

**Product Description**

- ◆ Zero Crossing Switching
- ◆ DC Input
- ◆ Load Current: 10A, 20A, 40A
- ◆ Internal RC Protection Circuit
- ◆ RoHS Compliant



**Ordering Information**

<b>KMC</b>	<b>380</b>	<b>D</b>	<b>10</b>	<b>P</b>	<b>-24</b>	<b>(XXX)</b>
KMC Series <sup>(1)</sup>	Load Voltage 380: 380VAC	Control Mode D: DC Control	Load Current 10: 10Amp 20: 20Amp 40: 40Amp	Blank: Common Cathode P: Common Anode	Control Voltage 12: 9.6-14.4VDC 24: 19.2-28.8VDC	Customized Code 130: Lead Terminal Blank: Screw Terminal

(1) The part number selection is subject to the following list.

Information	10A	20A	40A
380VAC	KMC380D10-12	KMC380D20-12	KMC380D40-12
	KMC380D10-24	KMC380D20-24	KMC380D40-24
	KMC380D10-12(130)	KMC380D20-12(130)	
	KMC380D10-24(130)	KMC380D20-24(130)	

**General Specifications**

Input Specifications (Ta=25°C)		
Control Voltage Range	12VDC	9.6-14.4VDC
	24VDC	19.2-28.8VDC
Must Turn-on Voltage	12VDC	9.6VDC
	24VDC	19.2VDC
Must Turn-off Voltage	12VDC	2VDC
	24VDC	2VDC
Maximum Input Current	12VDC	15mA@14.4VDC
	24VDC	25mA@28.8VDC
Output Specifications (Ta=25°C)		
Load Voltage Range	24 - 440VAC	
Maximum Turn-on Time	10ms	
Maximum Turn-off Time	10ms	
Maximum 1 Cycle Surge Current (@10ms)	10A	100A
	20A	200A
	40A	400A
Maximum I <sup>2</sup> t (@10ms)	10A	50A <sup>2</sup> s
	20A	200A <sup>2</sup> s
	40A	800A <sup>2</sup> s
Maximum Transient Overvoltage	800Vpk	
Maximum Off-State Leakage Current@Rated Load Voltage	5mA	
Maximum On-State Voltage Drop@Rated Current	1.6Vrms	
Minimum Off-State dv/dt@Maximum Rated Voltage	200V/μs	

General Specifications

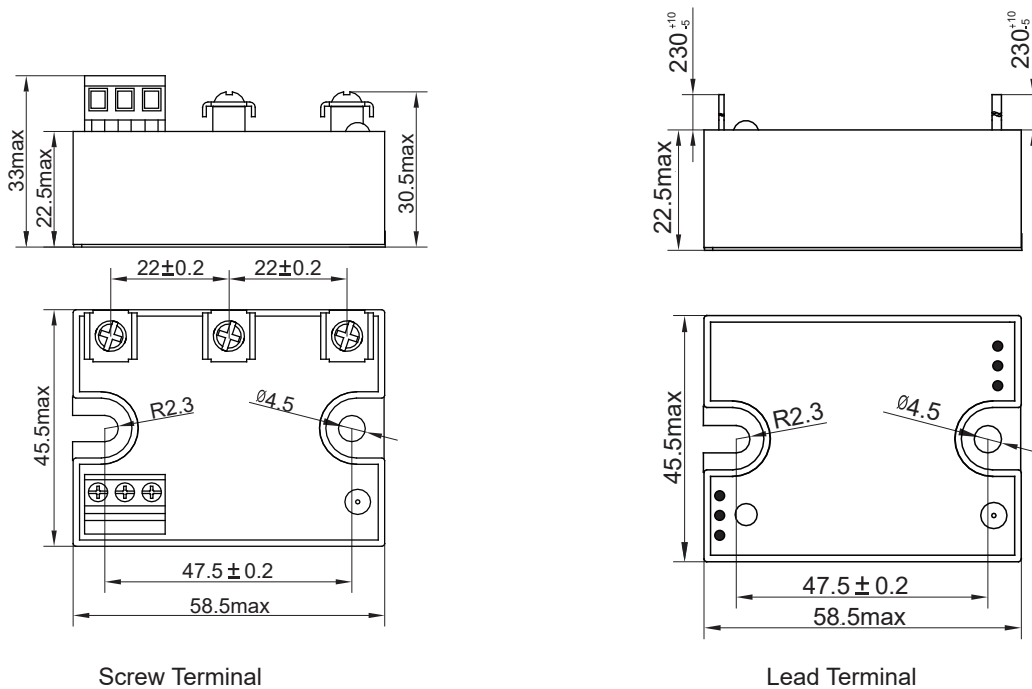
General Specifications (Ta=25°C)

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)	Screw Terminal	125g
	Lead Terminal	100g

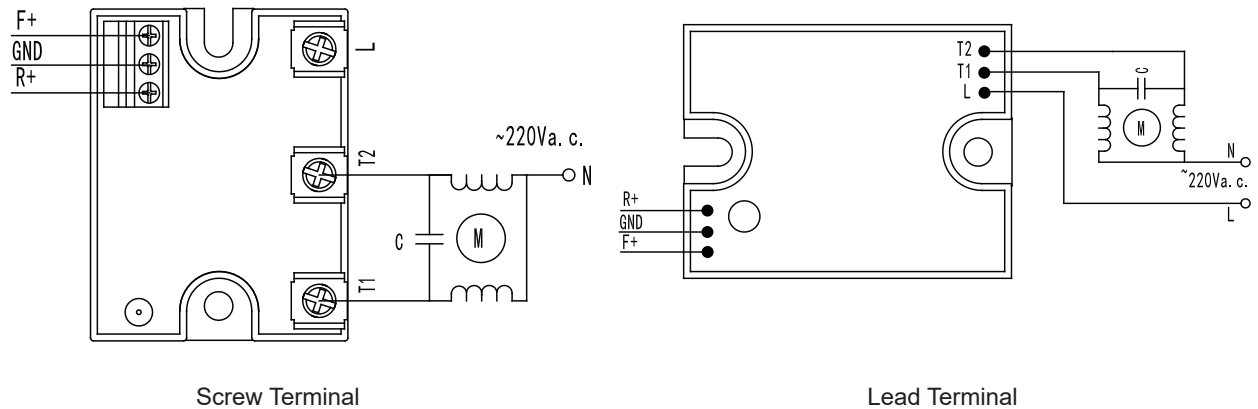
Application

Single phase motor control

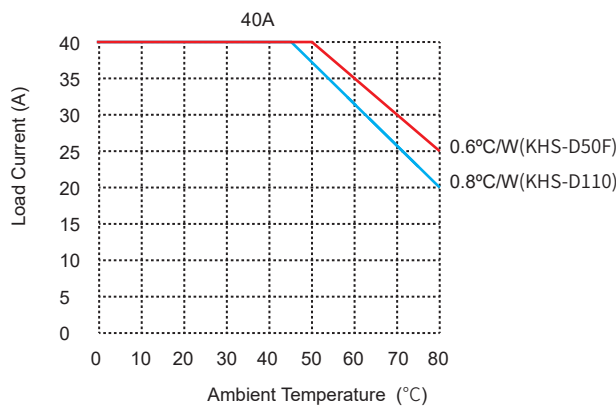
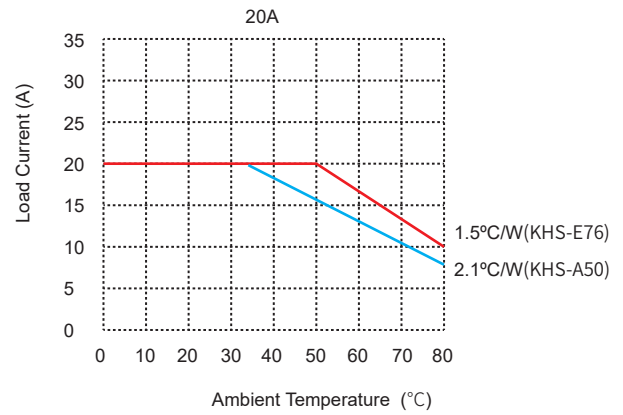
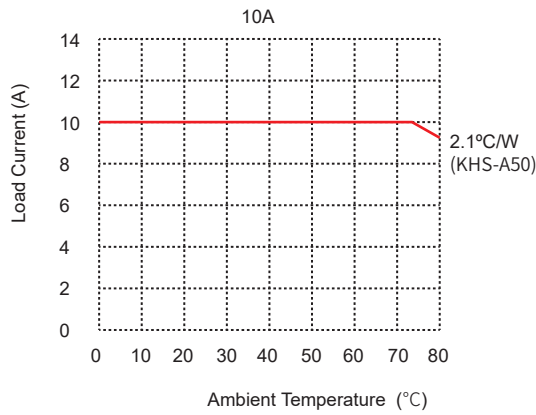
Outline Dimension



Wiring Diagram



Thermal Derating Curve



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 the relay and heat sink.
2. When connecting wiring to SSR please ensure screws are torqued down properly. Recommended torque for input screw is 4.43in-lb/(0.2-0.5) N·m, output screw is (8.67-12.12)in-lb (0.98-1.37)N·m.
3. When the operation temperature is above 25°C, please consider the derating as per the Thermal Derating Curve.
4. Please ensure reliable grounding when using the SSR.
5. The forward and reverse switching time must be over 20ms, which can avoid the damage caused by the operation error or the SCR can not be turned off in time during the forward and reverse switching operation.

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.