

F-frame (400V)



Motor Specifications Common Specifications of Motor

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





[MSME (50W to 750W)]				
Motor (Scheduled to be released.)				
• MDME 7.5kW, 11kW, 15kW	,			
• MHME 7.5kW				

• MFME 1.5kW, 2.5kW, 4.5kW · Motor with Gear Reduce: 100W, 200W, 400W, 750W

Environmental Conditions

• MGME 4.5kW, 6.0kW

Item		Conditions
Ambient te	mperature *1	0°C to 40°C (free from freezing)
Ambient hu	umidity	20% to 85% RH (free from condens
Storage te	mperature *2	-20°C to 65°C (Max.temperature guarantee: 80°C
Storage hu	imidity	20% to 85% RH (free from condens
Vibration	Motor only	Lower than 49m/s ² (5G) at running,
Impact	Motor only	Lower than 98m/s ² (10G)
Enclosure	Leadwire type *3	IP65 (except rotating portion of ou end.)
rating (Motor only)	Connector type ^{*3*4}	IP67 (except rotating portion of out pin part of the motor connector and
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.



Middle capacity type



[MSME (1.0kW to 5.0kW)]

sation)

for 72 hours)

sation)

24.5m/s2 (2.5G) at stall

utput shaft and readwire

tput shaft and connecting the encoder connector)



Motor Contents

MSME (100V/200V) 50W to 750W P.36 to 44

MSME (200V) 1.0kW to 5.0kW P.45 to 50

MDME (200V) 1.0kW to 5.0kW P.51 to 56

MGME (200V) 0.9kW to 3.0kW P.57 to 59

MHME (200V) 1.0kW to 5.0kW P.60 to 65

MSMD (100V/200V) 50W to 750W P.66 to 74

MHMD (100V/200V) 200W to 750W P.76 to 80

MSME (400V) 1.0kW to 5.0kW P.82 to 87

MDME (400V) 1.0kW to 5.0kW P.88 to 93

MGME (400V) 0.9kW to 3.0kW P.94 to 96

MHME (400V) 1.0kW to 5.0kW P.98 to 103

			AC1	00V	
Motor model *1		MSME	5AZG1	5AZS1	
	Model	A5 series	MADH	T1105	
Applicable driver *2	No.	A5E series	MADH	T1105E	
	Fram	ne symbol	A-fra	ame	
Power supply capacit	у	(kVA)	0	.4	
Rated output		(W)	5	0	
Rated torque		(N·m)	0.	16	
Momentary Max. pea	k torqu	e (N·m)	0.4	48	
Rated current		(A(rms))	1.1		
Max. current (A(o-p))		4.7			
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1 DV0		0P4280	No limit Note)2		
Rated rotational spee	Rated rotational speed (r/min)		3000		
Max. rotational speed		(r/min)	6000		
Moment of inertia	Without brake		0.025		
of rotor (×10 ⁻⁴ kg·m ²) With bra		th brake	0.027		
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times	s or less		
Rotary encoder specifications Note)5 Resolution per single turn		1S Note)5	20-bit Incremental	17-bit Absolute	
		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)

	. .	Radial load P-direction (N)	147
During assembly During operation	•	Thrust load A-direction (N)	88
	accombry	Thrust load B-direction (N)	117.6
	Radial load P-direction (N)	68.6	
	operation	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".

Key way dimensions

Mass (kg)/ 0.32

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.>)



Dimensions



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

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<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			5AZG1]	5AZS1
	Model	A5 series	MADHT1505		T1505
Applicable driver *2	No.	A5E series	MADHT1505E		Г1505E
	Frame symbol		A-frame		
Power supply capacit	у	(kVA)	0.5		
Rated output		(W)		5	0
Rated torque		(N·m)		0.	16
Momentary Max. pea	k torqu	ie (N·m)		0.4	48
Rated current		(A(rms))	1.1		
Max. current (A(o-p))		4.7			
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0P4280		No limit Note)2		
Rated rotational speed (r/min)		(r/min)	3000		
Max. rotational speed (r/min)		6000			
Moment of inertia	With	out brake	0.025		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	0.027		
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times or less		s or less	
Rotary encoder specifications Note) Resolution per single tur		1S Note)5	20-bit Incrementa	al	17-bit Absolute
		r single turn	1,048,576	;	131,072

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



Dimensions

<With Brake> (74.8) (44.8) (28.8 (13.5) (2) (3 (1)-֥ 23

<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.

• Brake specifications (For details, refer to P.105)					
$\left(\begin{array}{c} \mbox{This brake will be released when it is energized.} \\ \mbox{Do not use this for braking the motor in motion.} \end{array} \right)$					

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 During operation	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88
	Thrust load B-direction (N)	117.6
	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.

Mass (kg)/ 0.53

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

Key way dimensions





 $\frac{6}{1}$ For the dimensions of without brake, refer to the left page.

			AC1	00V
Motor model *1	Motor model *1 MSME		011G1	011S1
	Model	A5 series	MADHT1107	
Applicable driver *2	No.	A5E series	MADH	T1107E
	Fran	Frame symbol A-frame		ame
Power supply capacit	у	(kVA)	0.	.4
Rated output		(W)	1(00
Rated torque		(N·m)	0.3	32
Momentary Max. peal	k torqu	ie (N·m)	0.95 1.6 6.9	
Rated current		(A(rms))		
Max. current		(A(o-p))		
Regenerative brake	Without option		No limit Note)2	
frequency (times/min) Note)1	DV	'0P4280	No limit Note)2	
Rated rotational spee	d	(r/min)	3000 6000	
Max. rotational speed		(r/min)		
Moment of inertia	Without brake		0.051	
of rotor (×10 ⁻⁴ kg·m ²)		With brake 0.054)54
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times	s or less	
Rotary encoder specifications Note)5 Resolution per single turn		1S Note)5	20-bit Incremental	17-bit Absolute
		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)

	. .	Radial load P-direction (N)	147
asser Durin	During assembly	Thrust load A-direction (N)	88
		Thrust load B-direction (N)	117.6
	During	Radial load P-direction (N)	68.6
	operation	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".

Mass (kg)/ 0.47

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.>)



Dimensions



<Cautions> 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.

Reduce the moment of inertia ratio if high speed response operation is required.

Specifications

			AC2	00V		specifications (For details	
Motor model *1		MSME	012G1	012S1		ake will be released when it is e use this for braking the motor in	
	Model	A5 series	MADH	T1505	Static fri	ction torque (N·m)	0.29 or more
Applicable driver \ast_2	No.	A5E series	MADH	Г1505E	Engagin	g time (ms)	35 or less
	Fran	ne symbol	A-frame		Releasing time (ms) Note)4		20 or less
Power supply capaci	ty	(kVA)	0.	5	Exciting	current (DC) (A)	0.3
Rated output		(W)	10	00	Releasir	ng voltage (DC) (V)	1 or more
Rated torque		(N·m)	0.3	32	Exciting	voltage (DC) (V)	24±1.2
Momentary Max. pea	ak torqu	e (N·m)	0.95			0 ()()	
Rated current (A(rms))		(A(rms))	1.1		 Permi 	ssible load (For details, refe	er to P.104)
Max. current		(A(o-p))	4.7		During assembly	Radial load P-direction (N)	147
Regenerative brake	With	out option	No limit Note)2			Thrust load A-direction (N)	88
frequency (times/min) Note)	1 DV	0P4280	No limit Note)2			Thrust load B-direction (N)	117.6
Rated rotational spe	ed	(r/min)	3000		During	Radial load P-direction (N)	68.6
Max. rotational spee	b	(r/min)	60	00	operation	Thrust load A, B-direction (N)	58.8
Moment of inertia	With	out brake	0.051		 For details of Note 1 to Note 5, refer to P.104. Dimensions of Driver, refer to P.30. 		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	0.054				
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation			
Rotary encoder spec	Rotary encoder specifications Note)5		20-bit Incremental	17-bit Absolute	has "E" is "positioning type".		0
Resolution per single turn			1,048,576	131,072	Detail of model designation, refer to P.11.		1.11.

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



Dimensions

<With Brake> (94.8) (64.8) (04.0) 122 98 (2) (3) (1)-<u>-</u>f•}]

<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 100W [Low inertia, Small capacity]

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

Mass (kg)/ 0.68

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

Key way dimensions





 $\frac{6}{1}$ For the dimensions of without brake, refer to the left page.

		AC100V			
Motor model *1		021G1 021S1			
	Model	A5 series	MBDHT2110		
Applicable driver *2	No.	A5E series	MBDH	T2110E	
	Fram	ne symbol	B-fra	ame	
Power supply capacit	у	(kVA)	0.	.5	
Rated output		(W)	20	00	
Rated torque		(N·m)	0.	64	
Momentary Max. pea	k torqu	e (N·m)	1.91		
Rated current		(A(rms))	2.5		
Max. current		(A(o-p))	10.6		
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0P4283		No limit Note)2		
Rated rotational spee	d	(r/min)	3000		
Max. rotational speed		(r/min)	6000		
Moment of inertia	With	out brake	0.	14	
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	0.	16	
Recommended mome ratio of the load and t		30 times or less			
Rotary encoder speci	ficatior	20-bit Incremental	17-bit Absolute		
Resolut	ion 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.

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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 During operation	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
	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.>)



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

			AC2	00V		specifications (For details		
Motor model *1		MSME	022G1022S1Chis brake will be released when it is Do not use this for braking the motor it					
	Model	A5 series	MADH	T1507	Static fri	ction torque (N·m)	1.27 or more	
Applicable driver *2	No.	A5E series	MADH	1507E	Engagin	g time (ms)	50 or less	
	Fran	ne symbol	A-frame		Releasir	ng time (ms) Note)4	15 or less	
Power supply capaci	ty	(kVA)	0.	5	Exciting	current (DC) (A)	0.36	
Rated output		(W)	20	00	Releasir	ng voltage (DC) (V)	1 or more	
Rated torque		(N·m)	0.6	64	Exciting	voltage (DC) (V)	24±1.2	
Momentary Max. pea	ak torqu	ie (N·m)	1.91					
Rated current		(A(rms))	1.5		Permissible load (For details, refer to P.		er to P.104)	
Max. current		(A(o-p))	6.	5	Radial load P-direction (N)		392	
Regenerative brake	With	out option	No limit Note)2		During assembly	Thrust load A-direction (N)	147	
frequency (times/min) Note)	1 DV	0P4283	No limit Note)2			Thrust load B-direction (N)	196	
Rated rotational spe	əd	(r/min)	3000		During	Radial load P-direction (N)	245	
Max. rotational spee	d	(r/min)	60	00	operation	Thrust load A, B-direction (N)	98	
Moment of inertia	With	out brake	0.14		For details of Note 1 to Note 5, refer to P.104.			
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	0.16			 Dimensions of Driver, refer to P.30. 		
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation				
Rotary encoder specifications Note)5		20-bit Incremental	17-bit Absolute	has "E" is "positioning type". Detail of model designation, refer to P.11.		5		
Resolution per single turn		1,048,576	131,072					

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



Dimensions

<With Brake>



* 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 200W [Low inertia, Small capacity]

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

Mass (kg)/ 1.30

(1) Encoder connector (2) Brake connector

(3) Motor connector



		AC1	00V		
Motor model *1		041G1	041S1		
	Model	A5 series	MCDHT3120		
Applicable driver *2	No.	A5E series	MCDH	Г3120E	
	Fram	ne symbol	C-fr	ame	
Power supply capacit	у	(kVA)	0.	.9	
Rated output		(W)	40	00	
Rated torque		(N·m)	1.	.3	
Momentary Max. pea	k torqu	ie (N·m)	3.8		
Rated current		(A(rms))	4.6		
Max. current		(A(o-p))	19.5		
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0P4282		No limit Note)2		
Rated rotational spee	d	(r/min)	3000		
Max. rotational speed		(r/min)	6000		
Moment of inertia	With	out brake	0.26		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	0.28		
Recommended mome ratio of the load and t		30 times or less			
Rotary encoder speci	ficatior	20-bit Incremental	17-bit Absolute		
Resolut	ion per	r 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.

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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 During operation	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
	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.>)



Dimensions



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

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<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.

Mass (kg)/ 1.2

Specifications

			AC200V			specifications (For details	. ,
Motor model *1 MSME			042G1	042S1	(This brake will be released when it is energized.) (Do not use this for braking the motor in motion.)		
	Mode	A5 series	MBDH	T2510	Static fri	ction torque (N·m)	1.27 or more
Applicable driver *2	No.	A5E series	MBDH	Г2510E	Engagin	g time (ms)	50 or less
	Fran	ne symbol	B-frame		Releasir	ng time (ms) Note)4	15 or less
Power supply capac	ity	(kVA)	0.	.9	Exciting	current (DC) (A)	0.36
Rated output		(W)	40	00	Releasir	ng voltage (DC) (V)	1 or more
Rated torque		(N·m)	1.	.3	Exciting	voltage (DC) (V)	24±1.2
Momentary Max. pe	ak torqı	ue (N·m)	3.8				
Rated current		(A(rms))	2.4		Permissible load (For details, refer to P.104		er to P.104)
Max. current		(A(o-p))	10	0.2 Radial load P-direction (N)		Radial load P-direction (N)	392
Regenerative brake	With	out option	No limit Note)2		During assembly	Thrust load A-direction (N)	147
frequency (times/min) Not)1 D\	/0P4283	No limit Note)2			Thrust load B-direction (N)	196
Rated rotational spe	ed	(r/min)	3000		During	Radial load P-direction (N)	245
Max. rotational spee	d	(r/min)	60	00	operation	Thrust load A, B-direction (N)	98
Moment of inertia	With	nout brake	0.26		 For details of Note 1 to Note 5, refer to P.104. Dimensions of Driver, refer to P.30. 		
of rotor (×10 ⁻⁴ kg·m ²	Wi	th brake	0.28				
Recommended moment of inertia ratio of the load and the rotor Note)3			30 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation		
Rotary encoder specifications Note)5		20-bit Incremental	17-bit Absolute	has "E" is "positioning type". Detail of model designation, refer to P.11.		0	
Resolution per single turn			1,048,576	131,072			

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



Dimensions

<With Brake>



* 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 400W [Low inertia, Small capacity]

• E	Brake specifications (For details, refer to F	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

Mass (kg)/ 1.7

(1) Encoder connector (2) Brake connector

(3) Motor connector





		AC200V			
Motor model *1		082G1	082S1		
	Model	A5 series	MCDH	T3520	
Applicable driver *2	No.	A5E series	MCDH	T3520E	
	Fram	ne symbol	C-fra	ame	
Power supply capacit	у	(kVA)	1.	.3	
Rated output		(W)	75	50	
Rated torque		(N·m)	2	.4	
Momentary Max. pea	k torqu	e (N·m)	7.	.1	
Rated current		(A(rms))	4.1		
Max. current		(A(o-p))	17.4		
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0P4283		No limit Note)2		
Rated rotational spee	d	(r/min)	3000		
Max. rotational speed		(r/min)	6000		
Moment of inertia	With	out brake	0.87		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	0.97		
Recommended moment ratio of the load and the r			20 times	s or less	
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute	
Resolution pe		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)

	. .	Radial load P-direction (N)	686
During assembly During	J	Thrust load A-direction (N)	294
	accombry	Thrust load B-direction (N)	392
	Radial load P-direction (N)	392	
	operation	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



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.

* Figures in [] represent the dimensions of with brake <Cautions> Reduce the moment of inertia ratio if high speed response operation is required.

Specifications

Specification	13						
			AC2	200V	• 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.)		
Motor model *1		MSME	102G1	102S1			
	Mode	A5 series	MDDH	IT5540	Static fri	ction torque (N·m)	7.8 or more
Applicable driver *2	No.	A5E series	MDDH	T5540E	Engagin	g time (ms)	50 or less
	Fran	ne symbol	D-fra	ame	Releasir	ng time (ms) Note)4	15 or less
Power supply capac	ity	(kVA)	1.	.8	Exciting	current (DC) (A)	0.81±10%
Rated output		(W)	1.	.0	Releasir	ng voltage (DC) (V)	2 or more
Rated torque		(N·m)	3.	18	Exciting	voltage (DC) (V)	24±2.4
Momentary Max. peak torque (N·m)		ue (N·m)	9.55				
Rated current		(A(rms))) 6.6		Permissible load (For details, refer to P.10		r to P.104)
Max. current		(A(o-p))	2	8	During	Radial load P-direction (N)	980
Regenerative brake Without option		out option	No limit Note)2		During assembly	Thrust load A-direction (N)	588
frequency (times/min) Note)1 D\	/0P4284	No limit Note)2			Thrust load B-direction (N)	686
Rated rotational spe	ed	(r/min)	30	00	During	Radial load P-direction (N)	490
Max. rotational spee	d	(r/min)	50	00	operation	Thrust load A, B-direction (N)	196
Moment of inertia	With	nout brake	2.	2.03		uils of Note 1 to Note 5, refer to	P 104
of rotor (×10 ⁻⁴ kg·m ²)	W	th brake	2.5	35	Dimensions of Driver, refer to P.32.		
Rotary encoder specifications Note)5 Inc		15 times	15 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designat		
		NS Note)5	20-bit Incremental	17-bit Absolute	has "E" is "positioning type". Detail of model designation, refer to P.11.		5
		r single turn	1,048,576	131,072			



Dimensions



(2) Motor/Brake connector

<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]

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



Motor



		AC200V			
Motor model *1		152G1	152S1		
	Model	A5 series	MDDH	T5540	
Applicable driver *2	No.	A5E series	MDDHT5540E		
	Fram	ne symbol	D-fra	ame	
Power supply capacit	у	(kVA)	2	.3	
Rated output		(W)	1.	.5	
Rated torque		(N·m)	4.	77	
Momentary Max. pea	k torqu	e (N·m)	14	l.3	
Rated current		(A(rms))	8.2		
Max. current		(A(o-p))	35		
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0P4284		No limit Note)2		
Rated rotational spee	d	(r/min)	3000		
Max. rotational speed		(r/min)	50	00	
Moment of inertia	With	out brake	2.84		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	3.17		
Recommended moment of inerti ratio of the load and the rotor			15 times or less		
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute	
Resolut	ion 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)

	. .	Radial load P-direction (N)	980
During assemb During	Ű	Thrust load A-direction (N)	588
	accombry	Thrust load B-direction (N)	686
	During	Radial load P-direction (N)	490
	operation	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.>)



Dimensions





4-Φ9

(1) Encoder connector

(2) Motor/Brake connector

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

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<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.



100

With brake: 5.4 Key way dimensions M3 through 6h9

Mass (kg)/ Without brake: 4.4



Specifications

			AC2	200V	• Brake specifications (For details, refer to P.105)		
Motor model *1	Μ	ISME	202G1	202S1	(This brake will be released when it is energized.) Do not use this for braking the motor in motion.)		
	Model A5	series	MEDH	T7364	Static fri	ction torque (N·m)	7.8 or more
Applicable driver *2	No. A5	E series	MEDHT7364E		Engagin	g time (ms)	50 or less
	Frame s	ymbol	E-frame		Releasir	ng time (ms) Note)4	15 or less
Power supply capacit	у	(kVA)	3	.3	Exciting	current (DC) (A)	0.81±10%
Rated output		(W)	2	.0	Releasir	ng voltage (DC) (V)	2 or more
Rated torque		(N·m)	6.	37	Exciting	voltage (DC) (V)	24±2.4
Momentary Max. pea	k torque	(N·m)	19	9.1			
Rated current	(A	A(rms))	11.3		• Permi	Permissible load (For details, refer to I	
Max. current	(/	A(o-p))	4	8	During	Radial load P-direction (N)	980
Regenerative brake	Without option DV0P4285		No limit Note)2		During assembly	Thrust load A-direction (N)	588
frequency (times/min) Note)1			No limit Note)2			Thrust load B-direction (N)	686
Rated rotational spee	d	(r/min)	30	00	During	Radial load P-direction (N)	490
Max. rotational speed		(r/min)	50	00	operation	Thrust load A, B-direction (N)	196
Moment of inertia	Without	brake	3.68 4.01		 For details of Note 1 to Note 5, refer to P.104. Dimensions of Driver, refer to P.33. 		
of rotor (×10 ⁻⁴ kg⋅m ²)	With br	rake					
Recommended moment of inertia ratio of the load and the rotor Note)3 Rotary encoder specifications Note)5 Resolution per single turn			15 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation		
		Note)5	20-bit Incremental	17-bit Absolute	has "E	has "E" is "positioning type". Detail of model designation, refer to P.11.	
		gle turn	1,048,576	131,072			
·					-		



Dimensions



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

<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.

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

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





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

Motor

		AC200V			
Motor model *1		302G1	302S1		
	Model	A5 series	MFDH	TA390	
Applicable driver *2	No.	A5E series	MFDH	FA390E	
	Fram	ne symbol	F-fra	ame	
Power supply capacit	у	(kVA)	4	.5	
Rated output		(W)	3	.0	
Rated torque		(N·m)	9.	55	
Momentary Max. pea	k torqu	e (N·m)	28	3.6	
Rated current		(A(rms))	18.1		
Max. current		(A(o-p))	77		
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0P4285×2		No limit Note)2		
Rated rotational spee	d	(r/min)	3000		
Max. rotational speed		(r/min)	50	00	
Moment of inertia	With	out brake	6.50		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	7.85		
Recommended moment of inertiratio of the load and the rotor Rotary encoder specifications			15 times or less		
		IS Note)5	20-bit Incremental	17-bit Absolute	
Resolut	ion 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.

1 0	,
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)

	. .	Radial load P-direction (N)	980
	During assembly	Thrust load A-direction (N)	588
ľ	abbernbry	Thrust load B-direction (N)	686
During	Radial load P-direction (N)	490	
	operation	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.>)



Dimensions



(2) Motor/Brake connector

<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

Specification	S						
			AC2	200V		• Brake specifications (For details, refer to P.105)	
Motor model *1		MSME	402G1	402S1	(This brake will be released when it is energized.) Do not use this for braking the motor in motion.		
	Model	A5 series	MFDHTB3A2		Static fri	Static friction torque (N·m)	
Applicable driver *2	No.	A5E series	MFDHT	B3A2E	Engagin	g time (ms)	110 or less
	Fran	ne symbol	F-frame		Releasir	ng time (ms) Note)4	50 or less
Power supply capacit	у	(kVA)	6	.0	Exciting	current (DC) (A)	0.90±10%
Rated output		(W)	4.0		Releasir	ng voltage (DC) (V)	2 or more
Rated torque		(N·m)	12.7		Exciting voltage (DC) (V)		24±2.4
Momentary Max. pea	k torqu	ie (N·m)	38.2				
Rated current		(A(rms))	19.6		• Permissible load (For details, refer to P.104)		
Max. current		(A(o-p))	8	3	Duning	Radial load P-direction (N)	980
Regenerative brake	With	out option	No limit Note)2		During assembly	Thrust load A-direction (N)	588
frequency (times/min) Note)1	DV0	P4285×2	No limit Note)2		accombry	Thrust load B-direction (N)	686
Rated rotational spee	d	(r/min)	3000		During	Radial load P-direction (N)	784
Max. rotational speed		(r/min)	45	00	operation	Thrust load A, B-direction (N)	343
Moment of inertia	With	out brake	12.9		 For details of Note 1 to Note 5, refer to P.104. Dimensions of Driver, refer to P.34. 		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	14.2				
Recommended moment of inertia ratio of the load and the rotor Note)3		15 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation			
Rotary encoder speci	Rotary encoder specifications Note)5		20-bit 17-bit Incremental Absolute		has "E" is "positioning type". Detail of model designation, refer to P.11.		U U
Resolution per single turn			1,048,576	131,072	Detail of model designation, relet to F. IT.		

Torgue characteristics (at AC200V of power voltage < Dotted line represents the torque at 10% less supply voltage.>) *Continuous torque, ambient temperature torque versus rated torque [N·m] [%] Brake 100 90 85 40 with Brake Peak run rang 20 50 Continuous run rang 10 20 30 40 0 0 1000 2000 3000 4000 5000 rotational speed [r/min] ambient temperature[°C]



Dimensions



(2) Motor/Brake connector

<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]



Motor





		AC2	200V		
Motor model *1		502G1	502S1		
	Model	A5 series	MFDH	TB3A2	
Applicable driver *2	No.	A5E series	MFDHT	B3A2E	
	Fram	ne symbol	F-fra	ame	
Power supply capacit	у	(kVA)	7.	.5	
Rated output		(W)	5	.0	
Rated torque		(N·m)	15	5.9	
Momentary Max. pea	k torqu	e (N·m)	47	7.7	
Rated current		(A(rms))	24.0		
Max. current		(A(o-p)))) 102		
Regenerative brake	Without option		357		
frequency (times/min) Note)1	DV0P4285×2		No limit Note)2		
Rated rotational spee	d	(r/min)	3000		
Max. rotational speed		(r/min)	in) 4500		
Moment of inertia	With	out brake	17.4		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	18.6		
Recommended mome ratio of the load and t		15 times or less			
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute	
Resolut	ion per	single turn	1,048,576	131,072	

 Brake specifications (For details, refer to P.1) 	05)
/This brake will be released when it is energized.)	
Do not use this for braking the motor in motion.	

1 0	/
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)

		Radial load P-direction (N)	980
During assembly	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.>)



Dimensions



(2) Motor/Brake connector

<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

			AC2	V00		specifications (For details		
Motor model *1		MDME	102G1	102S1		ake will be released when it is e use this for braking the motor ir		
	Model	A5 series	MDDH	T3530	Static fri	ction torque (N·m)	4.9 or more	
Applicable driver \ast_2	No.	A5E series	MDDHT3530E		Engagin	g time (ms)	80 or less	
	Fran	ne symbol	D-frame		Releasir	ng time (ms) Note)4	70 or less	
Power supply capac	ty	(kVA)	1.	8	Exciting	current (DC) (A)	0.59±10%	
Rated output		(W)	1.	0	Releasir	ng voltage (DC) (V)	2 or more	
Rated torque		(N·m)	4.7	77	Exciting	voltage (DC) (V)	24±2.4	
Momentary Max. per	ak torqu	ie (N·m)	14.3					
Rated current	Rated current (A(rms))		5.7		• Permi	er to P.104)		
Max. current		(A(o-p))	2	4	. .	Radial load P-direction (N)	980	
Regenerative brake	With	out option	No limit Note)2		During assembly	Thrust load A-direction (N)	588	
frequency (times/min) Note	¹ DV	0P4284	No limit Note)2			Thrust load B-direction (N)	686	
Rated rotational spe	ed	(r/min)	2000 3000		During operation	Radial load P-direction (N)	490	
Max. rotational spee	d	(r/min)				Thrust load A, B-direction (N)	196	
Moment of inertia	With	out brake	4.6	60	• For dotr	For details of Note 1 to Note 5, refer to P.104.		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	5.90		 Dimensions of Driver, refer to P.32. 			
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less		*1 Rotary	encoder specifications: \Box	odel designation	
Rotary encoder spec	Rotary encoder specifications Note)5 Resolution per single turn		20-bit Incremental	17-bit Absolute	has "E	*2 The product that the end of driver model designation has "E" is "positioning type".		
Resolu			1,048,576	131,072	Detail of model designation, refer to P.11.			



Dimensions



(2) Motor/Brake connector

<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.

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

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

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

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

Key way dimensions



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

Motor

		AC2	200V	
Motor model *1		152G1	152S1	
	Model	A5 series	MDDH	T5540
Applicable driver *2	No.	A5E series	MDDH	Г5540E
	Fram	ne symbol	D-fra	ame
Power supply capacit	у	(kVA)	2	.3
Rated output		(W)	1.	.5
Rated torque		(N·m)	7.	16
Momentary Max. pea	k torqu	ie (N·m)	21	.5
Rated current		(A(rms)) 9.4		.4
Max. current		(A(o-p)) 40		0
Regenerative brake	Without option		No limit Note)2	
frequency (times/min) Note)1	DV0P4284		No limit Note)2	
Rated rotational spee	d	(r/min)	2000	
Max. rotational speed		(r/min)	30	00
Moment of inertia	With	out brake	6.70	
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	7.99	
Recommended mome ratio of the load and t		10 times	s or less	
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute
Resolut	ion per	r 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.

1 0	,
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)

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



Dimensions



- (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.

Specifications

			AC2	200V		specifications (For details		
Motor model *1		MDME	202G1	202S1		ake will be released when it is e use this for braking the motor ir		
	M	odel A5 series	MEDH	T7364	Static fri	ction torque (N·m)	13.7 or more	
Applicable driver	*2 No	D. A5E series	MEDH.	MEDHT7364E		g time (ms)	100 or less	
	F	Frame symbol	E-fr	E-frame		ng time (ms) Note)4	50 or less	
Power supply cap	oacity	(kVA)	3	.3	Exciting	current (DC) (A)	0.79±10%	
Rated output		(W)	2	.0	Releasir	ng voltage (DC) (V)	2 or more	
Rated torque		(N·m)	9.	55	Exciting	voltage (DC) (V)	24±2.4	
Momentary Max.	peak to	orque (N·m)	28	3.6				
Rated current		(A(rms))	11	.5	• Permi	ssible load (For details, refe	er to P.104)	
Max. current		(A(o-p))	4	9	During	Radial load P-direction (N)	980	
Regenerative bral	ه ۱	Vithout option	No lim	No limit Note)2		Thrust load A-direction (N)	588	
frequency (times/min)	Note)1	DV0P4285	No limit Note)2		assembly	Thrust load B-direction (N)	686	
Rated rotational	speed	(r/min)	2000		During	Radial load P-direction (N)	490	
Max. rotational sp	beed	(r/min)	3000		operation	Thrust load A, B-direction (N)	196	
Moment of inertia	۱ ۱	Nithout brake	8.	8.72 10.0		 For details of Note 1 to Note 5, refer to P.104. Dimensions of Driver, refer to P.33. 		
of rotor (×10 ⁻⁴ kg·	m²)	With brake	10					
Recommended moment of inertia ratio of the load and the rotor Note)3		10 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation				
Rotary encoder s	pecifica	ations Note)5	20-bit Incremental	17-bit Absolute	, has "E	has "E" is "positioning type".		
Re	solutior	n per single turr	1,048,576	131,072	Delaii	Detail of model designation, refer to P.11.		



Dimensions



<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.

With brake: 8.2

M3 through

.8h9

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

• 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.)

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







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

Motor

		AC2	200V		
Motor model *1		302G1	302S1		
	Model	A5 series	MFDH	TA390	
Applicable driver *2	No.	A5E series	MFDH	FA390E	
	Fram	ne symbol	F-fra	ame	
Power supply capacit	у	(kVA)	4	.5	
Rated output		(W)	3	.0	
Rated torque		(N·m)	14	l.3	
Momentary Max. pea	k torqu	e (N·m)	43	3.0	
Rated current		(A(rms))	17.4		
Max. current		(A(o-p))	74		
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0P4285×2		No limit Note)2		
Rated rotational spee	d	(r/min) 2000		00	
Max. rotational speed		(r/min)	3000		
Moment of inertia	With	out brake	12.9		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	14.2		
Recommended momeratio of the load and t		10 times or less			
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute	
Resolut	ion 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)

	. .	Radial load P-direction (N)	980
	During assembly	Thrust load A-direction (N)	588
ľ	abbornibry	Thrust load B-direction (N)	686
	During	Radial load P-direction (N)	784
operation	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.>)



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.

Specifications

Specification	5							
			AC2	200V		 Brake specifications (For details, /This brake will be released when it is er 		
Motor model *1		MDME	402G1	402S1		use this for braking the motor in		
	Model	A5 series	MFDH	TB3A2	Static fri	ction torque (N·m)	24.5 or more	
Applicable driver *2	No.	A5E series	MFDHT	B3A2E	Engagin	g time (ms)	80 or less	
	Fran	ne symbol	F-fra	ame	Releasir	ng time (ms) Note)4	25 or less	
Power supply capacit	у	(kVA)	6	.0	Exciting	current (DC) (A)	1.3±10%	
Rated output		(W)	4	.0	Releasir	ng voltage (DC) (V)	2 or more	
Rated torque		(N·m)	19.1		Exciting	voltage (DC) (V)	24±2.4	
Momentary Max. pea	Momentary Max. peak torque (N·m)		57.3					
Rated current (A(rms))		(A(rms))	21.0		• Permissible load (For details, refer to P.104)			
Max. current		(A(o-p))	89		During	Radial load P-direction (N)	1666	
Regenerative brake	Without option		No limit Note)2		During assembly	Thrust load A-direction (N)	784	
frequency (times/min) Note)1	DV0	P4285×2	No limit Note)2		accombry	Thrust load B-direction (N)	980	
Rated rotational spee	d	(r/min)	2000		During	Radial load P-direction (N)	784	
Max. rotational speed		(r/min)	3000		operation	Thrust load A, B-direction (N)	343	
Moment of inertia	With	out brake	37.6		For details of Note 1 to Note 5, refer to P.104.			
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	38.6		Dimensions of Driver, refer to P.34.			
Recommended moment of inertia ratio of the load and the rotor Note)3		10 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation				
Rotary encoder specifications Note)5		20-bit 17-bit Incremental Absolute		has "E" is "positioning type".		0		
Resolut	ion per	r single turn	1,048,576	131,072	Detail of model designation, refer to P.11.			



Dimensions



(2) Motor/Brake connector

<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.

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M3 through

8h9

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







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

			AC2	200V	
Motor model *1		MDME	502G1	502S1	
	Model	A5 series	MFDHTB3A2		
Applicable driver *2	No.	A5E series	MFDHT	B3A2E	
	Fram	ne symbol	F-fra	ame	
Power supply capacit	у	(kVA)	7.	.5	
Rated output		(W)	5	.0	
Rated torque		(N·m)	23	3.9	
Momentary Max. pea	k torqu	71.6			
Rated current		(A(rms))	25.9		
Max. current		(A(o-p))	110		
Regenerative brake	Without option		120		
frequency (times/min) Note)1	DV0P4285×2		No limit Note)2		
Rated rotational spee	d (r/min)		2000		
Max. rotational speed		(r/min)	30	00	
Moment of inertia	Without brake		48.0		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	48.8		
Recommended mome ratio of the load and t		10 times	s or less		
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute	
Resolut	ion 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)

	. .	Radial load P-direction (N)	1666
	During assembly	Thrust load A-direction (N)	784
ſ	accombry	Thrust load B-direction (N)	980
	During	Radial load P-direction (N)	784
operation	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.

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*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



- (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.

Mass (kg)/ Without brake: 18.6





Specifications

		AC200V		• Brake specifications (For details, refer to P.105) (This brake will be released when it is energized.)				
Motor model *1 MGME		MGME	092G1					
		Model	A5 series	MDDH	T5540	Static fri	ction torque (N·m)	13.7 or more
Applicable dri	ver *2	No.	A5E series	MDDHT5540E		Engagin	g time (ms)	100 or less
		Fran	ne symbol	D-fra	ame	Releasir	ng time (ms) Note)4	50 or less
Power supply capacity (kVA)		(kVA)	1.	8	Exciting	current (DC) (A)	0.79±10%	
Rated output			(W)	0.	9	Releasir	ng voltage (DC) (V)	2 or more
Rated torque			(N·m)	8.5	59	Exciting	voltage (DC) (V)	24±2.4
Momentary Max. peak torque (N·m)		ue (N·m)	19.3					
Rated current (A(rms))		7.6		• Permissible load (For details, refer to P.104)		er to P.104)		
Max. current (A(o-p))		(A(o-p))	24		During	Radial load P-direction (N)	980	
Regenerative	brake	With	out option	No limi	No limit Note)2		Thrust load A-direction (N)	588
frequency (times	/min) Note)1	DV0P4284		No limit Note)2		assembly	Thrust load B-direction (N)	686
Rated rotation	nal spee	d	(r/min)	1000		During	Radial load P-direction (N)	686
Max. rotationa	al speed		(r/min)	2000		operation	Thrust load A, B-direction (N)	196
Moment of ine	ertia	With	out brake	6.70		 For details of Note 1 to Note 5, refer to P.104. Dimensions of Driver, refer to P.32. 		
of rotor (×10 ⁻⁴	⁴kg·m²)	Wi	th brake	7.99				
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation			
Rotary encoder specifications Note)5		Note)5	20-bit Incremental	17-bit Absolute	has "E" is "positioning type". Detail of model designation, refer to P.11.		C C	
Resolution per single turn			r single turn	1,048,576	131,072			



Dimensions



(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]

• 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.)	

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







			AC200V		
Motor model *1		MGME	202G1	202S1	
	Model	A5 series	MFDH	TA390	
Applicable driver *2	No.	A5E series	MFDH	FA390E	
	Fram	ne symbol	F-fra	ame	
Power supply capacit	у	(kVA)	3	.8	
Rated output		(W)	2	.0	
Rated torque		19).1		
Momentary Max. pea	k torqu	47	47.7		
Rated current		(A(rms))	17.0		
Max. current		(A(o-p))	60		
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0P4285×2		No limit Note)2		
Rated rotational spee	· · ·		1000		
Max. rotational speed			20	00	
Moment of inertia	Without brake		30.3		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	31.4		
	Recommended moment of inertia ratio of the load and the rotor			s or less	
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute	
Resolut	ion per	r 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)

	. .	Radial load P-direction (N)	1666
	During assembly	Thrust load A-direction (N)	784
ľ	accombry	Thrust load B-direction (N)	980
	During	Radial load P-direction (N)	1176
operation	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.>)



Dimensions



(2) Motor/Brake connector

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

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<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.

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



Specifications

			AC2	200V		specifications (For details	. ,		
Motor model *1		MGME	302G1	302S1	(This brake will be released when it is energized.) Do not use this for braking the motor in motion.				
м		A5 series	MFDH	TB3A2	Static friction torque (N·m)		58.8 or more		
Applicable driver *2	No.	A5E series	MFDHTB3A2E		Engagin	g time (ms)	150 or less		
	Frame symbol		F-fra	ame	Releasir	ng time (ms) Note)4	50 or less		
Power supply capacity (kVA)		(kVA)	4	.5	Exciting	current (DC) (A)	1.4±10%		
Rated output		(W)	3	.0	Releasir	ng voltage (DC) (V)	2 or more		
Rated torque	Rated torque (N·m)		28	3.7	Exciting	voltage (DC) (V)	24±2.4		
Momentary Max. peak torque (N·m)		ue (N·m)	71.7						
Rated current (A(rms))		(A(rms))	22.6		Permissible load (For details, reference)		er to P.104)		
Max. current		(A(o-p))	8	0	During	Radial load P-direction (N)	2058		
Regenerative brake			No limit Note)2		During assembly	Thrust load A-direction (N)	980		
frequency (times/min) Note			No limit Note)2			Thrust load B-direction (N)	1176		
Rated rotational spe	ed	(r/min)	1000		During	Radial load P-direction (N)	1470		
Max. rotational spee	d	(r/min)	2000		operation	Thrust load A, B-direction (N)	490		
Moment of inertia	With	nout brake	48	48.4		ails of Noto 1 to Noto 5, rofor t	o P 10/		
of rotor (×10 ⁻⁴ kg·m ²)	W	ith brake	49.2			 For details of Note 1 to Note 5, refer to P.104. Dimensions of Driver, refer to P.34. 			
Recommended moment of inertia ratio of the load and the rotor Note)3 Rotary encoder specifications Note)5 Resolution per single turn		10 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation					
		20-bit Incremental	17-bit Absolute	has "E" is "positioning type". Detail of model designation, refer to P.11.		5			
		r single turn	1,048,576	131,072					



Dimensions



(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]

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

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





			AC2	200V
Motor model *1	МНМЕ		102G1 102S1	
	Model	A5 series	MDDH	T3530
Applicable driver *2	No.	A5E series	MDDH	T3530E
	Fram	ne symbol	D-fra	ame
Power supply capacit	у	(kVA)	1.	.8
Rated output		(W)	1.	.0
Rated torque		(N·m)	4.	77
Momentary Max. pea	k torqu	e (N·m)	14	l.3
Rated current		(A(rms))	5	.7
Max. current		(A(o-p))	2	4
Regenerative brake	With	out option	8	3
frequency (times/min) Note)1	DV	0P4284	No limi	t Note)2
Rated rotational spee	d	(r/min)	20	00
Max. rotational speed	l	(r/min)	3000	
Moment of inertia	With	out brake	24.7	
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	26	6.0
Recommended mom ratio of the load and t			5 times or less	
Rotary encoder speci	ficatior	IS Note)5	20-bit Incremental	17-bit Absolute
Resolut	ion 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.

j	
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)

. .	Radial load P-direction (N)	980
During assembly	Thrust load A-direction (N)	588
accombry	Thrust load B-direction (N)	686
During	Radial load P-direction (N)	490
operation	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.>)



Dimensions



- (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.



Key way dimensions



Specifications

		AC2	200V		specifications (For details	. ,
Motor model *1	МНМЕ	152G1	152S1		ake will be released when it is e use this for braking the motor ir	
	Model A5 series	MDDH	T5540	Static fri	ction torque (N⋅m)	13.7 or more
Applicable driver *2	No. A5E series	MDDH.	T5540E	Engagin	g time (ms)	100 or less
	Frame symbol	D-fra	ame	Releasir	ng time (ms) Note)4	50 or less
Power supply capacit	y (kVA)	2	.3	Exciting	current (DC) (A)	0.79±10%
Rated output	(W)	1.	.5	Releasir	ng voltage (DC) (V)	2 or more
Rated torque	(N·m)	7.	16	Exciting	voltage (DC) (V)	24±2.4
Momentary Max. peal	k torque (N·m)	21	.5			
Rated current	(A(rms))	9	.4	• Permi	ssible load (For details, refe	er to P.104)
Max. current	(A(o-p))	4	0	. .	Radial load P-direction (N)	980
Regenerative brake	Without option	2	2	During assembly	Thrust load A-direction (N)	588
frequency (times/min) Note)1	DV0P4284	10	30	accombry	Thrust load B-direction (N)	686
Rated rotational spee	d (r/min)	20	00	During	Radial load P-direction (N)	490
Max. rotational speed	(r/min)	30	00	operation	Thrust load A, B-direction (N)	196
Moment of inertia	Without brake	37	' .1	• For deta	ails of Note 1 to Note 5, refer to P.104.	
of rotor (×10 ⁻⁴ kg·m ²)	With brake	38	3.4		ions of Driver, refer to P.32.	01.104.
Recommended mome ratio of the load and the		5 times	or less	*1 Rotary	v encoder specifications:	odel designation
Rotary encoder speci	fications Note)5	20-bit Incremental	17-bit Absolute	, has "E	is "positioning type". of model designation, refer to	0
Resolut	ion per single turn	1,048,576	131,072	Dotaii		



Dimensions



<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]

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

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





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

Motor

			AC2	200V	
Motor model *1		МНМЕ	202G1	202S1	
	Model	A5 series	MEDH	T7364	
Applicable driver *2	No.	A5E series	MEDH	Г7364E	
	Fran	ne symbol	E-fra	ame	
Power supply capacit	у	(kVA)	3	.3	
Rated output		(W)	2	.0	
Rated torque		(N·m)	9.	55	
Momentary Max. pea	k torqu	ie (N·m)	28	8.6	
Rated current		(A(rms))	11	.1	
Max. current		(A(o-p))	47		
Regenerative brake	With	out option	4	5	
frequency (times/min) Note)1	DV	0P4285	14	12	
Rated rotational spee	d	(r/min)	20	00	
Max. rotational speed		(r/min)	3000		
Moment of inertia	With	out brake	57.8		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	59	0.6	
Recommended mome ratio of the load and t			5 times or less		
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute	
Resolut	ion pei	r 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)

. .	Radial load P-direction (N)	1666
During assembly	Thrust load A-direction (N)	784
accombry	Thrust load B-direction (N)	980
During	Radial load P-direction (N)	784
operation	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.>)

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Dimensions



- (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.

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



Creations

Specification	S						
			AC2	200V		specifications (For details take will be released when it is e	
Motor model *1		MHME	302G1	302S1		use this for braking the motor in	
	Model	A5 series	MFDH	ITA390	Static fri	ction torque (N·m)	24.5 or more
Applicable driver *2	No.	A5E series	MFDH	TA390E	Engagin	g time (ms)	80 or less
	Fran	ne symbol	F-fr	ame	Releasir	ng time (ms) Note)4	25 or less
Power supply capacit	y	(kVA)	4	.5	Exciting	current (DC) (A)	1.3±10%
Rated output		(W)	3	.0	Releasir	ng voltage (DC) (V)	2 or more
Rated torque		(N·m)		4.3	Exciting	voltage (DC) (V)	24±2.4
Momentary Max. pea	k torqu	ie (N·m)	43	3.0			
Rated current		(A(rms))	16	6.0	• Permi	ssible load (For details, refe	er to P.104)
Max. current		(A(o-p))	6	8	During	Radial load P-direction (N)	1666
Regenerative brake	With	out option	1	9	During assembly	Thrust load A-direction (N)	784
frequency (times/min) Note)1	DVC	P4285×2	14	42	uccombry	Thrust load B-direction (N)	980
Rated rotational spee	d	(r/min)	20	000	During	Radial load P-direction (N)	784
Max. rotational speed	l	(r/min)	30	000	operation	Thrust load A, B-direction (N)	343
Moment of inertia	With	out brake	90	0.5	• For deta	ails of Note 1 to Note 5, refer t	o P 104
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	92	2.1		ions of Driver, refer to P.34.	.01.104.
Recommended mom ratio of the load and t			5 times	s or less	*1 Rotary	*1 Rotary encoder specifications: *2 The product that the end of driver model designatio	
Rotary encoder speci	fication	IS Note)5	20-bit Incremental	17-bit Absolute	has "E	is "positioning type". of model designation, refer to	-
Resolut	tion per	r single turn	1,048,576	131,072	Detail		



Dimensions



(2) Motor/Brake connector

<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.

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(140)

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

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





			AC2	200V
Motor model *1	МНМЕ		402G1	402S1
	Model	A5 series	MFDH	TB3A2
Applicable driver *2	No.	A5E series	MFDHT	B3A2E
	Fram	ne symbol	F-fra	ame
Power supply capacit	у	(kVA)	6	.0
Rated output		(W)	4	.0
Rated torque		(N·m)	19).1
Momentary Max. peal	k torqu	e (N·m)	57	7.3
Rated current		(A(rms))	21	.0
Max. current		(A(o-p))	8	9
Regenerative brake	With	out option	1	7
frequency (times/min) Note)1	DV0	P4285×2	12	25
Rated rotational spee	d	(r/min)	20	00
Max. rotational speed		(r/min)	30	00
Moment of inertia	With	out brake	112	
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	11	14
Recommended mome ratio of the load and the			5 times	or less
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute
Resolut	ion 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)

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

· For details of Note 1 to Note 5, refer to P.104.

· Dimensions of Driver, refer

*1 Rotary encoder specifica

*2 The product that the end has "E" is "positioning typ Detail of model designati

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



Dimensions



(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.

,				
er to P.34.				
ations: 🗌				
d of driver m	odel	des	ignati	on
pe".				
ion, refer to	P.11			
				•

Mass (kg)/ Without brake: 18.6

Key way dimensions

50

⊨⊭

With brake: 21.8

M3 through

10h9

Torque characteristics (at AC200V of power voltage < Dotted line represents the torque at 10% less supply voltage.>) *Continuous torque, ambient temperature torque versus rated torque [N·m] [%] Brake With oil seal 70 100 90 85 with Brake Peak run rand 35 50 (20) Continuous run range (3) 10 20 30 40 0 0 1000 3000 2000 rotational speed [r/min] ambient temperature[°C]

Dimensions



(2) Motor/Brake connector

<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.

Cracifications

Specification	າຣ						
			AC2	00V	• 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.		
Motor model *1		МНМЕ	502G1	502S1			
Mod		A5 series	MFDHTB3A2		Static friction torque (N·m)		24.5 or more
Applicable driver *2	No.	A5E series	MFDHT	B3A2E	Engagin	g time (ms)	80 or less
	Fran	ne symbol	F-frame		Releasir	ng time (ms) Note)4	25 or less
Power supply capac	ity	(kVA)	7.5		Exciting	current (DC) (A)	1.3±10%
Rated output		(W)	5.0		Releasir	ng voltage (DC) (V)	2 or more
Rated torque		(N·m)	23.9		Exciting voltage (DC) (V)		24±2.4
Momentary Max. peak torque (N·m)		ue (N·m)	71.6				
Rated current		(A(rms))	25.9		• Permissible load (For details, refer to P.104)		r to P.104)
Max. current		(A(o-p))	11	0	During	Radial load P-direction (N)	1666
Regenerative brake	With	out option	1	10		Thrust load A-direction (N)	784
frequency (times/min) Note	⁾¹ DV0)P4285×2	76		assembly	Thrust load B-direction (N)	980
Rated rotational spe	ed	(r/min)	2000		During	Radial load P-direction (N)	784
Max. rotational spee	d	(r/min)	30	00	operation	Thrust load A, B-direction (N)	343
Moment of inertia	With	nout brake	16	62	- For details of Noto 1 to Noto 5, refer to D104		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	164		 For details of Note 1 to Note 5, refer to P.104. Dimensions of Driver, refer to P.34. 		
Recommended moment of inertia ratio of the load and the rotor Note)3			5 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation		
Rotary encoder specifications Note)5		NS Note)5	20-bit Incremental	17-bit Absolute	, has "E	has "E" is "positioning type".	
Resolution per single turn			1,048,576	131,072	Detail of model designation, refer to P.11.		

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

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

Key way dimensions



		AC100V			
Motor model *1		5AZG1	5AZS1		
	Model	A5 series	MADHT1105		
Applicable driver *2	No.	A5E series	MADH	T1105E	
	Fran	ne symbol	A-fr	ame	
Power supply capacit	у	(kVA)	0	.5	
Rated output		(W)	5	0	
Rated torque		(N·m)	0.	16	
Momentary Max. pea	k torqu	ie (N·m)	0.	48	
Rated current		(A(rms))	1.1		
Max. current		(A(o-p)) 4.7			
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0P4280		No limit Note)2		
Rated rotational spee	d	(r/min)	3000		
Max. rotational speed		(r/min)	5000		
Moment of inertia	With	out brake	0.025		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	0.027		
Recommended mome ratio of the load and t		30 times or less			
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute	
Resolut	ion pei	r 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)

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

Mass (kg)/ 0.32

M3 depth (

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.>)



Dimensions

<Without Brake>



<Cautions> 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.

* For the dimensions of with brake, refer to the right page Reduce the moment of inertia ratio if high speed response operation is required.

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



Dimensions

<With Brake>



* 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		5AZG1	5AZS1		
	Model	A5 series	MAD	IT1505	
Applicable driver *2	No.	A5E series	MADH	T1505E	
	Fram	ne symbol	A-frame		
Power supply capacit	у	(kVA)	C	0.5	
Rated output		(W)	Ę	50	
Rated torque		(N·m)	0	.16	
Momentary Max. pea	k torqu	ie (N·m)	0	.48	
Rated current		(A(rms))	1.1		
Max. current		(A(o-p))	4.7		
Regenerative brake	With	out option	No limit Note)2		
frequency (times/min) Note)1	DV0P4281		No limit Note)2		
Rated rotational spee	d	(r/min)	3000		
Max. rotational speed		(r/min)	5000		
Moment of inertia	With	out brake	0.025		
of rotor (×10 ⁻⁴ kg·m ²)	With brake		0.027		
Recommended mome ratio of the load and t		30 times or less			
Rotary encoder speci	IS Note)5	20-bit Incremental	17-bit Absolute		
Resolut	ion per	r 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 During operation	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88
	Thrust load B-direction (N)	117.6
	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.

Mass (kg)/ 0.53



		AC100V			
Motor model *1		011G1	011S1		
	Model	A5 series	MADH	IT1107	
Applicable driver *2	No.	A5E series	MADH	Г1107Е	
	Fran	ne symbol	A-frame		
Power supply capacit	у	(kVA)	0.	.4	
Rated output		(W)	1(00	
Rated torque		(N·m)	0.3	32	
Momentary Max. pea	k torqu	ie (N·m)	0.9	95	
Rated current		(A(rms))	1.7		
Max. current		(A(o-p))	7.2		
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0P4280		No limit Note)2		
Rated rotational spee	d	(r/min)	3000		
Max. rotational speed		(r/min)	5000		
Moment of inertia	With	out brake	0.051		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	0.054		
Recommended mome ratio of the load and t		30 times or less			
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute	
Resolut	ion pei	r 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.

J	
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)

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

Mass (kg)/ 0.47

M3 depth

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.>)



Dimensions

<Without Brake>



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

68

<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

			AC2	00V		specifications (For details		
Motor model *1 MSMD		012G1 012S1		(This brake will be released when it is energized.) Do not use this for braking the motor in motion.				
N		A5 series	MADHT1505		Static fr	Static friction torque (N·m)		
Applicable driver *2	No.	A5E series	MADHT1505E		Engagin	g time (ms)	35 or less	
	Fran	ne symbol	A-frame		Releasi	ng time (ms) Note)4	20 or less	
Power supply capaci	ty	(kVA)	0.	.5	Exciting	current (DC) (A)	0.3	
Rated output		(W)	10	00	Releasi	ng voltage (DC) (V)	1 or more	
Rated torque		(N·m)	0.0	32	Exciting	voltage (DC) (V)	24±1.2	
Momentary Max. pea	ık torqu	ie (N·m)	0.95					
Rated current	Rated current (A(rms))		1.1		• Permi	Permissible load (For details, reference)		
Max. current		(A(o-p))	4.7		D .	Radial load P-direction (N)	147	
Regenerative brake	With	out option	No limit Note)2		During assembly	Thrust load A-direction (N)	88	
frequency (times/min) Note)	1 DV	/0P4281	No limit Note)2		accombry	Thrust load B-direction (N)	117.6	
Rated rotational spee	ed	(r/min)	3000		During	Radial load P-direction (N)	68.6	
Max. rotational speed	ł	(r/min)	5000		operation	Thrust load A, B-direction (N)	58.8	
Moment of inertia	With	out brake	0.0	0.051		For details of Note 1 to Note 5, refer to P.104.		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	0.054		Dimensions of Driver, refer to P.30.			
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation				
Rotary encoder specifications No		1S Note)5	20-bit Incremental	17-bit Absolute	17-bit has "E" is "positioning type".		0	
Resolu	tion pe	r single turn	1,048,576	131,072				
· · · · · ·					-			



Dimensions

<With Brake>



* 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 MSMD 100W [Low inertia, Small capacity]

Mass (kg)/ 0.68



		AC100V			
Motor model *1		021G1	021S1		
	Model	A5 series	MBDHT2110		
Applicable driver *2	No.	A5E series	MBDH	T2110E	
	Fran	ne symbol	B-frame		
Power supply capacit	у	(kVA)	0.	.5	
Rated output		(W)	20	00	
Rated torque		(N·m)	0.0	64	
Momentary Max. pea	k torqu	ie (N·m)	1.9	91	
Rated current		(A(rms))	2.5		
Max. current		(A(o-p))	10.6		
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0P4283		No limit Note)2		
Rated rotational spee	d	(r/min)	3000		
Max. rotational speed		(r/min)	5000		
Moment of inertia	Without brake		0.14		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	0.16		
Recommended mome ratio of the load and t		30 times or less			
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute	
Resolut	ion pei	r 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 During operation	. .	Radial load P-direction (N)	392
	U U	Thrust load A-direction (N)	147
	accombry	Thrust load B-direction (N)	196
	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.>)



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

				V00
Motor model *1		MSMD	022G1	022S1
	Model No.	A5 series	MADHT1507	
Applicable driver *2		A5E series	MADHT1507E	
	Fram	ne symbol	A-frame	
Power supply capacit	у	(kVA)	0.	5
Rated output		(W)	20	0
Rated torque		(N·m)	0.6	64
Momentary Max. pea	k torqu	ie (N·m)	1.9	91
Rated current		(A(rms))	1.6	
Max. current	(A(o-p))		6.9	
Regenerative brake	Without option		No limit Note)2	
frequency (times/min) Note)1	DV0P4283		No limit Note)2	
Rated rotational spee	d	(r/min)	3000	
Max. rotational speed		(r/min)	50	00
Moment of inertia	With	out brake	0.14	
of rotor (×10 ⁻⁴ kg·m ²) With		th brake	0.1	16
Recommended moment of inertia ratio of the load and the rotor			30 times	s or less
Rotary encoder speci	ficatior	IS Note)5	20-bit Incremental	17-bit Absolute
Resolution per single turn			1,048,576	131,072

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



Dimensions

<With Brake> 115.5 6.5 220 4-ø4.5

* 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.

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 During operation	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
	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.

Mass (kg)/ 1.3

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



			AC1	00V
Motor model *1		MSMD	041G1	041S1
	Model	A5 series	MCDHT3120	
Applicable driver *2	No.	A5E series	MCDHT3120E	
	Fran	ne symbol	C-frame	
Power supply capacit	у	(kVA)	0.	.9
Rated output		(W)	40	00
Rated torque		(N·m)	1.	.3
Momentary Max. pea	k torqu	e (N·m)	3.	.8
Rated current		(A(rms))	4.6	
Max. current (A(o-p))		(A(o-p))	19.5	
		out option	No limit Note)2	
		DV0P4282 No limit Note)2		t Note)2
Rated rotational spee	d	(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia Witho		out brake	0.26	
of rotor (×10 ⁻⁴ kg·m ²) With brake		th brake	0.28	
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times	s or less	
Rotary encoder specifications Note)5		1S 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.

1 0	/
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 During operation	. .	Radial load P-direction (N)	392
	•	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196	
	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.>)



Dimensions

Mass (kg)/ 1.2 <Without Brake> 98 ! 30 6.5 3 (1) Encoder connector (2) Motor connector <u>பு</u> Key way dimensions 220 4-ø4.5 □60 Ð -10 M5 depth 10

* 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 S	nocit	I COTI	one
		ILali	

Specifications

				V00
Motor model *1		MSMD	042G1	042S1
	Model No.	A5 series	MBDHT2510	
Applicable driver *2		A5E series	MBDHT2510E	
	Fran	ne symbol	B-frame	
Power supply capacit	у	(kVA)	0.	9
Rated output		(W)	40	00
Rated torque		(N·m)	1.	3
Momentary Max. pea	k torqu	ie (N·m)	3.	8
Rated current		(A(rms))	2.6	
Max. current		(A(o-p))	11.0	
Regenerative brake	Without option		No limit Note)2	
frequency (times/min) Note)1	DV0P4283		No limit Note)2	
Rated rotational spee	d	(r/min)	3000	
Max. rotational speed		(r/min)	50	00
Moment of inertia	With	out brake	0.26	
of rotor (×10 ⁻⁴ kg·m ²) With		th brake	0.2	28
Recommended moment of inertia ratio of the load and the rotor			30 times	s or less
Rotary encoder specification		1S Note)5	20-bit Incremental	17-bit Absolute
Resolution per single turn			1,048,576	131,072

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



Dimensions

<With Brake>



* 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.

•	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)

	Radial load P-direction (N)	392
During assembly	Thrust load A-direction (N)	147
assembly	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.

Mass (kg)/ 1.7

			AC200V	
Motor model *1		MSMD	082G1	082S1
	Model	A5 series	MCDHT3520	
Applicable driver *2	No.	A5E series	MCDHT3520E	
	Fram	ne symbol	C-frame	
Power supply capacit	у	(kVA)	1.	.3
Rated output		(W)	75	50
Rated torque		(N·m)	2	.4
Momentary Max. pea	k torqu	e (N·m)	7.	.1
Rated current		(A(rms))	4.0	
Max. current		(A(o-p))	17.0	
Regenerative brake	Without option		No limit Note)2	
frequency (times/min) Note)1	DV	0P4283	No limit Note)2	
Rated rotational spee	d	(r/min)	3000	
Max. rotational speed		(r/min)	4500	
Moment of inertia	With	out brake	0.87	
of rotor (×10 ⁻⁴ kg·m²) With brake Recommended moment of inertia ratio of the load and the rotor Note)3 Rotary encoder specifications Note)5 Resolution per single turn		0.97		
		20 times	s or less	
		20-bit Incremental	17-bit Absolute	
		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)

1	During assembly	Radial load P-direction (N)	686
		Thrust load A-direction (N)	294
	accombry	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



* 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

			AC1	00V
Motor model *1		MHMD	021G1	021S1
	Model	A5 series	MBDH	IT2110
Applicable driver *2	No.	A5E series	MBDH	T2110E
	Fran	ne symbol	B-fra	ame
Power supply capacit	у	(kVA)	0.	.5
Rated output		(W)	20	00
Rated torque		(N·m)	0.0	64
Momentary Max. pea	k torqu	ie (N·m)	1.9	91
Rated current		(A(rms))	2.5	
Max. current		(A(o-p))	10.6	
Regenerative brake	Without option		No limit Note)2	
frequency (times/min) Note)1	DV	0P4283	No limit Note)2	
Rated rotational spee	d	(r/min)	3000 5000	
Max. rotational speed		(r/min)		
Moment of inertia	With	out brake	0.42	
of rotor (×10 ⁻⁴ kg·m²) With brake Recommended moment of inertia ratio of the load and the rotor Note)3 Rotary encoder specifications Note)5 Resolution per single turn		th brake	0.4	45
		10 times	s or less	
		20-bit Incremental	17-bit Absolute	
		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.

1 0	/
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)

	_ .	Radial load P-direction (N)	392
During assembly During operation	U U	Thrust load A-direction (N)	147
	accombry	Thrust load B-direction (N)	196
	During	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.>)



Dimensions



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

Reduce the moment of inertia ratio if high speed response operation is required. <Cautions> 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

Motor model *1MHMD022G1022S1Model $A5$ seriesMADHT1507Applicable driver *2 $A5$ seriesMADHT1507EPower supply capacity kVa $A-from Parameter Parame$				AC2	200V
Applicable driver *2No.A5E seriesMADHT1507EFrame symbolA-framePower supply capacity(kVA)0.5Rated output(WV) $2\cup$ Rated output(WV) $2\cup$ 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 $D \lor P4283$ No limit Note)2Rated rotational speed(r/min) $30\cup$ Max. rotational speed(r/min) $50\cup$ Moment of inertia of rotor (x10 ⁻⁴ kg·m ²) $With \cup trake$ 0.42 Recommended moment of inertia ratio of the load and the rotor Note)3 10 times or lessRotary encoder specifications Note)5 20 -bit Incremental 17 -bit Absolute	Motor model *1		MHMD	022G1	022S1
Applicable driver ASE series MADIF TSOPE 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 Rated rotational speed (r/min) 3000 Moment of inertia of rotor (x10 ⁻⁴ kg·m ²) Without brake 0.42 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		Model	A5 series	MADH	T1507
Power supply capacity(kVA)0.5Rated 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 $DV0P4283$ No limit Note)2Rated rotational speed(r/min) 3000 Max. rotational speed(r/min) 5000 Moment of inertia ratio of the load and the rotorNote)3 10 times or lessRotary encoder specificationsNote)5 20 -bit Incremental 17 -bit Absolute	Applicable driver *2	No.	A5E series	MADH	T1507E
$ \begin{array}{c c c c c c } \hline Rated output & (W) & 200 \\ \hline Rated torque & (N m) & 0.64 \\ \hline Momentary Max. peak torque & (N m) & 1.91 \\ \hline Rated current & (A(rms)) & 1.6 \\ \hline Max. current & (A(rms)) & 0.6.9 \\ \hline Max. current & (A(o-p)) & 6.9 \\ \hline Max. current & (A(o-p)) & 0.9 \\ \hline Regenerative brake & Without option & No limit Note)2 \\ \hline PRegenerative brake & Vithout option & No limit Note)2 \\ \hline Rated rotational speed & (r/min) & 3000 \\ \hline Max. rotational speed & (r/min) & 5000 \\ \hline Moment of inertia of rotor (x10^{-4}kg·m^2) & With orake & 0.42 \\ \hline Recommended moment of inertia ratio of the load and the rotor Note)3 \\ \hline Rotary encoder specifications Note)5 & 20-bit Incremental & Absolute \\ \hline \end{array}$		Fram	ne symbol	A-frame	
Rated torque(N·m)0.64Momentary Max. peak torque(N·m)1.91Rated current(A(rms))1.6Max. current(A(o-p))6.9Regenerative brake frequency (times/min) Note)1Without optionNo limit Note)2DV0P4283No limit Note)2Rated rotational speed(r/min)3000Max. rotational speed(r/min)5000Moment of inertia of rotor (x10 ⁻⁴ kg·m ²)Without brake0.42Recommended moment of inertia ratio of the load and the rotorNote)310 times or lessRotary encoder specificationsNote)520-bit 	Power supply capacit	y	(kVA)	0.	.5
Momentary Max. peak torque (N·m)1.91Rated current(A(rms))1.6Max. current(A(o-p))6.9Regenerative brake frequency (times/min) Note)1Without optionNo limit Note)2DV0P4283No limit Note)2Rated rotational speed(r/min)3000Max. rotational speed(r/min)5000Moment of inertia of rotor (x10 ⁻⁴ kg·m ²)Without brake0.42Recommended moment of inertia ratio of the load and the rotorNote)310 times r lessRotary encoder specificationsNote)5 20 -bit Incremental17-bit Absolute	Rated output		(W)	20	00
$ \begin{array}{c c c c c } \hline Rated current & (A(rms)) & 1.6 \\ \hline Max. current & (A(o-p)) & 6.9 \\ \hline Max. current & (A(o-p)) & 0.9 \\ \hline Max. current & (A(o-p)) & 0.9 \\ \hline Max. current & (A(o-p)) & 0.0 \\ \hline DVOP4283 & No limit _ Note)2 \\ \hline DVOP4283 & No limit _ Note)2 \\ \hline Rated rotational speed & (r/min) & 3000 \\ \hline Max. rotational speed & (r/min) & 5000 \\ \hline Moment of inertia of rotor (x10^{-4}kg·m^2) & With orake & 0.42 \\ \hline Recommended moment of inertia ratio of the load and the rotor _ Note)3 \\ \hline Rotary encoder specifications _ Note)5 & 20-bit & 17-bit \\ \hline Absolute & Absolute & Absolute \\ \hline \end{array} $	Rated torque		(N·m)	0.	64
Max. current $(A(o-p))$ 6.9 Regenerative brake frequency (times/min) Note)1Without optionNo limit Note)2Rated rotational speed (r/min) 3000 Max. rotational speed (r/min) 5000 Moment of inertia of rotor (×10 ⁻⁴ kg·m ²)Without brake 0.42 Recommended moment of inertia ratio of the load and the rotorNote)3 10 times or lessRotary encoder specificationsNote)5 20 -bit Incremental 17 -bit Absolute	Momentary Max. pea	k torqu	ie (N·m)	1.	91
Regenerative brake frequency (times/min) Note)1Without optionNo limit Note)2Rated rotational speed (r/min) 3000 Max. rotational speed (r/min) 5000 Moment of inertia of rotor (x10 ⁻⁴ kg·m ²)Without brake 0.42 Recommended moment of inertia ratio of the load and the rotorNote)3 10 times or less Rotary encoder specificationsNote)5 20 -bit Incremental 17 -bit Absolute	Rated current		(A(rms))	1.6	
Medgenerative black frequency (times/min) Note)1 DV0P4283 No limit Note)2 Rated rotational speed (r/min) 3000 Max. rotational speed (r/min) 5000 Moment of inertia of rotor (x10 ⁻⁴ kg·m ²) Without brake 0.42 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	Max. current (A(o-p))			6.9	
Rated rotational speed (r/min) 3000 Max. rotational speed (r/min) 5000 Moment of inertia of rotor (×10 ⁻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	Regenerative brake	With	out option	No limit Note)2	
Max. rotational speed(r/min) 5000 Moment of inertia of rotor (x10 ⁻⁴ kg·m²)Without brake 0.42 With brake 0.45 Recommended moment of inertia ratio of the load and the rotorNote)310 times or lessRotary encoder specificationsNote)5 20 -bit Incremental17-bit Absolute	frequency (times/min) Note)	DV0P4283		No limit Note)2	
Moment of inertia of rotor (×10 ⁻⁴ kg·m ²) Without brake 0.42 With brake 0.45 Recommended moment of inertia ratio of the load and the rotor 10 times or less Rotary encoder specifications Note)5 20-bit Incremental 17-bit Absolute	Rated rotational speed (r/min)		(r/min)	3000	
Moment of inertial of rotor (×10 ⁻⁴ kg·m ²) With brake 0.45 Recommended moment of inertial ratio of the load and the rotor Note)3 10 times or less Rotary encoder specifications Note)5 20-bit Incremental 17-bit Absolute	Max. rotational speed	ł	(r/min)	5000	
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	Moment of inertia	Without brake		0.42	
ratio of the load and the rotor Note)3 10 times or less Rotary encoder specifications Note)5 20-bit Incremental 17-bit Absolute	of rotor (×10 ⁻⁴ kg·m ²)	With brake		0.45	
Rotary encoder specifications Note)5 Incremental Absolute			10 times	s or less	
Resolution per single turn 1,048,576 131,072			IS Note)5	20 8.0	
			single turn	1,048,576	131,072

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



Dimensions

<With Brake> 165 135 22.5 220+50

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

Reduce the moment of inertia ratio if high speed response operation is required. <Cautions> 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]

• 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 During operation	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
	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.

Mass (kg)/ 1.4

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



		AC1	00V		
Motor model *1 MHMD		041G1	041S1		
	Model	A5 series	MCDHT3120		
Applicable driver *2	2 No .	A5E series	MCDHT3120E		
	Frame symbol		C-frame		
Power supply capacit	у	(kVA)	0.9		
Rated output		(W)	40	00	
Rated torque		(N·m)	1.	.3	
Momentary Max. peal	k torqu	ıe (N·m)	3.8		
Rated current		(A(rms))	4.6		
Max. current (A(o-p))		(A(o-p))	19.5		
Regenerative brake	Without option		No limi	No limit Note)2	
frequency (times/min) Note)1	DV0P4282		No limit Note)2		
Rated rotational speed (r/min)		(r/min)	3000		
Max. rotational speed		(r/min)	5000		
Moment of inertia	Without brake		0.67		
of rotor (×10 ⁻⁴ kg·m ²)	With brake		0.70		
Recommended moment of inertia ratio of the load and the rotor Note)3		10 times	s or less		
Rotary encoder speci	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)

_ .	Radial load P-direction (N)	392
During assembly	Thrust load A-direction (N)	147
assembly	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.>)



Dimensions



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

Reduce the moment of inertia ratio if high speed response operation is required. <Cautions> 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

			AC2	00V
Motor model *1 MHMD		042G1	042S1	
	Model	A5 series	MBDH	T2510
Applicable driver *2	No.	A5E series	MBDHT2510E	
	Frame symbol		B-frame	
Power supply capacit	у	(kVA)	0.9	
Rated output		(W)	40	00
Rated torque		(N·m)	1.	3
Momentary Max. pea	k torqu	ie (N·m)	3.8	
Rated current		(A(rms))	2.6	
Max. current	(A(o-p))		11.0	
Regenerative brake	erative brake With		ut option No limit Note)2	
frequency (times/min) Note)1	DV0P4283		No limit Note)2	
Rated rotational speed (r/min)		(r/min)	3000	
Max. rotational speed		(r/min)	5000	
Moment of inertia	Without brake		0.67	
of rotor (×10 ⁻⁴ kg·m ²)	With brake		0.70	
Recommended moment of inertia ratio of the load and the rotor Note)3		10 times	s or less	
Rotary encoder specifications Note)5		20-bit Incremental	17-bit Absolute	
Resolution per single turn		1,048,576	131,072	

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



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 MHMD 400W [High inertia, Small capacity]

• 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 During operation	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
	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.

Mass (kg)/ 1.8

			AC200V		
Motor model *1 MHMD		082G1 082S1			
	Model	A5 series	MCDHT3520		
Applicable driver *2	No.	A5E series	MCDHT3520E		
	Frame symbol		C-frame		
Power supply capacit	у	(kVA)	1.3		
Rated output		(W)	75	750	
Rated torque		(N·m)	2	.4	
Momentary Max. pea	k torqu	e (N·m)	7.1		
Rated current		(A(rms))	4.0		
Max. current (A(o-		(A(o-p))	17.0		
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0P4283		No limit Note)2		
Rated rotational speed (r/min)		(r/min)	3000		
Max. rotational speed		(r/min)	4500		
Moment of inertia	With	out brake	1.51		
of rotor (×10 ⁻⁴ kg·m ²)		th brake	1.61		
Recommended moment of inertia ratio of the load and the rotor Note)3		10 times	s or less		
Rotary encoder specifications Note)5		1S 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)

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



* 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

		AC400V			
Motor model *1		104G1	104S1		
	Model	A5 series	MDDH	T3420	
Applicable driver *2	No.	A5E series	MDDHT3420E		
	Fram	ne symbol	D-frame		
Power supply capacit	у	(kVA)	1.	.8	
Rated output		(W)	1.	.0	
Rated torque		(N·m)	3.	18	
Momentary Max. pea	k torqu	9.	55		
Rated current	(A(rms)) (A(o-p))		3.3 14		
Max. current					
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0PM20048		No limit Note)2		
Rated rotational spee	d	(r/min)	3000		
Max. rotational speed		(r/min)	50	00	
Moment of inertia	Without brake		2.03		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	2.35		
	Recommended moment of inertia ratio of the load and the rotor Note)3			s or less	
Rotary encoder speci	ficatior	1S 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.

J	
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)

	. .	Radial load P-direction (N)	980
asse	During assembly	Thrust load A-direction (N)	588
		Thrust load B-direction (N)	686
	During	Radial load P-direction (N)	490
	operation	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.>)



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.

Specifications

			AC4	100V	Brake specifications (For details, refer to P.10.		. ,
Motor model *1		MSME	154G1	154S1	(This brake will be released when it is energized.) Do not use this for braking the motor in motion.		
	Mode	A5 series	MDDH	MDDHT3420 Static friction torque (N·m)		7.8 or more	
Applicable driver *2	No.	A5E series	MDDH	T3420E	Engagin	g time (ms)	50 or less
	Fran	ne symbol	D-frame		Releasir	ng time (ms) Note)4	15 or less
Power supply capa	city	(kVA)	2	.3	Exciting	current (DC) (A)	0.81±10%
Rated output		(W)	1	.5	Releasir	ng voltage (DC) (V)	2 or more
Rated torque		(N·m)	4.	77	Exciting	voltage (DC) (V)	24±2.4
Momentary Max. pe	ak torqu	ue (N·m)	14.3				
Rated current		(A(rms))	4.2		• Permissible load (For details, refer to P.104)		er to P.104)
Max. current		(A(o-p))	18 No limit Note)2 No limit Note)2		. .	Radial load P-direction (N)	980
Regenerative brake	With	out option			During assembly	Thrust load A-direction (N)	588
frequency (times/min) Not	^{e)1} DV0	PM20048				Thrust load B-direction (N)	686
Rated rotational spe	ed	(r/min)	3000 5000		During	Radial load P-direction (N)	490
Max. rotational spe	ed	(r/min)			operation	Thrust load A, B-direction (N)	196
Moment of inertia	With	out brake	2.84		 For details of Note 1 to Note 5, refer to P.104. Dimensions of Driver, refer to P.32. 		
of rotor (×10 ⁻⁴ kg·m ²) Wi	th brake	3.17				
Recommended moment of inertia ratio of the load and the rotor Note)3 Rotary encoder specifications Note)5 Resolution per single turn			15 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation		
		NS Note)5	20-bit Incremental	17-bit Absolute	has "E" is "positioning type".		
		r single turn	1,048,576	131,072	Detail of model designation, refer to P.11.		1.11.



Dimensions



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

<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.

6h9

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

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





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

Motor

		AC400V		
Motor model *1		204G1	204S1	
	Model	A5 series	MEDH	T4430
Applicable driver *2	No.	A5E series	MEDH	Г4430E
	Fram	ne symbol	E-frame	
Power supply capacit	у	(kVA)	3	.3
Rated output		(W)	2	.0
Rated torque		(N·m)	6.	37
Momentary Max. peal	k torqu	e (N·m)	19).1
Rated current	(A(rms)) (A(o-p))		5.7 24	
Max. current				
Regenerative brake	Without option		No limit Note)2	
frequency (times/min) Note)1	DV0PM20049		No limit Note)2	
Rated rotational spee	d	(r/min)	3000	
Max. rotational speed		(r/min) 5000		00
Moment of inertia	With	out brake	3.68	
of rotor (×10 ⁻⁴ kg·m ²)	With brake		4.01	
Recommended mome ratio of the load and the			15 times or less	
Rotary encoder specifications Resolution per single		1S Note)5	20-bit Incremental	17-bit Absolute
		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)

	. .	Radial load P-direction (N)	980
During assembly During operation	U U	Thrust load A-direction (N)	588
	accombry	Thrust load B-direction (N)	686
	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.

With brake: 6.3

6h9

M3 through

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



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.

Specifications

			AC4	00V	 Brake specifications (For details, refer to P.10 /This brake will be released when it is energized.) 		. ,	
Motor model *1	model *1 MSME		304G1	304S1	Do not use this for braking the motor in			
Model A5 series		A5 series	MFDHT5440		Static friction torque (N·m)		11.8 or more	
Applicable driver *2	No.	A5E series	MFDHT	[5440E	Engagin	g time (ms)	80 or less	
	Fran	ne symbol	F-frame		Releasing time (ms) Note)4		15 or less	
Power supply capac	ity	(kVA)	4.	.5	Exciting	current (DC) (A)	0.81±10%	
Rated output		(kW)	3.	.0	Releasir	ng voltage (DC) (V)	2 or more	
Rated torque		(N·m)	9.9	55	Exciting	voltage (DC) (V)	24±2.4	
Momentary Max. pe	Momentary Max. peak torque (N·m)		28.6					
Rated current (A(rms))		(A(rms))	9.2		 Permi 	ssible load (For details, refe	er to P.104)	
Max. current	Max. current (A(o-p))		39		. .	Radial load P-direction (N)	980	
Regenerative brake		out option	No limit Note)2		During assembly	Thrust load A-direction (N)	588	
frequency (times/min) Not	^{e)1} DV0F	M20049×2	No limit Note)2		accombry	Thrust load B-direction (N)	686	
Rated rotational spe	ed	(r/min)	3000		During	Radial load P-direction (N)	490	
Max. rotational spee	d	(r/min)	5000		operation	Thrust load A, B-direction (N)	196	
Moment of inertia	With	nout brake	6.50 7.85		• For deta	ails of Note 1 to Note 5, refer t	o P 104	
of rotor (×10 ⁻⁴ kg·m ²	W	th brake			 For details of Note 1 to Note 5, refer to P.104. Dimensions of Driver, refer to P.34. 			
Recommended moment of inertiaratio of the load and the rotor Note)3 Rotary encoder specifications Note)5			15 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation			
		NS Note)5	20-bit Incremental	17-bit Absolute	has "E" is "positioning type". Detail of model designation, refer to P.11.			
Resolution per single turn			1,048,576	131,072			1.11.	

Torque characteristics (at AC400V of power voltage < Dotted line represents the torque at 10% less supply voltage.>) *Continuous torque, ambient temperature torque versus rated torque without . [N·m] Brake 30



Dimensions



(2) Motor/Brake connector

<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]



Key way dimensions





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

Motor

		AC400V			
Motor model *1		404G1	404S1		
	Model	A5 series	MFDH	TA464	
Applicable driver *2	No.	A5E series	MFDH	ſA464E	
	Fram	ne symbol	F-frame		
Power supply capacit	у	(kVA)	6	.8	
Rated output		(kW)	4	.0	
Rated torque		(N·m)	12	2.7	
Momentary Max. pea	k torqu	e (N·m)	38	8.2	
Rated current		(A(rms))		9.9	
Max. current	(A(o-p))		42		
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0PM20049×2		No limit Note)2		
Rated rotational spee	d	(r/min)	3000		
Max. rotational speed		(r/min)	4500		
Moment of inertia	With	out brake	12.9		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	14.2		
	Recommended moment of inertia ratio of the load and the rotor Not			s or less	
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute	
Resolut	ion 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.

0	/
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)

	. .	Radial load P-direction (N)	980
During assembly During operation	•	Thrust load A-direction (N)	588
		Thrust load B-direction (N)	686
	During	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.>)



Dimensions



- (2) Motor/Brake connector

<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.

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

Specifications

			AC4	00V		specifications (For details ake will be released when it is e		
Motor model *1		MSME	504G1	504S1		use this for braking the motor in		
	Mode	A5 series	MFDH	TA464	Static fri	ction torque (N·m)	16.1 or more	
Applicable driver *	No.	A5E series	MFDHT	A464E	Engagin	g time (ms)	110 or less	
	Fra	me symbol	F-fra	ame	Releasir	ng time (ms) Note)4	50 or less	
Power supply capa	city	(kVA)	7.	.5	Exciting	current (DC) (A)	0.90±10%	
Rated output		(kW)	5.	.0	Releasir	ng voltage (DC) (V)	2 or more	
Rated torque		(N·m)	15	.9	Exciting	voltage (DC) (V)	24±2.4	
Momentary Max. peak torque (N·m)		ue (N·m)	47.7					
Rated current (A(rms))		(A(rms))	12.0		 Permi 	Permissible load (For details, refer to		
Max. current		(A(o-p))	5	1	_ .	Radial load P-direction (N)	980	
Regenerative brake	Wit	nout option	357		During assembly	Thrust load A-direction (N)	588	
frequency (times/min) No	^{e)1} DV0	PM20049×2	No limi	t Note)2	assertiony	Thrust load B-direction (N)	686	
Rated rotational sp	eed	(r/min)	30	00	During	Radial load P-direction (N)	784	
Max. rotational spe	ed	(r/min)	45	00	operation	Thrust load A, B-direction (N)	343	
Moment of inertia	Wit	hout brake	17	.4	• For deta	- For details of Note 1 to Note 5, refer to D104		
of rotor (×10 ⁻⁴ kg·m) N	ith brake	18.6			 For details of Note 1 to Note 5, refer to P.104. Dimensions of Driver, refer to P.34. 		
Recommended moment of inertia ratio of the load and the rotor Note)3		15 times or less		*1 Rotary	*1 Rotary encoder specifications: *2 The product that the end of driver model designation			
Rotary encoder sp	cificatio	ONS Note)5	20-bit Incremental	17-bit Absolute	has "E	has "E" is "positioning type". Detail of model designation, refer to P.11.		
Reso	lution pe	er single turn	1,048,576	131,072	Detail			



Dimensions



<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]

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







130 4-φ9 (118)

		AC400V			
Motor model *1		104G1	104S1		
	Model	A5 series	MDDH	T2412	
Applicable driver *2	No.	A5E series	MDDH	T2412E	
	Fram	ne symbol	D-fra	ame	
Power supply capacit	у	(kVA)	1.	.8	
Rated output		(W)	1.	.0	
Rated torque		(N·m)	4.	77	
Momentary Max. pea	k torqu	e (N·m)	14	l.3	
Rated current		(A(rms))	2.8		
Max. current		(A(o-p)) 12			
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0PM20048		No limit Note)2		
Rated rotational spee	d	(r/min)	2000		
Max. rotational speed		(r/min)	3000		
Moment of inertia	With	out brake	4.60		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	5.90		
Recommended moment of inertia ratio of the load and the rotor Note)3		10 times	s or less		
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute	
Resolut	ion 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.

, o	,
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)

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

With brake: 6.7

M3 through

8h9

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



Dimensions



- (2) Motor/Brake connector
- * Figures in [] represent the dimensions of with brake.

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<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

			AC4	V00		specifications (For details		
Motor model *1		MDME	154G1	154S1		ake will be released when it is e use this for braking the motor ir		
	Model	A5 series	MDDH	T3420	Static fri	ction torque (N·m)	13.7 or more	
Applicable driver *2	No.	A5E series	MDDH	T3420E	Engagin	g time (ms)	100 or less	
	Fran	ne symbol	D-fra	ame	Releasir	ng time (ms) Note)4	50 or less	
Power supply capac	ity	(kVA)	2	.3	Exciting	current (DC) (A)	0.79±10%	
Rated output		(W)	1.	.5	Releasir	ng voltage (DC) (V)	2 or more	
Rated torque		(N·m)	7.	16	Exciting	voltage (DC) (V)	24±2.4	
Momentary Max. pe	ak torqu	ie (N·m)	21	.5				
Rated current	ted current (A(rms))		4.7		• Permissible load (For details, refer to P.104)			
Max. current		(A(o-p))	2	0	. .	Radial load P-direction (N)	980	
Regenerative brake	With	out option	No limi	t Note)2	During assembly	Thrust load A-direction (N)	588	
frequency (times/min) Note	⁾¹ DV0	PM20048	No limi	t Note)2	assembly	Thrust load B-direction (N)	686	
Rated rotational spe	ed	(r/min)	20	00	During	Radial load P-direction (N)	490	
Max. rotational spee	d	(r/min)	30	00	operation	Thrust load A, B-direction (N)	196	
Moment of inertia	With	out brake	6.	70	For details of Note 1 to Note 5. refer to P.104.			
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	7.99			Dimensions of Driver, refer to P.32.		
Recommended moment of inertia ratio of the load and the rotor Note)3 Rotary encoder specifications Note)5			10 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation			
		1S Note)5	20-bit Incremental	17-bit Absolute	has "E" is "positioning type".			
Resolu	ution per	r single turn	1,048,576	131,072	Delaii	Detail of model designation, refer to P.11.		



Dimensions



<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]

•	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.

Motor

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







		AC4	V00		
Motor model *1		204G1	204S1		
	Model	A5 series	MEDHT4430		
Applicable driver *2	No.	A5E series	MEDH	Г4430E	
	Fram	ne symbol	E-fra	ame	
Power supply capacit	у	(kVA)	3	.3	
Rated output		(W)	2	.0	
Rated torque		(N·m)	9.	55	
Momentary Max. pea	k torqu	ie (N·m)	28	8.6	
Rated current		(A(rms))	5.9		
Max. current	(A(o-p))		25		
Regenerative brake	Without option		No limit Note)2		
frequency (times/min) Note)1	DV0PM20049		No limit Note)2		
Rated rotational spee	d	(r/min)	2000		
Max. rotational speed		(r/min)	3000		
Moment of inertia	With	out brake	8.72		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	10.0		
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times	s or less	
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute	
Resolut	ion per	r 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)

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

With brake: 9.5

M3 through

8h9

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



Dimensions



- (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.



Specifications

			AC4	00V		specifications (For details		
Motor model *1		MDME	304G1	304S1		ake will be released when it is e use this for braking the motor ir		
	Mode	A5 series	MFDH	T5440	Static fri	ction torque (N·m)	16.2 or more	
Applicable driver *	2 No .	A5E series	MFDH	[5440E	Engagin	g time (ms)	110 or less	
	Fra	me symbol	F-fra	ame	Releasir	ng time (ms) Note)4	50 or less	
Power supply capa	city	(kVA)	4.	.5	Exciting	current (DC) (A)	0.90±10%	
Rated output		(W)	3.	.0	Releasir	ng voltage (DC) (V)	2 or more	
Rated torque		(N·m)	14	.3	Exciting	voltage (DC) (V)	24±2.4	
Momentary Max. p	eak torq	ue (N·m)	43	43.0				
Rated current (A(rms))		(A(rms))	8.7		• Permissible load (For details, refer to		er to P.104)	
Max. current		(A(o-p))	3	7	During	Radial load P-direction (N)	980	
Regenerative brake	With	nout option	No limi	t Note)2	During assembly	Thrust load A-direction (N)	588	
frequency (times/min) No	te)1 DV0	PM20049×2	No limi	t Note)2	assembly	Thrust load B-direction (N)	686	
Rated rotational sp	eed	(r/min)	20	00	During	Radial load P-direction (N)	784	
Max. rotational spe	ed	(r/min)	30	00	operation	Thrust load A, B-direction (N)	343	
Moment of inertia	Wit	nout brake	12	2.9	• For dotr	ataila of Noto 1 to Noto 5, rofor to D104		
of rotor (×10 ⁻⁴ kg·m	²) W	ith brake	14.2			 For details of Note 1 to Note 5, refer to P.104. Dimensions of Driver, refer to P.34. 		
Recommended moment of inertia ratio of the load and the rotor Note)3 Rotary encoder specifications Note)5			10 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation			
		NS Note)5	20-bit Incremental	17-bit Absolute	has "E" is "positioning type". Detail of model designation, refer to P.11.		5	
Reso	lution pe	r single turn	1,048,576	131,072	Delali	or model designation, telef to	1.11.	



Dimensions



(2) Motor/Brake connector

<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]

Motor

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







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

Specifications

			AC4	00V
Motor model *1		404G1	404S1	
	Model	A5 series	MFDH	TA464
Applicable driver *2	No.	A5E series	MFDH	TA464E
	Fram	ne symbol	F-fra	ame
Power supply capacit	у	(kVA)	6	.8
Rated output		(W)	4	.0
Rated torque		(N·m)	19	9.1
Momentary Max. pea	k torqu	ie (N·m)	57	7.3
Rated current		(A(rms))	10.6	
Max. current		(A(o-p))	45	
Regenerative brake	Without option		No limit Note)2	
frequency (times/min) Note)1	DV0PM20049×2		No limit Note)2	
Rated rotational spee	d	(r/min)	2000	
Max. rotational speed		(r/min)	3000	
Moment of inertia	Without brake		37.6	
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	38.6	
Recommended moment of inertia ratio of the load and the rotor Note)3			10 times	s or less
Rotary encoder speci	ficatior	1S Note)5	20-bit Incremental	17-bit Absolute
Resolut	ion per	r 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.

	1
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	Radial load P-direction (N)	784
op	operation	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.

Mass (kg)/ Without brake: 15.5

Key way dimensions

50

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With brake: 18.7

M3 through

10h9

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

176

4-φ13.5

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Dimensions



- (1) Encoder connector (2) Motor/Brake connector
- * Figures in [] represent the dimensions of with brake.

(140)

<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

Specificat	tion	S						
				AC4	100V	• Brake specifications (For details, refer to P.105		. ,
Motor model *1 MDME		504G1 504S1		(This brake will be released when it is energized. Do not use this for braking the motor in motion.)				
	plicable driver *2	Model	A5 series	MFDH	HTA464 Static friction torque (N·m)		ction torque (N·m)	24.5 or more
Applicable drive		No.	A5E series	MFDHTA464E		Engagin	ig time (ms)	80 or less
		Fram	ne symbol	F-frame Releas		Releasi	ng time (ms) Note)4	25 or less
Power supply c	apacit	у	(kVA)	7	.5	Exciting	current (DC) (A)	1.3±10%
Rated output			(W)	5.0		Releasi	ng voltage (DC) (V)	2 or more
Rated torque			(N·m)	23.9		Exciting voltage (DC) (V)		24±2.4
Momentary Max	Momentary Max. peak torque (N·m)			71.6				
Rated current			(A(rms))	13.0		• Permissible load (For details, refer to P.104)		
Max. current			(A(o-p))	55		. .	Radial load P-direction (N)	1666
	legenerative brake		out option	120		During assembly	Thrust load A-direction (N)	784
frequency (times/min	n) Note)1	DV0PM20049×2		No limit Note)2			Thrust load B-direction (N)	980
Rated rotational	l spee	d	(r/min)	2000		During	Radial load P-direction (N)	784
Max. rotational	speed	l	(r/min)	3000		operation	Thrust load A, B-direction (N)	343
Moment of inert	tia	With	out brake	48.0		 For details of Note 1 to Note 5, refer to P.104. Dimensions of Driver, refer to P.34. 		
of rotor (×10 ⁻⁴ kg	g∙m²)	Wi	th brake	48.8				
Recommended moment of inertia ratio of the load and the rotor Note)3 Rotary encoder specifications Note)5 Resolution per single turn		10 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation				
		IS Note)5	20-bit Incremental	17-bit Absolute	has "E" is "positioning type". Detail of model designation, refer to P.11.		U	
		olution per single turn		1,048,576			131,072	

Torgue characteristics (at AC400V of power voltage < Dotted line represents the torque at 10% less supply voltage.>) *Continuous torque, ambient temperature torque [N·m] versus rated torque Brake 100 90 85 Peak run rang with Brake 50 35 (20 Continuous run range (3) 0 0 10 20 30 40 3000 1000 2000



Dimensions



(2) Motor/Brake connector

<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.

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



Key way dimensions



		AC400V		
Motor model *1		094G1	094S1	
	Model	A5 series	MDDHT3420	
Applicable driver *2	No.	A5E series	MDDH	T3420E
	Fran	ne symbol	D-frame	
Power supply capacit	у	(kVA)	1	.8
Rated output		(W)	0	.9
Rated torque		(N·m)	8.	59
Momentary Max. pea	k torqu	ie (N·m)	19	0.3
Rated current		(A(rms)) 3.8		.8
Max. current	(A(o-p))		12	
Regenerative brake	Without option		No limit Note)2	
frequency (times/min) Note)1	DV0PM20048		No limit Note)2	
Rated rotational spee	d	(r/min)	1000	
Max. rotational speed	l	(r/min) 2000		00
Moment of inertia	Without brake		6.70	
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	7.99	
Recommended momeratio of the load and t		10 times or less		
Rotary encoder specification		1S Note)5	20-bit Incremental	17-bit Absolute
Resolut	ition 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.)

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	Radial load P-direction (N)	686
0	operation	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".



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.

Do not use this for braking the motor in motion.

atic friction torque (N·m)	13.7 or more
gaging time (ms)	100 or less
leasing time (ms) Note)4	50 or less
citing current (DC) (A)	0.79±10%
leasing voltage (DC) (V)	2 or more
citing voltage (DC) (V)	24±2.4

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

- 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.>)



Peak run

Dimensions

torque

. [N·m]

50

(28

With oil seal



(2) Motor/Brake connector

*Continuous torque,

0 10 20 30 40

ambient temperature[°C]

versus rated torque

100

50

ambient temperature

<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

	AC400V		• Brake specifications (For details, refer to P.105)					
Motor model *1			MGME	204G1	204S1	(This brake will be released when it is energized.) (Do not use this for braking the motor in motion.)		
	Applicable driver *2	Model	A5 series	MFDHT5440		Static fr	Static friction torque (N·m)	
Applicable drive		No.	A5E series	MFDH	Г5440E	Engaging time (ms)		80 or less
		Fran	ne symbol	F-frame		Releasi	ng time (ms) Note)4	25 or less
Power supply ca	pacit	у	(kVA)	3	.8	Exciting	current (DC) (A)	1.3±10%
Rated output			(W)	2	.0	Releasi	ng voltage (DC) (V)	2 or more
Rated torque			(N·m)	19	9.1	Exciting	voltage (DC) (V)	24±2.4
Momentary Max	. pea	k torqu	ie (N·m)	47.7				
Rated current			(A(rms))	8.5		Permissible load (For details, refer to P.1		er to P.104)
Max. current			(A(o-p))	3	0	During	Radial load P-direction (N)	1666
	Regenerative brake frequency (times/min) Note)1	Without option		No limit Note)2		During assembly	Thrust load A-direction (N)	784
frequency (times/min		DV0PM20049×2		No limit Note)2		accombry	Thrust load B-direction (N)	980
Rated rotational	spee	d	(r/min)	1000		During	Radial load P-direction (N)	1176
Max. rotational s	peed	l	(r/min)	2000		operation	Thrust load A, B-direction (N)	490
Moment of inerti	а	Without brake With brake		30.3		 For details of Note 1 to Note 5, refer to P.104. Dimensions of Driver, refer to P.34. 		
of rotor (×10 ⁻⁴ kg	∙m²)			31.4				
Recommended moment of inertia ratio of the load and the rotor Note)3		10 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation				
Rotary encoder	specifications Note)5		1S Note)5	20-bit Incremental	17-bit Absolute	has "E" is "positioning type". Detail of model designation, refer to P.11.		0
Resolution per single turn		r single turn	1,048,576	131,072				

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

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





Key way dimensions



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

Motor

				AC400V		
Motor model *1		304G1 304S1				
	Model	A5 series	MFDHTA464			
Applicable driver *2	No.	A5E series	MFDHTA464E			
	Frame symbol		F-frame			
Power supply capacit	у	(kVA)	4	.5		
Rated output		(W)	3	.0		
Rated torque		(N·m)	28	3.7		
Momentary Max. pea	k torqu	ie (N·m)	71	.7		
Rated current	(A(rms))		11.3			
Max. current	(A(o-p))		40			
Regenerative brake	Without option		No limit Note)2			
frequency (times/min) Note)1	DV0PM20049×2		No limit Note)2			
Rated rotational spee	d	(r/min)	10	00		
Max. rotational speed		(r/min)	2000			
Moment of inertia	Without brake		48.4			
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	49.2			
Recommended mome ratio of the load and t		10 times or less				
Rotary encoder specifications Note)5		20-bit Incremental	17-bit Absolute			
		r 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.					
(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)

e C	During assembly	Radial load P-direction (N)	2058
		Thrust load A-direction (N)	980
		Thrust load B-direction (N)	1176
	During	Radial load P-direction (N)	1470
	operation	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.

Mass (kg)/ Without brake: 20.0

Key way dimensions

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-

With brake: 23.5

M3 through

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



Dimensions



- (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

		AC400V			
Motor model *1 MHME			104G1	104S1	
	Model	A5 series	MDDH	T2412	
Applicable driver *2	No.	A5E series	MDDH	T2412E	
	Fram	ne symbol	D-fra	ame	
Power supply capacit	у	(kVA)	1.	.8	
Rated output		(W)	1.	.0	
Rated torque		(N·m)	4.	77	
Momentary Max. pea	k torqu	e (N·m)	14	l.3	
Rated current		(A(rms))	2.9		
Max. current (A		(A(o-p))	12		
Regenerative brake	Without option		83		
frequency (times/min) Note)1	DV0PM20048		No limit Note)2		
Rated rotational spee	d	(r/min)	2000 3000		
Max. rotational speed	l	(r/min)			
Moment of inertia	With	out brake	24.7		
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th brake	26.0		
Recommended mome ratio of the load and t		5 times	or less		
Rotary encoder specifications Note		1S Note)5	20-bit Incremental	17-bit Absolute	
		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.

, o	,
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)

		Radial load P-direction (N)	980
During assembly	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.>)



Dimensions



(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.



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

Key way dimensions



Specifications

Motor model *1 MHME 154G1 154S1 \Do not use this for braking the motor in motion. \//>/ Applicable driver *2 Model A5 series MDDHT3420E Static friction torque (N·m) 13.7 or not use this for braking the motor in motion. \//>/ Applicable driver *2 Model A5E series MDDHT3420E Engaging time (ms) 100 or Power supply capacity (kVA) 2.3 Engaging time (ms) 100 0.79±1 Rated output (W) 1.5 Releasing torrent (DC) (A) 0.79±1 Rated torque (N·m) 7.16 Exciting voltage (DC) (V) 2 or motion. Max. current (A(rms)) 4.7 Permissible load (For details, refer to P.104) Max. current (A(o-p)) 20 Permissible load -direction (N) 980 Rated rotational speed (r/min) 2000 Thrust load A-direction (N) 686 Max. matrianal speed (r/min) 2000 Radial load P-direction (N) 686					AC4	100V		specifications (For details	
Applicable driver *2No.A5E seriesMDDHT3420ENo.A5E seriesMDDHT3420EFrame symbolD-framePower supply capacity(kVA)Rated output(WV)1.5Rated torqueRated torque(N·m)Momentary Max. peak torque(N·m)Atted current(A(rms))Max. current(A(rms))Max. current(A(o-p))Regenerative brake frequency (times/min) Note)1Without optionRated rotational speed(r/min)Moment of inertia of rotor (x10°4karm²)Without brakeWithout brake37.1Without brake38.4	Motor model *	k1		МНМЕ	154G1	154S1	(This brake will be released when it is energized. (Do not use this for braking the motor in motion.)		
Applicable dirverAdd. seriesImbor 173420LFrame symbolD-framePower supply capacity(kVA)Rated output(W)1.5Rated torque(N·m)7.16Momentary Max. peak torque(N·m)21.5Rated current(A(rms))4.7Max. current(A(c-p))20Regenerative brake frequency (times/min Note)1DV0PM20048Rated rotational speed(r/min)3000Moment of inertia of rotor (x10 ⁻⁴ kg·m ²)Without brake37.1With brake38.4			Model	A5 series	MDDH	IT3420	3420 Static friction torque (N·m)		13.7 or more
Power supply capacity(kVA)2.3Rated output(W)1.5Rated torque(N·m)7.16Momentary Max. peak torque(N·m)21.5Rated current(A(rms))4.7Max. current(A(o-p))20Regenerative brake frequency (times/min) Note)1Without option22DVOPM20048130130Rated rotational speed(r/min)2000Max. rotational speed(r/min)3000Moment of inertia of rotor (x10 ⁻⁴ kgrm²)Without brake37.1Without brake38.438.4	Applicable driv	ver *2	No.	A5E series	MDDHT3420E		Engagin	g time (ms)	100 or less
Rated output(W)1.5Rated torque(N·m)7.16Momentary Max. peak torque(N·m)21.5Rated current(A(rms))4.7Max. current(A(o-p))20Regenerative brake frequency (times/min) Note)1Without option22DVOPM20048130Radial load P-direction (N)980Max. rotational speed(r/min)2000Radial load P-direction (N)980Max. rotational speed(r/min)3000For details of Note 1 to Note 5, refer to P.104.Moment of inertia of rotor (x10 ⁻⁴ kg:m ²)With brake38.4			Fram	ne symbol	D-frame		Releasir	ng time (ms) Note)4	50 or less
Rated torque $(N \cdot m)$ 7.16Rated torque $(N \cdot m)$ 7.16Momentary Max. peak torque $(N \cdot m)$ 21.5Rated current $(A(rms))$ 4.7Max. current $(A(o-p))$ 20Regenerative brake frequency (times/min) Note)1Without option22DVOPM20048130Radial load P-direction (N)980During assemblyRadial load P-direction (N)980During of rotor (x10 ⁻⁴ kg:m ²)Without brake37.1With brake38.438.4	Power supply	capacity	y	(kVA)	2	.3	Exciting	current (DC) (A)	0.79±10%
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 DVOPM20048 130 Max. rotational speed (r/min) 2000 Max. rotational speed (r/min) 3000 Moment of inertia of rotor (x10 ⁻⁴ kg·m ²) With brake 37.1	Rated output			(W)	1	.5	Releasir	ng voltage (DC) (V)	2 or more
Rated current (A(rms)) 4.7 Max. current (A(o-p)) 20 Regenerative brake frequency (times/min) Note)1 Without option 22 DVOPM20048 130 Radial load P-direction (N) 980 During assembly Radial load P-direction (N) 980 During of rotor (x10 ⁻⁴ kg:m ²) Without brake 33.4	Rated torque			(N·m)	7.	16	Exciting	voltage (DC) (V)	24±2.4
Max. current (A(o-p)) 20 Regenerative brake frequency (times/min) Note)1 Without option 22 Radial load P-direction (N) 980 During assembly Radial load P-direction (N) 980 During frequency (times/min) Note)1 UVOPM20048 130 Thrust load A-direction (N) 686 During frequency (times/min) Note)1 UVOPM20048 130 During assembly Radial load P-direction (N) 686 During of rotor (x10 ⁻⁴ kg:m ²) Without brake 37.1 For details of Note 1 to Note 5, refer to P.104.	Momentary Max. peak torque (N·m)		ie (N·m)	21.5					
Regenerative brake frequency (times/min) Note)1 Without option 22 DVOPM20048 130 Rated rotational speed (r/min) Moment of inertia of rotor (x10 ⁻⁴ kg·m ²) Without brake	Rated current			(A(rms))	4.7		 Permi 	ssible load (For details, refe	er to P.104)
Regenerative brake frequency (times/min) Note)1 Without option 22 Rated rotational speed (r/min) 130 Max. rotational speed (r/min) 2000 Moment of inertia of rotor (x10 ⁻⁴ kg·m ²) With brake 38.4	Max. current			(A(o-p))	20		During	Radial load P-direction (N)	980
frequency (times/min) Note)1 DV0PM20048 130 Thrust load B-direction (N) 686 Rated rotational speed (r/min) 2000 During operation Radial load P-direction (N) 490 Max. rotational speed (r/min) 3000 Thrust load A, B-direction (N) 196 Moment of inertia of rotor (x10 ⁻⁴ kg·m ²) With brake 38.4 • For details of Note 1 to Note 5, refer to P.104.	Regenerative b	orake	Without option				Ű	Thrust load A-direction (N)	588
Max. rotational speed (r/min) 3000 Moment of inertia of rotor (×10 ⁻⁴ kg·m ²) With brake 37.1	frequency (times/min) Note)1		DV0	PM20048			accombry	Thrust load B-direction (N)	686
Moment of inertia of rotor (x10 ⁻⁴ kg·m ²) With brake 38.4	Rated rotation	al spee	d	(r/min)	20	00	During	Radial load P-direction (N)	490
of rotor $(\times 10^{-4} \text{kg} \text{m}^2)$ With brake 38.4 • For details of Note 1 to Note 5, refer to P.104.	Max. rotationa	al speed		(r/min)	30	00	operation	Thrust load A, B-direction (N)	196
of rotor (x10 ⁻⁺ Kg·m ²) With brake 38.4	Moment of ine	ertia	With	out brake	37.1		• For deta	ails of Note 1 to Note 5 refer t	o P 104
	of rotor (×10 ⁻⁴ kg⋅m ²) With brake		th brake	38.4					
Recommended moment of inertia 5 times or less *1 Rotary encoder specifications: □ *2 The product that the end of driver model design				5 times or less		*1 Rotary encoder specifications:			
Rotary encoder specifications Note)5 20-bit 17-bit has "E" is "positioning type".	Rotary encoder specifications Note)5		1S Note)5						
Resolution per single turn 1,048,576 131,072	Resolution per single turn			r single turn	1,048,576				131,072



Dimensions



(2) Motor/Brake connector

<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]

Motor

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

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





Motor model *1 MHME			AC4	V00		
			204G1	204S1		
	Model	A5 series	MEDH	T4430		
Applicable driver *2	No.	A5E series	MEDH	Г4430E		
	Fram	ne symbol	E-frame			
Power supply capacit	у	(kVA)	3.	.3		
Rated output		(W)	2	.0		
Rated torque		(N·m)	9.	55		
Momentary Max. pea	k torqu	e (N·m)	28	8.6		
Rated current	Rated current (A(rms)			5.5		
Max. current		(A(o-p))	24			
Regenerative brake	With	out option	45			
frequency (times/min) Note)1	DV0	PM20048	142			
Rated rotational spee	d	(r/min)	2000 3000			
Max. rotational speed		(r/min)				
Moment of inertia	Without brake		57.8			
of rotor (×10 ⁻⁴ kg·m ²)	Wi	th 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		1S Note)5	20-bit Incremental	17-bit Absolute		
Resolut	ion 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 During operation	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
	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.

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

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Dimensions





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

(140)

<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.

Mass (kg)/ Without brake: 12.2 With brake: 15.5 Key way dimensions



Cracifications

Specification	IS											
			AC4	100V			specifications (For details	. ,				
Motor model *1		МНМЕ	304G1	304S1		(This brake will be released when it is energized.) Do not use this for braking the motor in motion.)						
	Mode	A5 series	MFDH	IT5440	Statio	Static friction torque (N·m)		24.5 or more				
Applicable driver *2	No.	A5E series	MFDH	T5440E	Enga	agin	g time (ms)	80 or less				
	Fran	ne symbol	F-fr	ame	Relea	asin	ng time (ms) Note)4	25 or less				
Power supply capac	ty	(kVA)	4	.5	Excit	ing	current (DC) (A)	1.3±10%				
Rated output		(W)	3	.0	Relea	asin	ng voltage (DC) (V)	2 or more				
Rated torque		(N·m)	14	14.3		ing	voltage (DC) (V)	24±2.4				
Momentary Max. pea	Max. peak torque (N·m) 43.0		3.0									
Rated current	(A(rms))		Rated current (A(rms		8.0)) 8.0		• Per	mi	ssible load (For details, refe	er to P.104)
Max. current		(A(o-p))	34 19		34		During		Radial load P-direction (N)	1666		
Regenerative brake		out option			During assembly	Thrust load A-direction (N)	784					
frequency (times/min) Note	¹ DV0F	M20049×2	142				Thrust load B-direction (N)	980				
Rated rotational spe	əd	(r/min)	20	00	During		Radial load P-direction (N)	784				
Max. rotational spee	d	(r/min)	30	00	operati	ion	Thrust load A, B-direction (N)	343				
Moment of inertia	Moment of inertia Without brake		90.5		• For d	lota	ails of Note 1 to Note 5, refer to	o P 104				
of rotor (×10 ⁻⁴ kg·m ²) With brake		92	92.1		Dimensions of Driver, refer to P.34.							
Recommended moment of inertia ratio of the load and the rotor Note)3		5 times or less		*1 Rotary encoder specifications: *2 The product that the end of driver model designation			odel designation					
Rotary encoder specifications Note)5		20-bit Incremental	17-bit Absolute	has	has "E" is "positioning type".		0					
Resolution per single tu		r single turn	1,048,576	131,072	Detail of model designation, refer to P.11.			Г.П.				



Dimensions



(2) Motor/Brake connector

<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.

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

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





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

Specifications

		AC4	V00		
Motor model *1 MHME		404G1	404S1		
	Model	A5 series	MFDH	TA464	
Applicable driver *2	No.	A5E series	MFDH	TA464E	
	Fram	ne symbol	F-fra	ame	
Power supply capacit	у	(kVA)	6	.8	
Rated output		(W)	4	.0	
Rated torque		(N·m)	19	9.1	
Momentary Max. pea	k torqu	e (N·m)	57	7.3	
Rated current Max. current		(A(rms))) 10.5		
		(A(o-p)) 45			
Regenerative brake	Without option		17		
frequency (times/min) Note)1	DV0PM20049×2		125		
Rated rotational spee	d	(r/min)	2000 3000		
Max. rotational speed		(r/min)			
Moment of inertia	Without brake		112		
of rotor (×10 ⁻⁴ kg·m ²)	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		1S 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)

		Radial load P-direction (N)	1666
During assembly	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.>)



Dimensions



- (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.

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With brake: 21.8

M3 through

10h9

Specifications										
Motor model *1 MHME		AC400V		• 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.						
Applicable driver *2	Model No.	A5 series	MFDHTA464		Static fri	24.5 or more				
		A5E series	MFDHTA464E		Engagin	80 or less				
	Frame symbol		F-frame		Releasing time (ms) Note)4		25 or less			
Power supply capacity (kVA)			7.5		Exciting	Exciting current (DC) (A)				
Rated output (W)			5.0		Releasir	Releasing voltage (DC) (V)				
Rated torque (N·m)			23.9		Exciting	Exciting voltage (DC) (V)				
Momentary Max. peak torque (N·m)			71.6							
Rated current (A(rms))			13.0		• Permissible load (For details, refer to P.104)					
Max. current	(A(o-p))		55		During assembly	Radial load P-direction (N)	1666			
Regenerative brake	Without option		10			Thrust load A-direction (N)	784			
frequency (times/min) Note)1	DV0PM20049×2		76			Thrust load B-direction (N)	980			
Rated rotational speed (r/min)			2000		During	Radial load P-direction (N)	784			
Max. rotational speed (r/min)		3000		operation	Thrust load A, B-direction (N)	343				
Moment of inertia of rotor (×10 ⁻⁴ kg·m ²)	Without brake		162		For details of Note 1 to Note 5, refer to P.104.					
	With brake		164		Dimensions of Driver, refer to P.34.					
Recommended moment of inertia ratio of the load and the rotor Note)3			5 times or less		*1 Rotary	 *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. 				
Rotary encoder specifications Note)5			20-bit 17-bit Incremental Absolute		has "E					
Resolution per single turn			1,048,576	131,072	Detail					



Dimensions



(2) Motor/Brake connector

<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]

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

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

Key way dimensions



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 rightangle 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.



- B

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.

Never use this for "Brake" purpose to stop the load in motion.

• Output Timing of BRK-OFF Signal

- in motion, refer to the Operating Instructions (Overall).
- details, download a copy of the instruction manual from our website. <Note>
- built-in brake, however this does not affect any functionality.
- 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⋅m²	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 ³ J	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	or more	196	147	
MSME	50W, 100W	0.29 or more	0.002	35 or less	20 or less	0.3	DC1V 39.2 or more 137	39.2	4.9	
	200W, 400W	1.27 or more	0.018	50 or less	15 or less	0.36		44.1	30000	
	750W	2.45 or more	0.075	70 or less	20 or less	0.42	or more	196	147	
	1.0kW, 1.5kW, 2.0kW	7.8 or more	0.33	50 or less	15 or less	0.81	DOOL	392	490	10000
	3.0kW	11.8 or more		80 or less	(100)		DC2V			
	4.0kW, 5.0kW	16.1 or more	1.35	110 or less	50 or less (130)	0.9	or more	1470	2200	
MDME	1.0kW	4.9 or more		80 or less	70 or less (200)	0.59	DC2V or more	588	780	10000
	1.5kW, 2.0kW	13.7 or more	1.35	100 or less	50 or less	0.79		1176	1500	
	3.0kW	16.2 or more		110 or less	(130)	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	47	80 or less	25 or less (200)	1.3		1372	2900	5440
	3.0kW	58.8 or more	4.7	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	137	44.1	00000
	750W	2.45 or more	0.075	70 or less	20 or less	0.42	or more	196	147	30000
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	1.55	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.)
- · Backlash of the built-in holding brake is kept ±1° or smaller at ex-factory point.
- 10 million times. (Life end is defined as when the brake backlash drastically changes.)

Use this built-in brake for "Holding" purpose only, that is to hold the stalling status.

• For the brake release timing at power-on, or braking timing at Servo-OFF/Servo-Alarm while the motor is

• 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

1. The lining sound of the brake (chattering and etc.) might be generated while running the motor with

2. Magnetic flux might be generated through the motor shaft while the brake coil is energized (brake is

Above values (except static friction torque, releasing voltage and excitation current) represent typical values.

· Service life of the number of acceleration/deceleration with the above permissible angular acceleration is more than