Product Description

CMH motor reversing module are specially designed for three-phase motor control, the control circuit contains logic interlocking, delay circuits, and the switching time between forwarding and reversing is 80ms; with built-in brake function.

- 10-32VDC Input Control
- Applicable Motor Power Below 2.5kW
- Dielectric Strength: 4000Vrms
- Internal RC Protection Circuit
- Equipped with Braking Function, the Braking Time Can Be Controlled Internally or Externally

Ordering Information

CMH	380	D	25	R	-24	F	T
CMH Series	Load Voltage 380: 380VAC	DC Control	Load Current 25:25Amp 40:40Amp 60:60Amp	Switching Mode R: Random-on	Control Voltage 24:10~32VDC	F: Three Phase Switch	T: Factory Default Brake Time Setting

General Specifications

Input Specifications (Ta=25°C)		
Auxiliary Power Supply	CMH...-24FT Series	10-30VDC
Control Voltage Range		10-32VDC
Must Turn-on Voltage		10VDC
Must Turn-off Voltage		4VDC
Maximum Input Current		35 mA@32VDC
Turn-on Delay Time (Typical)		80±10ms
Braking Time		0-2s Adjustable, Initial Time 460ms

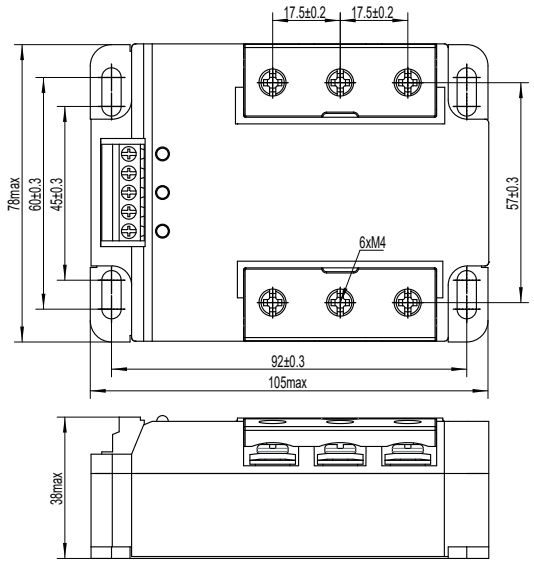
Output Specifications(Ta=25°C)		
Load Voltage Range		300-440VAC
Maximum Transient Overvoltage		1200Vpk
Minimum Load Current		100mA
Maximum Turn-off Time		20ms
Maximum Surge Current (@10ms)	25A	250A
	40A	400A
	60A	600A
Maximum Off-State Leakage Current@Rated Load Voltage		5mA
Maximum On-State Voltage Drop@Rated Current		1.7Vrms
Maximum I^2t (@10ms)	25A	312A^2s
	40A	800A^2s
	60A	1800A^2s
Motor Power	25A	0.75kW
	40A	1.1kW
	60A	2.5kW
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℃ ~ +80℃
Storage Temperature Range		-30℃ ~ +100℃
Pulse Immunity Level	IEC61000-4-4	2kV/5kHz
Surge Immunity Level	IEC61000-4-5	2kV/Common mode; 1kV Differential mode
Electrostatic Discharge Immunity Level	IEC61000-4-2	6kV/contact discharge, 8kV/air discharge
Weight (Typical)		400g
Working Status Indication	LED1	Forward Indication
	LED2	Reverse Indication
	LED1 / LED2	Braking Indication

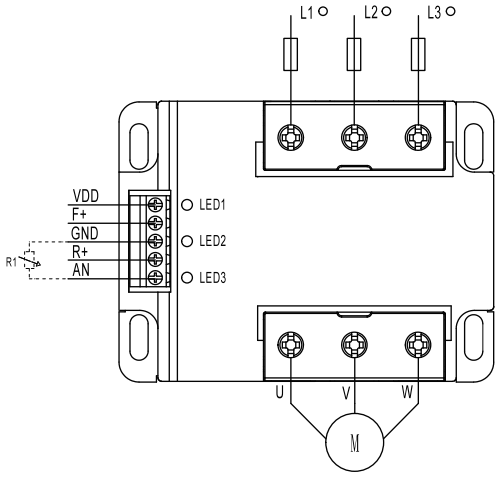
Application

Suitable for motor control.

Outline Dimension



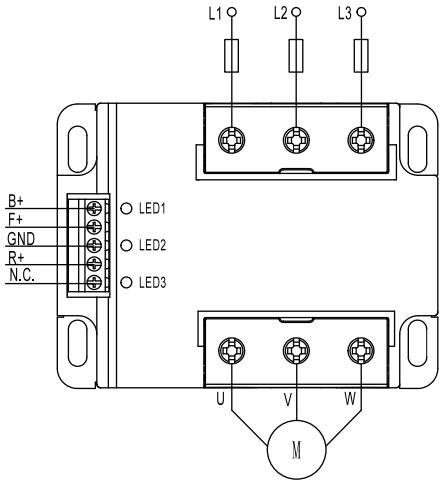
Wiring Diagram



CMH...-24FT Series

VDD: Auxiliary power input Anode+
F+: Forward control input Anode+
GND: Common port input Cathode-
R+: Reverse control input Anode+
AN: Adjustable braking time resistor interface
LED1: Forward indication
LED2: Reverse indication
LED3: None
L1/L2/L3: Three-phase input
U/V/W: Three-phase load output

Note: When resistor R1 is in open circuit, the initial braking time of the product is 460ms. The maximum adjustable braking time range of the product is 0~2s. If it is necessary to adjust the braking time of the product, a resistor R1 (with a resistance power of 0.125W or above) should be connected between AN and GND. The resistance value range of R1 that can be connected is between 0~5kΩ; The smaller the resistance value of R1, the shorter the corresponding braking time. It is recommended that customers adjust the resistance from small to large in actual application to avoid motor damage caused by overheating due to prolonged braking time.

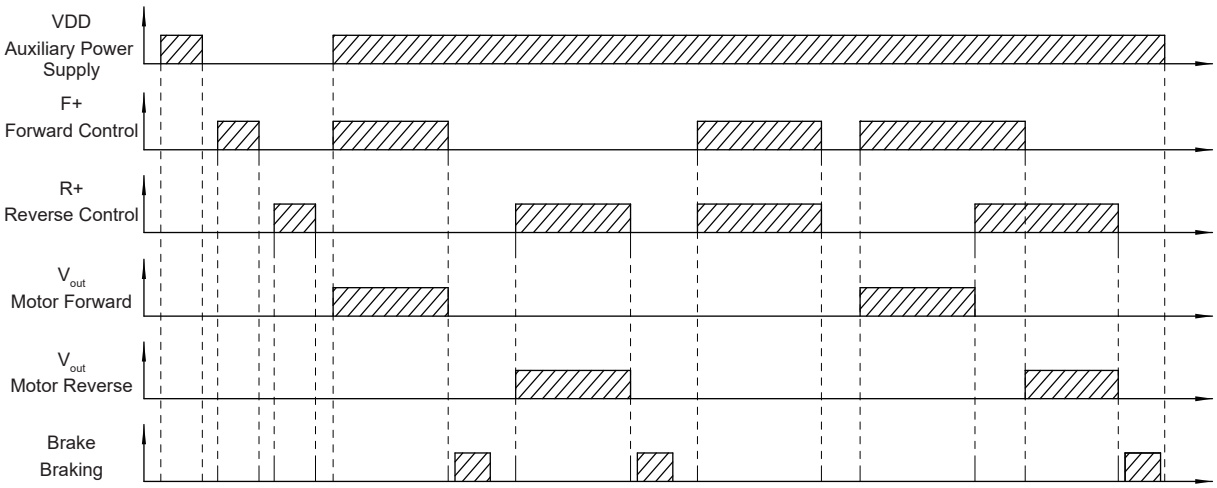


CMH...-24F Series

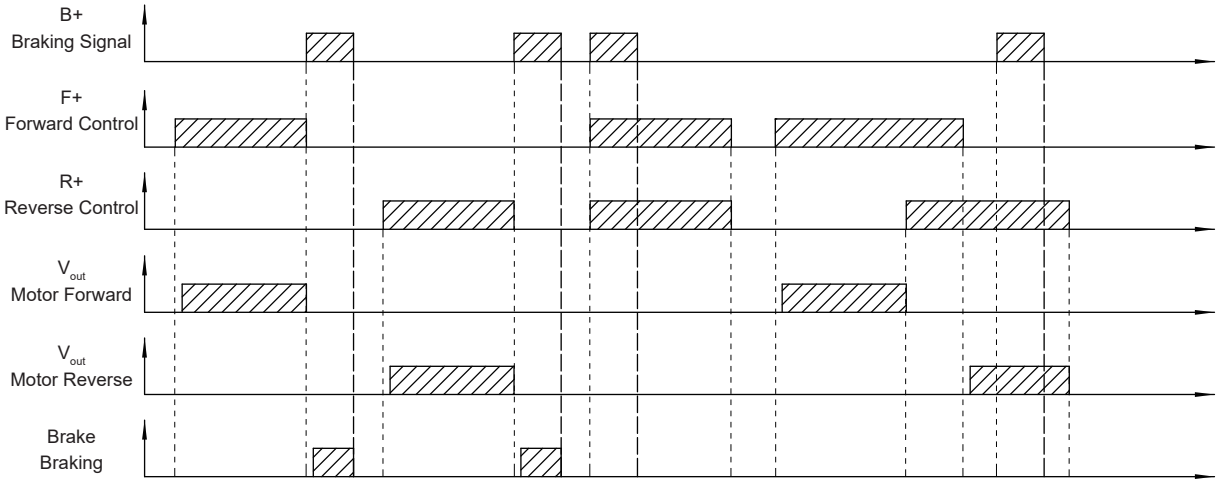
B+: Braking control input Anode+
F+: Forward control input Anode+
GND: Common port please input Cathode-
R+: Reverse control input Anode+
LED1: Forward indication
LED2: Reverse indication
LED3: None
L1/L2/L3: Three-phase input
U/V/W: Three-phase load output

Sequence Diagram

CMH...-24FT series sequence diagram of forward or reverse control and braking

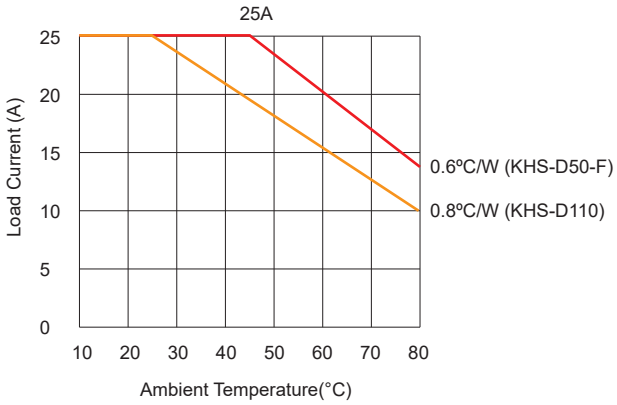


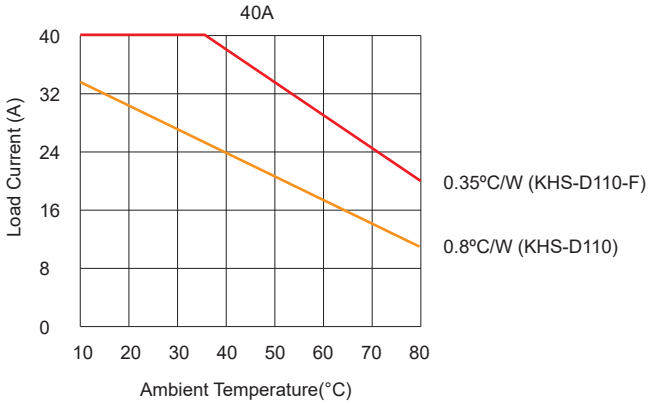
CMH...-24F series sequence diagram of forward or reverse control and braking

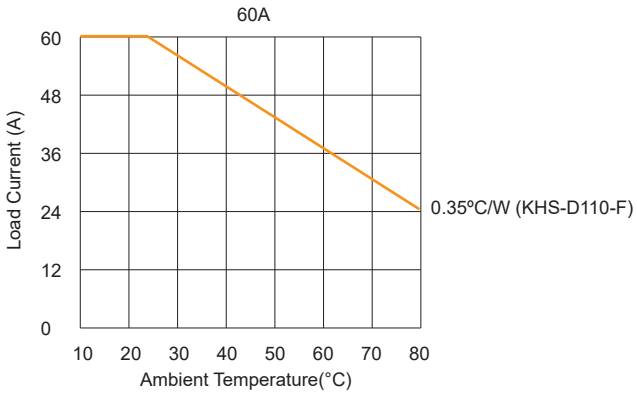


Note: When braking, a higher current will be generated on the motor, resulting the heating. Therefore, the braking time should be minimized to avoid the damage to the motor due to overheating.

Thermal Derating Curve







General Notes

1. The terminals should ensure that the wiring is firm. Loose wiring can cause abnormal heating and damage to the product.
2. When connecting wiring to SSR please ensure screws are torqued down properly. Recommended torque for input screw is 4.43/(0.2-0.5) in-lb/N·m, output screw is (18-20)/(2.0-2.2) in-lb/N·m.
3. Please ensure reliable grounding when using the SSR.

! 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.

