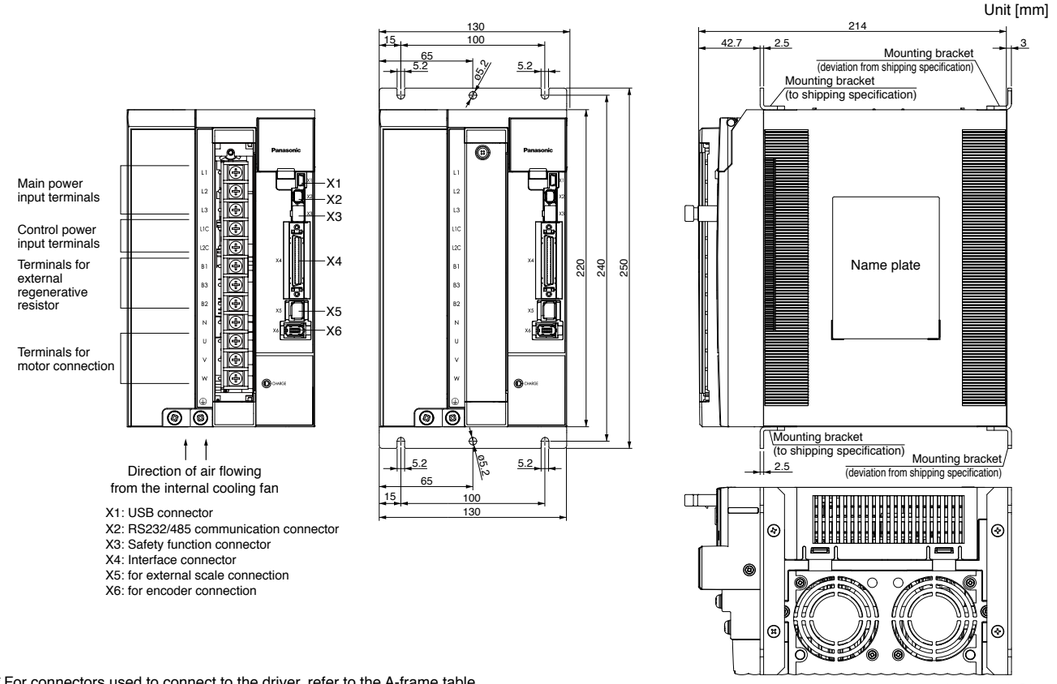
F-frame (200V)

Unit [mm]



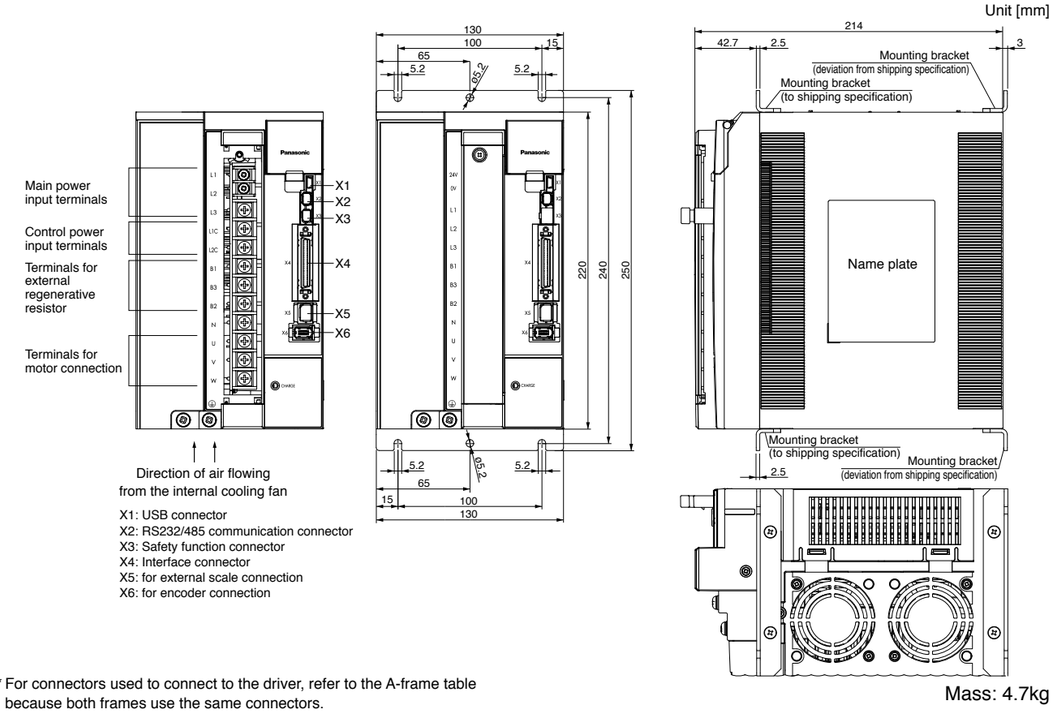
X1: USB connector
X2: RS232/485 communication connector
X3: Safety function connector
X4: Interface connector
X5: for external scale connection
X6: for encoder connection

* For connectors used to connect to the driver, refer to the A-frame table because both frames use the same connectors.

Mass: 4.8kg

F-frame (400V)

Unit [mm]



X1: USB connector
X2: RS232/485 communication connector
X3: Safety function connector
X4: Interface connector
X5: for external scale connection
X6: for encoder connection

* For connectors used to connect to the driver, refer to the A-frame table because both frames use the same connectors.

Mass: 4.7kg

Features

- Line-up: 50W to 5.0kW
- Max speed: 6000r/min (MSME 50W to 750W)
- Low inertia (MSME) to High inertia (MHME).
- Low cogging torque: Rated torque ratio 0.5% (typical value).
- 20-bit incremental encoder (1,048,576 pulse)
- 17-bit absolute encoder (131,072 pulse).
- Enclosure rating: IP67 (M*ME), IP65 (M*MD)
- Compact & Light weight

Small capacity type

[MSME (50W to 750W)]

Middle capacity type

[MSME (1.0kW to 5.0kW)]

Motor (Scheduled to be released.)

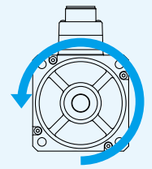
- MDME 7.5kW, 11kW, 15kW
- MHME 7.5kW
- MGME 4.5kW, 6.0kW
- MFME 1.5kW, 2.5kW, 4.5kW
- Motor with Gear Reduce: 100W, 200W, 400W, 750W

Environmental Conditions

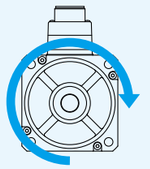
Item		Conditions
Ambient temperature *1		0˚C to 40˚C (free from freezing)
Ambient humidity		20% to 85% RH (free from condensation)
Storage temperature *2		–20˚C to 65˚C (Max.temperature guarantee: 80˚C for 72 hours)
Storage humidity		20% to 85% RH (free from condensation)
Vibration	Motor only	Lower than 49m/s^2 (5G) at running, 24.5m/s^2 (2.5G) at stall
Impact	Motor only	Lower than 98m/s^2 (10G)
Enclosure rating (Motor only)	Leadwire type *3	IP65 (except rotating portion of output shaft and readwire end.)
	Connector type*3*4	IP67 (except rotating portion of output shaft and connecting pin part of the motor connector and the encoder connector)
Altitude		Lower than 1000m

*1 Ambient temperature to be measured at 5cm away from the motor.
*2 Permissible temperature for short duration such as transportation.
*3 These motors conform to the test conditions specified in EN standards (EN60529, EN60034-5). Do not use these motors in application where water proof performance is required such as continuous wash-down operation.
*4 This condition is applied when the connector mounting screw in case of motor 750W or less are tightened to the recommended tightening torque (Refer to 1-16, 2-18, 2-00). Be sure to use mounting screw supplied with the connector.

<Note>
Initial setup of rotational direction: positive = CCW and negative = CW.
Pay an extra attention.



Positive direction (CCW)



Negative direction (CW)

Motor Specifications 100V MSME 50W [Low inertia, Small capacity]

Specifications

			AC100V	
Motor model *1		MSME	5AZG1□	5AZS1□
Applicable driver *2	Model No.	A5 series	MADHT1105	
		A5E series	MADHT1105E	
	Frame symbol		A-frame	
Power supply capacity		(kVA)	0.4	
Rated output		(W)	50	
Rated torque		(N·m)	0.16	
Momentary Max. peak torque		(N·m)	0.48	
Rated current		(A(rms))	1.1	
Max. current		(A(o-p))	4.7	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4280		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	6000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.025	
	With brake		0.027	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	0.29 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.3
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

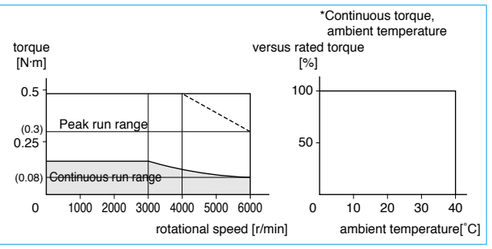
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88
	Thrust load B-direction (N)	117.6
During operation	Radial load P-direction (N)	68.6
	Thrust load A, B-direction (N)	58.8

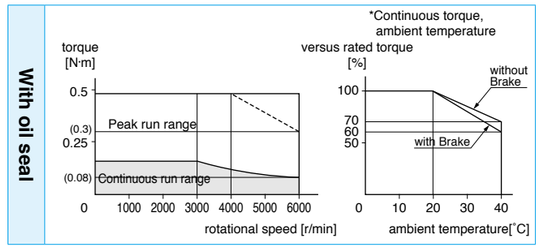
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC100V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



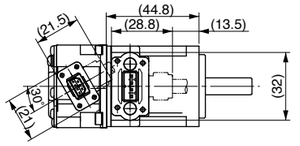
With oil seal



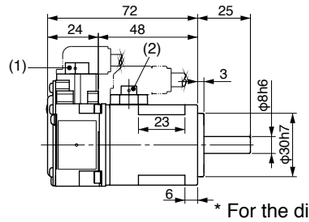
Dimensions

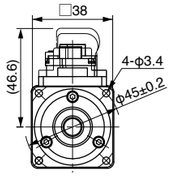
<Without Brake>

Mass (kg)/ 0.32

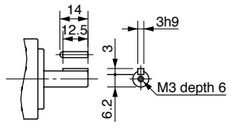


(1) Encoder connector
(2) Motor connector





Key way dimensions



* For the dimensions of with brake, refer to the right page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MSME 50W [Low inertia, Small capacity]

Specifications

			AC200V	
Motor model *1		MSME	5AZG1□	5AZS1□
Applicable driver *2	Model No.	A5 series	MADHT1505	
		A5E series	MADHT1505E	
	Frame symbol		A-frame	
Power supply capacity		(kVA)	0.5	
Rated output		(W)	50	
Rated torque		(N·m)	0.16	
Momentary Max. peak torque		(N·m)	0.48	
Rated current		(A(rms))	1.1	
Max. current		(A(o-p))	4.7	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4280		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	6000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.025	
	With brake		0.027	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	0.29 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.3
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

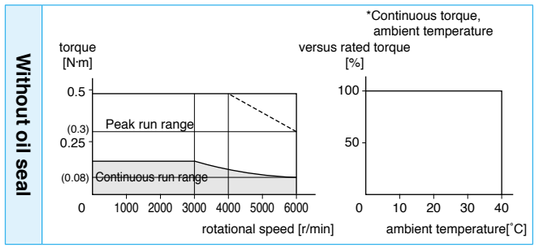
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88
	Thrust load B-direction (N)	117.6
During operation	Radial load P-direction (N)	68.6
	Thrust load A, B-direction (N)	58.8

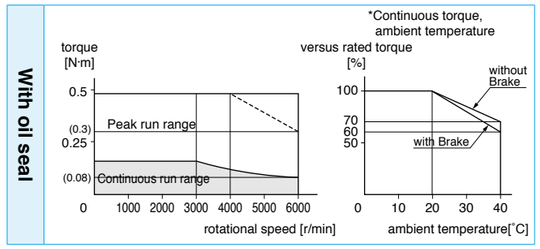
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



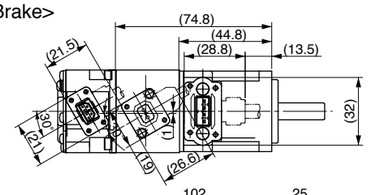
With oil seal



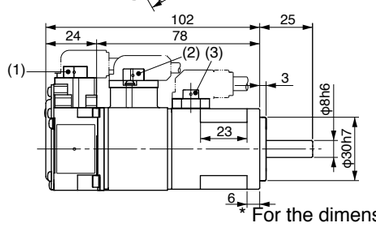
Dimensions

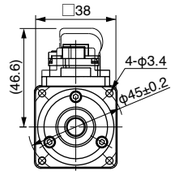
<With Brake>

Mass (kg)/ 0.53

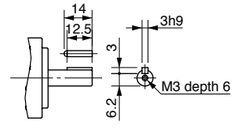


(1) Encoder connector
(2) Brake connector
(3) Motor connector





Key way dimensions



* For the dimensions of without brake, refer to the left page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Specifications

			AC100V	
Motor model *1		MSME	011G1□	011S1□
Applicable driver *2	Model No.	A5 series	MADHT1107	
		A5E series	MADHT1107E	
	Frame symbol		A-frame	
Power supply capacity		(kVA)	0.4	
Rated output		(W)	100	
Rated torque		(N·m)	0.32	
Momentary Max. peak torque		(N·m)	0.95	
Rated current		(A(rms))	1.6	
Max. current		(A(o-p))	6.9	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4280		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	6000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.051	
	With brake		0.054	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	0.29 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.3
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

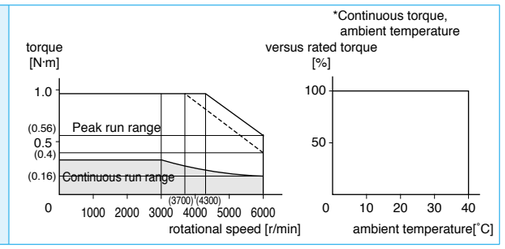
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88
	Thrust load B-direction (N)	117.6
During operation	Radial load P-direction (N)	68.6
	Thrust load A, B-direction (N)	58.8

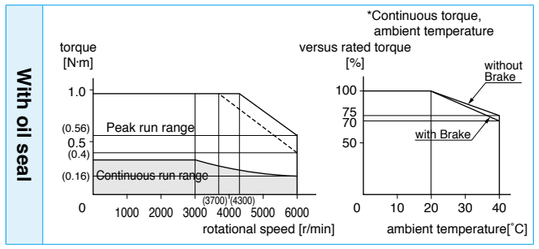
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC100V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



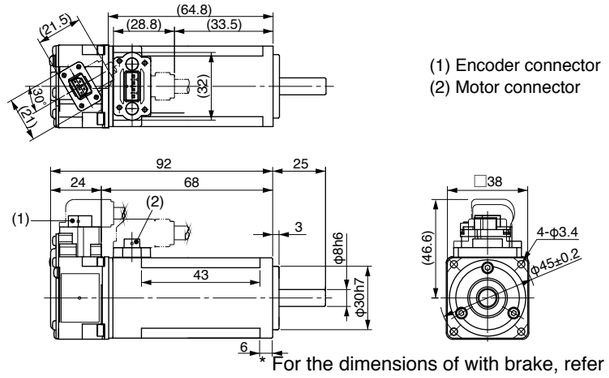
With oil seal



Dimensions

<Without Brake>

Mass (kg)/ 0.47



(1) Encoder connector
(2) Motor connector

Key way dimensions

* For the dimensions of with brake, refer to the right page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Specifications

			AC200V	
Motor model *1		MSME	012G1□	012S1□
Applicable driver *2	Model No.	A5 series	MADHT1505	
		A5E series	MADHT1505E	
	Frame symbol		A-frame	
Power supply capacity		(kVA)	0.5	
Rated output		(W)	100	
Rated torque		(N·m)	0.32	
Momentary Max. peak torque		(N·m)	0.95	
Rated current		(A(rms))	1.1	
Max. current		(A(o-p))	4.7	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4280		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	6000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.051	
	With brake		0.054	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	0.29 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.3
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

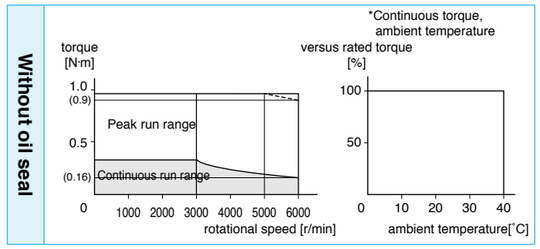
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88
	Thrust load B-direction (N)	117.6
During operation	Radial load P-direction (N)	68.6
	Thrust load A, B-direction (N)	58.8

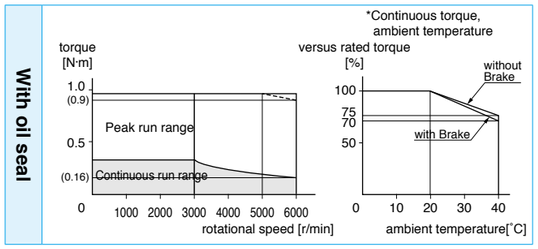
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



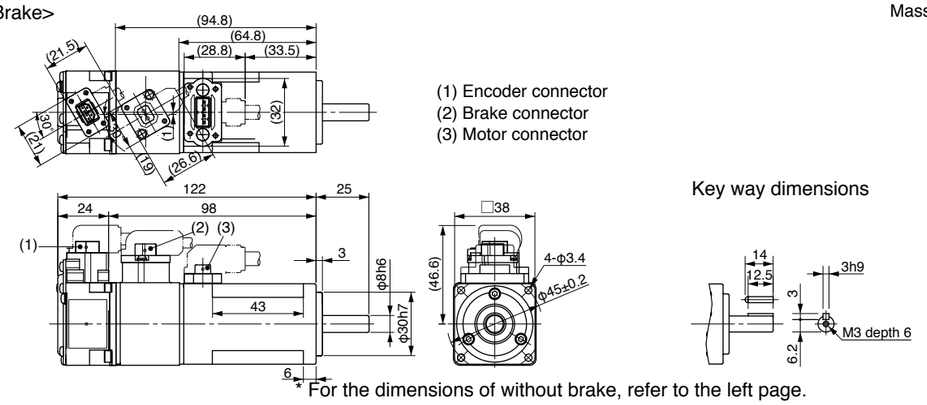
With oil seal



Dimensions

<With Brake>

Mass (kg)/ 0.68



(1) Encoder connector
(2) Brake connector
(3) Motor connector

Key way dimensions

* For the dimensions of without brake, refer to the left page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 100V MSME 200W [Low inertia, Small capacity]

Specifications

			AC100V	
Motor model *1		MSME	021G1□	021S1□
Applicable driver *2	Model No.	A5 series	MBDHT2110	
		A5E series	MBDHT2110E	
	Frame symbol		B-frame	
Power supply capacity		(kVA)	0.5	
Rated output		(W)	200	
Rated torque		(N·m)	0.64	
Momentary Max. peak torque		(N·m)	1.91	
Rated current		(A(rms))	2.5	
Max. current		(A(o-p))	10.6	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4283		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	6000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.14	
	With brake		0.16	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

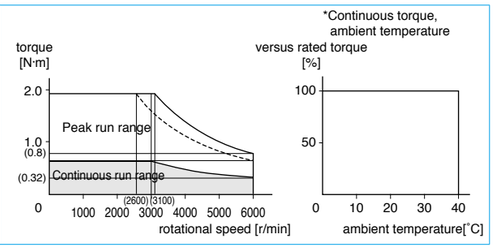
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98

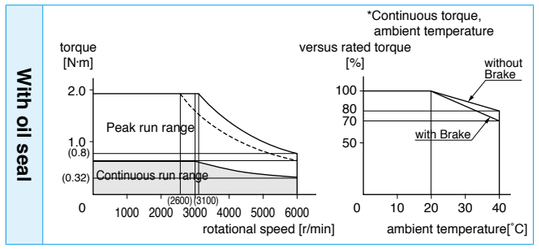
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC100V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



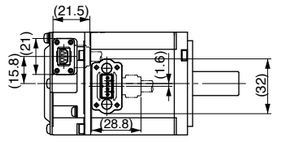
With oil seal



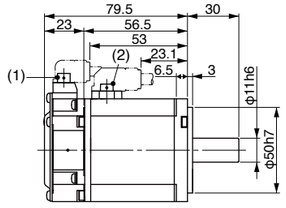
Dimensions

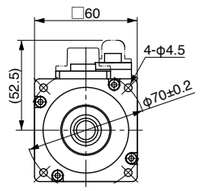
<Without Brake>

Mass (kg)/ 0.82

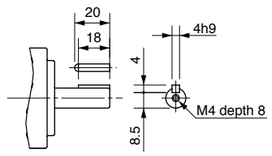


(1) Encoder connector
(2) Motor connector





Key way dimensions



* For the dimensions of with brake, refer to the right page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MSME 200W [Low inertia, Small capacity]

Specifications

			AC200V	
Motor model *1		MSME	022G1□	022S1□
Applicable driver *2	Model No.	A5 series	MADHT1507	
		A5E series	MADHT1507E	
	Frame symbol		A-frame	
Power supply capacity		(kVA)	0.5	
Rated output		(W)	200	
Rated torque		(N·m)	0.64	
Momentary Max. peak torque		(N·m)	1.91	
Rated current		(A(rms))	1.5	
Max. current		(A(o-p))	6.5	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4283		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	6000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.14	
	With brake		0.16	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

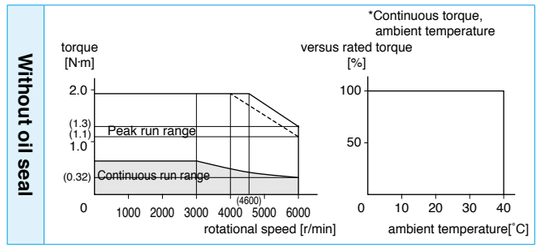
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98

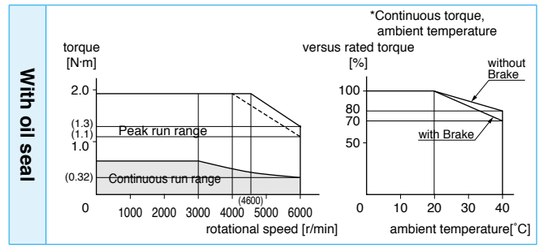
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



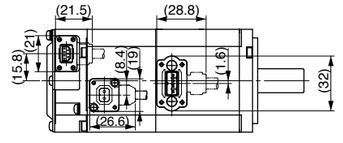
With oil seal



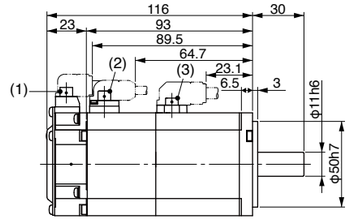
Dimensions

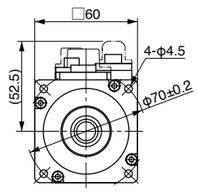
<With Brake>

Mass (kg)/ 1.30

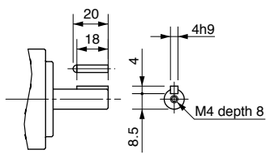


(1) Encoder connector
(2) Brake connector
(3) Motor connector





Key way dimensions



* For the dimensions of without brake, refer to the left page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 100V MSME 400W [Low inertia, Small capacity]

Specifications

			AC100V	
Motor model *1		MSME	041G1□	041S1□
Applicable driver *2	Model No.	A5 series	MCDHT3120	
		A5E series	MCDHT3120E	
	Frame symbol		C-frame	
Power supply capacity (kVA)			0.9	
Rated output (W)			400	
Rated torque (N·m)			1.3	
Momentary Max. peak torque (N·m)			3.8	
Rated current (A(rms))			4.6	
Max. current (A(o-p))			19.5	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4282		No limit Note)2	
Rated rotational speed (r/min)			3000	
Max. rotational speed (r/min)			6000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.26	
	With brake		0.28	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

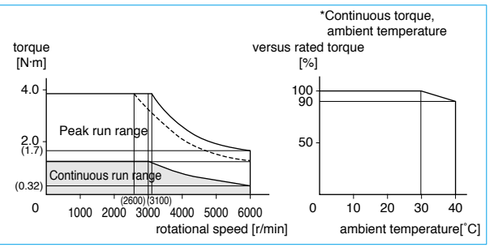
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98

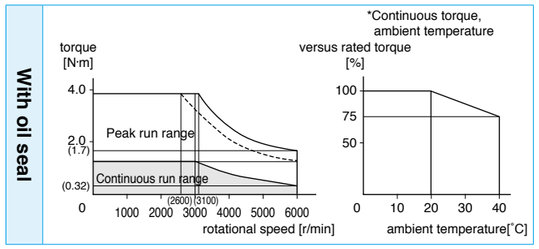
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.31.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC100V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



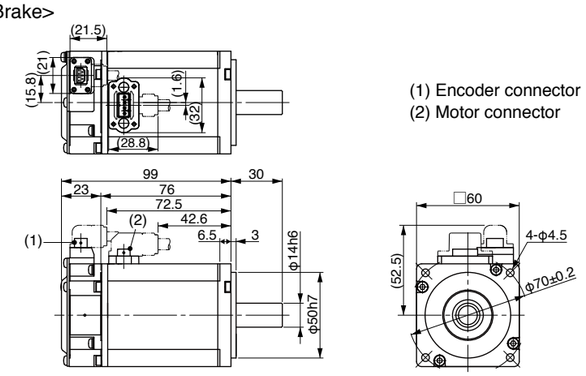
With oil seal



Dimensions

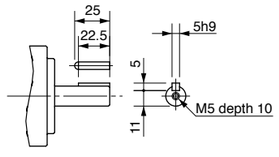
<Without Brake>

Mass (kg)/ 1.2



(1) Encoder connector
(2) Motor connector

Key way dimensions



* For the dimensions of with brake, refer to the right page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MSME 400W [Low inertia, Small capacity]

Specifications

			AC200V	
Motor model *1		MSME	042G1□	042S1□
Applicable driver *2	Model No.	A5 series	MBDHT2510	
		A5E series	MBDHT2510E	
	Frame symbol		B-frame	
Power supply capacity (kVA)			0.9	
Rated output (W)			400	
Rated torque (N·m)			1.3	
Momentary Max. peak torque (N·m)			3.8	
Rated current (A(rms))			2.4	
Max. current (A(o-p))			10.2	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4283		No limit Note)2	
Rated rotational speed (r/min)			3000	
Max. rotational speed (r/min)			6000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.26	
	With brake		0.28	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

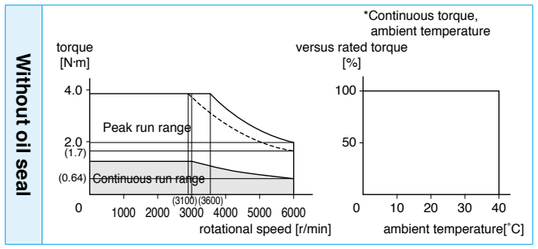
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98

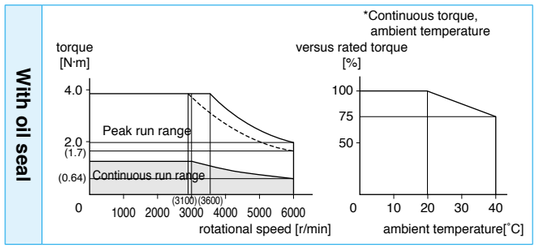
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



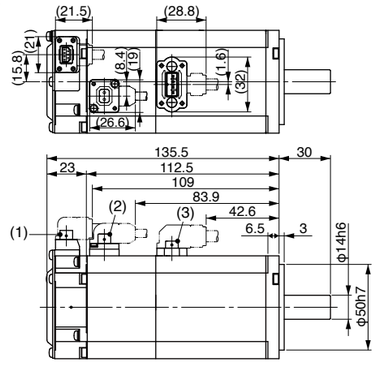
With oil seal



Dimensions

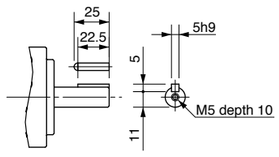
<With Brake>

Mass (kg)/ 1.7



(1) Encoder connector
(2) Brake connector
(3) Motor connector

Key way dimensions



* For the dimensions of without brake, refer to the left page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MSME 750W [Low inertia, Small capacity]

Specifications

			AC200V	
Motor model *1		MSME	082G1□	082S1□
Applicable driver *2	Model No.	A5 series	MCDHT3520	
		A5E series	MCDHT3520E	
	Frame symbol		C-frame	
Power supply capacity		(kVA)	1.3	
Rated output		(W)	750	
Rated torque		(N·m)	2.4	
Momentary Max. peak torque		(N·m)	7.1	
Rated current		(A(rms))	4.1	
Max. current		(A(o-p))	17.4	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4283		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	6000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.87	
	With brake		0.97	
Recommended moment of inertia ratio of the load and the rotor Note)3			20 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	2.45 or more
Engaging time (ms)	70 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.42
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

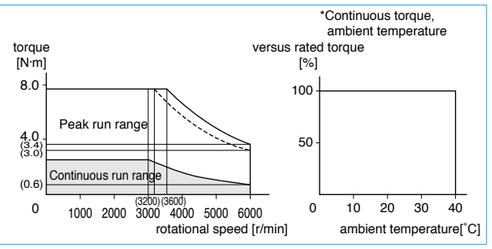
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	686
	Thrust load A-direction (N)	294
	Thrust load B-direction (N)	392
During operation	Radial load P-direction (N)	392
	Thrust load A, B-direction (N)	147

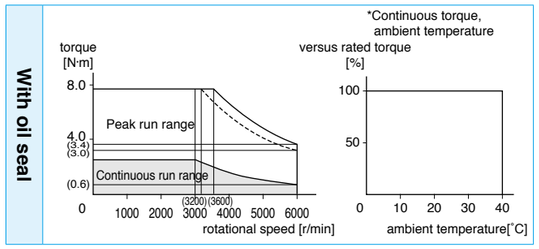
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.31.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



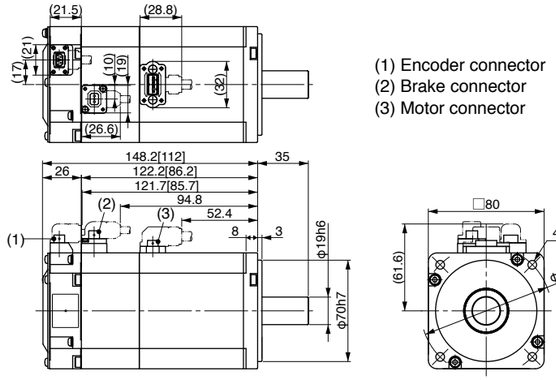
With oil seal



Dimensions

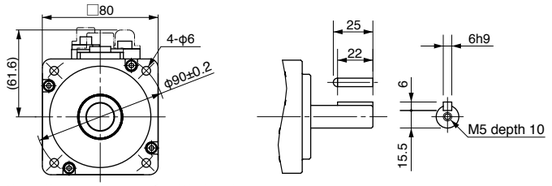
<With Brake>

Mass (kg)/ Without brake: 2.3
With brake: 3.1



(1) Encoder connector
(2) Brake connector
(3) Motor connector

Key way dimensions



* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MSME 1.0kW [Low inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MSME	102G1□	102S1□
Applicable driver *2	Model No.	A5 series	MDDHT5540	
		A5E series	MDDHT5540E	
	Frame symbol		D-frame	
Power supply capacity		(kVA)	1.8	
Rated output		(W)	1.0	
Rated torque		(N·m)	3.18	
Momentary Max. peak torque		(N·m)	9.55	
Rated current		(A(rms))	6.6	
Max. current		(A(o-p))	28	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4284		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		2.03	
	With brake		2.35	
Recommended moment of inertia ratio of the load and the rotor Note)3			15 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	7.8 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.81±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

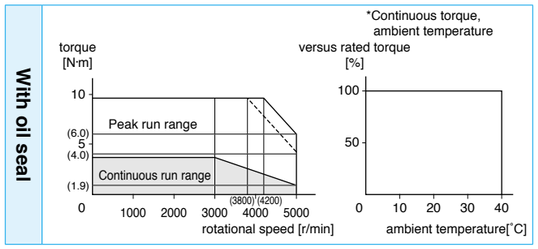
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.32.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

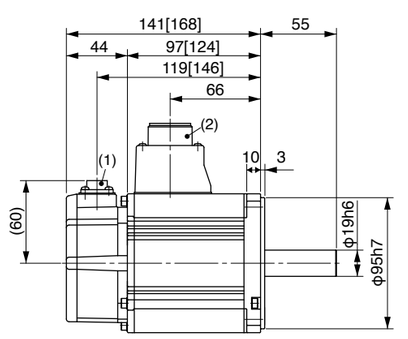
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

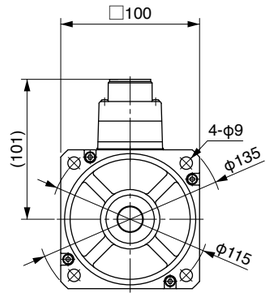
With oil seal



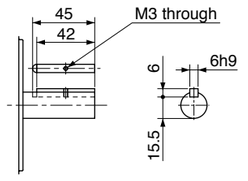
Dimensions

Mass (kg)/ Without brake: 3.5
With brake: 4.5





Key way dimensions



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MSME 1.5kW [Low inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MSME	152G1□	152S1□
Applicable driver *2	Model No.	A5 series	MDDHT5540	
		A5E series	MDDHT5540E	
	Frame symbol		D-frame	
Power supply capacity		(kVA)	2.3	
Rated output		(W)	1.5	
Rated torque		(N·m)	4.77	
Momentary Max. peak torque		(N·m)	14.3	
Rated current		(A(rms))	8.2	
Max. current		(A(o-p))	35	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4284		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		2.84	
	With brake		3.17	
Recommended moment of inertia ratio of the load and the rotor Note)3			15 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	7.8 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.81±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

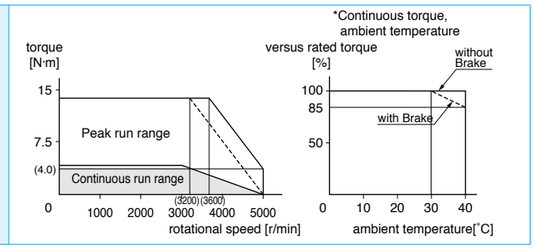
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.32.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

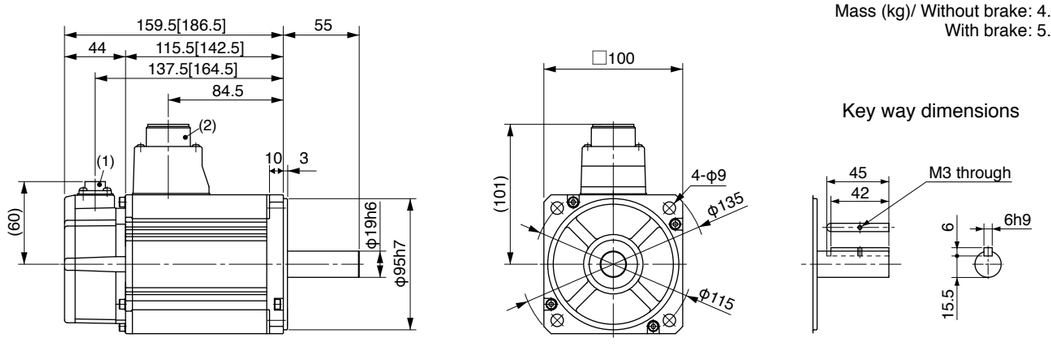
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 4.4
With brake: 5.4



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MSME 2.0kW [Low inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MSME	202G1□	202S1□
Applicable driver *2	Model No.	A5 series	MEDHT7364	
		A5E series	MEDHT7364E	
	Frame symbol		E-frame	
Power supply capacity		(kVA)	3.3	
Rated output		(W)	2.0	
Rated torque		(N·m)	6.37	
Momentary Max. peak torque		(N·m)	19.1	
Rated current		(A(rms))	11.3	
Max. current		(A(o-p))	48	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4285		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		3.68	
	With brake		4.01	
Recommended moment of inertia ratio of the load and the rotor Note)3			15 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	7.8 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.81±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

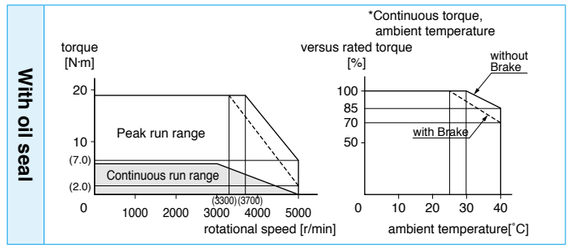
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.33.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

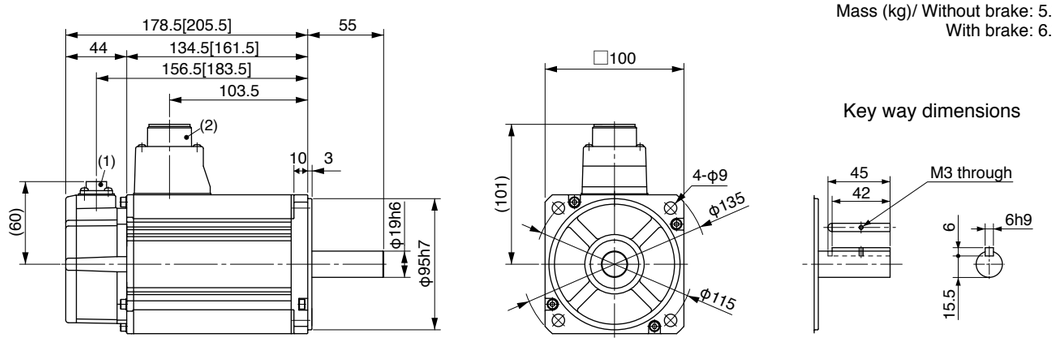
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 5.3
With brake: 6.3



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MSME 3.0kW [Low inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MSME	302G1□	302S1□
Applicable driver *2	Model No.	A5 series	MFDHTA390	
		A5E series	MFDHTA390E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	4.5	
Rated output		(W)	3.0	
Rated torque		(N·m)	9.55	
Momentary Max. peak torque		(N·m)	28.6	
Rated current		(A(rms))	18.1	
Max. current		(A(o-p))	77	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4285×2		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		6.50	
	With brake		7.85	
Recommended moment of inertia ratio of the load and the rotor Note)3			15 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)
(This brake will be released when it is energized.
Do not use this for braking the motor in motion.)

Static friction torque (N·m)	11.8 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.81±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

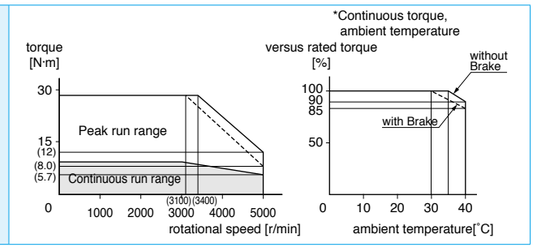
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

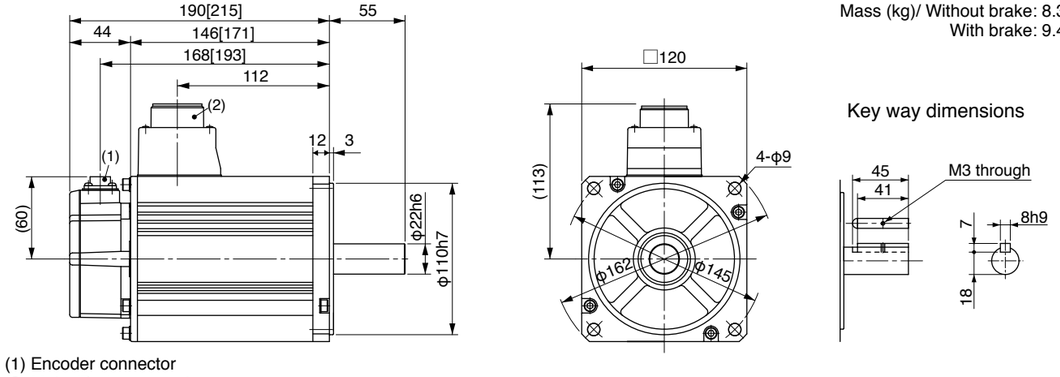
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions



Mass (kg)/ Without brake: 8.3
With brake: 9.4

(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MSME 4.0kW [Low inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MSME	402G1□	402S1□
Applicable driver *2	Model No.	A5 series	MFDHTB3A2	
		A5E series	MFDHTB3A2E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	6.0	
Rated output		(W)	4.0	
Rated torque		(N·m)	12.7	
Momentary Max. peak torque		(N·m)	38.2	
Rated current		(A(rms))	19.6	
Max. current		(A(o-p))	83	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4285×2		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	4500	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		12.9	
	With brake		14.2	
Recommended moment of inertia ratio of the load and the rotor Note)3			15 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)
(This brake will be released when it is energized.
Do not use this for braking the motor in motion.)

Static friction torque (N·m)	16.1 or more
Engaging time (ms)	110 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.90±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

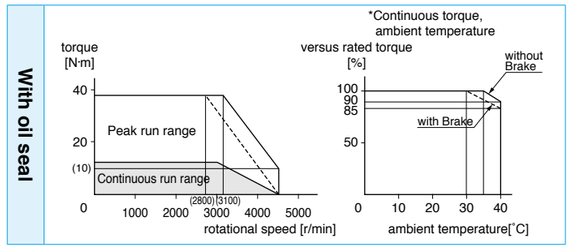
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

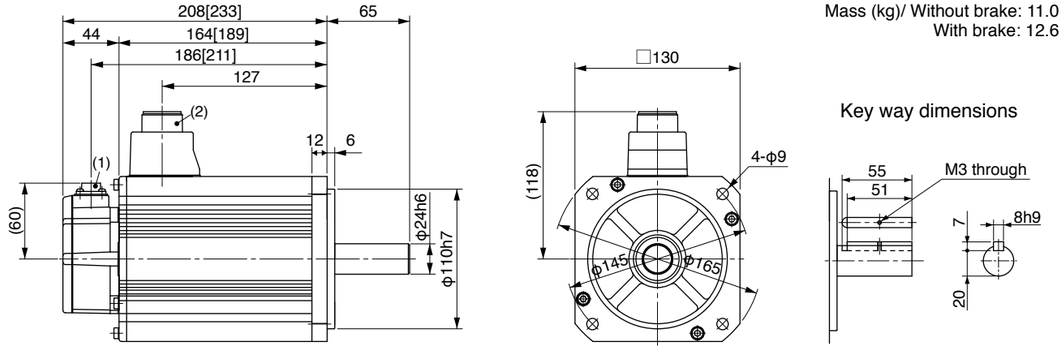
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions



Mass (kg)/ Without brake: 11.0
With brake: 12.6

(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MSME 5.0kW [Low inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MSME	502G1□	502S1□
Applicable driver *2	Model No.	A5 series	MFDHTB3A2	
		A5E series	MFDHTB3A2E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	7.5	
Rated output		(W)	5.0	
Rated torque		(N·m)	15.9	
Momentary Max. peak torque		(N·m)	47.7	
Rated current		(A(rms))	24.0	
Max. current		(A(o-p))	102	
Regenerative brake frequency (times/min) Note)1	Without option		357	
	DV0P4285×2		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	4500	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		17.4	
	With brake		18.6	
Recommended moment of inertia ratio of the load and the rotor Note)3			15 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)
(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	16.1 or more
Engaging time (ms)	110 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.90±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

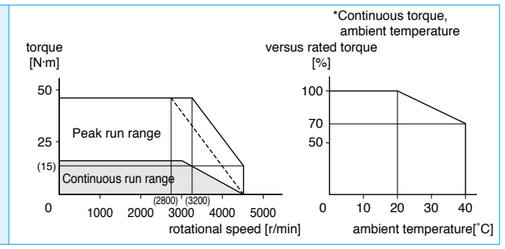
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

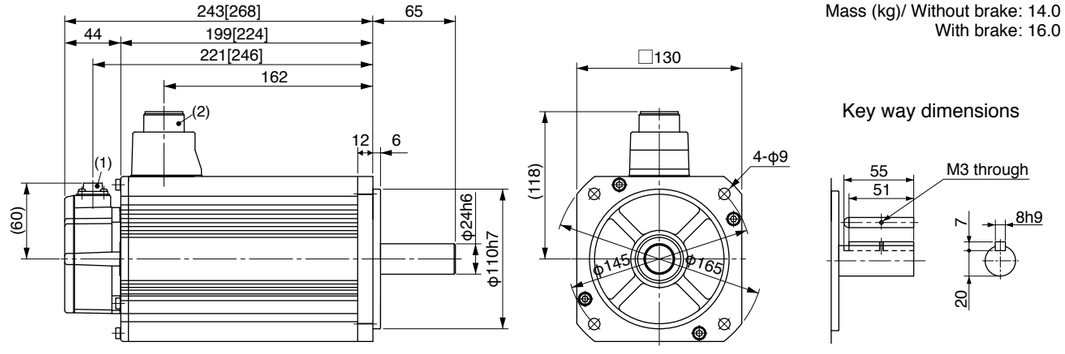
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions



Mass (kg)/ Without brake: 14.0
With brake: 16.0

(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MDME 1.0kW [Middle inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MDME	102G1□	102S1□
Applicable driver *2	Model No.	A5 series	MDDHT3530	
		A5E series	MDDHT3530E	
	Frame symbol		D-frame	
Power supply capacity		(kVA)	1.8	
Rated output		(W)	1.0	
Rated torque		(N·m)	4.77	
Momentary Max. peak torque		(N·m)	14.3	
Rated current		(A(rms))	5.7	
Max. current		(A(o-p))	24	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4284		No limit Note)2	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		4.60	
	With brake		5.90	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)
(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	4.9 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	70 or less
Exciting current (DC) (A)	0.59±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

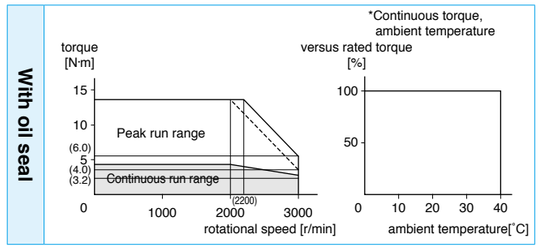
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

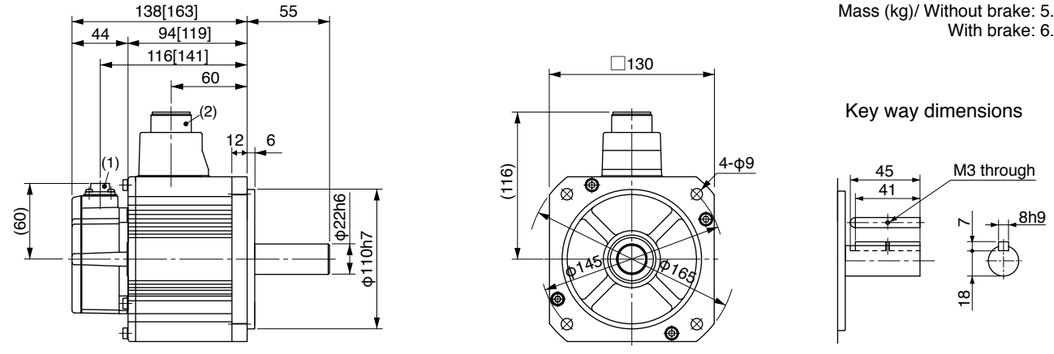
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.32.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions



Mass (kg)/ Without brake: 5.2
With brake: 6.7

(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MDME 1.5kW [Middle inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MDME	152G1□	152S1□
Applicable driver *2	Model No.	A5 series	MDDHT5540	
		A5E series	MDDHT5540E	
	Frame symbol		D-frame	
Power supply capacity		(kVA)	2.3	
Rated output		(W)	1.5	
Rated torque		(N·m)	7.16	
Momentary Max. peak torque		(N·m)	21.5	
Rated current		(A(rms))	9.4	
Max. current		(A(o-p))	40	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4284		No limit Note)2	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		6.70	
	With brake		7.99	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

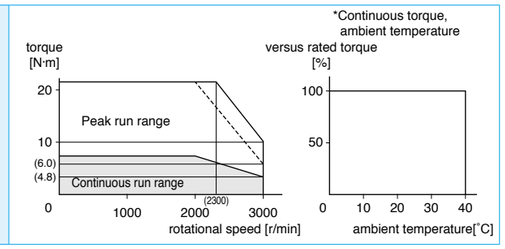
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

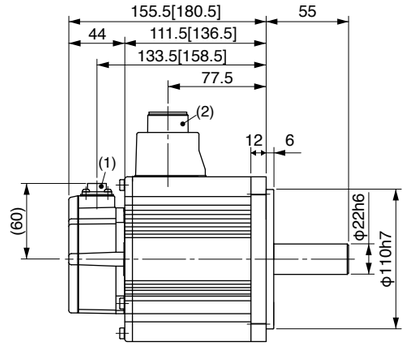
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.32.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

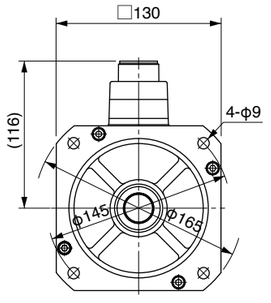
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



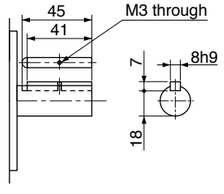
Dimensions





Mass (kg)/ Without brake: 6.7
With brake: 8.2

Key way dimensions



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MDME 2.0kW [Middle inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MDME	202G1□	202S1□
Applicable driver *2	Model No.	A5 series	MEDHT7364	
		A5E series	MEDHT7364E	
	Frame symbol		E-frame	
Power supply capacity		(kVA)	3.3	
Rated output		(W)	2.0	
Rated torque		(N·m)	9.55	
Momentary Max. peak torque		(N·m)	28.6	
Rated current		(A(rms))	11.5	
Max. current		(A(o-p))	49	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4285		No limit Note)2	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		8.72	
	With brake		10.0	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

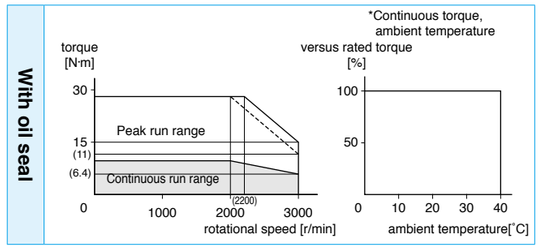
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

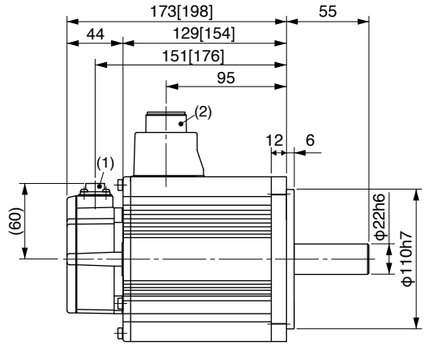
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.33.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

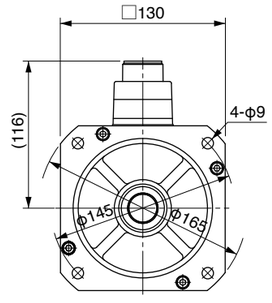
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



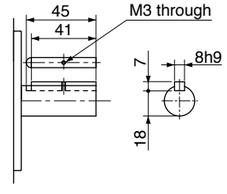
Dimensions





Mass (kg)/ Without brake: 8.0
With brake: 9.5

Key way dimensions



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MDME 3.0kW [Middle inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MDME	302G1□	302S1□
Applicable driver *2	Model No.	A5 series	MFDHTA390	
		A5E series	MFDHTA390E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	4.5	
Rated output		(W)	3.0	
Rated torque		(N·m)	14.3	
Momentary Max. peak torque		(N·m)	43.0	
Rated current		(A(rms))	17.4	
Max. current		(A(o-p))	74	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4285×2		No limit Note)2	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		12.9	
	With brake		14.2	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)
(This brake will be released when it is energized.
Do not use this for braking the motor in motion.)

Static friction torque (N·m)	16.2 or more
Engaging time (ms)	110 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.90±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

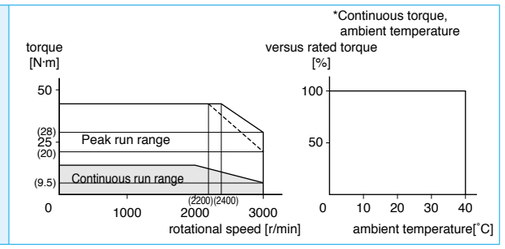
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

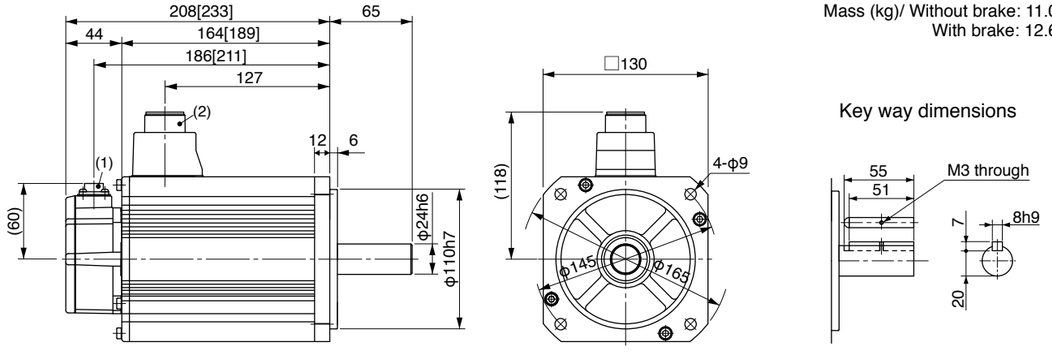
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions



Mass (kg)/ Without brake: 11.0
With brake: 12.6

Key way dimensions

(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MDME 4.0kW [Middle inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MDME	402G1□	402S1□
Applicable driver *2	Model No.	A5 series	MFDHTB3A2	
		A5E series	MFDHTB3A2E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	6.0	
Rated output		(W)	4.0	
Rated torque		(N·m)	19.1	
Momentary Max. peak torque		(N·m)	57.3	
Rated current		(A(rms))	21.0	
Max. current		(A(o-p))	89	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4285×2		No limit Note)2	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		37.6	
	With brake		38.6	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)
(This brake will be released when it is energized.
Do not use this for braking the motor in motion.)

Static friction torque (N·m)	24.5 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.3±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

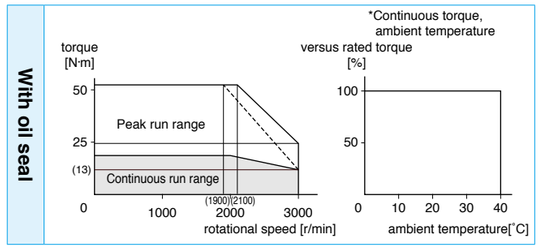
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

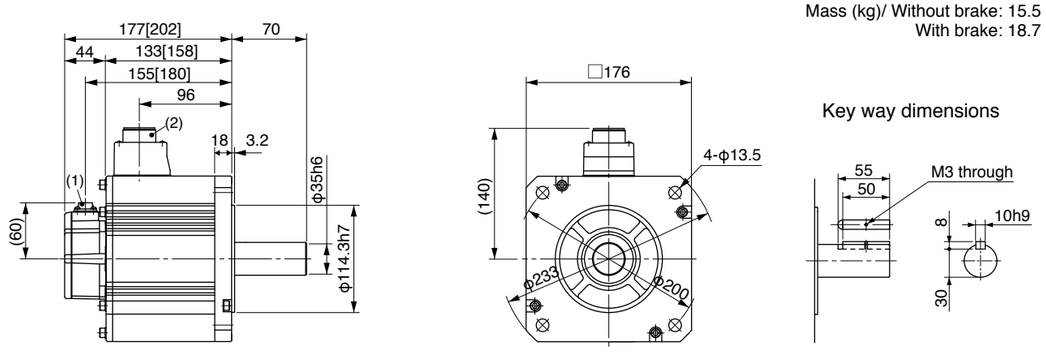
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions



Mass (kg)/ Without brake: 15.5
With brake: 18.7

Key way dimensions

(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MDME 5.0kW [Middle inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MDME	502G1□	502S1□
Applicable driver *2	Model No.	A5 series	MFDHTB3A2	
		A5E series	MFDHTB3A2E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	7.5	
Rated output		(W)	5.0	
Rated torque		(N·m)	23.9	
Momentary Max. peak torque		(N·m)	71.6	
Rated current		(A(rms))	25.9	
Max. current		(A(o-p))	110	
Regenerative brake frequency (times/min) Note)1	Without option		120	
	DV0P4285×2		No limit Note)2	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor (×10^{-4}kg·m^2)	Without brake		48.0	
	With brake		48.8	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	24.5 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.3±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

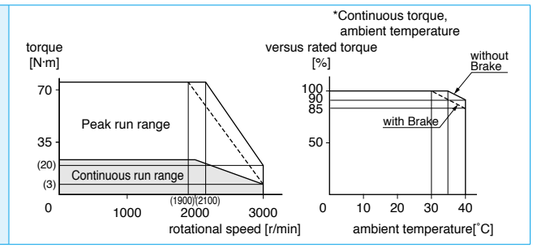
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

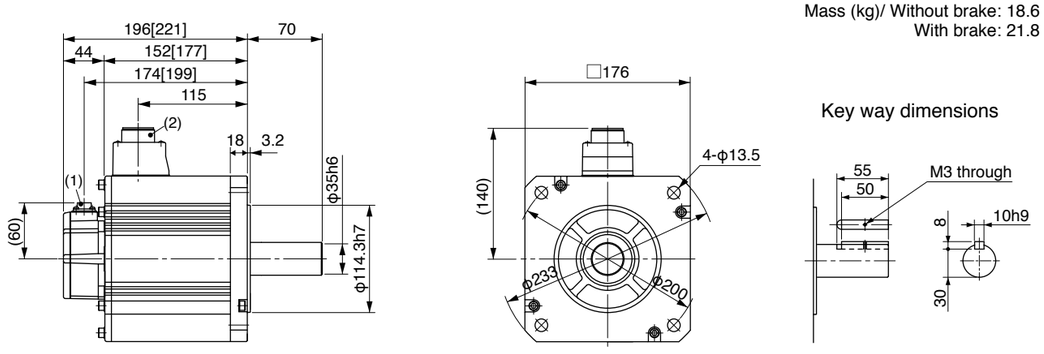
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 18.6
With brake: 21.8



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MGME 0.9kW [Middle inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MGME	092G1□	092S1□
Applicable driver *2	Model No.	A5 series	MDDHT5540	
		A5E series	MDDHT5540E	
	Frame symbol		D-frame	
Power supply capacity		(kVA)	1.8	
Rated output		(W)	0.9	
Rated torque		(N·m)	8.59	
Momentary Max. peak torque		(N·m)	19.3	
Rated current		(A(rms))	7.6	
Max. current		(A(o-p))	24	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4284		No limit Note)2	
Rated rotational speed		(r/min)	1000	
Max. rotational speed		(r/min)	2000	
Moment of inertia of rotor (×10^{-4}kg·m^2)	Without brake		6.70	
	With brake		7.99	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

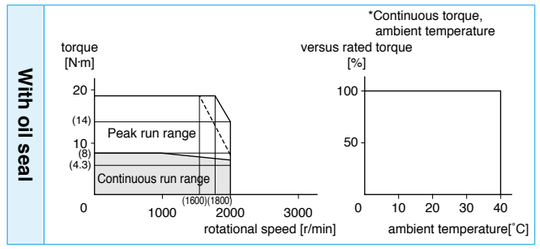
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	686
	Thrust load A, B-direction (N)	196

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.32.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

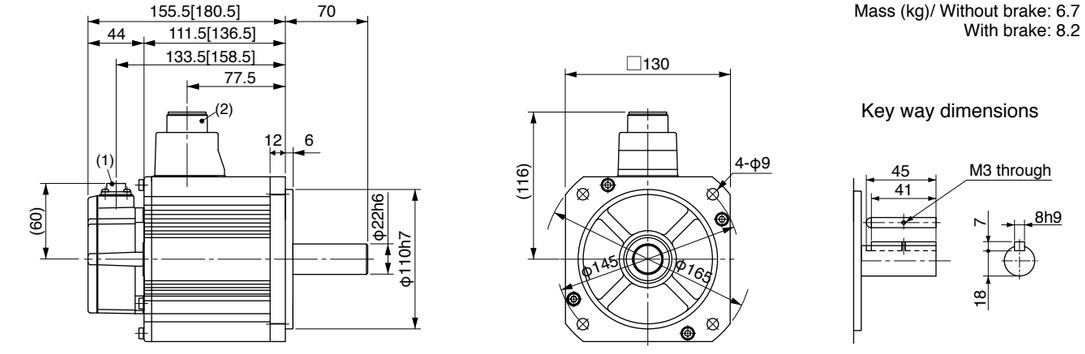
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 6.7
With brake: 8.2



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MGME 2.0kW [Middle inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MGME	202G1□	202S1□
Applicable driver *2	Model No.	A5 series	MFDHTA390	
		A5E series	MFDHTA390E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	3.8	
Rated output		(W)	2.0	
Rated torque		(N·m)	19.1	
Momentary Max. peak torque		(N·m)	47.7	
Rated current		(A(rms))	17.0	
Max. current		(A(o-p))	60	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4285×2		No limit Note)2	
Rated rotational speed		(r/min)	1000	
Max. rotational speed		(r/min)	2000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		30.3	
	With brake		31.4	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	24.5 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.3±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

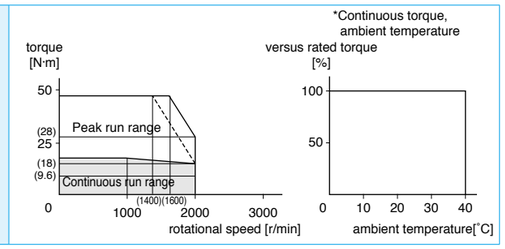
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	1176
	Thrust load A, B-direction (N)	490

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

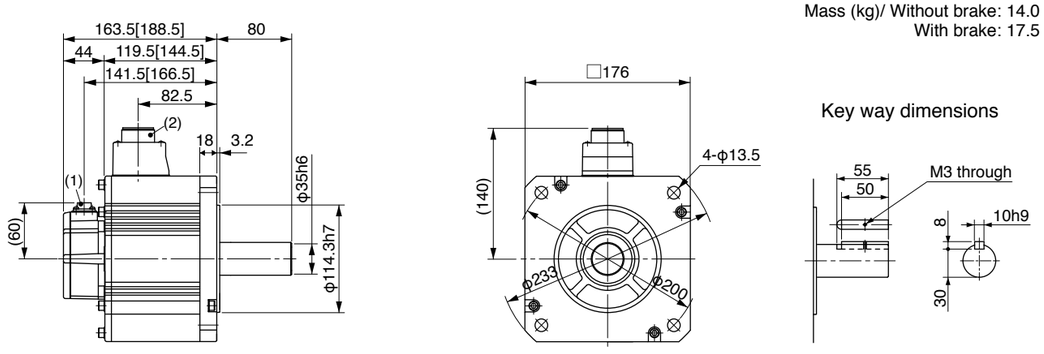
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 14.0
With brake: 17.5



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MGME 3.0kW [Middle inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MGME	302G1□	302S1□
Applicable driver *2	Model No.	A5 series	MFDHTB3A2	
		A5E series	MFDHTB3A2E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	4.5	
Rated output		(W)	3.0	
Rated torque		(N·m)	28.7	
Momentary Max. peak torque		(N·m)	71.7	
Rated current		(A(rms))	22.6	
Max. current		(A(o-p))	80	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4285×2		No limit Note)2	
Rated rotational speed		(r/min)	1000	
Max. rotational speed		(r/min)	2000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		48.4	
	With brake		49.2	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	58.8 or more
Engaging time (ms)	150 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	1.4±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

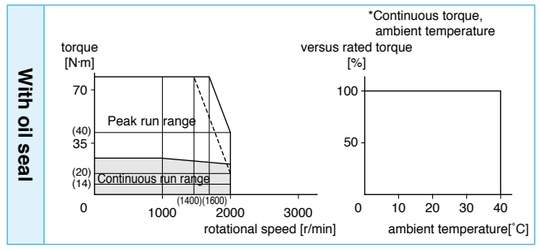
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	2058
	Thrust load A-direction (N)	980
	Thrust load B-direction (N)	1176
During operation	Radial load P-direction (N)	1470
	Thrust load A, B-direction (N)	490

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

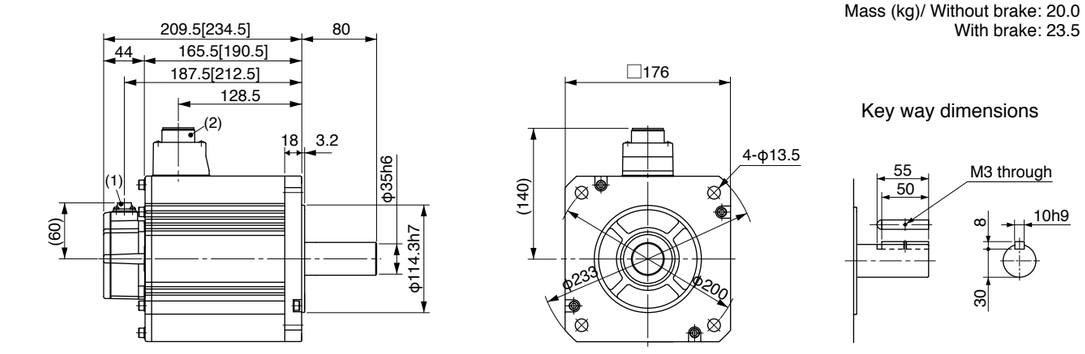
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 20.0
With brake: 23.5



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MHME 1.0kW [High inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MHME	102G1□	102S1□
Applicable driver *2	Model No.	A5 series	MDDHT3530	
		A5E series	MDDHT3530E	
	Frame symbol		D-frame	
Power supply capacity		(kVA)	1.8	
Rated output		(W)	1.0	
Rated torque		(N·m)	4.77	
Momentary Max. peak torque		(N·m)	14.3	
Rated current		(A(rms))	5.7	
Max. current		(A(o-p))	24	
Regenerative brake frequency (times/min) Note)1	Without option		83	
	DV0P4284		No limit Note)2	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		24.7	
	With brake		26.0	
Recommended moment of inertia ratio of the load and the rotor Note)3			5 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	4.9
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	70 or less
Exciting current (DC) (A)	0.59±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

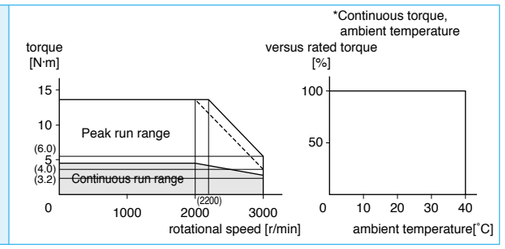
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

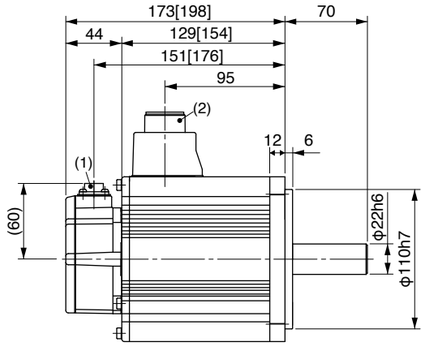
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.32.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

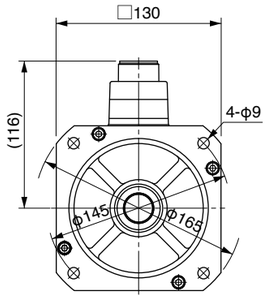
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



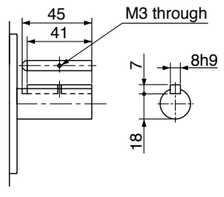
Dimensions





Mass (kg)/ Without brake: 6.7
With brake: 8.1

Key way dimensions



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MHME 1.5kW [High inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MHME	152G1□	152S1□
Applicable driver *2	Model No.	A5 series	MDDHT5540	
		A5E series	MDDHT5540E	
	Frame symbol		D-frame	
Power supply capacity		(kVA)	2.3	
Rated output		(W)	1.5	
Rated torque		(N·m)	7.16	
Momentary Max. peak torque		(N·m)	21.5	
Rated current		(A(rms))	9.4	
Max. current		(A(o-p))	40	
Regenerative brake frequency (times/min) Note)1	Without option		22	
	DV0P4284		130	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		37.1	
	With brake		38.4	
Recommended moment of inertia ratio of the load and the rotor Note)3			5 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

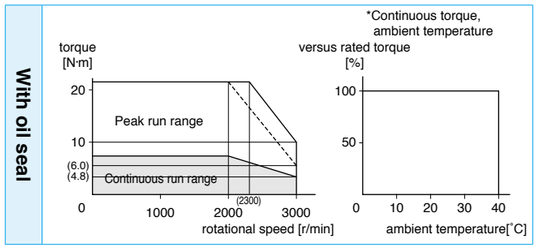
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

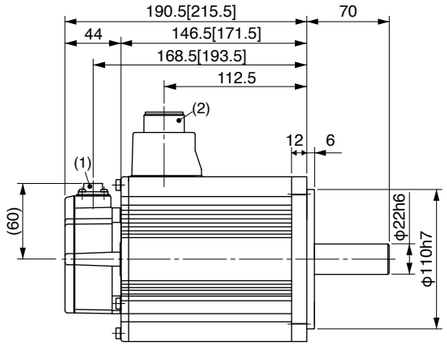
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.32.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

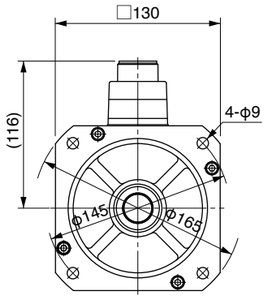
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



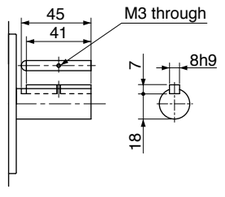
Dimensions





Mass (kg)/ Without brake: 8.6
With brake: 10.1

Key way dimensions



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MHME 2.0kW [High inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MHME	202G1□	202S1□
Applicable driver *2	Model No.	A5 series	MEDHT7364	
		A5E series	MEDHT7364E	
	Frame symbol		E-frame	
Power supply capacity		(kVA)	3.3	
Rated output		(W)	2.0	
Rated torque		(N·m)	9.55	
Momentary Max. peak torque		(N·m)	28.6	
Rated current		(A(rms))	11.1	
Max. current		(A(o-p))	47	
Regenerative brake frequency (times/min) Note)1	Without option		45	
	DV0P4285		142	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		57.8	
	With brake		59.6	
Recommended moment of inertia ratio of the load and the rotor Note)3			5 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	24.5 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.3±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

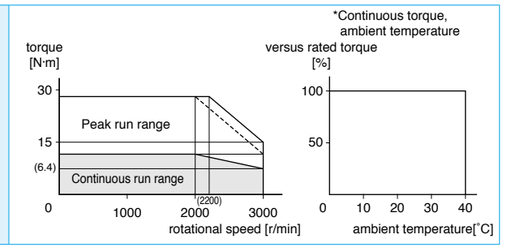
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.33.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

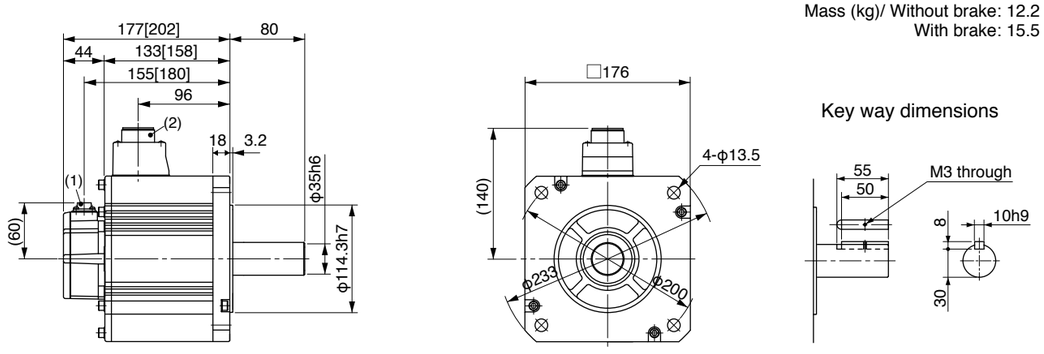
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 12.2
With brake: 15.5



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MHME 3.0kW [High inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MHME	302G1□	302S1□
Applicable driver *2	Model No.	A5 series	MFDHTA390	
		A5E series	MFDHTA390E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	4.5	
Rated output		(W)	3.0	
Rated torque		(N·m)	14.3	
Momentary Max. peak torque		(N·m)	43.0	
Rated current		(A(rms))	16.0	
Max. current		(A(o-p))	68	
Regenerative brake frequency (times/min) Note)1	Without option		19	
	DV0P4285×2		142	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		90.5	
	With brake		92.1	
Recommended moment of inertia ratio of the load and the rotor Note)3			5 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	24.5 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.3±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

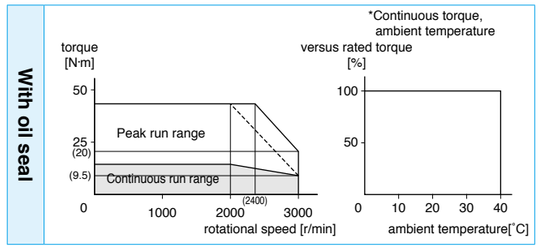
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

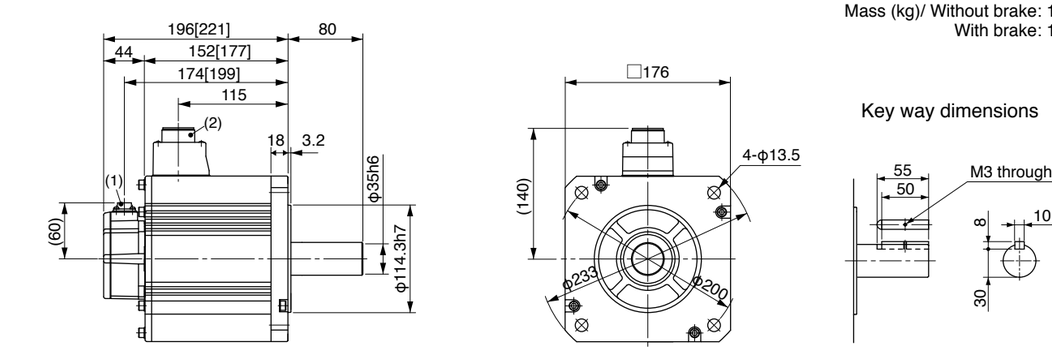
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 16.0
With brake: 19.2



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MHME 4.0kW [High inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MHME	402G1□	402S1□
Applicable driver *2	Model No.	A5 series	MFDHTB3A2	
		A5E series	MFDHTB3A2E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	6.0	
Rated output		(W)	4.0	
Rated torque		(N·m)	19.1	
Momentary Max. peak torque		(N·m)	57.3	
Rated current		(A(rms))	21.0	
Max. current		(A(o-p))	89	
Regenerative brake frequency (times/min) Note)1	Without option		17	
	DV0P4285×2		125	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		112	
	With brake		114	
Recommended moment of inertia ratio of the load and the rotor Note)3			5 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	24.5 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.3±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

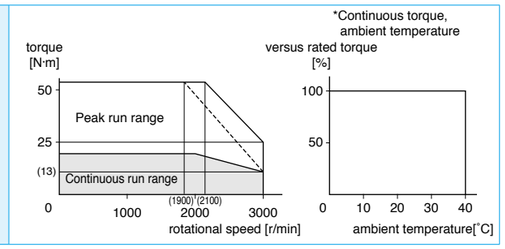
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

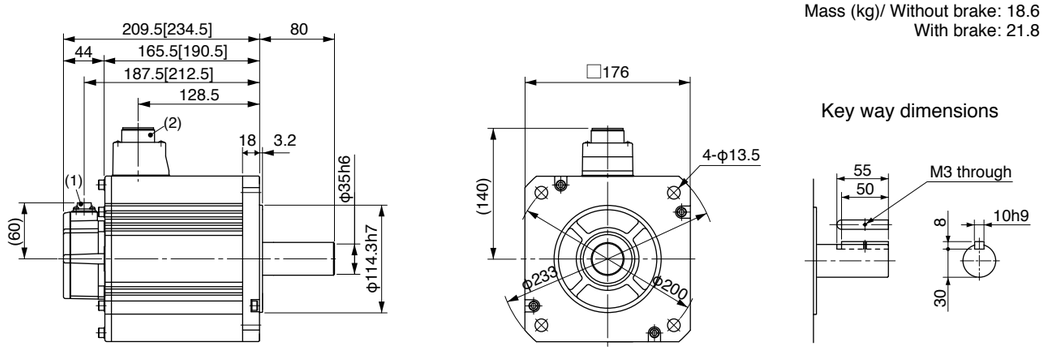
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 18.6
With brake: 21.8



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MHME 5.0kW [High inertia, Middle capacity]

Specifications

			AC200V	
Motor model *1		MHME	502G1□	502S1□
Applicable driver *2	Model No.	A5 series	MFDHTB3A2	
		A5E series	MFDHTB3A2E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	7.5	
Rated output		(W)	5.0	
Rated torque		(N·m)	23.9	
Momentary Max. peak torque		(N·m)	71.6	
Rated current		(A(rms))	25.9	
Max. current		(A(o-p))	110	
Regenerative brake frequency (times/min) Note)1	Without option		10	
	DV0P4285×2		76	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		162	
	With brake		164	
Recommended moment of inertia ratio of the load and the rotor Note)3			5 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	24.5 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.3±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

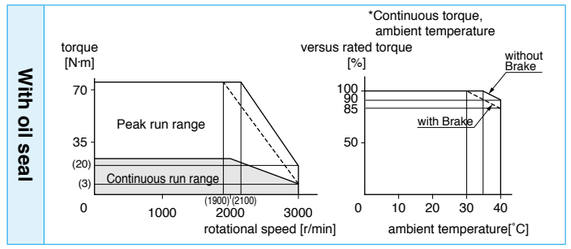
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

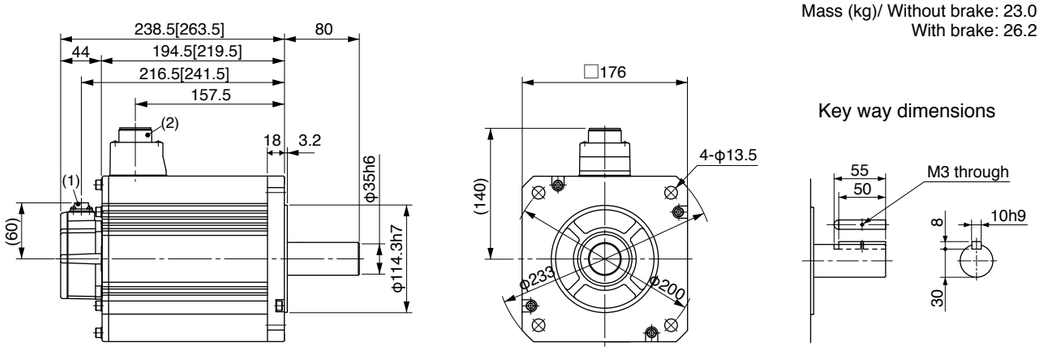
Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 23.0
With brake: 26.2



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 100V MSMD 50W [Low inertia, Small capacity]

Specifications

			AC100V	
Motor model *1		MSMD	5AZG1□	5AZS1□
Applicable driver *2	Model No.	A5 series	MADHT1105	
		A5E series	MADHT1105E	
	Frame symbol		A-frame	
Power supply capacity		(kVA)	0.5	
Rated output		(W)	50	
Rated torque		(N·m)	0.16	
Momentary Max. peak torque		(N·m)	0.48	
Rated current		(A(rms))	1.1	
Max. current		(A(o-p))	4.7	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4280		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.025	
	With brake		0.027	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	0.29 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.3
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

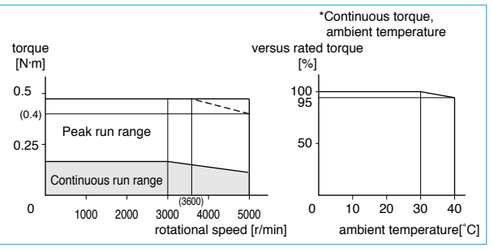
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88
	Thrust load B-direction (N)	117.6
During operation	Radial load P-direction (N)	68.6
	Thrust load A, B-direction (N)	58.8

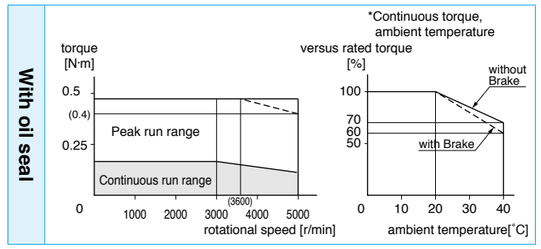
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC100V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



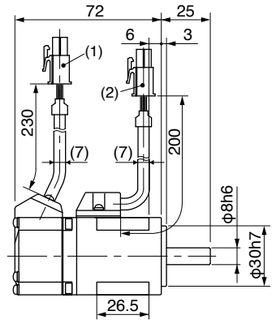
With oil seal



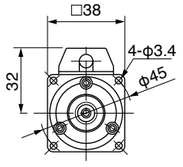
Dimensions

<Without Brake>

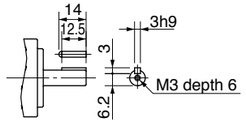
Mass (kg)/ 0.32



(1) Encoder connector
(2) Motor connector



Key way dimensions



* For the dimensions of with brake, refer to the right page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MSMD 50W [Low inertia, Small capacity]

Specifications

			AC200V	
Motor model *1		MSMD	5AZG1□	5AZS1□
Applicable driver *2	Model No.	A5 series	MADHT1505	
		A5E series	MADHT1505E	
	Frame symbol		A-frame	
Power supply capacity		(kVA)	0.5	
Rated output		(W)	50	
Rated torque		(N·m)	0.16	
Momentary Max. peak torque		(N·m)	0.48	
Rated current		(A(rms))	1.1	
Max. current		(A(o-p))	4.7	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4281		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.025	
	With brake		0.027	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	0.29 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.3
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

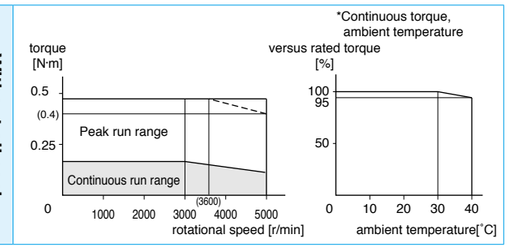
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88
	Thrust load B-direction (N)	117.6
During operation	Radial load P-direction (N)	68.6
	Thrust load A, B-direction (N)	58.8

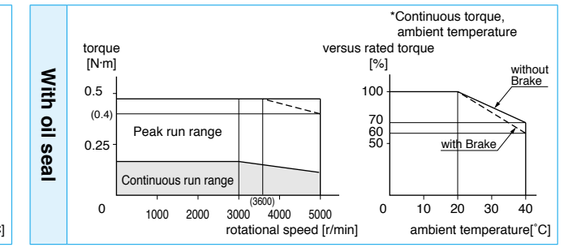
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



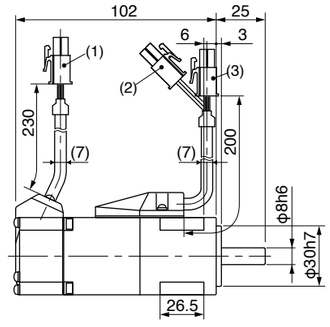
With oil seal



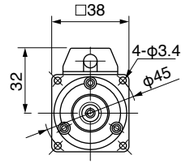
Dimensions

<With Brake>

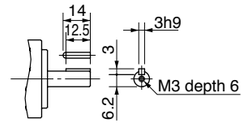
Mass (kg)/ 0.53



(1) Encoder connector
(2) Brake connector
(3) Motor connector



Key way dimensions



* For the dimensions of without brake, refer to the left page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 100V MSMD 100W [Low inertia, Small capacity]

Specifications

			AC100V	
Motor model *1		MSMD	011G1□	011S1□
Applicable driver *2	Model No.	A5 series	MADHT1107	
		A5E series	MADHT1107E	
	Frame symbol		A-frame	
Power supply capacity		(kVA)	0.4	
Rated output		(W)	100	
Rated torque		(N·m)	0.32	
Momentary Max. peak torque		(N·m)	0.95	
Rated current		(A(rms))	1.7	
Max. current		(A(o-p))	7.2	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4280		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.051	
	With brake		0.054	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	0.29 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.3
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

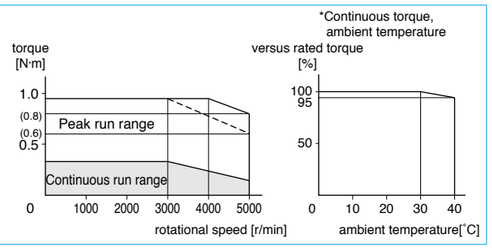
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88
	Thrust load B-direction (N)	117.6
During operation	Radial load P-direction (N)	68.6
	Thrust load A, B-direction (N)	58.8

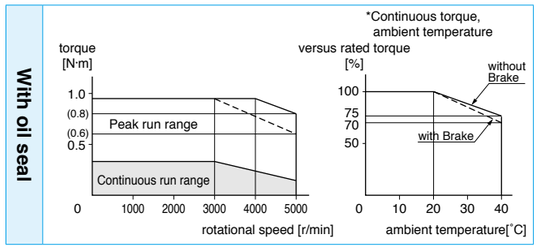
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC100V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



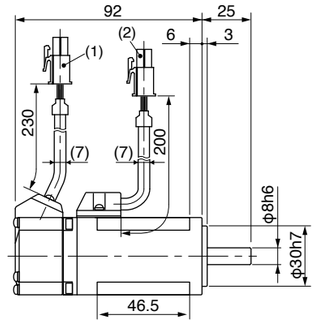
With oil seal



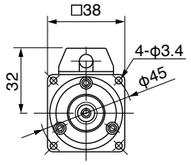
Dimensions

<Without Brake>

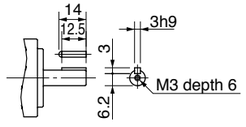
Mass (kg)/ 0.47



(1) Encoder connector
(2) Motor connector



Key way dimensions



* For the dimensions of with brake, refer to the right page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MSMD 100W [Low inertia, Small capacity]

Specifications

			AC200V	
Motor model *1		MSMD	012G1□	012S1□
Applicable driver *2	Model No.	A5 series	MADHT1505	
		A5E series	MADHT1505E	
	Frame symbol		A-frame	
Power supply capacity		(kVA)	0.5	
Rated output		(W)	100	
Rated torque		(N·m)	0.32	
Momentary Max. peak torque		(N·m)	0.95	
Rated current		(A(rms))	1.1	
Max. current		(A(o-p))	4.7	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4281		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.051	
	With brake		0.054	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	0.29 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.3
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

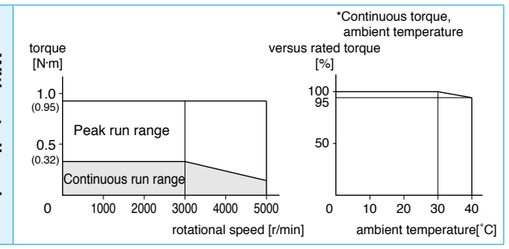
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88
	Thrust load B-direction (N)	117.6
During operation	Radial load P-direction (N)	68.6
	Thrust load A, B-direction (N)	58.8

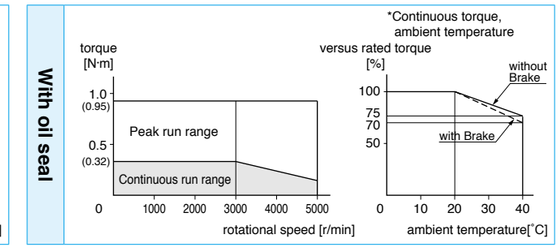
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage)

Without oil seal



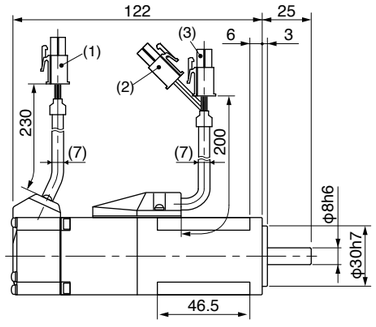
With oil seal



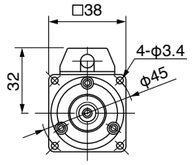
Dimensions

<With Brake>

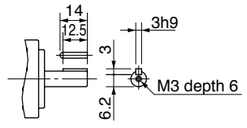
Mass (kg)/ 0.68



(1) Encoder connector
(2) Brake connector
(3) Motor connector



Key way dimensions



* For the dimensions of without brake, refer to the left page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Specifications

			AC100V	
Motor model *1		MSMD	021G1□	021S1□
Applicable driver *2	Model No.	A5 series	MBDHT2110	
		A5E series	MBDHT2110E	
	Frame symbol		B-frame	
Power supply capacity		(kVA)	0.5	
Rated output		(W)	200	
Rated torque		(N·m)	0.64	
Momentary Max. peak torque		(N·m)	1.91	
Rated current		(A(rms))	2.5	
Max. current		(A(o-p))	10.6	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4283		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.14	
	With brake		0.16	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

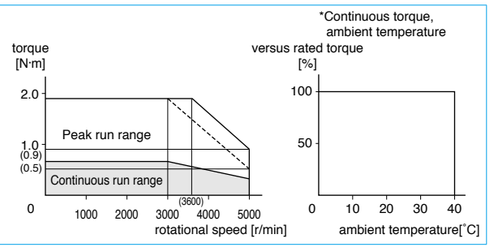
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98

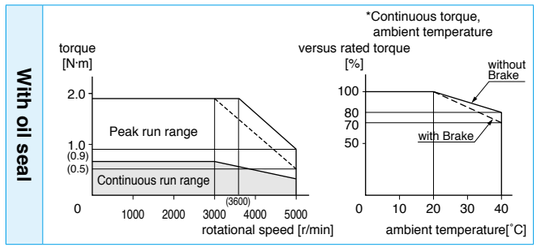
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC100V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



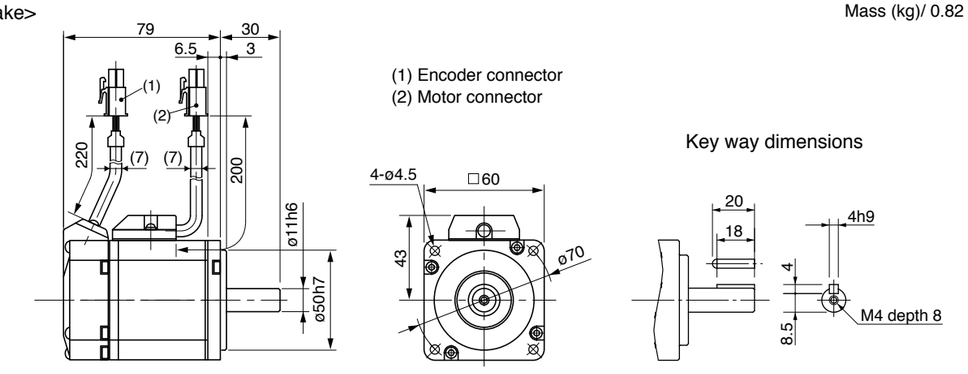
With oil seal



Dimensions

<Without Brake>

Mass (kg)/ 0.82



* For the dimensions of with brake, refer to the right page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Specifications

			AC200V	
Motor model *1		MSMD	022G1□	022S1□
Applicable driver *2	Model No.	A5 series	MADHT1507	
		A5E series	MADHT1507E	
	Frame symbol		A-frame	
Power supply capacity		(kVA)	0.5	
Rated output		(W)	200	
Rated torque		(N·m)	0.64	
Momentary Max. peak torque		(N·m)	1.91	
Rated current		(A(rms))	1.6	
Max. current		(A(o-p))	6.9	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4283		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.14	
	With brake		0.16	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

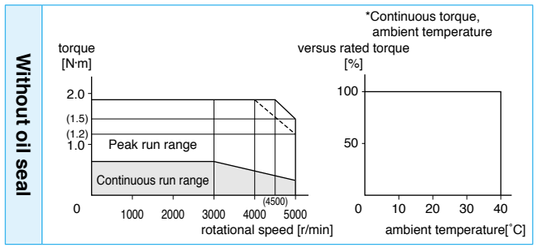
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98

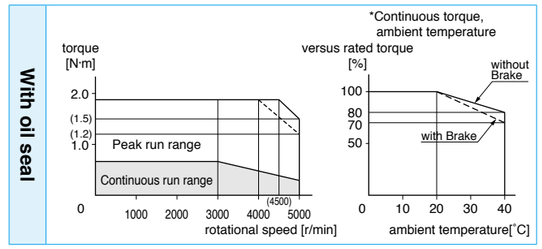
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



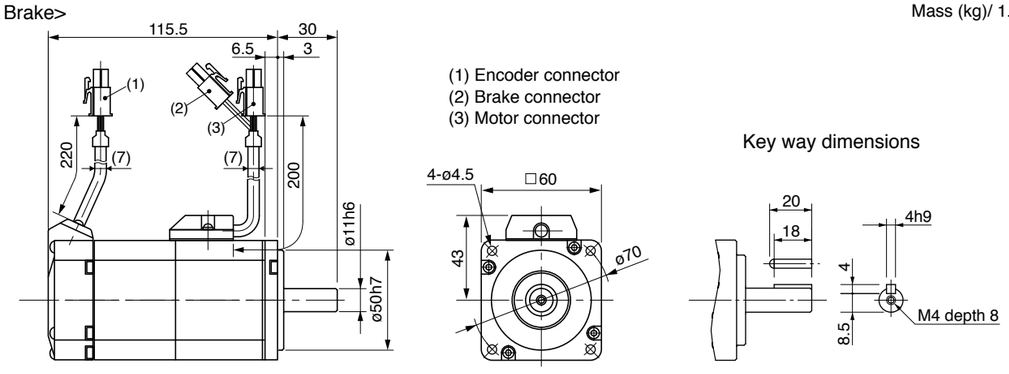
With oil seal



Dimensions

<With Brake>

Mass (kg)/ 1.3



* For the dimensions of without brake, refer to the left page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 100V MSMD 400W [Low inertia, Small capacity]

Specifications

			AC100V	
Motor model *1		MSMD	041G1□	041S1□
Applicable driver *2	Model No.	A5 series	MCDHT3120	
		A5E series	MCDHT3120E	
	Frame symbol		C-frame	
Power supply capacity		(kVA)	0.9	
Rated output		(W)	400	
Rated torque		(N·m)	1.3	
Momentary Max. peak torque		(N·m)	3.8	
Rated current		(A(rms))	4.6	
Max. current		(A(o-p))	19.5	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4282		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.26	
	With brake		0.28	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

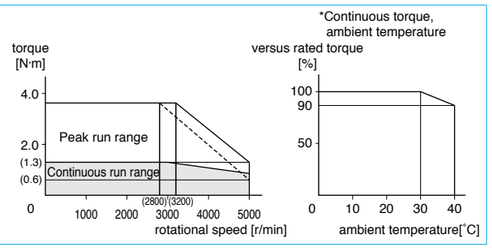
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98

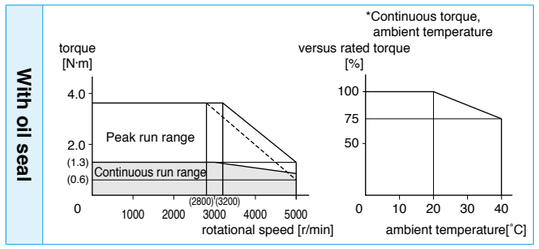
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.31.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC100V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



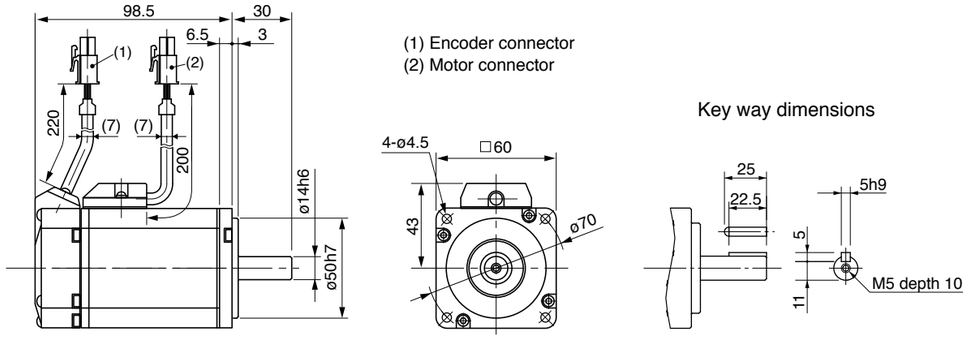
With oil seal



Dimensions

<Without Brake>

Mass (kg)/ 1.2



* For the dimensions of with brake, refer to the right page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MSMD 400W [Low inertia, Small capacity]

Specifications

			AC200V	
Motor model *1		MSMD	042G1□	042S1□
Applicable driver *2	Model No.	A5 series	MBDHT2510	
		A5E series	MBDHT2510E	
	Frame symbol		B-frame	
Power supply capacity		(kVA)	0.9	
Rated output		(W)	400	
Rated torque		(N·m)	1.3	
Momentary Max. peak torque		(N·m)	3.8	
Rated current		(A(rms))	2.6	
Max. current		(A(o-p))	11.0	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4283		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.26	
	With brake		0.28	
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

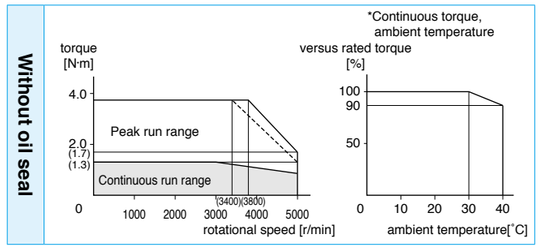
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98

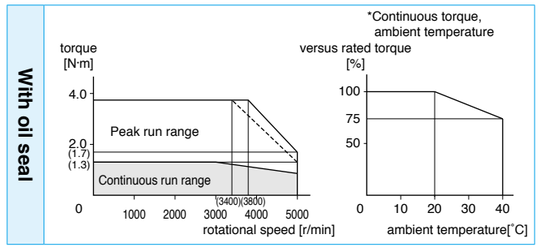
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



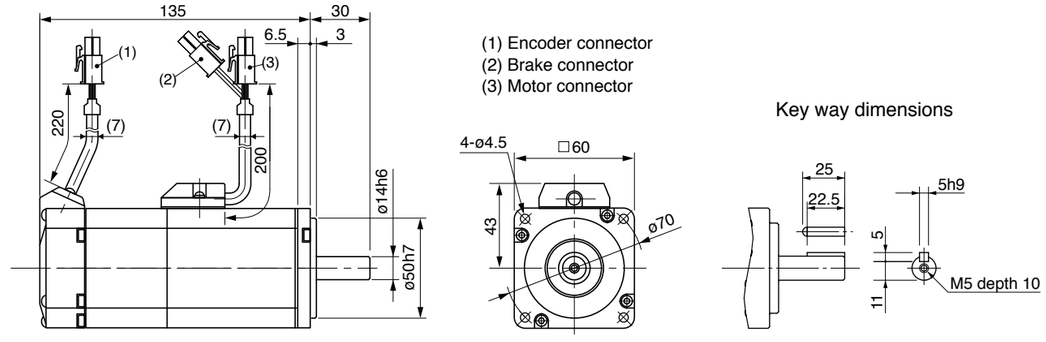
With oil seal



Dimensions

<With Brake>

Mass (kg)/ 1.7



* For the dimensions of without brake, refer to the left page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Specifications

			AC200V	
Motor model *1		MSMD	082G1□	082S1□
Applicable driver *2	Model No.	A5 series	MCDHT3520	
		A5E series	MCDHT3520E	
	Frame symbol		C-frame	
Power supply capacity (kVA)			1.3	
Rated output (W)			750	
Rated torque (N·m)			2.4	
Momentary Max. peak torque (N·m)			7.1	
Rated current (A(rms))			4.0	
Max. current (A(o-p))			17.0	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4283		No limit Note)2	
Rated rotational speed (r/min)			3000	
Max. rotational speed (r/min)			4500	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.87	
	With brake		0.97	
Recommended moment of inertia ratio of the load and the rotor Note)3			20 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized.
Do not use this for braking the motor in motion.)

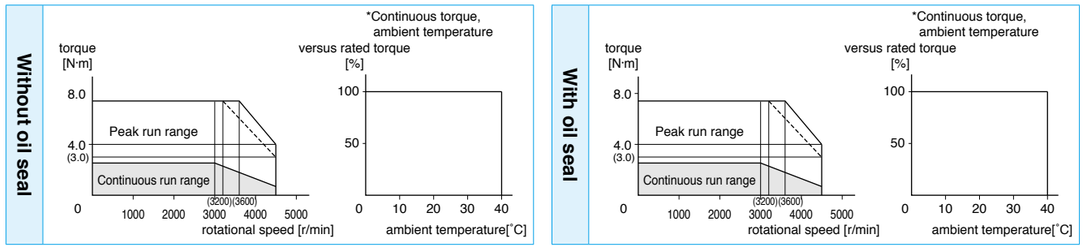
Static friction torque (N·m)	2.45 or more
Engaging time (ms)	70 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.42
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

• Permissible load (For details, refer to P.104)

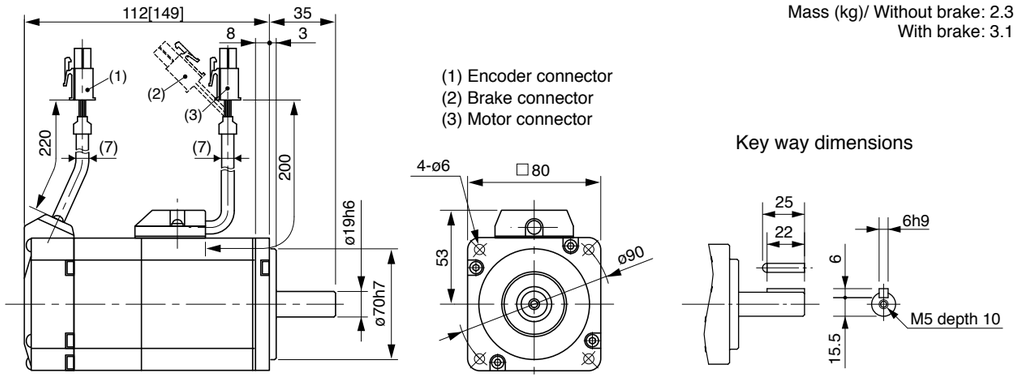
During assembly	Radial load P-direction (N)	686
	Thrust load A-direction (N)	294
	Thrust load B-direction (N)	392
During operation	Radial load P-direction (N)	392
	Thrust load A, B-direction (N)	147

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.31.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)



Dimensions



Mass (kg)/ Without brake: 2.3
With brake: 3.1

(1) Encoder connector
(2) Brake connector
(3) Motor connector

Key way dimensions

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

MEMO

Motor Specifications 100V MHMD 200W [High inertia, Small capacity]

Specifications

			AC100V	
Motor model *1		MHMD	021G1□	021S1□
Applicable driver *2	Model No.	A5 series	MBDHT2110	
		A5E series	MBDHT2110E	
	Frame symbol		B-frame	
Power supply capacity		(kVA)	0.5	
Rated output		(W)	200	
Rated torque		(N·m)	0.64	
Momentary Max. peak torque		(N·m)	1.91	
Rated current		(A(rms))	2.5	
Max. current		(A(o-p))	10.6	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4283		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.42	
	With brake		0.45	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

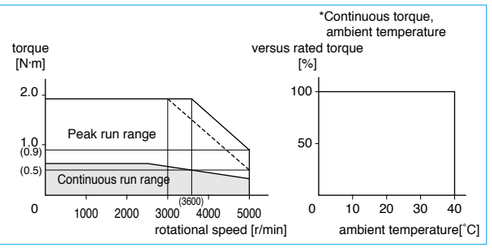
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98

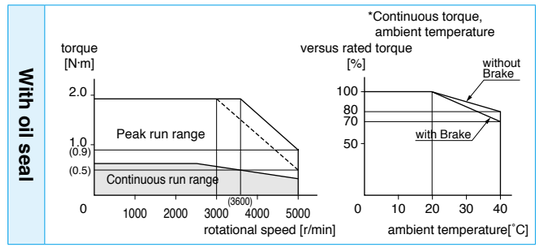
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC100V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



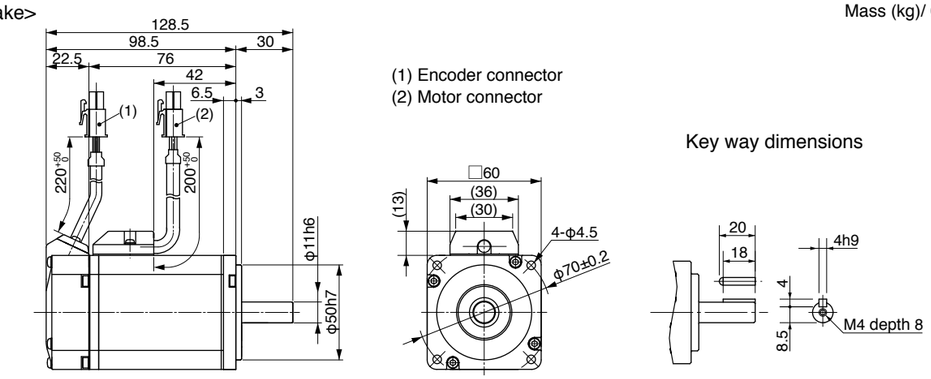
With oil seal



Dimensions

<Without Brake>

Mass (kg)/ 0.96



* For the dimensions of with brake, refer to the right page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MHMD 200W [High inertia, Small capacity]

Specifications

			AC200V	
Motor model *1		MHMD	022G1□	022S1□
Applicable driver *2	Model No.	A5 series	MADHT1507	
		A5E series	MADHT1507E	
	Frame symbol		A-frame	
Power supply capacity		(kVA)	0.5	
Rated output		(W)	200	
Rated torque		(N·m)	0.64	
Momentary Max. peak torque		(N·m)	1.91	
Rated current		(A(rms))	1.6	
Max. current		(A(o-p))	6.9	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4283		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.42	
	With brake		0.45	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

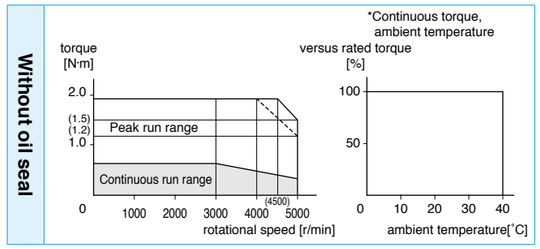
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98

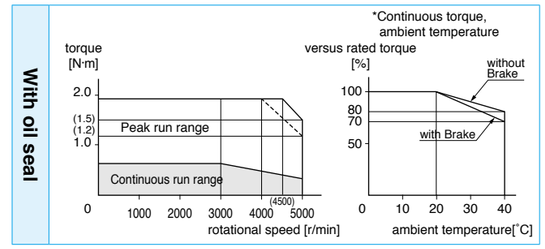
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



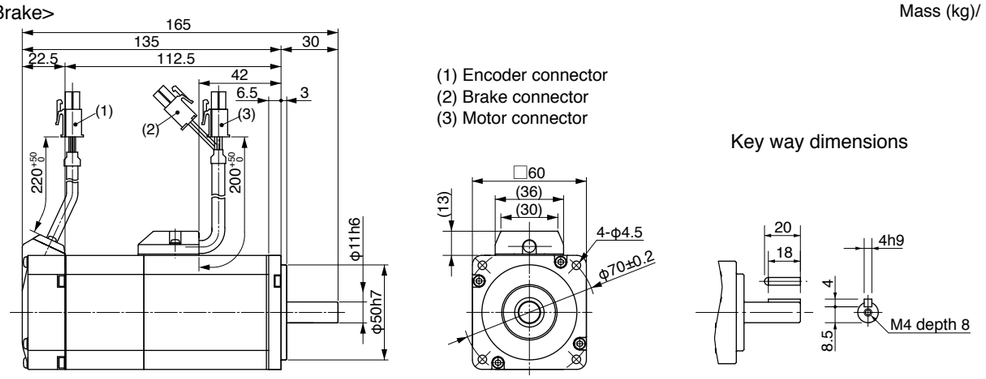
With oil seal



Dimensions

<With Brake>

Mass (kg)/ 1.4



* For the dimensions of without brake, refer to the left page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 100V MHMD 400W [High inertia, Small capacity]

Specifications

			AC100V	
Motor model *1		MHMD	041G1□	041S1□
Applicable driver *2	Model No.	A5 series	MCDHT3120	
		A5E series	MCDHT3120E	
	Frame symbol		C-frame	
Power supply capacity		(kVA)	0.9	
Rated output		(W)	400	
Rated torque		(N·m)	1.3	
Momentary Max. peak torque		(N·m)	3.8	
Rated current		(A(rms))	4.6	
Max. current		(A(o-p))	19.5	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4282		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.67	
	With brake		0.70	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

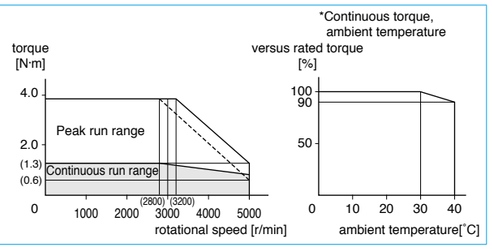
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98

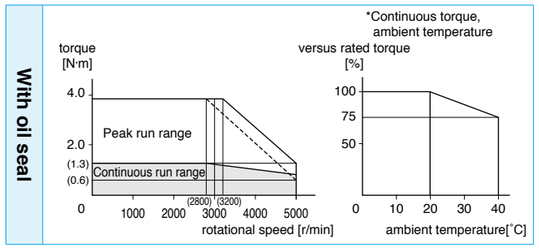
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.31.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC100V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



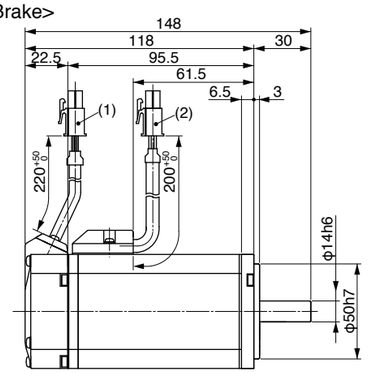
With oil seal



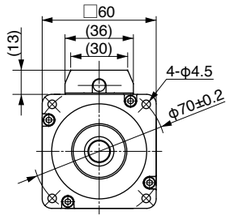
Dimensions

<Without Brake>

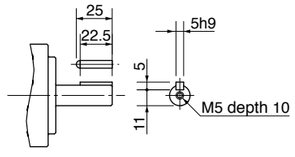
Mass (kg)/ 1.4



(1) Encoder connector
(2) Brake connector
(3) Motor connector



Key way dimensions



* For the dimensions of with brake, refer to the right page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 200V MHMD 400W [High inertia, Small capacity]

Specifications

			AC200V	
Motor model *1		MHMD	042G1□	042S1□
Applicable driver *2	Model No.	A5 series	MBDHT2510	
		A5E series	MBDHT2510E	
	Frame symbol		B-frame	
Power supply capacity		(kVA)	0.9	
Rated output		(W)	400	
Rated torque		(N·m)	1.3	
Momentary Max. peak torque		(N·m)	3.8	
Rated current		(A(rms))	2.6	
Max. current		(A(o-p))	11.0	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4283		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		0.67	
	With brake		0.70	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

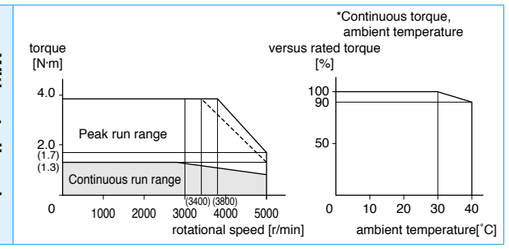
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98

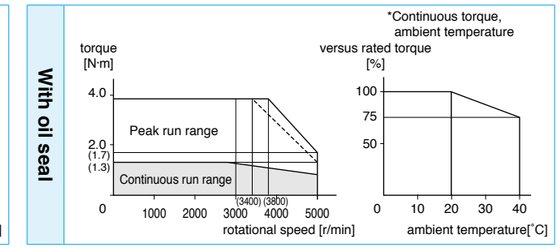
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.30.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

Without oil seal



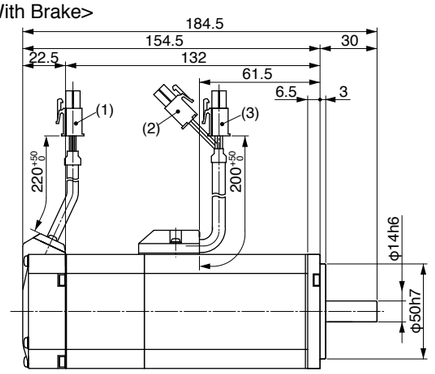
With oil seal



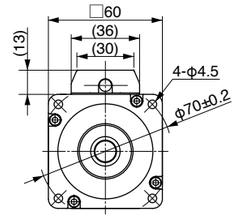
Dimensions

<With Brake>

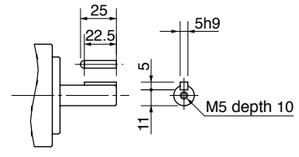
Mass (kg)/ 1.8



(1) Encoder connector
(2) Brake connector
(3) Motor connector



Key way dimensions



* For the dimensions of without brake, refer to the left page.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Specifications

			AC200V	
Motor model *1		MHMD	082G1□	082S1□
Applicable driver *2	Model No.	A5 series	MCDHT3520	
		A5E series	MCDHT3520E	
	Frame symbol		C-frame	
Power supply capacity		(kVA)	1.3	
Rated output		(W)	750	
Rated torque		(N·m)	2.4	
Momentary Max. peak torque		(N·m)	7.1	
Rated current		(A(rms))	4.0	
Max. current		(A(o-p))	17.0	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0P4283		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	4500	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		1.51	
	With brake		1.61	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized.
Do not use this for braking the motor in motion.)

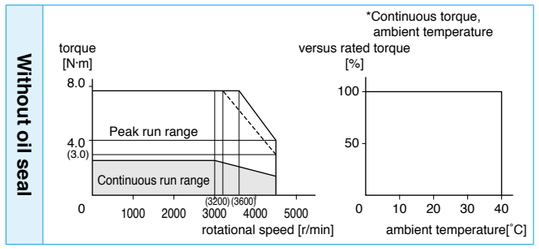
Static friction torque (N·m)	2.45 or more
Engaging time (ms)	70 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.42
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

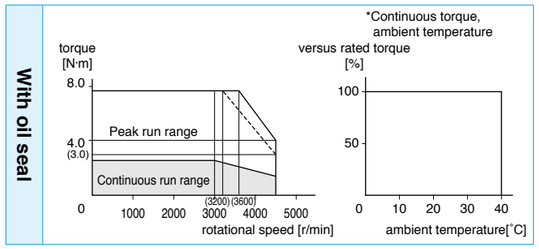
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	686
	Thrust load A-direction (N)	294
	Thrust load B-direction (N)	392
During operation	Radial load P-direction (N)	392
	Thrust load A, B-direction (N)	147

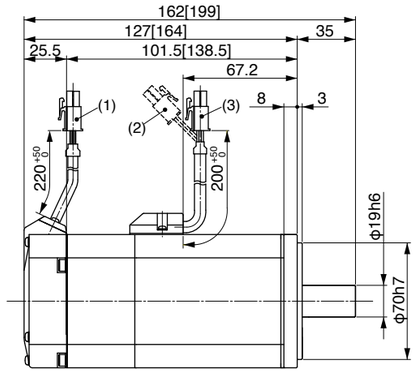
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.31.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has “E” is “positioning type”.
Detail of model designation, refer to P.11.

Torque characteristics (at AC200V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)



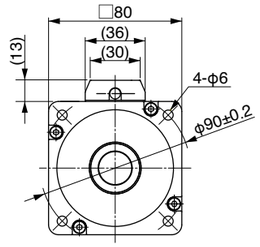


Dimensions

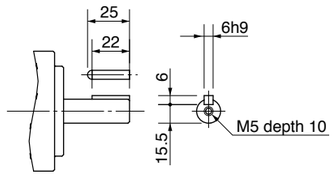


Mass (kg)/ Without brake: 2.5
With brake: 3.5

(1) Encoder connector
(2) Brake connector
(3) Motor connector



Key way dimensions



* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

MEMO

Motor Specifications 400V MSME 1.0kW [Low inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MSME	104G1□	104S1□
Applicable driver *2	Model No.	A5 series	MDDHT3420	
		A5E series	MDDHT3420E	
	Frame symbol		D-frame	
Power supply capacity		(kVA)	1.8	
Rated output		(W)	1.0	
Rated torque		(N·m)	3.18	
Momentary Max. peak torque		(N·m)	9.55	
Rated current		(A(rms))	3.3	
Max. current		(A(o-p))	14	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0PM20048		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		2.03	
	With brake		2.35	
Recommended moment of inertia ratio of the load and the rotor Note)3			15 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	7.8 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.81±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

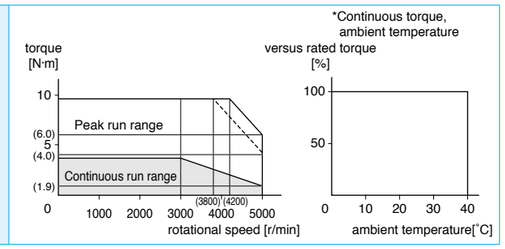
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.32.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

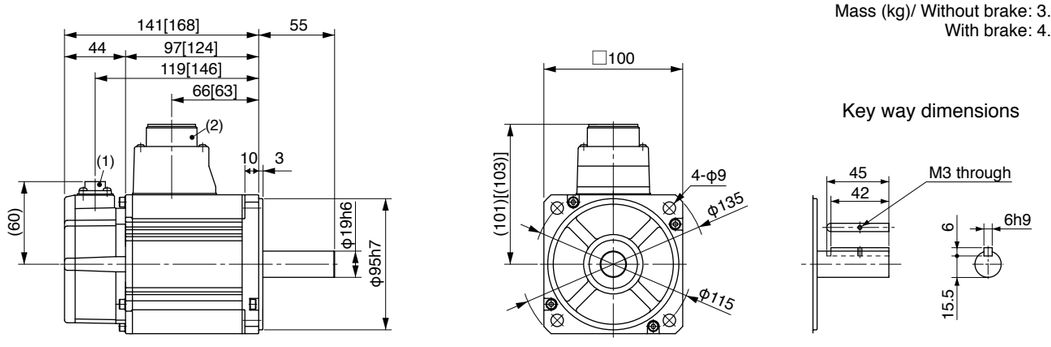
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 3.5
With brake: 4.5



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MSME 1.5kW [Low inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MSME	154G1□	154S1□
Applicable driver *2	Model No.	A5 series	MDDHT3420	
		A5E series	MDDHT3420E	
	Frame symbol		D-frame	
Power supply capacity		(kVA)	2.3	
Rated output		(W)	1.5	
Rated torque		(N·m)	4.77	
Momentary Max. peak torque		(N·m)	14.3	
Rated current		(A(rms))	4.2	
Max. current		(A(o-p))	18	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0PM20048		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		2.84	
	With brake		3.17	
Recommended moment of inertia ratio of the load and the rotor Note)3			15 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	7.8 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.81±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

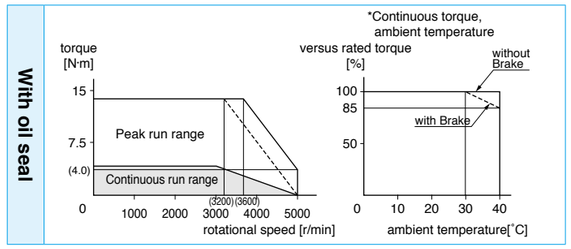
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.32.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

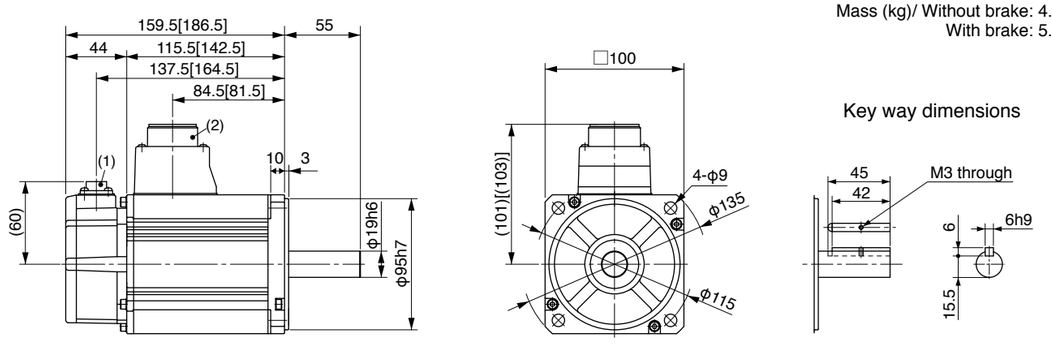
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 4.4
With brake: 5.4



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MSME 2.0kW [Low inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MSME	204G1□	204S1□
Applicable driver *2	Model No.	A5 series	MEDHT4430	
		A5E series	MEDHT4430E	
	Frame symbol		E-frame	
Power supply capacity		(kVA)	3.3	
Rated output		(W)	2.0	
Rated torque		(N·m)	6.37	
Momentary Max. peak torque		(N·m)	19.1	
Rated current		(A(rms))	5.7	
Max. current		(A(o-p))	24	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0PM20049		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		3.68	
	With brake		4.01	
Recommended moment of inertia ratio of the load and the rotor Note)3			15 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	7.8 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.81±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

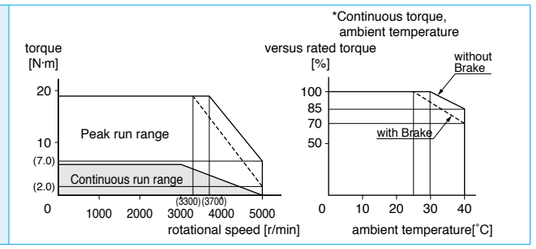
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

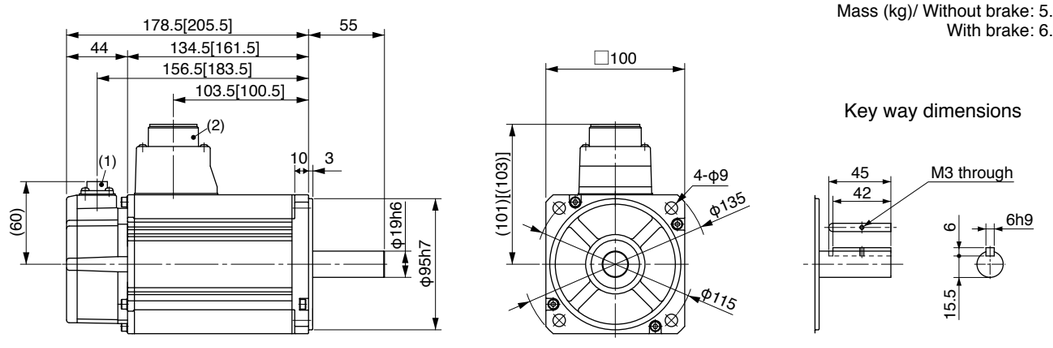
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.33.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions



Mass (kg)/ Without brake: 5.3
With brake: 6.3

Key way dimensions

(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MSME 3.0kW [Low inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MSME	304G1□	304S1□
Applicable driver *2	Model No.	A5 series	MFDHT5440	
		A5E series	MFDHT5440E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	4.5	
Rated output		(kW)	3.0	
Rated torque		(N·m)	9.55	
Momentary Max. peak torque		(N·m)	28.6	
Rated current		(A(rms))	9.2	
Max. current		(A(o-p))	39	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0PM20049×2		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		6.50	
	With brake		7.85	
Recommended moment of inertia ratio of the load and the rotor Note)3			15 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	11.8 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.81±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

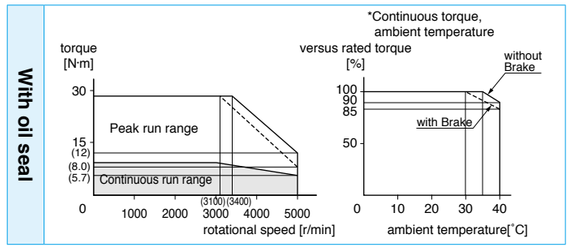
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

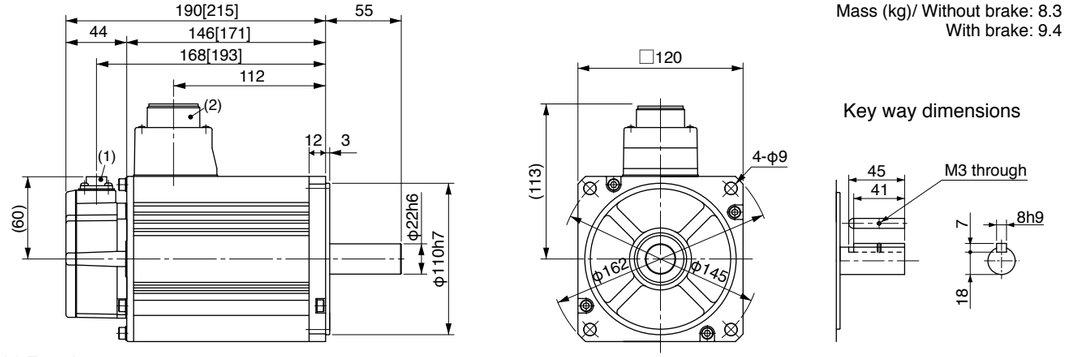
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions



Mass (kg)/ Without brake: 8.3
With brake: 9.4

Key way dimensions

(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MSME 4.0kW [Low inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MSME	404G1□	404S1□
Applicable driver *2	Model No.	A5 series	MFDHTA464	
		A5E series	MFDHTA464E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	6.8	
Rated output		(kW)	4.0	
Rated torque		(N·m)	12.7	
Momentary Max. peak torque		(N·m)	38.2	
Rated current		(A(rms))	9.9	
Max. current		(A(o-p))	42	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0PM20049×2		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	4500	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		12.9	
	With brake		14.2	
Recommended moment of inertia ratio of the load and the rotor Note)3			15 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)
(This brake will be released when it is energized.
Do not use this for braking the motor in motion.)

Static friction torque (N·m)	16.1 or more
Engaging time (ms)	110 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.90±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

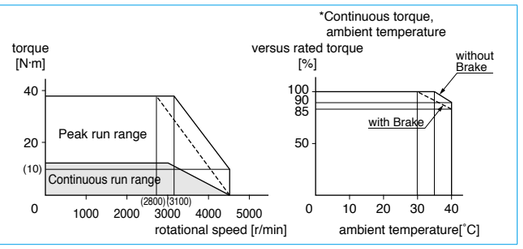
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

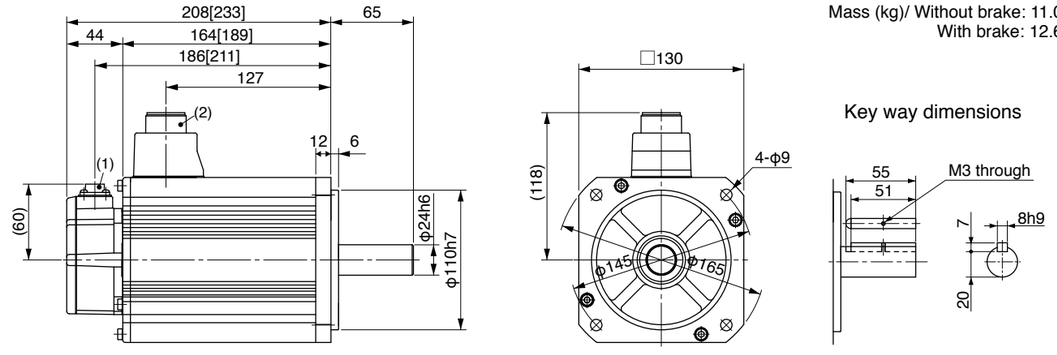
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions



Mass (kg)/ Without brake: 11.0
With brake: 12.6

(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MSME 5.0kW [Low inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MSME	504G1□	504S1□
Applicable driver *2	Model No.	A5 series	MFDHTA464	
		A5E series	MFDHTA464E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	7.5	
Rated output		(kW)	5.0	
Rated torque		(N·m)	15.9	
Momentary Max. peak torque		(N·m)	47.7	
Rated current		(A(rms))	12.0	
Max. current		(A(o-p))	51	
Regenerative brake frequency (times/min) Note)1	Without option		357	
	DV0PM20049×2		No limit Note)2	
Rated rotational speed		(r/min)	3000	
Max. rotational speed		(r/min)	4500	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		17.4	
	With brake		18.6	
Recommended moment of inertia ratio of the load and the rotor Note)3			15 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)
(This brake will be released when it is energized.
Do not use this for braking the motor in motion.)

Static friction torque (N·m)	16.1 or more
Engaging time (ms)	110 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.90±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

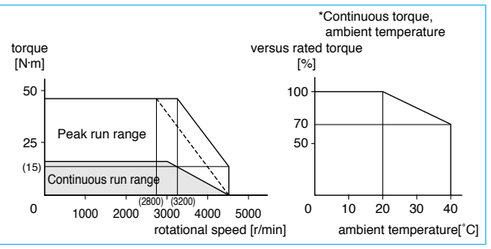
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

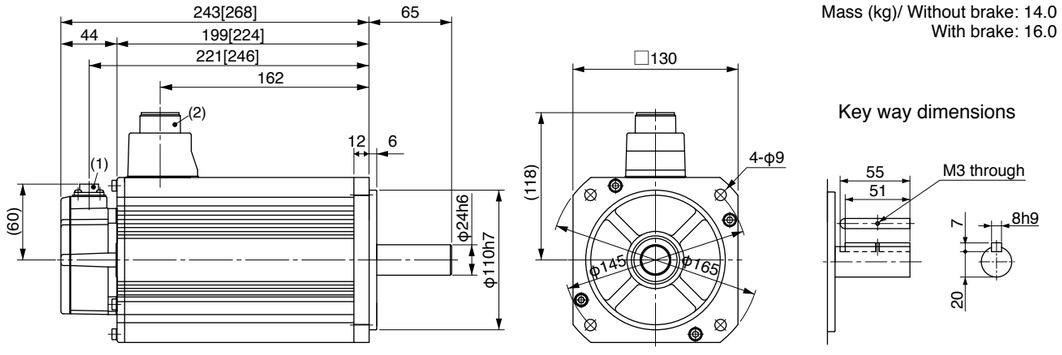
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions



Mass (kg)/ Without brake: 14.0
With brake: 16.0

(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MDME 1.0kW [Middle inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MDME	104G1□	104S1□
Applicable driver *2	Model No.	A5 series	MDDHT2412	
		A5E series	MDDHT2412E	
	Frame symbol		D-frame	
Power supply capacity		(kVA)	1.8	
Rated output		(W)	1.0	
Rated torque		(N·m)	4.77	
Momentary Max. peak torque		(N·m)	14.3	
Rated current		(A(rms))	2.8	
Max. current		(A(o-p))	12	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0PM20048		No limit Note)2	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		4.60	
	With brake		5.90	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	4.9 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	70 or less
Exciting current (DC) (A)	0.59±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

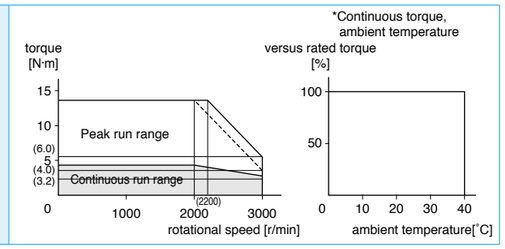
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

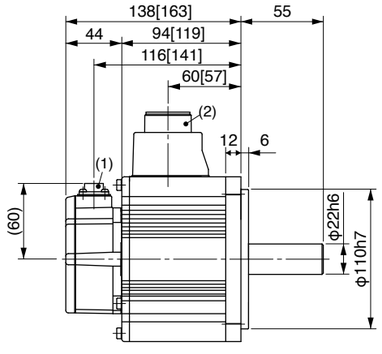
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.32.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

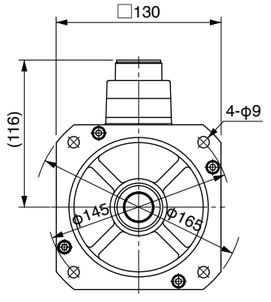
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



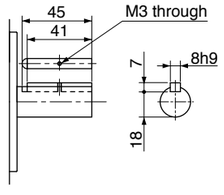
Dimensions





Mass (kg)/ Without brake: 5.2
With brake: 6.7

Key way dimensions



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MDME 1.5kW [Middle inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MDME	154G1□	154S1□
Applicable driver *2	Model No.	A5 series	MDDHT3420	
		A5E series	MDDHT3420E	
	Frame symbol		D-frame	
Power supply capacity		(kVA)	2.3	
Rated output		(W)	1.5	
Rated torque		(N·m)	7.16	
Momentary Max. peak torque		(N·m)	21.5	
Rated current		(A(rms))	4.7	
Max. current		(A(o-p))	20	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0PM20048		No limit Note)2	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		6.70	
	With brake		7.99	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

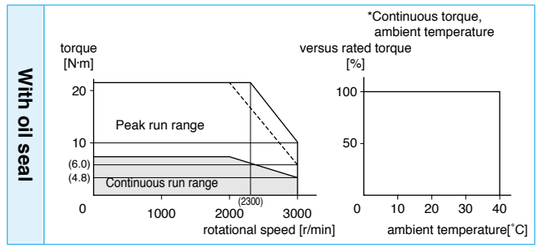
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

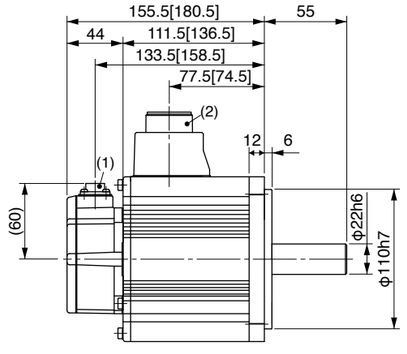
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.32.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

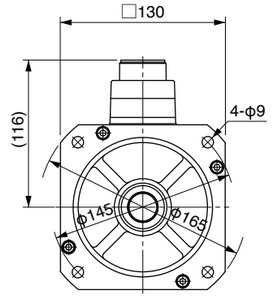
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



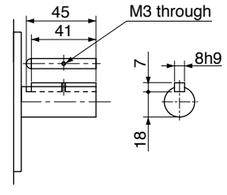
Dimensions





Mass (kg)/ Without brake: 6.7
With brake: 8.2

Key way dimensions



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MDME 2.0kW [Middle inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MDME	204G1□	204S1□
Applicable driver *2	Model No.	A5 series	MEDHT4430	
		A5E series	MEDHT4430E	
	Frame symbol		E-frame	
Power supply capacity		(kVA)	3.3	
Rated output		(W)	2.0	
Rated torque		(N·m)	9.55	
Momentary Max. peak torque		(N·m)	28.6	
Rated current		(A(rms))	5.9	
Max. current		(A(o-p))	25	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0PM20049		No limit Note)2	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		8.72	
	With brake		10.0	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)
(This brake will be released when it is energized.
Do not use this for braking the motor in motion.)

Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

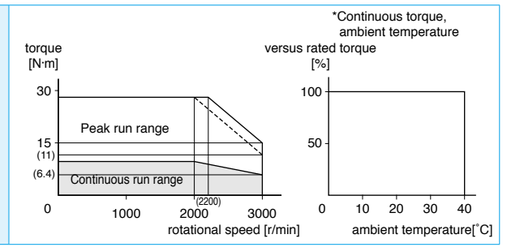
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

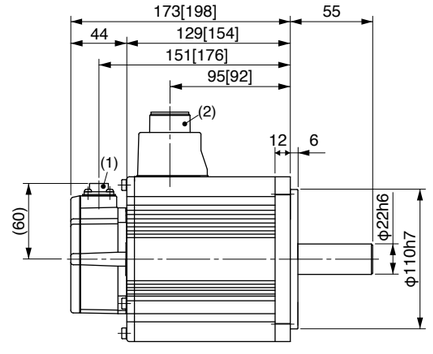
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.33.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

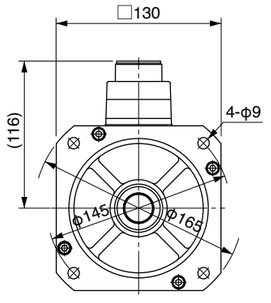
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



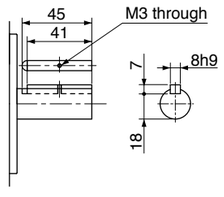
Dimensions





Mass (kg)/ Without brake: 8.0
With brake: 9.5

Key way dimensions



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MDME 3.0kW [Middle inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MDME	304G1□	304S1□
Applicable driver *2	Model No.	A5 series	MFDHT5440	
		A5E series	MFDHT5440E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	4.5	
Rated output		(W)	3.0	
Rated torque		(N·m)	14.3	
Momentary Max. peak torque		(N·m)	43.0	
Rated current		(A(rms))	8.7	
Max. current		(A(o-p))	37	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0PM20049×2		No limit Note)2	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		12.9	
	With brake		14.2	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)
(This brake will be released when it is energized.
Do not use this for braking the motor in motion.)

Static friction torque (N·m)	16.2 or more
Engaging time (ms)	110 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.90±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

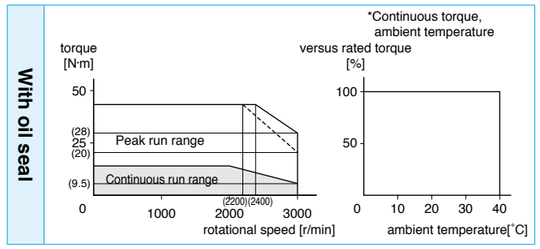
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

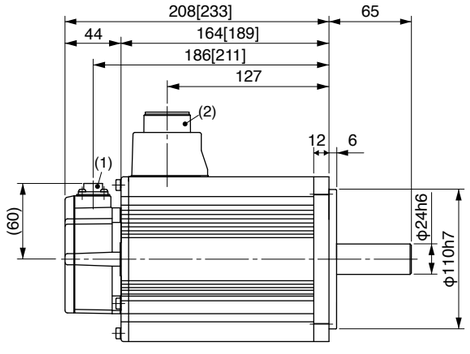
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

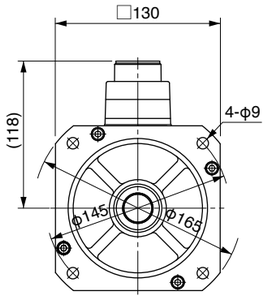
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



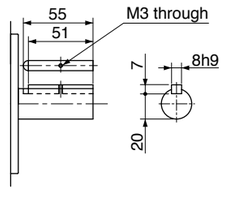
Dimensions





Mass (kg)/ Without brake: 11.0
With brake: 12.6

Key way dimensions



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MDME 4.0kW [Middle inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MDME	404G1□	404S1□
Applicable driver *2	Model No.	A5 series	MFDHTA464	
		A5E series	MFDHTA464E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	6.8	
Rated output		(W)	4.0	
Rated torque		(N·m)	19.1	
Momentary Max. peak torque		(N·m)	57.3	
Rated current		(A(rms))	10.6	
Max. current		(A(o-p))	45	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0PM20049×2		No limit Note)2	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		37.6	
	With brake		38.6	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	24.5 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.3±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

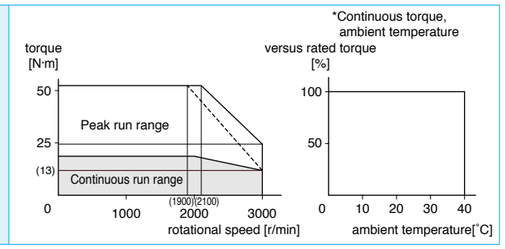
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

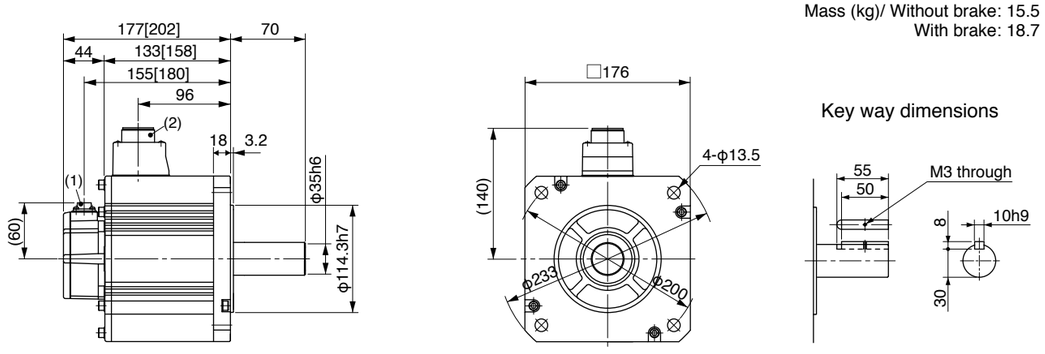
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 15.5
With brake: 18.7



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MDME 5.0kW [Middle inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MDME	504G1□	504S1□
Applicable driver *2	Model No.	A5 series	MFDHTA464	
		A5E series	MFDHTA464E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	7.5	
Rated output		(W)	5.0	
Rated torque		(N·m)	23.9	
Momentary Max. peak torque		(N·m)	71.6	
Rated current		(A(rms))	13.0	
Max. current		(A(o-p))	55	
Regenerative brake frequency (times/min) Note)1	Without option		120	
	DV0PM20049×2		No limit Note)2	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		48.0	
	With brake		48.8	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	24.5 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.3±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

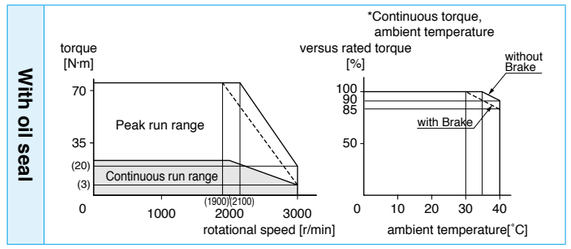
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

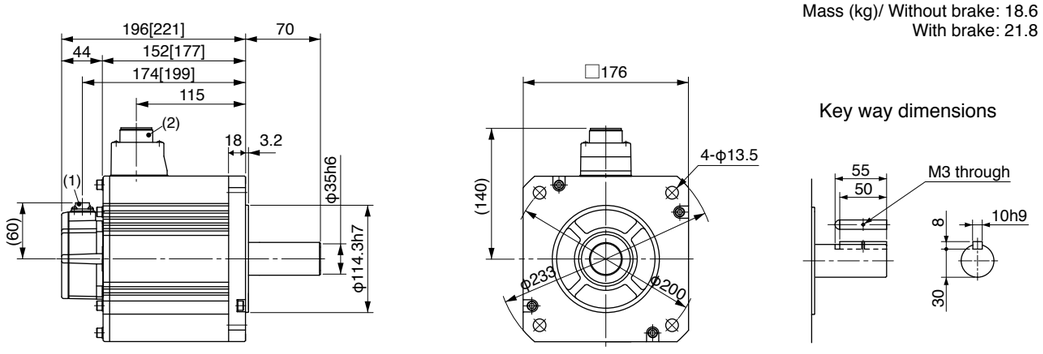
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 18.6
With brake: 21.8



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MGME 0.9kW [Middle inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MGME	094G1□	094S1□
Applicable driver *2	Model No.	A5 series	MDDHT3420	
		A5E series	MDDHT3420E	
	Frame symbol		D-frame	
Power supply capacity (kVA)			1.8	
Rated output (W)			0.9	
Rated torque (N·m)			8.59	
Momentary Max. peak torque (N·m)			19.3	
Rated current (A(rms))			3.8	
Max. current (A(o-p))			12	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0PM20048		No limit Note)2	
Rated rotational speed (r/min)			1000	
Max. rotational speed (r/min)			2000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		6.70	
	With brake		7.99	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

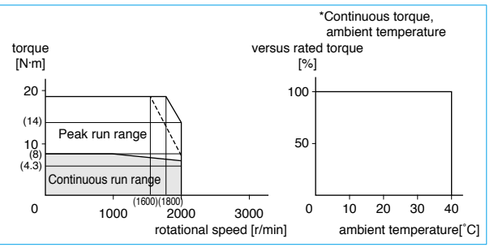
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	686
	Thrust load A, B-direction (N)	196

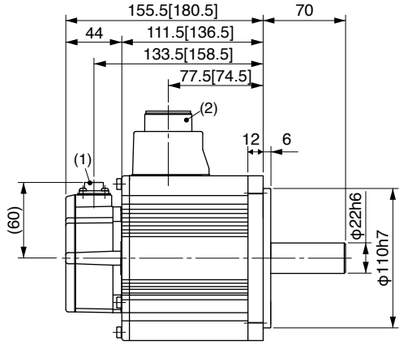
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.32.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

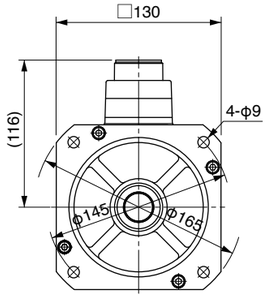
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



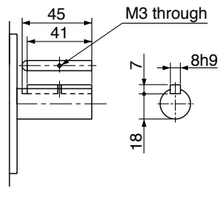
Dimensions





Mass (kg)/ Without brake: 6.7
With brake: 8.2

Key way dimensions



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MGME 2.0kW [Middle inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MGME	204G1□	204S1□
Applicable driver *2	Model No.	A5 series	MFDHT5440	
		A5E series	MFDHT5440E	
	Frame symbol		F-frame	
Power supply capacity (kVA)			3.8	
Rated output (W)			2.0	
Rated torque (N·m)			19.1	
Momentary Max. peak torque (N·m)			47.7	
Rated current (A(rms))			8.5	
Max. current (A(o-p))			30	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0PM20049×2		No limit Note)2	
Rated rotational speed (r/min)			1000	
Max. rotational speed (r/min)			2000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		30.3	
	With brake		31.4	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	24.5 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.3±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

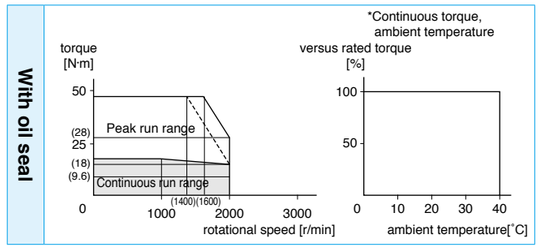
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	1176
	Thrust load A, B-direction (N)	490

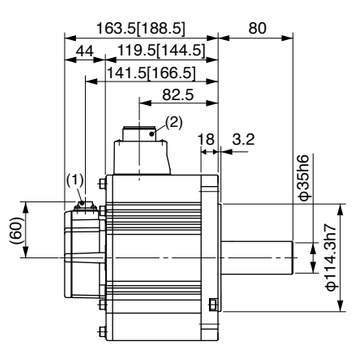
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

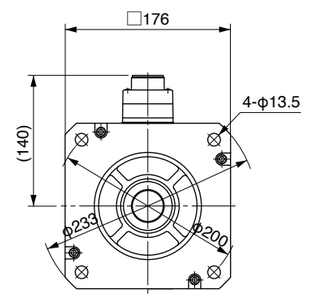
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



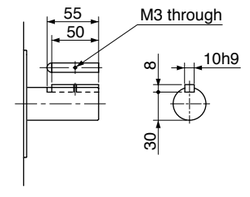
Dimensions





Mass (kg)/ Without brake: 14.0
With brake: 17.5

Key way dimensions



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

400V MGME 3.0kW [Middle inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MGME	304G1□	304S1□
Applicable driver *2	Model No.	A5 series	MFDHTA464	
		A5E series	MFDHTA464E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	4.5	
Rated output		(W)	3.0	
Rated torque		(N·m)	28.7	
Momentary Max. peak torque		(N·m)	71.7	
Rated current		(A(rms))	11.3	
Max. current		(A(o-p))	40	
Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2	
	DV0PM20049×2		No limit Note)2	
Rated rotational speed		(r/min)	1000	
Max. rotational speed		(r/min)	2000	
Moment of inertia of rotor (×10^{-4}kg·m^2)	Without brake		48.4	
	With brake		49.2	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized.
Do not use this for braking the motor in motion.)

Static friction torque (N·m)	58.8 or more
Engaging time (ms)	150 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	1.4±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

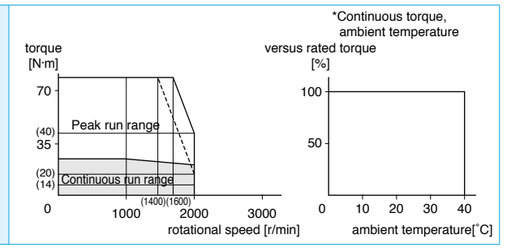
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	2058
	Thrust load A-direction (N)	980
	Thrust load B-direction (N)	1176
During operation	Radial load P-direction (N)	1470
	Thrust load A, B-direction (N)	490

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has “E” is “positioning type”.
Detail of model designation, refer to P.11.

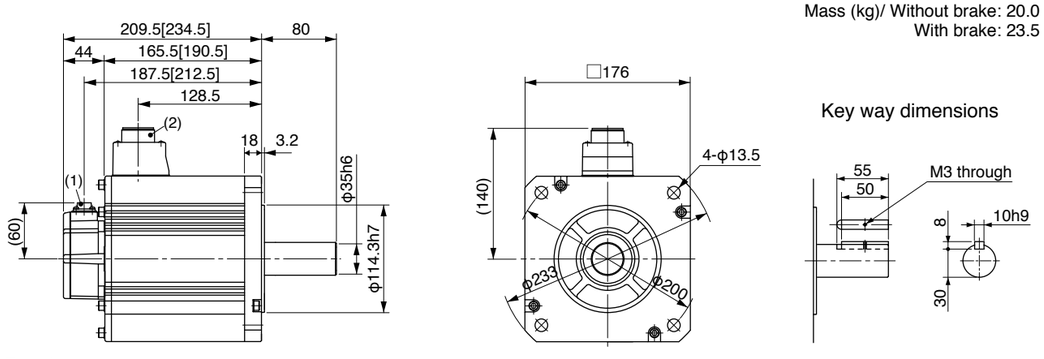
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 20.0
With brake: 23.5



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

MEMO

Motor Specifications 400V MHME 1.0kW [High inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MHME	104G1□	104S1□
Applicable driver *2	Model No.	A5 series	MDDHT2412	
		A5E series	MDDHT2412E	
	Frame symbol		D-frame	
Power supply capacity		(kVA)	1.8	
Rated output		(W)	1.0	
Rated torque		(N·m)	4.77	
Momentary Max. peak torque		(N·m)	14.3	
Rated current		(A(rms))	2.9	
Max. current		(A(o-p))	12	
Regenerative brake frequency (times/min) Note)1	Without option		83	
	DV0PM20048		No limit Note)2	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		24.7	
	With brake		26.0	
Recommended moment of inertia ratio of the load and the rotor Note)3			5 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	4.9 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	70 or less
Exciting current (DC) (A)	0.59±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

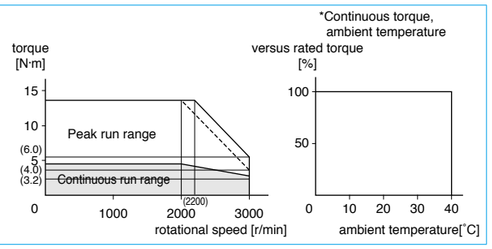
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

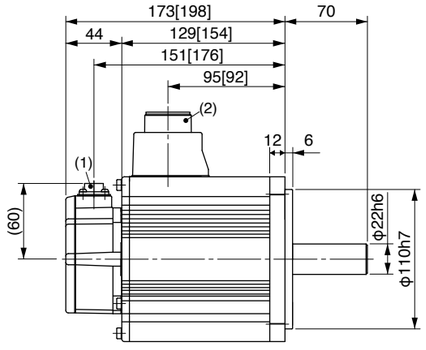
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.32.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

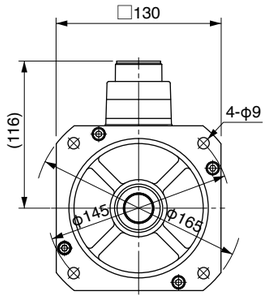
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



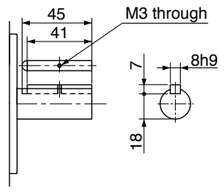
Dimensions





Mass (kg)/ Without brake: 6.7
With brake: 8.1

Key way dimensions



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MHME 1.5kW [High inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MHME	154G1□	154S1□
Applicable driver *2	Model No.	A5 series	MDDHT3420	
		A5E series	MDDHT3420E	
	Frame symbol		D-frame	
Power supply capacity		(kVA)	2.3	
Rated output		(W)	1.5	
Rated torque		(N·m)	7.16	
Momentary Max. peak torque		(N·m)	21.5	
Rated current		(A(rms))	4.7	
Max. current		(A(o-p))	20	
Regenerative brake frequency (times/min) Note)1	Without option		22	
	DV0PM20048		130	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		37.1	
	With brake		38.4	
Recommended moment of inertia ratio of the load and the rotor Note)3			5 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

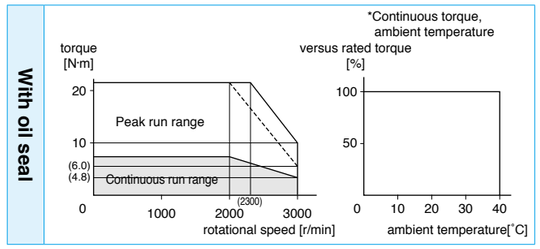
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	980
	Thrust load A-direction (N)	588
	Thrust load B-direction (N)	686
During operation	Radial load P-direction (N)	490
	Thrust load A, B-direction (N)	196

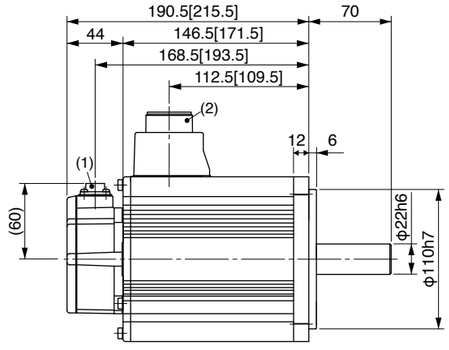
• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.32.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

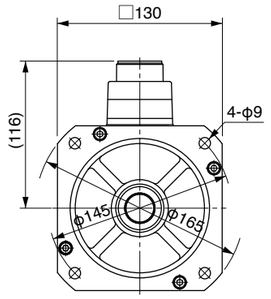
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



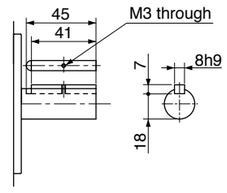
Dimensions





Mass (kg)/ Without brake: 8.6
With brake: 10.1

Key way dimensions



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MHME 2.0kW [High inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MHME	204G1□	204S1□
Applicable driver *2	Model No.	A5 series	MEDHT4430	
		A5E series	MEDHT4430E	
	Frame symbol		E-frame	
Power supply capacity		(kVA)	3.3	
Rated output		(W)	2.0	
Rated torque		(N·m)	9.55	
Momentary Max. peak torque		(N·m)	28.6	
Rated current		(A(rms))	5.5	
Max. current		(A(o-p))	24	
Regenerative brake frequency (times/min) Note)1	Without option		45	
	DV0PM20048		142	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		57.8	
	With brake		59.6	
Recommended moment of inertia ratio of the load and the rotor Note)3			5 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	24.5 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.3±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

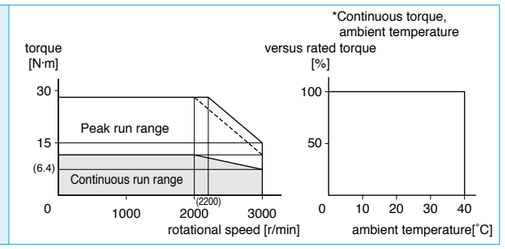
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.33.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

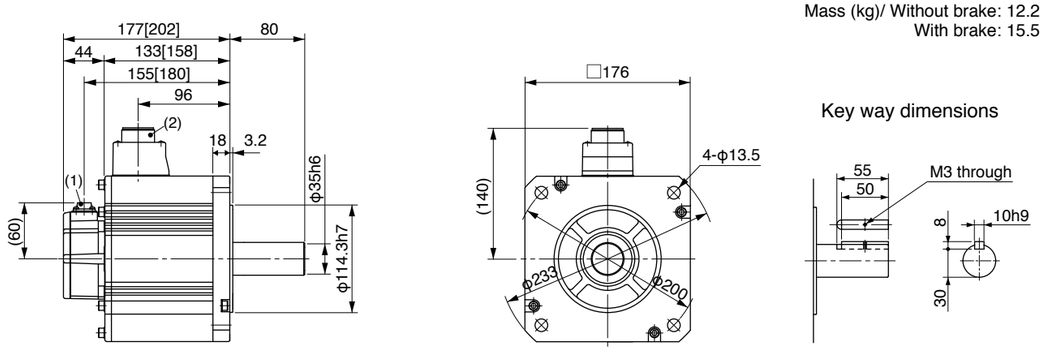
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 12.2
With brake: 15.5



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MHME 3.0kW [High inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MHME	304G1□	304S1□
Applicable driver *2	Model No.	A5 series	MFDHT5440	
		A5E series	MFDHT5440E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	4.5	
Rated output		(W)	3.0	
Rated torque		(N·m)	14.3	
Momentary Max. peak torque		(N·m)	43.0	
Rated current		(A(rms))	8.0	
Max. current		(A(o-p))	34	
Regenerative brake frequency (times/min) Note)1	Without option		19	
	DV0PM20049×2		142	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		90.5	
	With brake		92.1	
Recommended moment of inertia ratio of the load and the rotor Note)3			5 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	24.5 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.3±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

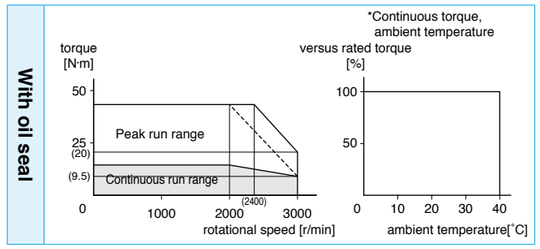
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

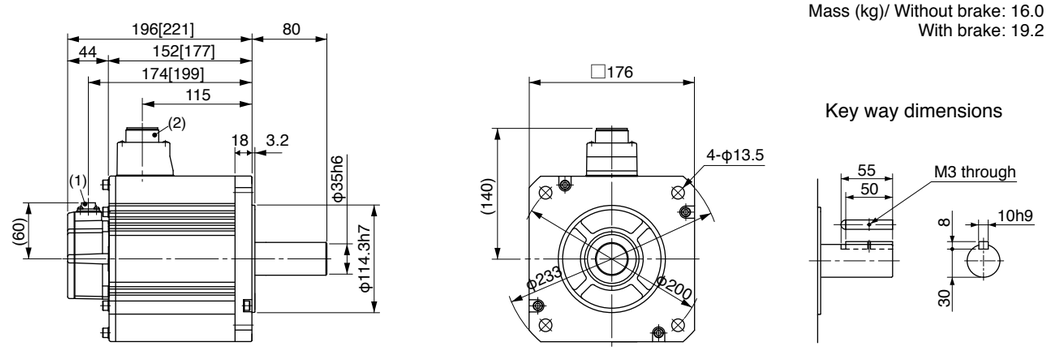
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 16.0
With brake: 19.2



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MHME 4.0kW [High inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MHME	404G1□	404S1□
Applicable driver *2	Model No.	A5 series	MFDHTA464	
		A5E series	MFDHTA464E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	6.8	
Rated output		(W)	4.0	
Rated torque		(N·m)	19.1	
Momentary Max. peak torque		(N·m)	57.3	
Rated current		(A(rms))	10.5	
Max. current		(A(o-p))	45	
Regenerative brake frequency (times/min) Note)1	Without option		17	
	DV0PM20049×2		125	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		112	
	With brake		114	
Recommended moment of inertia ratio of the load and the rotor Note)3			5 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	24.5 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.3±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

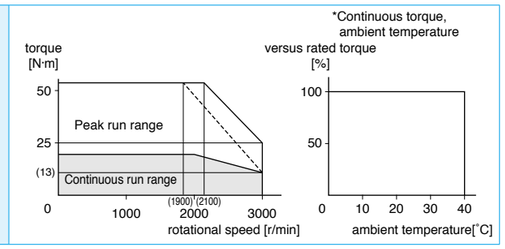
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

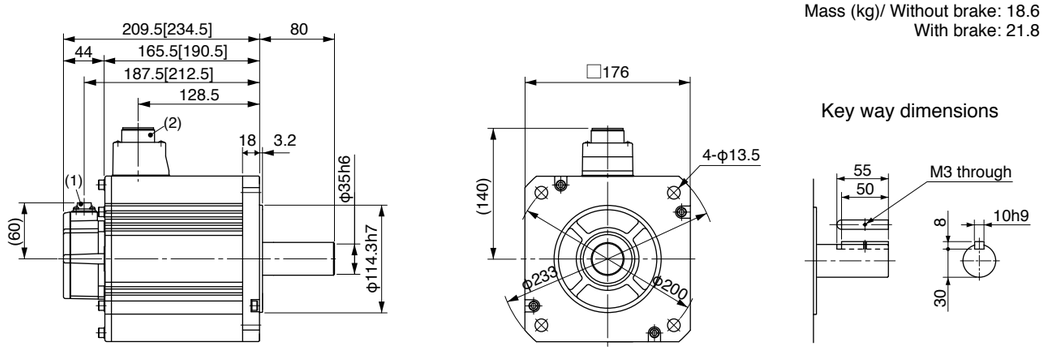
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 18.6
With brake: 21.8



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Motor Specifications 400V MHME 5.0kW [High inertia, Middle capacity]

Specifications

			AC400V	
Motor model *1		MHME	504G1□	504S1□
Applicable driver *2	Model No.	A5 series	MFDHTA464	
		A5E series	MFDHTA464E	
	Frame symbol		F-frame	
Power supply capacity		(kVA)	7.5	
Rated output		(W)	5.0	
Rated torque		(N·m)	23.9	
Momentary Max. peak torque		(N·m)	71.6	
Rated current		(A(rms))	13.0	
Max. current		(A(o-p))	55	
Regenerative brake frequency (times/min) Note)1	Without option		10	
	DV0PM20049×2		76	
Rated rotational speed		(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia of rotor ($\times10^{-4}$kg·m^2)	Without brake		162	
	With brake		164	
Recommended moment of inertia ratio of the load and the rotor Note)3			5 times or less	
Rotary encoder specifications Note)5			20-bit Incremental	17-bit Absolute
	Resolution per single turn		1,048,576	131,072

• Brake specifications (For details, refer to P.105)

(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

Static friction torque (N·m)	24.5 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.3±10%
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

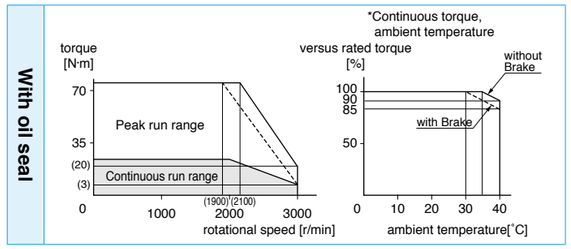
• Permissible load (For details, refer to P.104)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	784
	Thrust load A, B-direction (N)	343

• For details of Note 1 to Note 5, refer to P.104.
• Dimensions of Driver, refer to P.34.
*1 Rotary encoder specifications: □
*2 The product that the end of driver model designation has "E" is "positioning type".
Detail of model designation, refer to P.11.

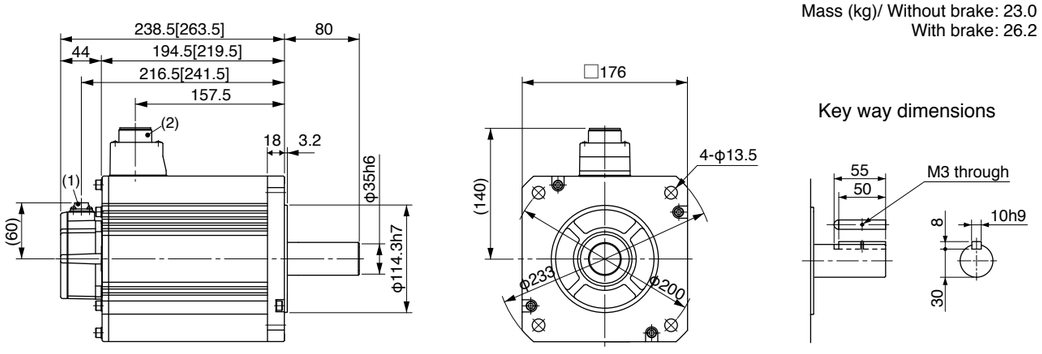
Torque characteristics (at AC400V of power voltage <Dotted line represents the torque at 10% less supply voltage.>)

With oil seal



Dimensions

Mass (kg)/ Without brake: 23.0
With brake: 26.2



(1) Encoder connector
(2) Motor/Brake connector

* Figures in [ ] represent the dimensions of with brake.

<Cautions> Reduce the moment of inertia ratio if high speed response operation is required.
Dimensions are subject to change without notice. Contact us or a dealer for the latest information.
Read the Instruction Manual carefully and understand all precautions and remarks before using the products.

Notes on [Motor specification] page

Note) 1. **[At AC100V of power voltage]**
Regenerative brake frequency represents the frequency of the motor's stops from the rated speed with deceleration without load.
- If the load is connected, frequency will be defines as 1/(m+1), where m=load moment of inertia/ rotor moment of inertia.
- When the motor speed exceeds the rated speed, regenerative brake frequency is in inverse proportion to the square of (running speed/rated speed).
- Power supply voltage is AC115V (at 100V of the main voltage).
  If the supply voltage fluctuates, frequency is in inverse proportion to the square of (Running supply voltage/115) relative to the value in the table.
- When regeneration occurs continuously such cases as running speed frequently changes or vertical feeding, consult us or a dealer.

[At AC200V of power voltage]
Regenerative brake frequency represents the frequency of the motor's stops from the rated speed with deceleration without load.
- If the load is connected, frequency will be defines as 1/(m+1), where m=load moment of inertia/ rotor moment of inertia.
- When the motor speed exceeds the rated speed, regenerative brake frequency is in inverse proportion to the square of (running speed/rated speed).
- Power supply voltage is AC230V (at 200V of the main voltage).
  If the supply voltage fluctuates, frequency is in inverse proportion to the square of (Running supply voltage/230) relative to the value in the table.
- When regeneration occurs continuously such cases as running speed frequently changes or vertical feeding, consult us or a dealer.

[At AC400V of power voltage]
Regenerative brake frequency represents the frequency of the motor's stops from the rated speed with deceleration without load.
- If the load is connected, frequency will be defines as 1/(m+1), where m=load moment of inertia/ rotor moment of inertia.
- When the motor speed exceeds the rated speed, regenerative brake frequency is in inverse proportion to the square of (running speed/rated speed).
- Power supply voltage is AC460V (at 400V of the main voltage).
  If the supply voltage fluctuates, frequency is in inverse proportion to the square of (Running supply voltage/460) relative to the value in the table.
- When regeneration occurs continuously such cases as running speed frequently changes or vertical feeding, consult us or a dealer.

Note) 2. If the effective torque is within the rated torque, there is no limit in generative brake.

Note) 3. Consult us or a dealer if the load moment of inertia exceeds the specified value.

Note) 4. Releasing time values represent the ones with DC-cutoff using a varistor.

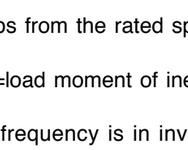
Note) 5. The 17-bit absolute encoder can also be used as a 17-bit incremental encoder.

Permissible Load at Output Shaft

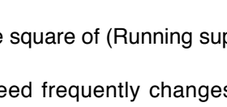
The radial load is defined as a load applied to the output shaft in the right-angle direction. This load is generated when the gear head is coupled to the machine using a chain, belt, etc., but not when the gear head is directly connected to the coupling. As shown in the right figure, the permissible value is determined based on the load applied to the L/2 position of the output shaft. The thrust load is defined as a load applied to the output shaft in the axial direction.

Because the radial load and thrust load significantly affect the life of the bearing, take care not to allow the load during operation to exceed the permissible radial load and thrust load shown in the table below.

Radial load (P) direction



Thrust load (A and B) direction



Built-in Holding Brake

In the applications where the motor drives the vertical axis, this brake would be used to hold and prevent the work (moving load) from falling by gravity while the power to the servo is shut off.

Use this built-in brake for "Holding" purpose only, that is to hold the stalling status. Never use this for "Brake" purpose to stop the load in motion.

- **Output Timing of BRK-OFF Signal**
  - For the brake release timing at power-on, or braking timing at Servo-OFF/Servo-Alarm while the motor is in motion, refer to the Operating Instructions (Overall).
  - With the parameter, Pr4.38 (Setup of mechanical brake action while the motor is in motion), you can set up a time between when the motor enters to a free-run from energized status and when BRK-OFF signal turns off (brake will be engaged), when the Servo-OFF or alarm occurs while the motor is in motion. For details, download a copy of the instruction manual from our website.

<Note>
1. The lining sound of the brake (chattering and etc.) might be generated while running the motor with built-in brake, however this does not affect any functionality.
2. Magnetic flux might be generated through the motor shaft while the brake coil is energized (brake is open). Pay an extra attention when magnetic sensors are used nearby the motor.

- **Specifications of Built-in Holding Brake**

Motor series	Motor output	Static friction torque N·m	Rotor inertia x 10^{-4} kg·m^2	Engaging time ms	Releasing time ms	Exciting current DC A (at cool-off)	Releasing voltage	Permissible work (J) per one braking	Permissible total work x 10^3J	Permissible angular acceleration rad/s^2
MSMD	50W, 100W	0.29 or more	0.002	35 or less	20 or less	0.3	DC1V or more	39.2	4.9	30000
	200W, 400W	1.27 or more	0.018	50 or less	15 or less	0.36		137	44.1	
	750W	2.45 or more	0.075	70 or less	20 or less	0.42		196	147	
MSME	50W, 100W	0.29 or more	0.002	35 or less	20 or less	0.3	DC1V or more	39.2	4.9	30000
	200W, 400W	1.27 or more	0.018	50 or less	15 or less	0.36		137	44.1	
	750W	2.45 or more	0.075	70 or less	20 or less	0.42		196	147	
	1.0kW, 1.5kW, 2.0kW	7.8 or more	0.33	50 or less	15 or less (100)	0.81	DC2V or more	392	490	10000
	3.0kW	11.8 or more		80 or less						
	4.0kW, 5.0kW	16.1 or more	1.35	110 or less	50 or less (130)	0.9		1470	2200	
MDME	1.0kW	4.9 or more	1.35	80 or less	70 or less (200)	0.59	DC2V or more	588	780	10000
	1.5kW, 2.0kW	13.7 or more		100 or less	50 or less (130)	0.79		1176	1500	
	3.0kW	16.2 or more		110 or less		0.9		1470	2200	
	4.0kW, 5.0kW	24.5 or more	4.7	80 or less	25 or less (200)	1.3		1372	2900	5440
MGME	900W	13.7 or more	1.35	100 or less	50 or less (130)	0.79	DC2V or more	1176	1500	10000
	2.0kW	24.5 or more	4.7	80 or less	25 or less (200)	1.3		1372	2900	5440
	3.0kW	58.8 or more		150 or less	50 or less (130)	1.4				
MHMD	200W, 400W	1.27 or more	0.018	50 or less	15 or less	0.36	DC1V or more	137	44.1	30000
	750W	2.45 or more	0.075	70 or less	20 or less	0.42		196	147	
MHME	1.0kW	4.9 or more	1.35	80 or less	70 or less (200)	0.59	DC2V or more	588	780	10000
	1.5kW	13.7 or more		100 or less	50 or less (130)	0.79		1176	1500	
	2.0kW to 5.0kW	24.5 or more	4.7	80 or less	25 or less (200)	1.3		1372	2900	5440

- Excitation voltage is DC24V±10% (Large type motor) and DC24V±5% (Small type motor).
- Releasing time values represent the ones with DC-cutoff using a varistor.
  Values in ( ) represent those measured by using a diode (V03C by Hitachi, Ltd.)
- Above values (except static friction torque, releasing voltage and excitation current) represent typical values.
- Backlash of the built-in holding brake is kept ±1˚or smaller at ex-factory point.
- Service life of the number of acceleration/deceleration with the above permissible angular acceleration is more than 10 million times. (Life end is defined as when the brake backlash drastically changes.)