working environment temperature of the product is high, please refer to the temperature curve for derating.