

## Product Description

- ◆ Load Current: 25A@24-440VAC
- ◆ Control Voltage: 12VDC or 24VDC
- ◆ Internal RC Protection Circuit
- ◆ High EMC Design
- ◆ Three Phase Switch or Three Phase 2-leg Control



## Ordering Information

KMG	M	G	M	A	8	0	D	2	5	R	P	-	2	4	F	(XXX)
KMG Series							DC Control		Load Current 25:25Amp	Switching Mode R: Random-on	Blank: Common Cathode P: Common Anode		Control Voltage 12: 12VDC 24: 24VDC		F: Three Phase Switch Blank: Three Phase 2-leg Control	Customized Code

## General Specifications

Input Specifications (Ta=25°C)		
Control Voltage Range	-12	9.6-14.4VDC
	-24	21-28.8VDC
Must Turn-on Voltage	-12	9.6VDC
	-24	21VDC
Maximum Input Current	-12	65mA@14.4VDC
	-24	45mA@28.8VDC
Must Turn-off Voltage		4VDC
Delay Conduction Time (Typical)		70-100ms

Output Specifications(Ta=25°C)	
Load Voltage Range	24-440VAC
Maximum Transient Overvoltage	800Vpk
Minimum Load Current	100mA
Maximum Turn-off Time	20ms
Maximum On-State Voltage Drop@Rated Current	1.6Vrms
Minimum Off-State dv/dt	200V/μs

General Specifications

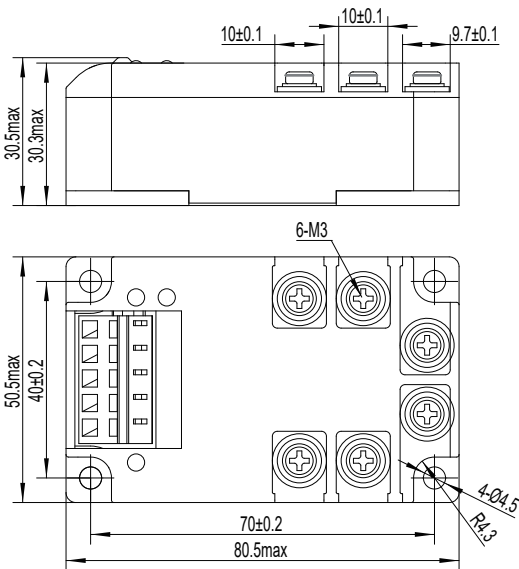
Output Specifications(Ta=25°C)	
Maximum Off-State Leakage Current@Rated Load Voltage	5mA
Maximum Surge Current (@10ms)	250A
Maximum Motor Power	1.5kW
Maximum I²t (@10ms)	312A²s

General Specifications (Ta=25°C)		
Dielectric Strength (50/60Hz)	Input/Output	3000Vrms
	Input, output/Base	2500Vrms
Ambient Temperature Range	-30°C ~ +80°C	
Storage Temperature Range	-30°C ~ +100°C	
Pulse Immunity Level	IEC61000-4-4	4kV/100kHz(Level 4)
Surge Immunity Level	IEC61000-4-5	2kV/common mould, 1kV/different mould(Level 3)
Electrostatic Discharge Immunity Level	IEC61000-4-2	6kV/contact discharge, 8kV/air discharge(Level 4)
Weight (Typical)	180g	
Working Status Indication	Green	Forward Indication
	Red	Reverse Indication

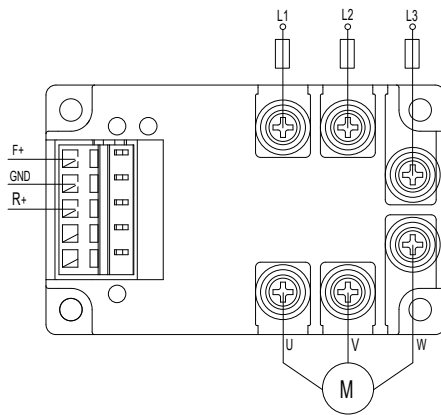
Application

Suitable for motor control.

Outline Dimension



## Wiring Diagram



Common Cathode

Wiring instructions of common negative control:

Input wiring:

F+: Connect to the positive pole of motor forwarding signal

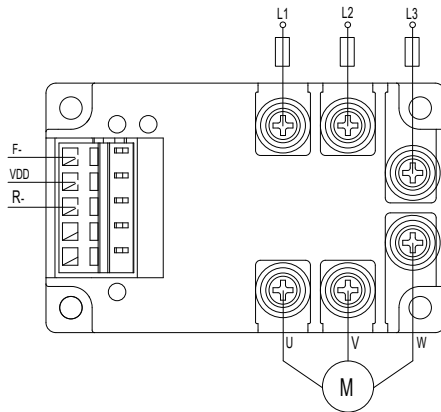
GND: Connect to the negative pole of power supply

R+: Connect to the positive pole of motor reversing signal

Output wiring:

L1/L2/L3: Connect to input terminals of motor

U/V/W: Connect to output terminals of motor



Common Anode

Wiring instructions of common positive control:

Input wiring:

F-: Connect to the negative pole of motor forwarding signal

VDD: Connect to the positive pole of power supply, 10-32VDC

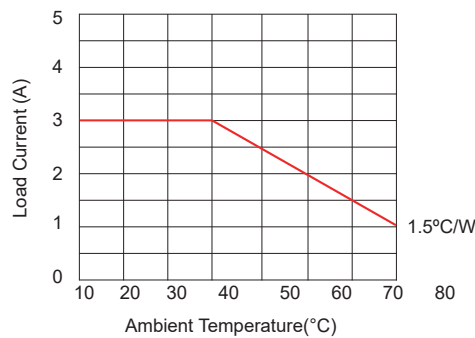
R-: Connect to the negative pole of motor reversing signal

Output wiring:

L1/L2/L3: Connect to input terminals of motor

U/V/W: Connect to output terminals of motor

## Thermal Derating Curve



Note: This product can be installed on a panel with a thermal resistance of  $\leq 1.5^{\circ}\text{C/W}$  to assist in heat dissipation.

### 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 the heat sink.
2. If the connected load will generate high surge current, please pay attention to whether the product can withstand the value of surge current.
3. Avoid using the product under the condition of strong magnetic field. The external strong magnetic field will affect the product's performance, such as switching on and off.
4. Please ensure reliable grounding when using the SSR.
5. The forward and reverse module should avoid dropping or falling due to improper installation. If the module falls, it may be damaged or suffer from reduced reliability, which could shorten its service life. If the product is accidentally dropped, it is not recommended to continue using it.

### ! 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.