

Your vision, automated



# MCOM20/200/270

## VFD – VARIABLE FREQUENCY DRIVE



The MCOM20/200/270 series Variable Frequency Drives are high-performance AC motor controllers designed for demanding industrial applications requiring precise speed, torque, and process control. Supporting input voltages from 220V to 520V, the series delivers output power from 2.2 kW up to 37 kW, making it suitable for a wide range of motor capacities. With advanced sensor less Vector Control (SVC) and SVPWM modulation, the drive ensures excellent speed accuracy ( $\pm 0.2\%$ ), fast torque response ( $< 20$  ms), and stable operation even under fluctuating load conditions.

Equipped with versatile frequency setting options - including digital, analog, PID, multi-step speed, MODBUS communication, and simple PLC mode—the MCOM20/200/270 provides flexible integration across automation environments. The system includes over 30 protection features such as overcurrent, overvoltage, overheating, and phase loss, ensuring safe and reliable operation. With multiple analog/digital inputs, high-speed pulse I/O, programmable relays, and support for wall, flange, or floor mounting, the MCOM20/200/270 is engineered to deliver durability, control precision, and efficiency in modern industrial systems.

Sr. No.	FUNCTION		SPECIFICATION
1.	Input	Input Voltage (V)	AC 3PH 220V (~15%) ~ 240V (+10%)
			AC 3PH 380V (~15%) ~ 240V (+10%)
			AC 3PH 520V (~15%) ~ 240V (+10%)
		Input Current (A)	5.8A to 38A
		Input Frequency (Hz)	50Hz or 60Hz
Allowed range: 47 ~ 63Hz			
2.	Output	Output Current (A)	5.8A to 76A
		Output Power (kW)	2.2 kW to 37 kW
		Output Frequency (Hz)	0 ~ 400Hz
3.	Technical control feature	Control mode	SVPWM SVC
		Motor type	Asynchronous
		Motor speed ratio	Asynchronous motor
		Speed ratio	Asynchronous motor 1:100 (SVC)
		Speed control accuracy	±0.2% (sensor less vector control)
		Speed fluctuation	± 0.3%(sensor less vector control)
		Torque response	<20ms(sensor less vector control)
		Torque control accuracy	10%(sensor less vector control)
		Starting torque	Asynchronous motor: 0.5Hz/150% (SVC)
		Overload capability	G type: 150% of rated current: 1 minute 180% of rated current: 10 seconds 200% of rated current: 1 second

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4.	Running control feature	Frequency setting	Digital setting, analog setting, pulse frequency setting, multi-step speed running setting, simple PLC setting, PID setting, MODBUS communication setting. Shift between the set combination and set channel
		Auto voltage adjustment	Keep a stable voltage automatically when the grid voltage transients
		Fault protection	Provide over 30 fault protection functions: overcurrent, over voltage, under voltage, overheating, phase loss and overload, etc.
		Speed tracking	Restart the rotating motor smoothly Note: This function is available for the inverters of 4kW and above 4kW.
5.	Peripheral interface	Terminal analog input resolution	≤ 20mV
		Analog input	1 channels ( AI2) 0~10V/0~20mA and 1 channel (AI3) -10~10V
		Digital input	8 channels common input, the Max. frequency: 1kHz, internal impedance: 3.3kΩ; 1 channel high speed input, the Max. frequency: 50kHz
		Digital output	1 channel high speed pulse output, the Max. frequency: 50kHz; 1 channel Y terminal open collector pole output
		Relay output	2 channels programmable relay output RO1A NO, RO1B NC, RO1C common terminal RO2A NO, RO2B NC, RO2C common terminal Contactor capability: 3A/AC250V,1A/DC30V

<b>Sr. No.</b>	<b>FUNCTION</b>		<b>SPECIFICATION</b>
6.	Others	Mountable method	Wall, flange and floor mountable
		Temperature of the running environment	-10~50°C, derate above 40°C
		Ingress protection	IP20
		Cooling	Air-cooling

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**MODERN COMMUNICATION TECHNOLOGY**

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