



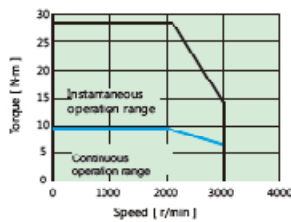
MM200A

2KW Middle inertia



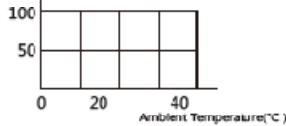
NT characteristics

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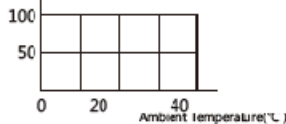


Continuous torque-Ambient temperature

- Without oil seal
Rated torque ratio(%)



- With oil seal
Rated torque ratio(%)

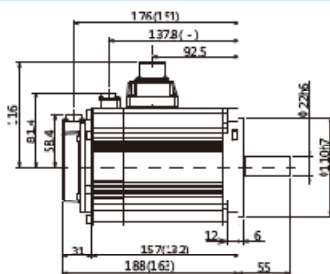


Specifications

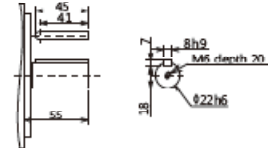
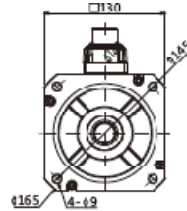
Items	Units	Specification	
Model Name M□□□□□2□□**		2KW Middle inertia MM200A	
Fitting flange size	mm	□130	
Approximate mass	Without brake	Kg	8.4
	With brake		9.8
Rated voltage	V	AC200	
Rated output	W	2000	
Rated torque	N·m	9.55	
Instantaneous max. torque	N·m	28.6	
Rated current	Arms	12.2	
Instantaneous max. current	Arms	34.6	
Rated speed	r/min	2000	
Max. speed	r/min	3000	
Torque constant	N·m/A	0.85	
Induced voltage constant per phase	MV(r/min)	29.6	
Rated power rate	Without brake	KW/S	104.9
	With brake		87.9
Mechanical time constant	Without brake	ms	0.58
	With brake		0.69
Electrical time constant	ms	12.2	
Moment of inertia	Without brake	$\times 10^{-4}$ Kg·m ²	8.70
	With brake		10.38
Brake specification	Usage	—	Holding
	Rated voltage	V	DC24V \pm 10%
	Rated current	—	1
	Static friction torque	—	9.55 or more
	Suction time	ms	120 at 100% voltage
Cooling conditions	Release time	ms	30 at 100% voltage
	Release voltage	V	DC 1V or more
		—	t=20 \pm □470 Aluminum heat sink

External Dimensions

MM202



Shaft-end dimension



※Dimension with parentheses () show dimensions with no brake.

Supplement to Motor Specification

Ambient conditions for use

Items	Units	Specification
Ambient temperature for use	°C	0~40(Without condensation) Note 1)
Ambient humidity for use	%RH	20~85(Without condensation)
Ambient temperature for storage	°C	-20~55(Highest temperature guaranteed: 80 degrees, 72hours) Note 2)
Ambient humidity for storage	%RH	20~85(Without condensation)
Atmosphere for use/storage	—	Indoors(Not subject to rainwater or direct sunlight); free from corrosive gas, flammable gas, flammables, grinding fluid, oil mist, or dust
Insulation class	—	Class B
Insulation resistance	—	1000 VDC megger 5MΩ or more
Dielectric strength	—	At 1500 V AC 50/60 Hz for 1 minute 10mA or less
Vibration class	—	V 15
Vibration resistance	m/s ²	49 (5G)
Impact resistance	m/s ²	98 (10G)
Protective construction	—	IP65(Excluding shaft penetrating section and connectors)
Time rating	—	Continuous
Operating position	—	All directions
Direction of rotation	—	Normal: CW, Reverse: CCW



*Note 1) The temperature for use is the temperature measured at a point 5cm apart from the motor.
 *Note 2) This is a temperature that can be tolerated only for a short period such as during transportation.

Encoder specification

Items	Units	Specification
Motor Model Name	—	M□□□□□□□□□□□□□□□□**
Encoder specification	—	17 bit (incremental) 17 bit (absolute)
Encoder room temperature	°C	0~85
Resistance to external magnetic field	mT	±2 (20G) or less
Rated voltage	V	DC 4.5V~5.5V
External battery voltage	V	— DC 2.4V~5.5V
Current consumption	mA	160 typ
State of low power consumption	μA	— typ 10μA
Single revolution resolution	—	131,072(17bit)
Multi-revolution count	count/turn	— 65,536 Count
Maximum speed	r/min	6,000
Input/ Output form	—	EIA - 422B(half-duplex)
Count-up direction	—	CCW
Communication specification	Transmission method	— Half-duplex asynchronous serial communication
	Communication speed	Mbps



Output shaft permissible load

Items	Units	Specification							
Motor model name M□□□□□□□□□□□□□□□□**		50W MM500□2	100W MM101□2	200W MA201□2 MH201□2	400W MA401□2 MH401□2	750W MA751□2 MH751□2	1KW MM102□2 MH102□2	1.5KW MM152□2 MH152□2	2KW MM202□2
Permissible radial load	N	68	68	245	245	392	490	490	490
Permissible thrust load	N	58	58	98	98	147	196	196	196



※At the midpoint of the thrust protrusion