



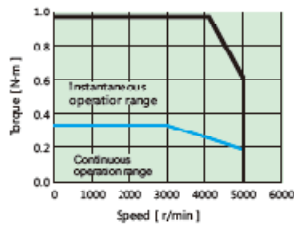
MM10A

100W Middle Inertia

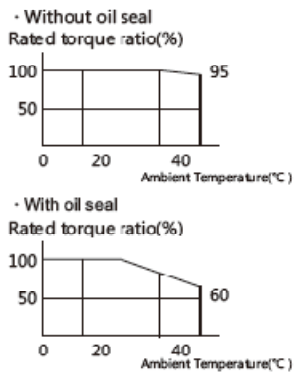


NT characteristics

NT characteristics



Continuous torque-Ambient temperature



Specifications

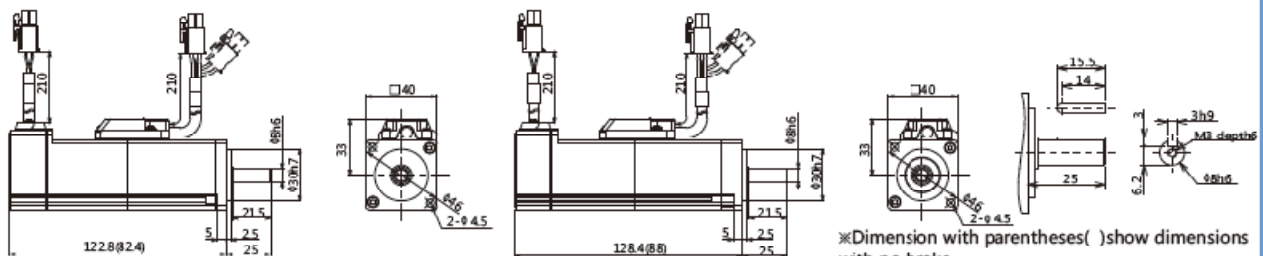
Items	Units	Specification	
Model Name		100W Middle inertia MM005A	
Fitting flange size	mm	□40	
Approximate mass	Without brake	0.5	
	With brake	0.8	
Rated voltage	V	200	
Rated output	W	100	
Rated torque	N·m	0.32	
Instantaneous max. torque	N·m	1.12	
Rated current	Arms	0.8	
Instantaneous max. current	Arms	2.4	
Rated speed	r/min	3000	
Max. speed	r/min	6000	
Torque constant	N·m/A	0.45	
Induced voltage constant per phase	MV(r/min)	15.8	
Rated power rate	Without brake	13.1	
	With brake	12.2	
Mechanical time constant	Without brake	1.61	
	With brake	1.74	
Electrical time constant	ms	0.7	
Moment of inertia	Without brake	0.077	
	With brake	0.083	
Brake specification	Usage	Holding	
	Rated voltage	V	DC24V±10%
	Rated current	—	0.25
	Static friction torque		0.29 or more
	Suction time	ms	35 at 100% voltage
	Release time	ms	20 at 100% voltage
	Release voltage	V	DC 1V or more

External Dimensions

MM10A without oil seal

MM10A with oil seal

Shaft-end dimension



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	-20~65(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	—	V15
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□□□□□□□□□□**	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	2.5



Output shaft permissible load

Items	Units	Specification							
		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