

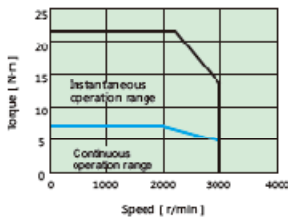
MM150A
1.5KW Middle inertia

MH150A
1.5KW High inertia

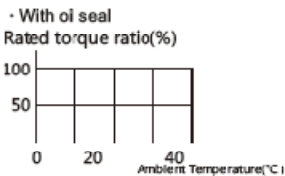
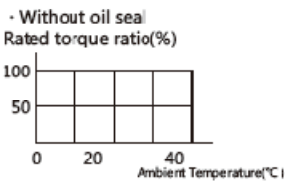


NT characteristics

NT characteristics



Continuous torque - Ambient temperature



Specifications

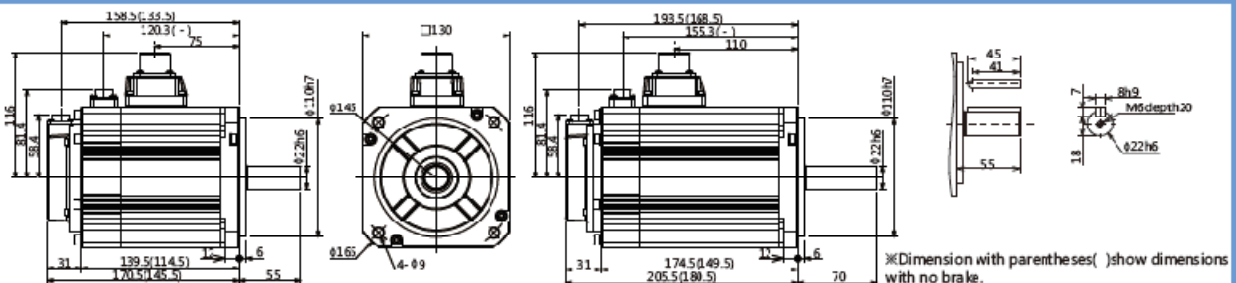
Items		Units	Specification	
Model Name M□□□□□2□□**			1.5KW Middle inertia MM150A	1.5KW High inertia MH150A
Fitting flange size		mm	□130	
Approximate mass	Without brake	Kg	7.0	9.0
	With brake		8.4	10.4
Rated voltage		V	AC200	
Rated output		W	1500	
Rated torque		N·m	7.16	
Instantaneous max. torque		N·m	21.5	
Rated current		Arms	9.9	
Instantaneous max. current		Arms	27.9	
Rated speed		r/min	2000	
Max. speed		r/min	3000	
Torque constant		N·m/A	0.81	
Induced voltage constant per phase		MV(r/min)	28.4	
Rated power rate	Without brake	KW/S	76.9	13.8
	With brake		61.4	13.3
Mechanical time constant	Without brake	ms	0.60	3.32
	With brake		0.75	3.46
Electrical time constant		ms	12.2	
Moment of inertia	Without brake	×10 ⁻⁴ Kg·m ²	6.67	37.12
	With brake		8.35	38.65
Brake specification	Usage	—	Holding	
	Rated voltage	V	DC24V±10%	
	Rated current	—	1	
	Static friction torque	—	9.55 or more	
	Suction time	ms	120 at 100% voltage	
	Release time	ms	30 at 100% voltage	
Release voltage		V	DC 1V or more	

External Dimensions

■ MM150A

■ MH150A

■ 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	—	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.

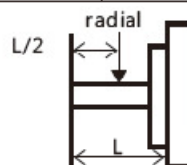
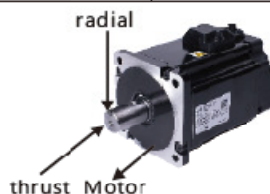
Encoder specification

Items	Units	Specification	
Motor Model Name	—	M□□□□□□□□N**	M□□□□□□□□A**
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	—	55,536 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	2.5	



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