

**Specifications**

		AC100 V	
Motor model *1		MSMF5AZL1□□	
Applicable driver	Model No.	Multifunction type	MADLT01SF
		RS485 communication type *2	MADLN01SG
		Basic type *2	MADLN01SE
		Frame symbol	A-frame
Power supply capacity (kVA)		0.4	
Rated output (W)		50	
Rated torque (N·m)		0.16	
Continuous stall torque (N·m)		0.16	
Momentary Max. peak torque (N·m)		0.48	
Rated current (A(rms))		1.1	
Max. current (A(o-p))		4.7	
Regenerative brake frequency (times/min) Note)1		Without option	No limit Note)2
		DV0P4280	No limit Note)2
Rated rotational speed (r/min)		3000	
Max. rotational speed (r/min)		6000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )		Without brake	0.026
		With brake	0.029
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times or less	
Rotary encoder specifications *3		23-bit Absolute	
Resolution per single turn		8388608	

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

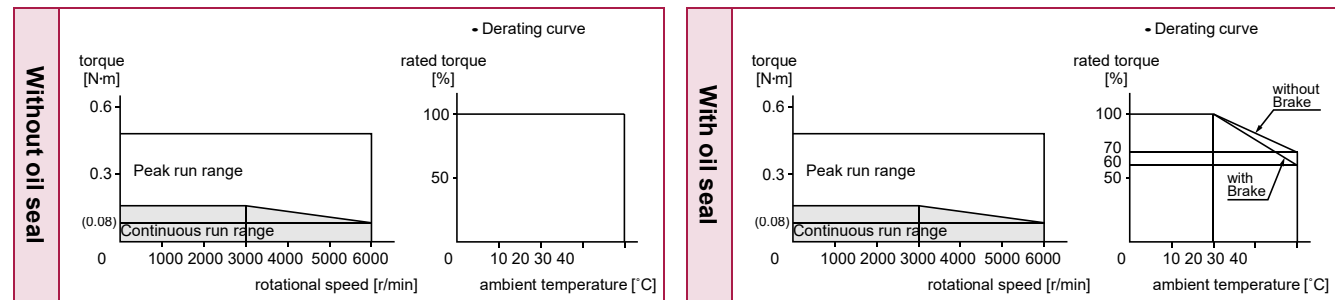
Static friction torque (N·m)	0.294 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.30
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

• **Permissible load** (For details, refer to P.304)

During assembly	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88.0
	Thrust load B-direction (N)	117.6
During operation	Radial load P-direction (N)	68.6
	Thrust load A, B-direction (N)	58.8

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type". Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.119			P.119		
Connector type (IP67)	P.119			P.120		

<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**

		AC200 V	
Motor model *1		MSMF5AZL1□□	
Applicable driver	Model No.	Multifunction type	MADLT05SF
		RS485 communication type *2	MADLN05SG
		Basic type *2	MADLN05SE
		Frame symbol	A-frame
Power supply capacity (kVA)		0.5	
Rated output (W)		50	
Rated torque (N·m)		0.16	
Continuous stall torque (N·m)		0.16	
Momentary Max. peak torque (N·m)		0.48	
Rated current (A(rms))		1.1	
Max. current (A(o-p))		4.7	
Regenerative brake frequency (times/min) Note)1		Without option	No limit Note)2
		DV0P4281	No limit Note)2
Rated rotational speed (r/min)		3000	
Max. rotational speed (r/min)		6000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )		Without brake	0.026
		With brake	0.029
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times or less	
Rotary encoder specifications *3		23-bit Absolute	
Resolution per single turn		8388608	

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

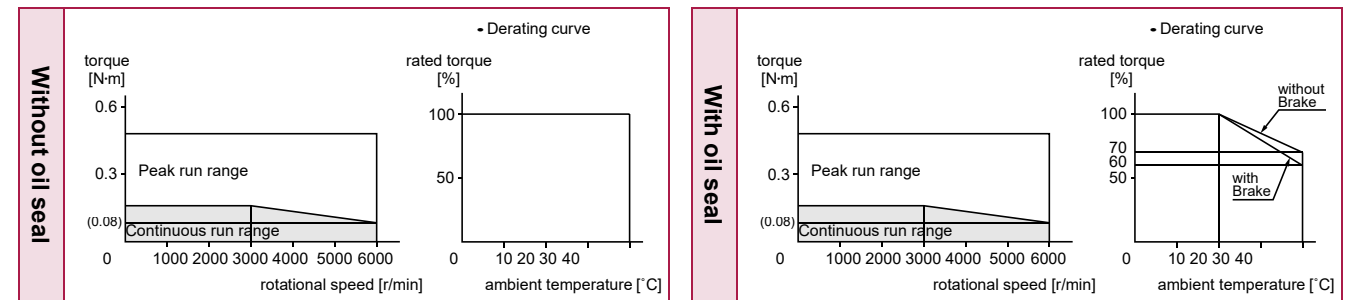
Static friction torque (N·m)	0.294 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.30
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

• **Permissible load** (For details, refer to P.304)

During assembly	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88.0
	Thrust load B-direction (N)	117.6
During operation	Radial load P-direction (N)	68.6
	Thrust load A, B-direction (N)	58.8

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type". Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.119			P.119		
Connector type (IP67)	P.119			P.120		

<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**

		AC100 V	
Motor model *1		MSMF011L1□□	
Applicable driver	Model No.	Multifunction type	MADLT11SF
		RS485 communication type *2	MADLN11SG
		Basic type *2	MADLN11SE
		Frame symbol	A-frame
Power supply capacity (kVA)		0.4	
Rated output (W)		100	
Rated torque (N·m)		0.32	
Continuous stall torque (N·m)		0.32	
Momentary Max. peak torque (N·m)		0.95	
Rated current (A(rms))		1.6	
Max. current (A(o-p))		6.9	
Regenerative brake frequency (times/min) Note)1		Without option	No limit Note)2
		DV0P4280	No limit Note)2
Rated rotational speed (r/min)		3000	
Max. rotational speed (r/min)		6000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )		Without brake	0.048
		With brake	0.051
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times or less	
Rotary encoder specifications *3		23-bit Absolute	
Resolution per single turn		8388608	

• **Brake specifications** (For details, refer to P.305)  
 (This brake will be released when it is energized. )  
 (Do not use this for braking the motor in motion. )

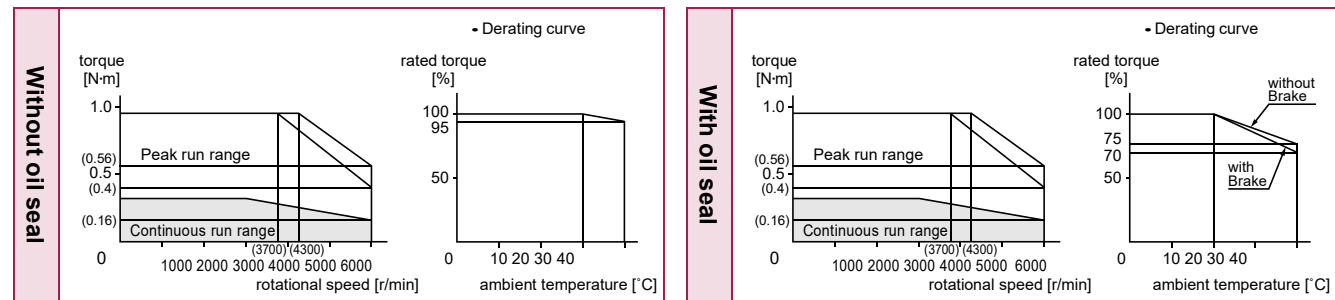
Static friction torque (N·m)	0.294 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.30
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

• **Permissible load** (For details, refer to P.304)

During assembly	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88.0
	Thrust load B-direction (N)	117.6
During operation	Radial load P-direction (N)	68.6
	Thrust load A, B-direction (N)	58.8

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.120			P.120		
Connector type (IP67)	P.121			P.121		

<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**

		AC200 V	
Motor model *1		MSMF012L1□□	
Applicable driver	Model No.	Multifunction type	MADLT05SF
		RS485 communication type *2	MADLN05SG
		Basic type *2	MADLN05SE
		Frame symbol	A-frame
Power supply capacity (kVA)		0.5	
Rated output (W)		100	
Rated torque (N·m)		0.32	
Continuous stall torque (N·m)		0.32	
Momentary Max. peak torque (N·m)		0.95	
Rated current (A(rms))		1.1	
Max. current (A(o-p))		4.7	
Regenerative brake frequency (times/min) Note)1		Without option	No limit Note)2
		DV0P4281	No limit Note)2
Rated rotational speed (r/min)		3000	
Max. rotational speed (r/min)		6000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )		Without brake	0.048
		With brake	0.051
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times or less	
Rotary encoder specifications *3		23-bit Absolute	
Resolution per single turn		8388608	

• **Brake specifications** (For details, refer to P.305)  
 (This brake will be released when it is energized. )  
 (Do not use this for braking the motor in motion. )

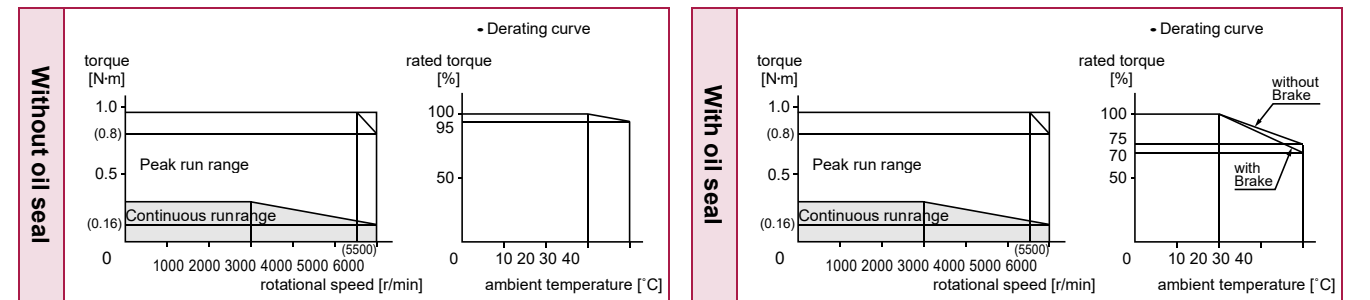
Static friction torque (N·m)	0.294 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.30
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

• **Permissible load** (For details, refer to P.304)

During assembly	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88.0
	Thrust load B-direction (N)	117.6
During operation	Radial load P-direction (N)	68.6
	Thrust load A, B-direction (N)	58.8

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.120			P.120		
Connector type (IP67)	P.121			P.121		

<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**

		AC100 V	
Motor model *1		MSMF021L1□□	
Applicable driver	Model No.	Multifunction type	MBDLT21SF
		RS485 communication type *2	MBDLN21SG
		Basic type *2	MBDLN21SE
		Frame symbol	B-frame
Power supply capacity (kVA)		0.5	
Rated output (W)		200	
Rated torque (N·m)		0.64	
Continuous stall torque (N·m)		0.64	
Momentary Max. peak torque (N·m)		1.91	
Rated current (A(rms))		2.5	
Max. current (A(o-p))		10.6	
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2	
	DV0P4283	No limit Note)2	
Rated rotational speed (r/min)		3000	
Max. rotational speed (r/min)		6000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	0.14	
	With brake	0.17	
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times or less	
Rotary encoder specifications *3		23-bit Absolute	
Resolution per single turn		8388608	

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

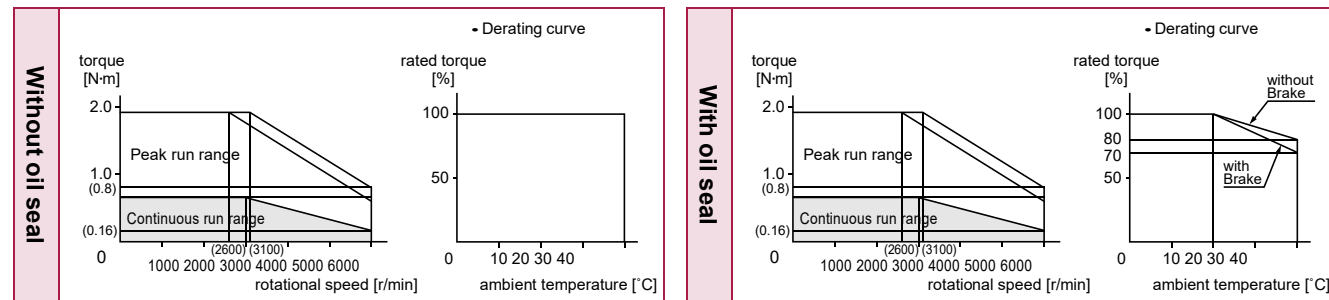
Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

• **Permissible load** (For details, refer to P.304)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98.0

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.121			P.122		
Connector type (IP67)	P.122			P.122		

<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**

		AC200 V	
Motor model *1		MSMF022L1□□	
Applicable driver	Model No.	Multifunction type	MADLT15SF
		RS485 communication type *2	MADLN15SG
		Basic type *2	MADLN15SE
		Frame symbol	A-frame
Power supply capacity (kVA)		0.5	
Rated output (W)		200	
Rated torque (N·m)		0.64	
Continuous stall torque (N·m)		0.64	
Momentary Max. peak torque (N·m)		1.91	
Rated current (A(rms))		1.5	
Max. current (A(o-p))		6.5	
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2	
	DV0P4283	No limit Note)2	
Rated rotational speed (r/min)		3000	
Max. rotational speed (r/min)		6000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	0.14	
	With brake	0.17	
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times or less	
Rotary encoder specifications *3		23-bit Absolute	
Resolution per single turn		8388608	

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

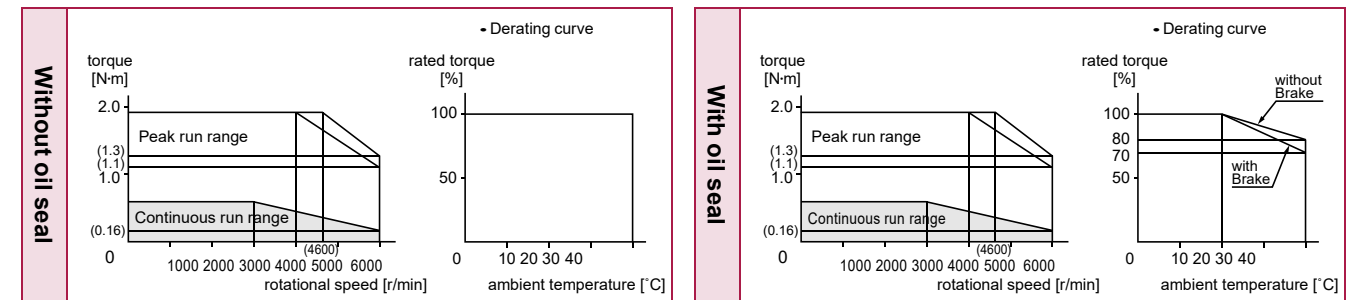
Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

• **Permissible load** (For details, refer to P.304)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98.0

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.121			P.122		
Connector type (IP67)	P.122			P.122		

<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**

		AC100 V
Motor model *1		<b>MSMF041L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MCDLT31SF</b>
		RS485 communication type *2 <b>MCDLN31SG</b>
		Basic type *2 <b>MCDLN31SE</b>
	Frame symbol	C-frame
Power supply capacity	(kVA)	0.9
Rated output	(W)	400
Rated torque	(N·m)	1.27
Continuous stall torque	(N·m)	1.27
Momentary Max. peak torque	(N·m)	3.82
Rated current	(A(rms))	4.6
Max. current	(A(o-p))	19.5
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4282	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	0.27
	With brake	0.30
Recommended moment of inertia ratio of the load and the rotor	Note)3	30 times or less
Rotary encoder specifications *3		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

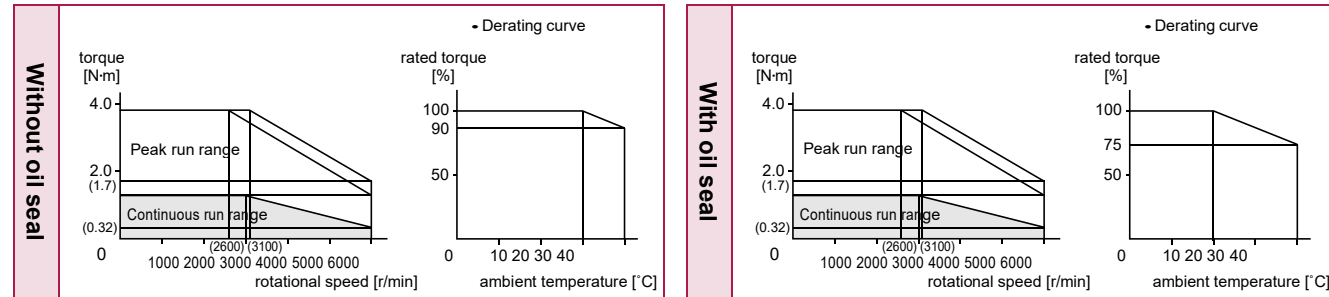
Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

• **Permissible load** (For details, refer to P.304)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98.0

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.58.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.123			P.123		
Connector type (IP67)	P.123			P.124		

<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**

		AC200 V
Motor model *1		<b>MSMF042L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MBDLT25SF</b>
		RS485 communication type *2 <b>MBDLN25SG</b>
		Basic type *2 <b>MBDLN25SE</b>
	Frame symbol	B-frame
Power supply capacity	(kVA)	0.9
Rated output	(W)	400
Rated torque	(N·m)	1.27
Continuous stall torque	(N·m)	1.27
Momentary Max. peak torque	(N·m)	3.82
Rated current	(A(rms))	2.4
Max. current	(A(o-p))	10.2
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4283	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	0.27
	With brake	0.30
Recommended moment of inertia ratio of the load and the rotor	Note)3	30 times or less
Rotary encoder specifications *3		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

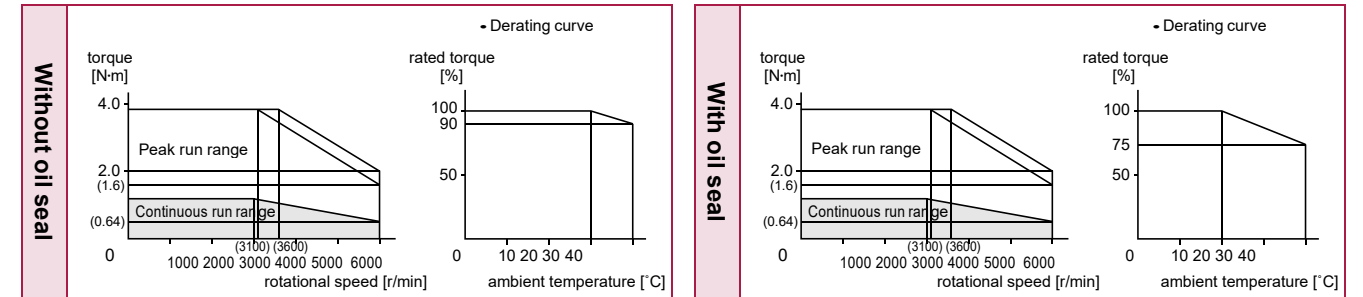
Static friction torque (N·m)	1.27 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

• **Permissible load** (For details, refer to P.304)

During assembly	Radial load P-direction (N)	392
	Thrust load A-direction (N)	147
	Thrust load B-direction (N)	196
During operation	Radial load P-direction (N)	245
	Thrust load A, B-direction (N)	98.0

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.123			P.123		
Connector type (IP67)	P.123			P.124		

<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**

		AC200 V	
Motor model *1		MSMF082L1□□	
Applicable driver	Model No.	Multifunction type	MCDLT35SF
		RS485 communication type *2	MCDLN35SG
		Basic type *2	MCDLN35SE
	Frame symbol	C-frame	
Power supply capacity (kVA)		1.8	
Rated output (W)		750	
Rated torque (N·m)		2.39	
Continuous stall torque (N·m)		2.39	
Momentary Max. peak torque (N·m)		7.16	
Rated current (A(rms))		4.1	
Max. current (A(o-p))		17.4	
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2	
	DV0P4283	No limit Note)2	
Rated rotational speed (r/min)		3000	
Max. rotational speed (r/min)		6000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	0.96	
	With brake	1.06	
Recommended moment of inertia ratio of the load and the rotor Note)3		20 times or less	
Rotary encoder specifications *3		23-bit Absolute	
Resolution per single turn		8388608	

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

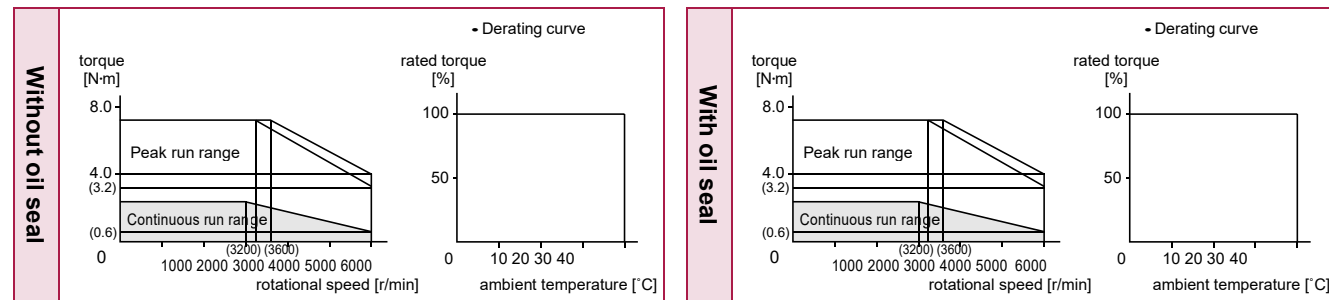
Static friction torque (N·m)	2.45 or more
Engaging time (ms)	70 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.42
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±1.2

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.58.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.124			P.124		
Connector type (IP67)	P.125			P.125		

<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**

		AC200 V	
Motor model *1		MSMF092L1□□	
Applicable driver	Model No.	Multifunction type	MDDLT45SF
		RS485 communication type *2	MDDLN45SG
		Basic type *2	MDDLN45SE
	Frame symbol	D-frame	
Power supply capacity (kVA)		2.4	
Rated output (W)		1000	
Rated torque (N·m)		3.18	
Continuous stall torque (N·m)		3.18	
Momentary Max. peak torque (N·m)		9.55	
Rated current (A(rms))		5.7	
Max. current (A(o-p))		24.2	
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2	
	DV0P4284	No limit Note)2	
Rated rotational speed (r/min)		3000	
Max. rotational speed (r/min)		6000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	1.26	
	With brake	1.36	
Recommended moment of inertia ratio of the load and the rotor Note)3		15 times or less	
Rotary encoder specifications *3		23-bit Absolute	
Resolution per single turn		8388608	

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

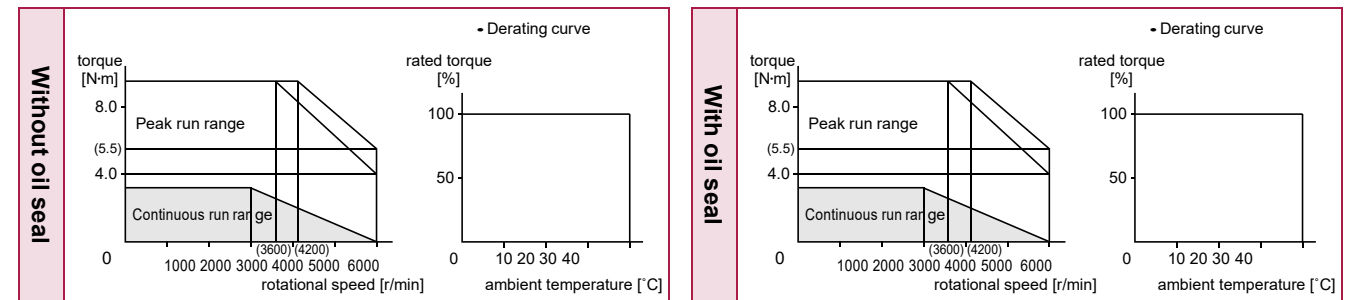
Static friction torque (N·m)	3.80 or more
Engaging time (ms)	70 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.42
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.58.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.125			P.126		
Connector type (IP67)	P.126			P.126		

<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**

		AC200 V	
Motor model <sup>1)</sup>	IP67	<b>MSMF102L1</b> □□	
Applicable driver	Model No.	Multifunction type	<b>MDDL55SF</b>
		RS485 communication type <sup>2)</sup>	<b>MDDL55SG</b>
		Basic type <sup>2)</sup>	<b>MDDL55SE</b>
		Frame symbol	D-frame
Power supply capacity	(kVA)	2.4	
Rated output	(W)	1000	
Rated torque	(N·m)	3.18	
Continuous stall torque	(N·m)	3.82	
Momentary Max. peak torque	(N·m)	9.55	
Rated current	(A(rms))	6.6	
Max. current	(A(o-p))	28	
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2	
	DV0P4284	No limit Note)2	
Rated rotational speed	(r/min)	3000	
Max. rotational speed	(r/min)	5000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	2.15	
	With brake	2.47	
Recommended moment of inertia ratio of the load and the rotor	Note)3	15 times or less	
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute	
	Resolution per single turn	8388608	

• **Brake specifications** (For details, refer to P.305)  
 (This brake will be released when it is energized.)  
 (Do not use this for braking the motor in motion.)

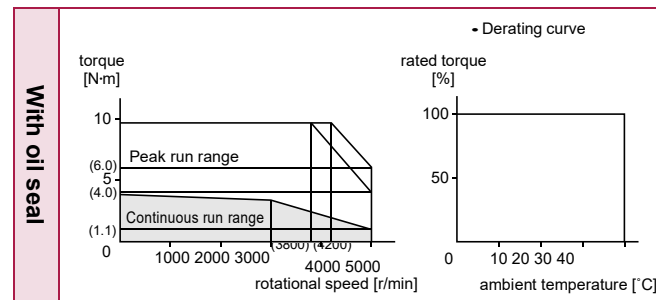
Static friction torque (N·m)	8.0 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.81
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.58.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.127		—	P.127	
Encoder connector Small size (JN2) type	—	P.127		—	P.128	

<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**

		AC200 V	
Motor model <sup>1)</sup>	IP67	<b>MSMF152L1</b> □□	
Applicable driver	Model No.	Multifunction type	<b>MDDL55SF</b>
		RS485 communication type <sup>2)</sup>	<b>MDDL55SG</b>
		Basic type <sup>2)</sup>	<b>MDDL55SE</b>
		Frame symbol	D-frame
Power supply capacity	(kVA)	2.9	
Rated output	(W)	1500	
Rated torque	(N·m)	4.77	
Continuous stall torque	(N·m)	5.72	
Momentary Max. peak torque	(N·m)	14.3	
Rated current	(A(rms))	8.2	
Max. current	(A(o-p))	35	
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2	
	DV0P4284	No limit Note)2	
Rated rotational speed	(r/min)	3000	
Max. rotational speed	(r/min)	5000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	3.10	
	With brake	3.45	
Recommended moment of inertia ratio of the load and the rotor	Note)3	15 times or less	
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute	
	Resolution per single turn	8388608	

• **Brake specifications** (For details, refer to P.305)  
 (This brake will be released when it is energized.)  
 (Do not use this for braking the motor in motion.)

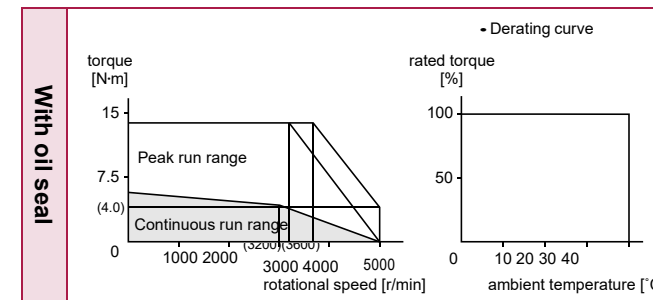
Static friction torque (N·m)	8.0 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.81
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.58.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.128		—	P.128	
Encoder connector Small size (JN2) type	—	P.129		—	P.129	

<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**

		AC200 V	
Motor model <sup>1)</sup>	IP67	<b>MSMF202L1</b> □□	
Applicable driver	Model No.	Multifunction type	<b>MEDLT83SF</b>
		RS485 communication type <sup>2)</sup>	<b>MEDLN83SG</b>
		Basic type <sup>2)</sup>	<b>MEDLN83SE</b>
		Frame symbol	E-frame
Power supply capacity	(kVA)	3.8	
Rated output	(W)	2000	
Rated torque	(N·m)	6.37	
Continuous stall torque	(N·m)	7.64	
Momentary Max. peak torque	(N·m)	19.1	
Rated current	(A(rms))	11.3	
Max. current	(A(o-p))	48	
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2	
	DV0P4285	No limit Note)2	
Rated rotational speed	(r/min)	3000	
Max. rotational speed	(r/min)	5000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	4.06	
	With brake	4.41	
Recommended moment of inertia ratio of the load and the rotor	Note)3	15 times or less	
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute	
	Resolution per single turn	8388608	

• **Brake specifications** (For details, refer to P.305)  
 (This brake will be released when it is energized. )  
 (Do not use this for braking the motor in motion. )

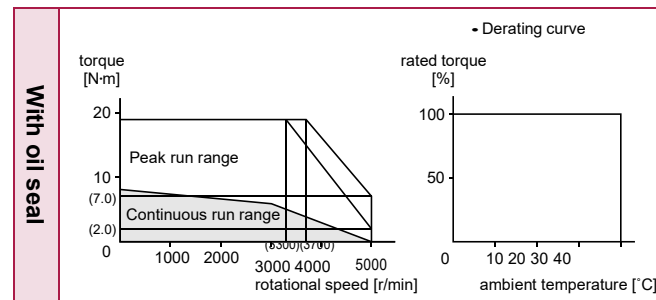
Static friction torque (N·m)	8.0 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.81
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.129	—	—	P.130	—
Encoder connector Small size (JN2) type	—	P.130	—	—	P.130	—

<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**

		AC200 V	
Motor model <sup>1)</sup>	IP67	<b>MSMF302L1</b> □□	
Applicable driver	Model No.	Multifunction type	<b>MFDLTA3SF</b>
		RS485 communication type <sup>2)</sup>	<b>MFDLNA3SG</b>
		Basic type <sup>2)</sup>	<b>MFDLNA3SE</b>
		Frame symbol	F-frame
Power supply capacity	(kVA)	5.2	
Rated output	(W)	3000	
Rated torque	(N·m)	9.55	
Continuous stall torque	(N·m)	11.0	
Momentary Max. peak torque	(N·m)	28.6	
Rated current	(A(rms))	18.1	
Max. current	(A(o-p))	77	
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2	
	DV0P4285×2	No limit Note)2	
Rated rotational speed	(r/min)	3000	
Max. rotational speed	(r/min)	5000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	7.04	
	With brake	7.38	
Recommended moment of inertia ratio of the load and the rotor	Note)3	15 times or less	
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute	
	Resolution per single turn	8388608	

• **Brake specifications** (For details, refer to P.305)  
 (This brake will be released when it is energized. )  
 (Do not use this for braking the motor in motion. )

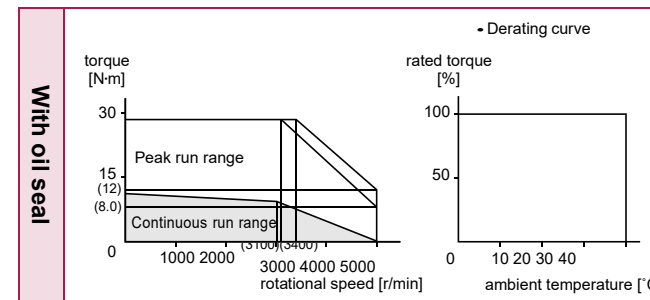
Static friction torque (N·m)	12.0 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	15 or less
Exciting current (DC) (A)	0.81
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.131	—	—	P.131	—
Encoder connector Small size (JN2) type	—	P.131	—	—	P.132	—

<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**

		AC200 V	
Motor model <sup>1)</sup>	IP67	<b>MSMF402L1</b> □□	
Applicable driver	Model No.	Multifunction type	<b>MFDLTB3SF</b>
		RS485 communication type <sup>2)</sup>	<b>MFDLNB3SG</b>
		Basic type <sup>2)</sup>	<b>MFDLNB3SE</b>
	Frame symbol	F-frame	
Power supply capacity	(kVA)	6.5	
Rated output	(W)	4000	
Rated torque	(N·m)	12.7	
Continuous stall torque	(N·m)	15.2	
Momentary Max. peak torque	(N·m)	38.2	
Rated current	(A(rms))	19.6	
Max. current	(A(o-p))	83	
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2	
	DV0P4285×2	No limit Note)2	
Rated rotational speed	(r/min)	3000	
Max. rotational speed	(r/min)	4500	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	14.4	
	With brake	15.6	
Recommended moment of inertia ratio of the load and the rotor	Note)3	15 times or less	
Rotary encoder specifications <sup>3)</sup>			23-bit Absolute
	Resolution per single turn	8388608	

• **Brake specifications** (For details, refer to P.305)  
 (This brake will be released when it is energized. )  
 (Do not use this for braking the motor in motion. )

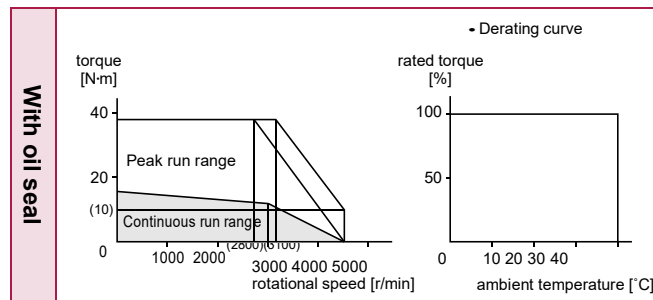
Static friction torque (N·m)	16.2 or more
Engaging time (ms)	110 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.90
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.132		—	P.132	
Encoder connector Small size (JN2) type	—	P.133		—	P.133	

<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**

		AC200 V	
Motor model <sup>1)</sup>	IP67	<b>MSMF502L1</b> □□	
Applicable driver	Model No.	Multifunction type	<b>MFDLTB3SF</b>
		RS485 communication type <sup>2)</sup>	<b>MFDLNB3SG</b>
		Basic type <sup>2)</sup>	<b>MFDLNB3SE</b>
	Frame symbol	F-frame	
Power supply capacity	(kVA)	7.8	
Rated output	(W)	5000	
Rated torque	(N·m)	15.9	
Continuous stall torque	(N·m)	19.1	
Momentary Max. peak torque	(N·m)	47.7	
Rated current	(A(rms))	24.0	
Max. current	(A(o-p))	102	
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2	
	DV0P4285×2	No limit Note)2	
Rated rotational speed	(r/min)	3000	
Max. rotational speed	(r/min)	4500	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	19.0	
	With brake	20.2	
Recommended moment of inertia ratio of the load and the rotor	Note)3	15 times or less	
Rotary encoder specifications <sup>3)</sup>			23-bit Absolute
	Resolution per single turn	8388608	

• **Brake specifications** (For details, refer to P.305)  
 (This brake will be released when it is energized. )  
 (Do not use this for braking the motor in motion. )

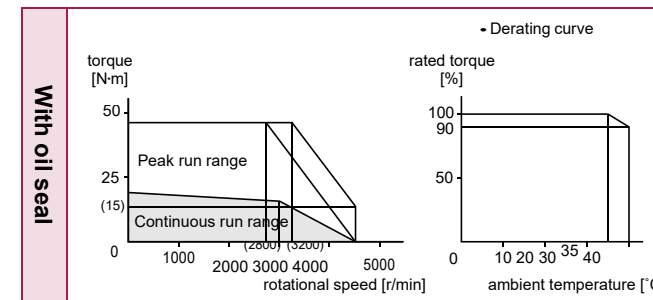
Static friction torque (N·m)	22.0 or more
Engaging time (ms)	110 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.90
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.133		—	P.134	
Encoder connector Small size (JN2) type	—	P.134		—	P.134	

<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**

		AC100 V
Motor model *1		<b>MQMF011L1</b> □□
Applicable driver	Model No.	
	Multifunction type	<b>MADLT11SF</b>
	RS485 communication type *2	<b>MADLN11SG</b>
	Basic type *2	<b>MADLN11SE</b>
Frame symbol		A-frame
Power supply capacity	(kVA)	0.4
Rated output	(W)	100
Rated torque	(N·m)	0.32
Continuous stall torque	(N·m)	0.33
Momentary Max. peak torque	(N·m)	1.11
Rated current	(A(rms))	1.6
Max. current	(A(o-p))	7.9
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4280	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6500
Moment of inertia of rotor ( $\times 10^{-4}$ kg·m <sup>2</sup> )	Without brake	0.15
	With brake	0.18
Recommended moment of inertia ratio of the load and the rotor	Note)3	20 times or less
Rotary encoder specifications *3		23-bit Absolute
Resolution per single turn		8388608

**• Brake specifications** (For details, refer to P.305)

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

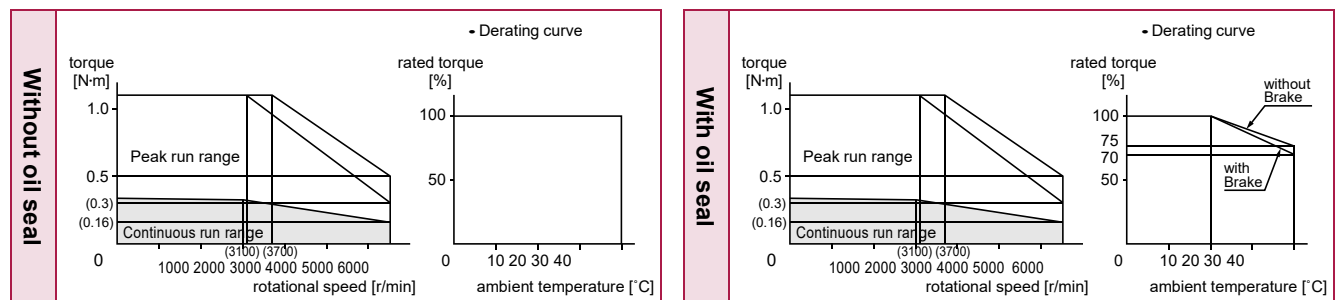
Static friction torque (N·m)	0.39 or more
Engaging time (ms)	15 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.30
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

**• Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type". Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.135	P.135	P.135	P.136	P.136	P.136
Connector type (IP67)	P.137	P.137	P.137	P.138	P.138	P.138

**<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**

		AC200 V
Motor model *1		<b>MQMF012L1</b> □□
Applicable driver	Model No.	
	Multifunction type	<b>MADLT05SF</b>
	RS485 communication type *2	<b>MADLN05SG</b>
	Basic type *2	<b>MADLN05SE</b>
Frame symbol		A-frame
Power supply capacity	(kVA)	0.5
Rated output	(W)	100
Rated torque	(N·m)	0.32
Continuous stall torque	(N·m)	0.33
Momentary Max. peak torque	(N·m)	1.11
Rated current	(A(rms))	1.1
Max. current	(A(o-p))	5.5
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4281	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6500
Moment of inertia of rotor ( $\times 10^{-4}$ kg·m <sup>2</sup> )	Without brake	0.15
	With brake	0.18
Recommended moment of inertia ratio of the load and the rotor	Note)3	20 times or less
Rotary encoder specifications *3		23-bit Absolute
Resolution per single turn		8388608

**• Brake specifications** (For details, refer to P.305)

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

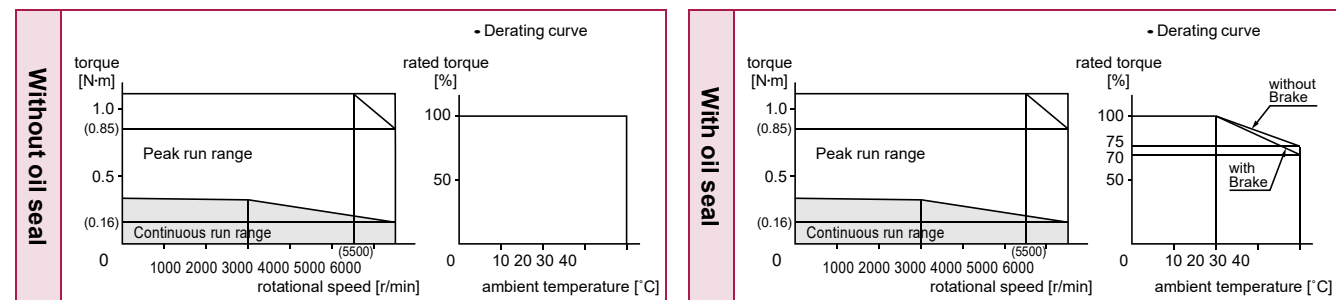
Static friction torque (N·m)	0.39 or more
Engaging time (ms)	15 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.30
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

**• Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type". Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.135	P.135	P.135	P.136	P.136	P.136
Connector type (IP67)	P.137	P.137	P.137	P.138	P.138	P.138

**<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**

		AC100 V
Motor model *1		<b>MQMF021L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MBDLT21SF</b>
		RS485 communication type *2 <b>MBDLN21SG</b>
		Basic type *2 <b>MBDLN21SE</b>
	Frame symbol	B-frame
Power supply capacity	(kVA)	0.5
Rated output	(W)	200
Rated torque	(N·m)	0.64
Continuous stall torque	(N·m)	0.76
Momentary Max. peak torque	(N·m)	2.23
Rated current	(A(rms))	2.1
Max. current	(A(o-p))	10.4
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4283	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6500
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	0.50
	With brake	0.59
Recommended moment of inertia ratio of the load and the rotor	Note)3	20 times or less
Rotary encoder specifications *3		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

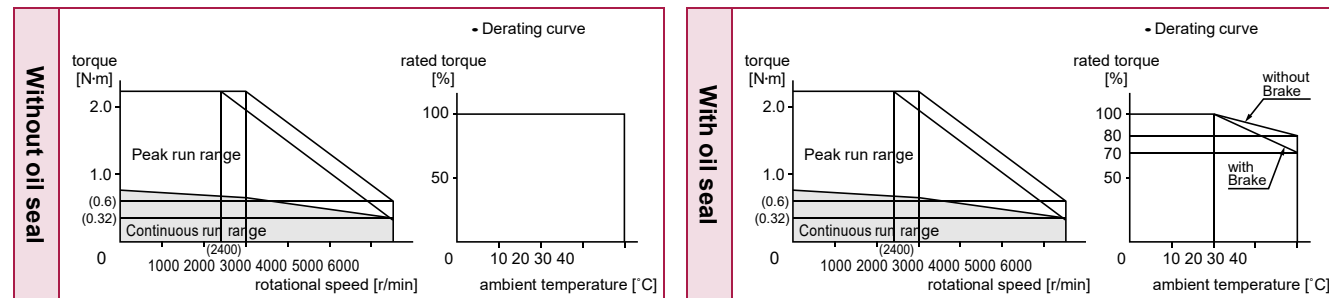
Static friction torque (N·m)	1.6 or more
Engaging time (ms)	70 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type". Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.139	P.139	P.139	P.140	P.140	P.140
Connector type (IP67)	P.141	P.141	P.141	P.142	P.142	P.142

<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**

		AC200 V
Motor model *1		<b>MQMF022L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MADLT15SF</b>
		RS485 communication type *2 <b>MADLN15SG</b>
		Basic type *2 <b>MADLN15SE</b>
	Frame symbol	A-frame
Power supply capacity	(kVA)	0.5
Rated output	(W)	200
Rated torque	(N·m)	0.64
Continuous stall torque	(N·m)	0.76
Momentary Max. peak torque	(N·m)	2.23
Rated current	(A(rms))	1.4
Max. current	(A(o-p))	6.9
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4283	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6500
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	0.50
	With brake	0.59
Recommended moment of inertia ratio of the load and the rotor	Note)3	20 times or less
Rotary encoder specifications *3		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

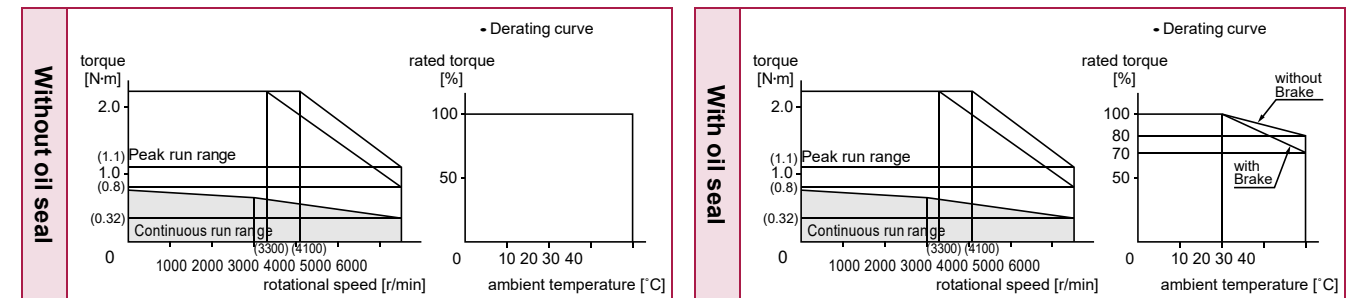
Static friction torque (N·m)	1.6 or more
Engaging time (ms)	70 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type". Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.139	P.139	P.139	P.140	P.140	P.140
Connector type (IP67)	P.141	P.141	P.141	P.142	P.142	P.142

<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

		AC100 V
Motor model *1		<b>MQMF041L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MCDLT31SF</b>
		RS485 communication type *2 <b>MCDLN31SG</b>
		Basic type *2 <b>MCDLN31SE</b>
	Frame symbol	C-frame
Power supply capacity	(kVA)	0.9
Rated output	(W)	400
Rated torque	(N·m)	1.27
Continuous stall torque	(N·m)	1.40
Momentary Max. peak torque	(N·m)	4.46
Rated current	(A(rms))	4.1
Max. current	(A(o-p))	20.3
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4282	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6500
Moment of inertia of rotor ( $\times 10^{-4}$ kg·m <sup>2</sup> )	Without brake	0.98
	With brake	1.06
Recommended moment of inertia ratio of the load and the rotor	Note)3	20 times or less
Rotary encoder specifications *3		23-bit Absolute
	Resolution per single turn	8388608

• Brake specifications (For details, refer to P.305)

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

Static friction torque (N·m)	1.6 or more
Engaging time (ms)	70 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• Permissible load (For details, refer to P.304)

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

• For details of Note)1 to Note)4, refer to P.303.

• Dimensions of Driver, refer to P.58.

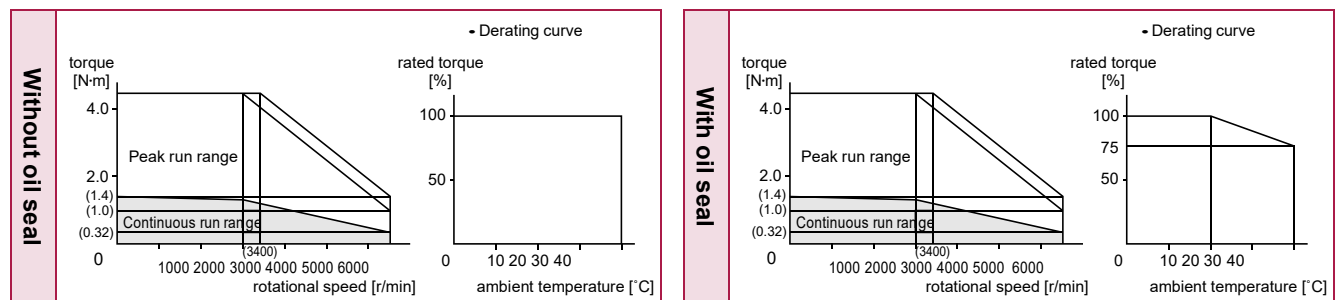
\*1 □□ in the motor part number represents the motor specifications.

\*2 Basic type and RS485 communication type are "Position control type".

Detail of model designation, refer to P.22.

\*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



Dimensions

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.143	P.143	P.143	P.144	P.144	P.144
Connector type (IP67)	P.145	P.145	P.145	P.146	P.146	P.146

<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

		AC200 V
Motor model *1		<b>MQMF042L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MBDLT25SF</b>
		RS485 communication type *2 <b>MBDLN25SG</b>
		Basic type *2 <b>MBDLN25SE</b>
	Frame symbol	B-frame
Power supply capacity	(kVA)	0.9
Rated output	(W)	400
Rated torque	(N·m)	1.27
Continuous stall torque	(N·m)	1.40
Momentary Max. peak torque	(N·m)	4.46
Rated current	(A(rms))	2.1
Max. current	(A(o-p))	10.4
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4283	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6500
Moment of inertia of rotor ( $\times 10^{-4}$ kg·m <sup>2</sup> )	Without brake	0.98
	With brake	1.06
Recommended moment of inertia ratio of the load and the rotor	Note)3	20 times or less
Rotary encoder specifications *3		23-bit Absolute
	Resolution per single turn	8388608

• Brake specifications (For details, refer to P.305)

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

Static friction torque (N·m)	1.6 or more
Engaging time (ms)	70 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• Permissible load (For details, refer to P.304)

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

• For details of Note)1 to Note)4, refer to P.303.

• Dimensions of Driver, refer to P.57.

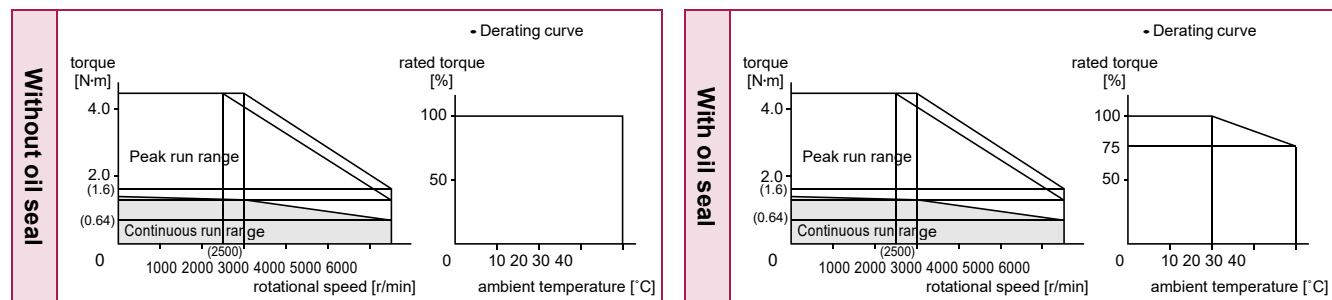
\*1 □□ in the motor part number represents the motor specifications.

\*2 Basic type and RS485 communication type are "Position control type".

Detail of model designation, refer to P.22.

\*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



Dimensions

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.143	P.143	P.143	P.144	P.144	P.144
Connector type (IP67)	P.145	P.145	P.145	P.146	P.146	P.146

<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**

		AC100 V	
Motor model *1		MHMF5AZL1□□	
Applicable driver	Model No.	Multifunction type	MADLT01SF
		RS485 communication type *2	MADLN01SG
		Basic type *2	MADLN01SE
		Frame symbol	A-frame
Power supply capacity (kVA)		0.4	
Rated output (W)		50	
Rated torque (N·m)		0.16	
Continuous stall torque (N·m)		0.18	
Momentary Max. peak torque (N·m)		0.56	
Rated current (A(rms))		1.1	
Max. current (A(o-p))		5.5	
Regenerative brake frequency (times/min) Note)1		Without option	No limit Note)2
		DV0P4280	No limit Note)2
Rated rotational speed (r/min)		3000	
Max. rotational speed (r/min)		6500	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )		Without brake	0.038
		With brake	0.042
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times or less	
Rotary encoder specifications *3		23-bit Absolute	
		Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

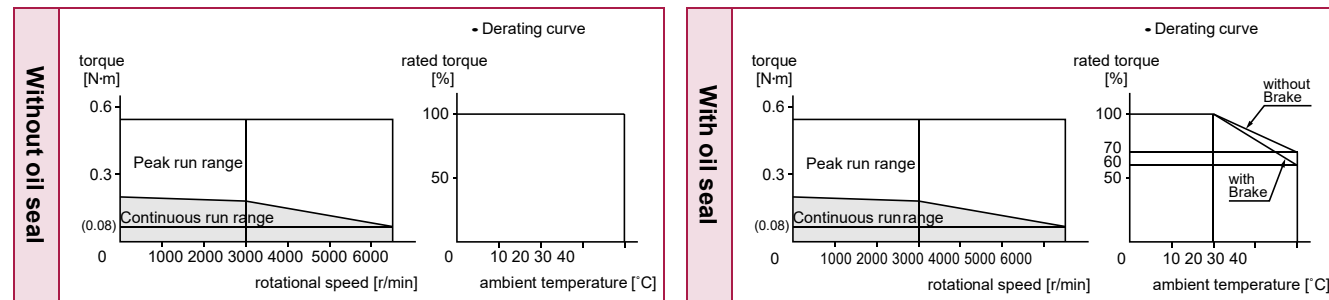
Static friction torque (N·m)	0.38 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.30
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

During assembly	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88
	Thrust load B-direction (N)	117.6
During operation	Radial load P-direction (N)	68.6
	Thrust load A, B-direction (N)	49

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.147	P.147	P.147	P.148	P.148	P.148
Connector type (IP67)	P.149	P.149	P.149	P.150	P.150	P.150

<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**

		AC200 V	
Motor model *1		MHMF5AZL1□□	
Applicable driver	Model No.	Multifunction type	MADLT05SF
		RS485 communication type *2	MADLN05SG
		Basic type *2	MADLN05SE
		Frame symbol	A-frame
Power supply capacity (kVA)		0.5	
Rated output (W)		50	
Rated torque (N·m)		0.16	
Continuous stall torque (N·m)		0.18	
Momentary Max. peak torque (N·m)		0.56	
Rated current (A(rms))		1.1	
Max. current (A(o-p))		5.5	
Regenerative brake frequency (times/min) Note)1		Without option	No limit Note)2
		DV0P4281	No limit Note)2
Rated rotational speed (r/min)		3000	
Max. rotational speed (r/min)		6500	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )		Without brake	0.038
		With brake	0.042
Recommended moment of inertia ratio of the load and the rotor Note)3		30 times or less	
Rotary encoder specifications *3		23-bit Absolute	
		Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

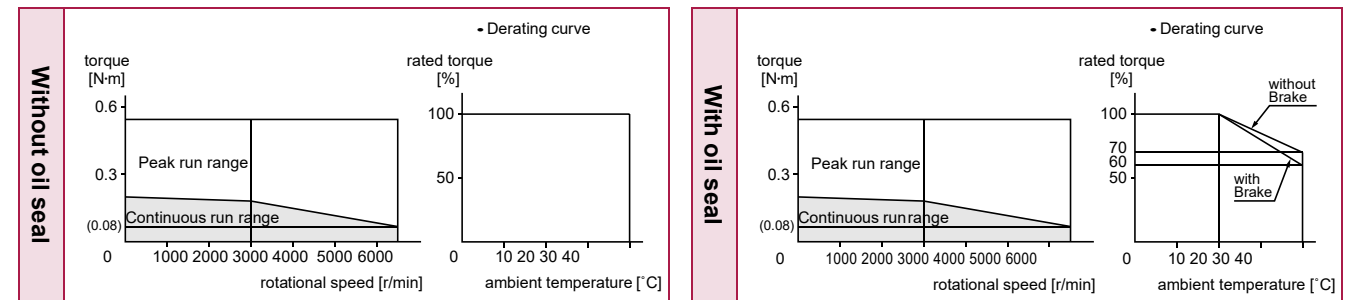
Static friction torque (N·m)	0.38 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.30
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

During assembly	Radial load P-direction (N)	147
	Thrust load A-direction (N)	88
	Thrust load B-direction (N)	117.6
During operation	Radial load P-direction (N)	68.6
	Thrust load A, B-direction (N)	49

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.147	P.147	P.147	P.148	P.148	P.148
Connector type (IP67)	P.149	P.149	P.149	P.150	P.150	P.150

<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**

		AC100 V
Motor model *1		<b>MHPF011L1</b> □□
Applicable driver	Model No.	
	Multifunction type	<b>MADLT11SF</b>
	RS485 communication type *2	<b>MADLN11SG</b>
	Basic type *2	<b>MADLN11SE</b>
Frame symbol		A-frame
Power supply capacity	(kVA)	0.4
Rated output	(W)	100
Rated torque	(N·m)	0.32
Continuous stall torque	(N·m)	0.33
Momentary Max. peak torque	(N·m)	1.11
Rated current	(A(rms))	1.6
Max. current	(A(o-p))	7.9
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4280	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6500
Moment of inertia of rotor ( $\times 10^{-4}$ kg·m <sup>2</sup> )	Without brake	0.071
	With brake	0.074
Recommended moment of inertia ratio of the load and the rotor	Note)3	30 times or less
Rotary encoder specifications *3		23-bit Absolute
Resolution per single turn		8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

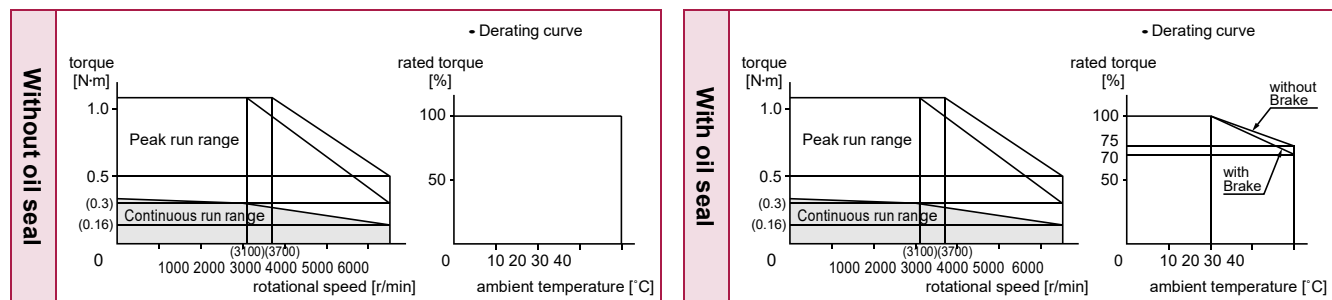
Static friction torque (N·m)	0.38 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.30
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type". Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.151	P.151	P.151	P.152	P.152	P.152
Connector type (IP67)	P.153	P.153	P.153	P.154	P.154	P.154

<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**

		AC200 V
Motor model *1		<b>MHPF012L1</b> □□
Applicable driver	Model No.	
	Multifunction type	<b>MADLT05SF</b>
	RS485 communication type *2	<b>MADLN05SG</b>
	Basic type *2	<b>MADLN05SE</b>
Frame symbol		A-frame
Power supply capacity	(kVA)	0.5
Rated output	(W)	100
Rated torque	(N·m)	0.32
Continuous stall torque	(N·m)	0.33
Momentary Max. peak torque	(N·m)	1.11
Rated current	(A(rms))	1.1
Max. current	(A(o-p))	5.5
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4281	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6500
Moment of inertia of rotor ( $\times 10^{-4}$ kg·m <sup>2</sup> )	Without brake	0.071
	With brake	0.074
Recommended moment of inertia ratio of the load and the rotor	Note)3	30 times or less
Rotary encoder specifications *3		23-bit Absolute
Resolution per single turn		8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

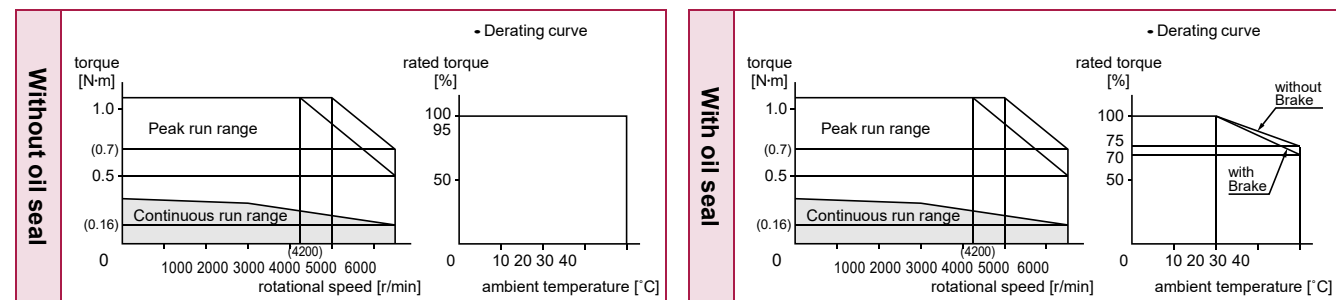
Static friction torque (N·m)	0.38 or more
Engaging time (ms)	35 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.30
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type". Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.151	P.151	P.151	P.152	P.152	P.152
Connector type (IP67)	P.153	P.153	P.153	P.154	P.154	P.154

<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**

		AC100 V
Motor model *1		<b>MHPF021L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MBDLT21SF</b>
		RS485 communication type *2 <b>MBDLN21SG</b>
		Basic type *2 <b>MBDLN21SE</b>
	Frame symbol	B-frame
Power supply capacity	(kVA)	0.5
Rated output	(W)	200
Rated torque	(N·m)	0.64
Continuous stall torque	(N·m)	0.76
Momentary Max. peak torque	(N·m)	2.23
Rated current	(A(rms))	2.1
Max. current	(A(o-p))	10.4
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4283	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6500
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	0.29
	With brake	0.31
Recommended moment of inertia ratio of the load and the rotor	Note)3	30 times or less
Rotary encoder specifications *3		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized. )  
(Do not use this for braking the motor in motion. )

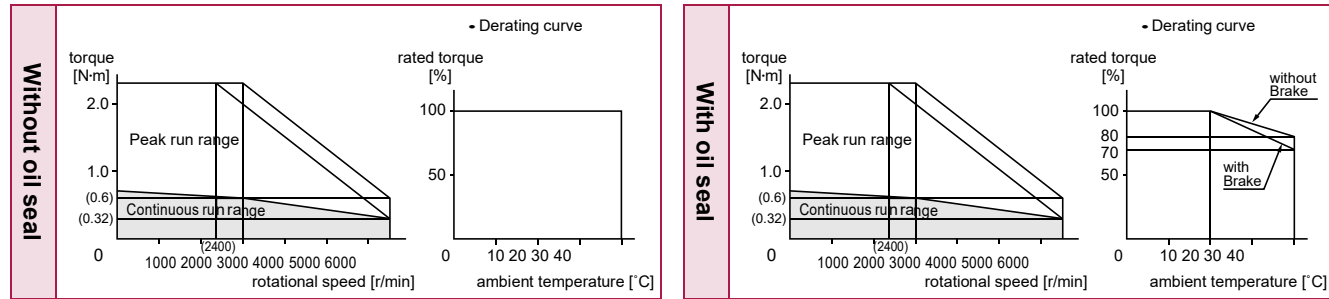
Static friction torque (N·m)	1.6 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type". Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.155	P.155	P.155	P.156	P.156	P.156
Connector type (IP67)	P.157	P.157	P.157	P.158	P.158	P.158

<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**

		AC200 V
Motor model *1		<b>MHPF022L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MADLT15SF</b>
		RS485 communication type *2 <b>MADLN15SG</b>
		Basic type *2 <b>MADLN15SE</b>
	Frame symbol	A-frame
Power supply capacity	(kVA)	0.5
Rated output	(W)	200
Rated torque	(N·m)	0.64
Continuous stall torque	(N·m)	0.76
Momentary Max. peak torque	(N·m)	2.23
Rated current	(A(rms))	1.4
Max. current	(A(o-p))	6.9
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4283	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6500
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	0.29
	With brake	0.31
Recommended moment of inertia ratio of the load and the rotor	Note)3	30 times or less
Rotary encoder specifications *3		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized. )  
(Do not use this for braking the motor in motion. )

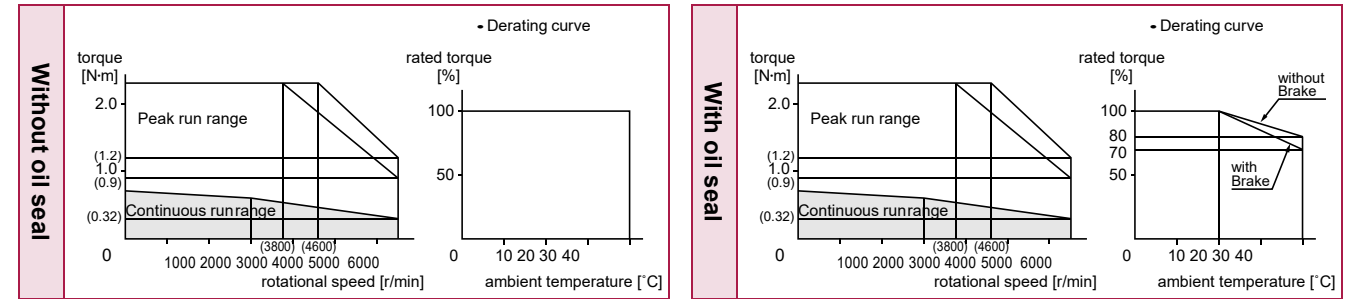
Static friction torque (N·m)	1.6 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type". Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.155	P.155	P.155	P.156	P.156	P.156
Connector type (IP67)	P.157	P.157	P.157	P.158	P.158	P.158

<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**

		AC100 V
Motor model *1		<b>MHPF041L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MCDLT31SF</b>
		RS485 communication type *2 <b>MCDLN31SG</b>
		Basic type *2 <b>MCDLN31SE</b>
	Frame symbol	C-frame
Power supply capacity	(kVA)	0.9
Rated output	(W)	400
Rated torque	(N·m)	1.27
Continuous stall torque	(N·m)	1.40
Momentary Max. peak torque	(N·m)	4.46
Rated current	(A(rms))	4.1
Max. current	(A(o-p))	20.3
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4282	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6500
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	0.56
	With brake	0.58
Recommended moment of inertia ratio of the load and the rotor	Note)3	30 times or less
Rotary encoder specifications *3		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

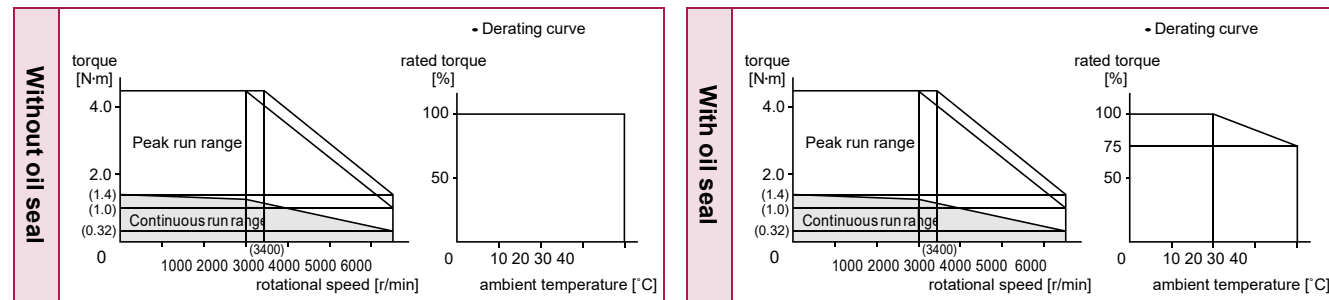
Static friction torque (N·m)	1.6 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.58.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.159	P.159	P.159	P.160	P.160	P.160
Connector type (IP67)	P.161	P.161	P.161	P.162	P.162	P.162

<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**

		AC200 V
Motor model *1		<b>MHPF042L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MBDLT25SF</b>
		RS485 communication type *2 <b>MBDLN25SG</b>
		Basic type *2 <b>MBDLN25SE</b>
	Frame symbol	B-frame
Power supply capacity	(kVA)	0.9
Rated output	(W)	400
Rated torque	(N·m)	1.27
Continuous stall torque	(N·m)	1.40
Momentary Max. peak torque	(N·m)	4.46
Rated current	(A(rms))	2.1
Max. current	(A(o-p))	10.4
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4283	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6500
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	0.56
	With brake	0.58
Recommended moment of inertia ratio of the load and the rotor	Note)3	30 times or less
Rotary encoder specifications *3		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

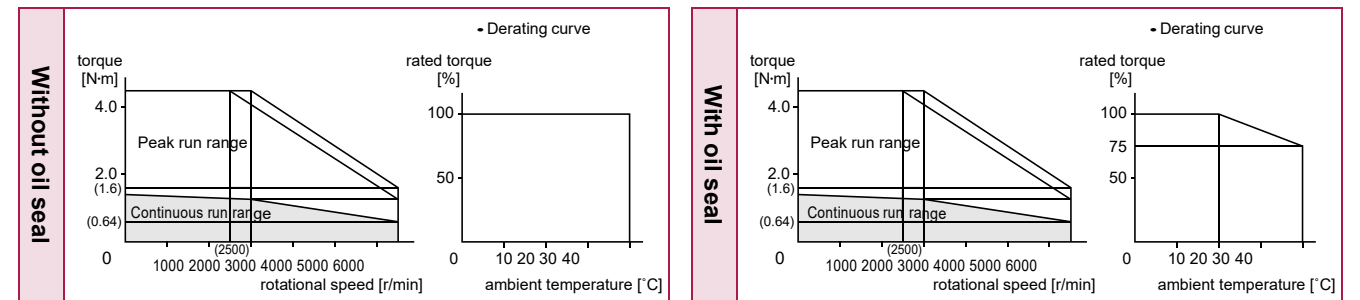
Static friction torque (N·m)	1.6 or more
Engaging time (ms)	50 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.36
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.57.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.159	P.159	P.159	P.160	P.160	P.160
Connector type (IP67)	P.161	P.161	P.161	P.162	P.162	P.162

<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

		AC200 V
Motor model *1		MHPF082L1□□
Applicable driver	Model No.	Multifunction type <b>MCDLT35SF</b>
		RS485 communication type *2 <b>MCDLN35SG</b>
		Basic type *2 <b>MCDLN35SE</b>
	Frame symbol	C-frame
Power supply capacity	(kVA)	1.8
Rated output	(W)	750
Rated torque	(N·m)	2.39
Continuous stall torque	(N·m)	2.86
Momentary Max. peak torque	(N·m)	8.36
Rated current	(A(rms))	3.8
Max. current	(A(o-p))	18.8
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4283	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	1.56
	With brake	1.66
Recommended moment of inertia ratio of the load and the rotor	Note)3	20 times or less
Rotary encoder specifications *3		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

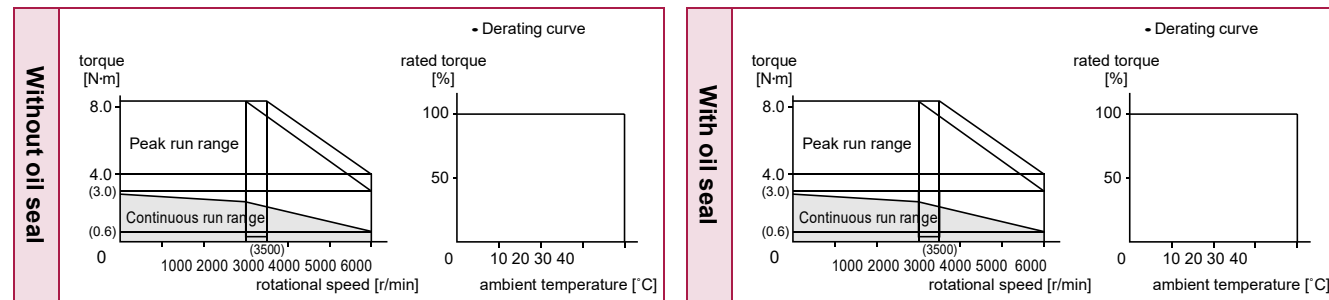
Static friction torque (N·m)	3.8 or more
Engaging time (ms)	70 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.42
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.58.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



Dimensions

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.163	P.163	P.163	P.164	P.164	P.164
Connector type (IP67)	P.165	P.165	P.165	P.166	P.166	P.166

<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

		AC200 V
Motor model *1		MHPF092L1□□
Applicable driver	Model No.	Multifunction type <b>MDDLTL55SF</b>
		RS485 communication type *2 <b>MDDLNL55SG</b>
		Basic type *2 <b>MDDLNL55SE</b>
	Frame symbol	D-frame
Power supply capacity	(kVA)	2.4
Rated output	(W)	1000
Rated torque	(N·m)	3.18
Continuous stall torque	(N·m)	3.34
Momentary Max. peak torque	(N·m)	11.1
Rated current	(A(rms))	5.7
Max. current	(A(o-p))	28.2
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4284	No limit Note)2
Rated rotational speed	(r/min)	3000
Max. rotational speed	(r/min)	6000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	2.03
	With brake	2.13
Recommended moment of inertia ratio of the load and the rotor	Note)3	15 times or less
Rotary encoder specifications *3		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

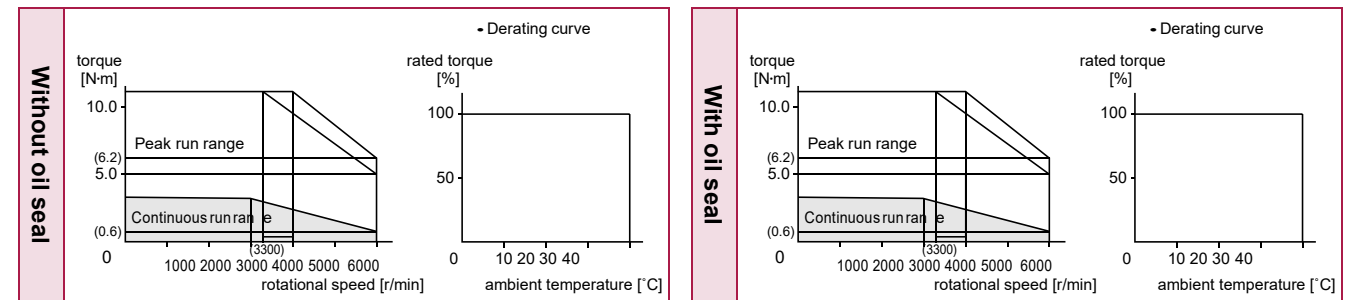
Static friction torque (N·m)	3.8 or more
Engaging time (ms)	70 or less
Releasing time (ms) Note)4	20 or less
Exciting current (DC) (A)	0.42
Releasing voltage (DC) (V)	1 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.58.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



Dimensions

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Leadwire type (IP65)	P.167	P.167	P.167	P.168	P.168	P.168
Connector type (IP67)	P.169	P.169	P.169	P.170	P.170	P.170

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MHPF102L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MDDL45SF</b>
	RS485 communication type <sup>2)</sup>	<b>MDDL45SG</b>
	Basic type <sup>2)</sup>	<b>MDDL45SE</b>
	Frame symbol	D-frame
Power supply capacity	(kVA)	2.4
Rated output	(W)	1000
Rated torque	(N·m)	4.77
Continuous stall torque	(N·m)	5.25
Momentary Max. peak torque	(N·m)	14.3
Rated current	(A(rms))	5.2
Max. current	(A(o-p))	22
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4284	No limit Note)2
Rated rotational speed	(r/min)	2000
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	22.9
	With brake	24.1
Recommended moment of inertia ratio of the load and the rotor	Note)3	5 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

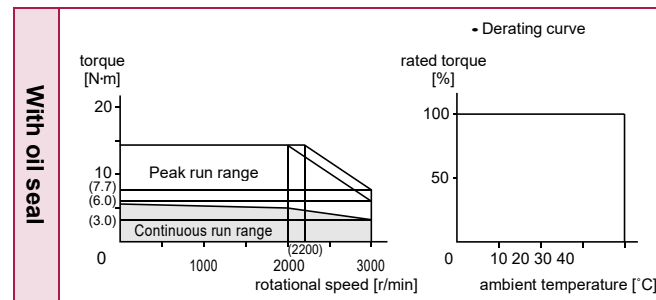
Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.58.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type". Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.171	—	—	P.171	—
Encoder connector Small size (JN2) type	—	P.171	—	—	P.172	—

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MHPF152L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MDDL55SF</b>
	RS485 communication type <sup>2)</sup>	<b>MDDL55SG</b>
	Basic type <sup>2)</sup>	<b>MDDL55SE</b>
	Frame symbol	D-frame
Power supply capacity	(kVA)	2.9
Rated output	(W)	1500
Rated torque	(N·m)	7.16
Continuous stall torque	(N·m)	7.52
Momentary Max. peak torque	(N·m)	21.5
Rated current	(A(rms))	8.0
Max. current	(A(o-p))	34
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4284	No limit Note)2
Rated rotational speed	(r/min)	2000
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	33.4
	With brake	34.6
Recommended moment of inertia ratio of the load and the rotor	Note)3	5 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized. Do not use this for braking the motor in motion.)

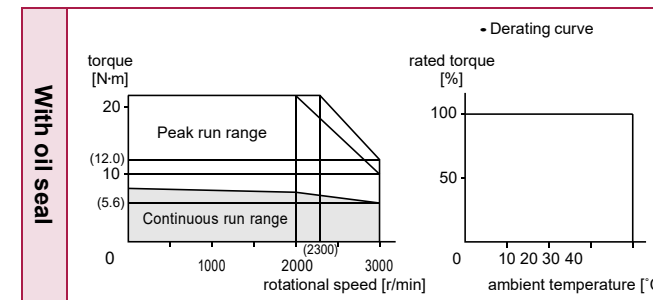
Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.58.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type". Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.172	—	—	P.172	—
Encoder connector Small size (JN2) type	—	P.173	—	—	P.173	—

<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**

		AC200 V	
Motor model <sup>1)</sup>	IP67	<b>MHMF202L1</b> □□	
Applicable driver	Model No.	Multifunction type	<b>MEDLT83SF</b>
		RS485 communication type <sup>2)</sup>	<b>MEDLN83SG</b>
		Basic type <sup>2)</sup>	<b>MEDLN83SE</b>
		Frame symbol	E-frame
Power supply capacity	(kVA)	3.8	
Rated output	(W)	2000	
Rated torque	(N·m)	9.55	
Continuous stall torque	(N·m)	11.5	
Momentary Max. peak torque	(N·m)	28.6	
Rated current	(A(rms))	12.5	
Max. current	(A(o-p))	53	
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2	
	DV0P4285	No limit Note)2	
Rated rotational speed	(r/min)	2000	
Max. rotational speed	(r/min)	3000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	55.7	
	With brake	61.0	
Recommended moment of inertia ratio of the load and the rotor	Note)3	5 times or less	
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute	
	Resolution per single turn	8388608	

• **Brake specifications** (For details, refer to P.305)  
 (This brake will be released when it is energized.)  
 (Do not use this for braking the motor in motion.)

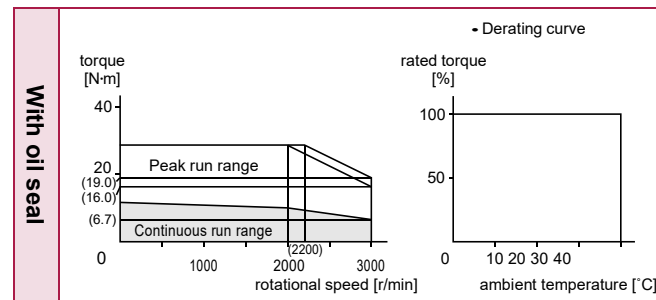
Static friction torque (N·m)	25.0 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.29
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.173	—	—	P.174	—
Encoder connector Small size (JN2) type	—	P.174	—	—	P.174	—

<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**

		AC200 V	
Motor model <sup>1)</sup>	IP67	<b>MHMF302L1</b> □□	
Applicable driver	Model No.	Multifunction type	<b>MFDLTA3SF</b>
		RS485 communication type <sup>2)</sup>	<b>MFDLNA3SG</b>
		Basic type <sup>2)</sup>	<b>MFDLNA3SE</b>
		Frame symbol	F-frame
Power supply capacity	(kVA)	5.2	
Rated output	(W)	3000	
Rated torque	(N·m)	14.3	
Continuous stall torque	(N·m)	17.2	
Momentary Max. peak torque	(N·m)	43.0	
Rated current	(A(rms))	17.0	
Max. current	(A(o-p))	72	
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2	
	DV0P4285×2	No limit Note)2	
Rated rotational speed	(r/min)	2000	
Max. rotational speed	(r/min)	3000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	85.3	
	With brake	90.7	
Recommended moment of inertia ratio of the load and the rotor	Note)3	5 times or less	
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute	
	Resolution per single turn	8388608	

• **Brake specifications** (For details, refer to P.305)  
 (This brake will be released when it is energized.)  
 (Do not use this for braking the motor in motion.)

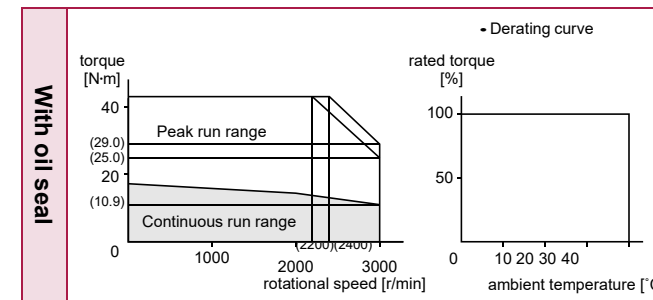
Static friction torque (N·m)	25.0 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.29
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.175	—	—	P.175	—
Encoder connector Small size (JN2) type	—	P.175	—	—	P.176	—

<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**

		AC200 V	
Motor model <sup>1)</sup>	IP67	<b>MHPF402L1</b> □□	
Applicable driver	Model No.	Multifunction type	<b>MFDLTB3SF</b>
		RS485 communication type <sup>2)</sup>	<b>MFDLNB3SG</b>
		Basic type <sup>2)</sup>	<b>MFDLNB3SE</b>
	Frame symbol	F-frame	
Power supply capacity	(kVA)	6.5	
Rated output	(W)	4000	
Rated torque	(N·m)	19.1	
Continuous stall torque	(N·m)	22.0	
Momentary Max. peak torque	(N·m)	57.3	
Rated current	(A(rms))	20	
Max. current	(A(o-p))	85	
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2	
	DV0P4285×2	No limit Note)2	
Rated rotational speed	(r/min)	2000	
Max. rotational speed	(r/min)	3000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	104	
	With brake	110	
Recommended moment of inertia ratio of the load and the rotor	Note)3	5 times or less	
Rotary encoder specifications <sup>3)</sup>			23-bit Absolute
	Resolution per single turn	8388608	

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized. )  
(Do not use this for braking the motor in motion. )

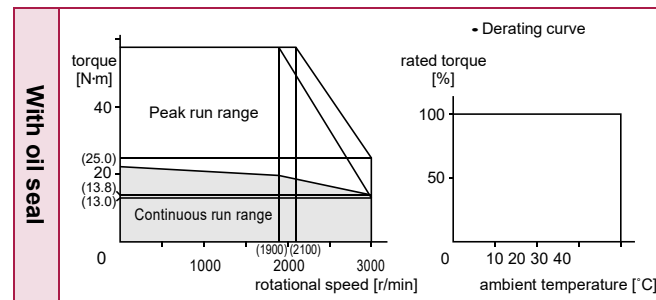
Static friction torque (N·m)	25.0 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.29
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.176	—	—	P.176	—
Encoder connector Small size (JN2) type	—	P.177	—	—	P.177	—

<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**

		AC200 V	
Motor model <sup>1)</sup>	IP67	<b>MHPF502L1</b> □□	
Applicable driver	Model No.	Multifunction type	<b>MFDLTB3SF</b>
		RS485 communication type <sup>2)</sup>	<b>MFDLNB3SG</b>
		Basic type <sup>2)</sup>	<b>MFDLNB3SE</b>
	Frame symbol	F-frame	
Power supply capacity	(kVA)	7.8	
Rated output	(W)	5000	
Rated torque	(N·m)	23.9	
Continuous stall torque	(N·m)	26.3	
Momentary Max. peak torque	(N·m)	71.6	
Rated current	(A(rms))	23.3	
Max. current	(A(o-p))	99	
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2	
	DV0P4285×2	No limit Note)2	
Rated rotational speed	(r/min)	2000	
Max. rotational speed	(r/min)	3000	
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	146	
	With brake	151	
Recommended moment of inertia ratio of the load and the rotor	Note)3	5 times or less	
Rotary encoder specifications <sup>3)</sup>			23-bit Absolute
	Resolution per single turn	8388608	

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized. )  
(Do not use this for braking the motor in motion. )

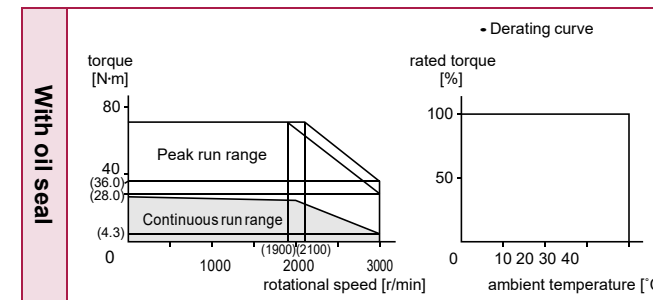
Static friction torque (N·m)	44.1 or more
Engaging time (ms)	150 or less
Releasing time (ms) Note)4	30 or less
Exciting current (DC) (A)	1.29
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.177	—	—	P.178	—
Encoder connector Small size (JN2) type	—	P.178	—	—	P.178	—

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MHPF752L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MGDLTC3SF</b>
	RS485 communication type <sup>2)</sup>	—
	Basic type <sup>2)</sup>	—
	Frame symbol	G-frame
Power supply capacity	(kVA)	11
Rated output	(W)	7500
Rated torque	(N·m)	47.8
Continuous stall torque	(N·m)	47.8
Momentary Max. peak torque	(N·m)	125
Rated current	(A(rms))	40.2
Max. current	(A(o-p))	154
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4285×3	No limit Note)2
Rated rotational speed	(r/min)	1500
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	272
	With brake	279
Recommended moment of inertia ratio of the load and the rotor	Note)3	5 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

**• Brake specifications** (For details, refer to P.305)

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

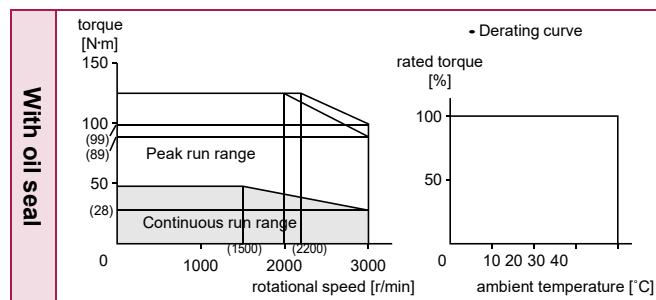
Static friction torque (N·m)	63.0 or more
Engaging time (ms)	200 or less
Releasing time (ms) Note)4	80 or less
Exciting current (DC) (A)	1.29
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	15 or less

**• Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.60.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type". Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.179	—	—	P.179	—
Encoder connector Small size (JN2) type	—	P.179	—	—	P.180	—

**<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MDMF102L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MDDLTC45SF</b>
	RS485 communication type <sup>2)</sup>	<b>MDDLN45SG</b>
	Basic type <sup>2)</sup>	<b>MDDLN45SE</b>
	Frame symbol	D-frame
Power supply capacity	(kVA)	2.4
Rated output	(W)	1000
Rated torque	(N·m)	4.77
Continuous stall torque	(N·m)	5.25
Momentary Max. peak torque	(N·m)	14.3
Rated current	(A(rms))	5.2
Max. current	(A(o-p))	22
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4284	No limit Note)2
Rated rotational speed	(r/min)	2000
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	6.18
	With brake	7.40
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

**• Brake specifications** (For details, refer to P.305)

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

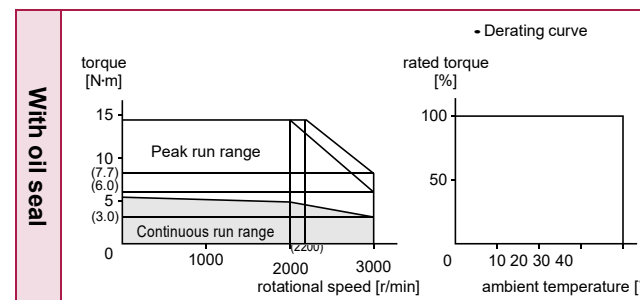
Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

**• Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.58.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type". Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.180	—	—	P.180	—
Encoder connector Small size (JN2) type	—	P.181	—	—	P.181	—

**<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MDMF152L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MDDL55SF</b>
	RS485 communication type <sup>2)</sup>	<b>MDDL55SG</b>
	Basic type <sup>2)</sup>	<b>MDDL55SE</b>
	Frame symbol	D-frame
Power supply capacity	(kVA)	2.9
Rated output	(W)	1500
Rated torque	(N·m)	7.16
Continuous stall torque	(N·m)	7.52
Momentary Max. peak torque	(N·m)	21.5
Rated current	(A(rms))	8.0
Max. current	(A(o-p))	34
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4284	No limit Note)2
Rated rotational speed	(r/min)	2000
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	9.16
	With brake	10.4
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
 (This brake will be released when it is energized.)  
 (Do not use this for braking the motor in motion.)

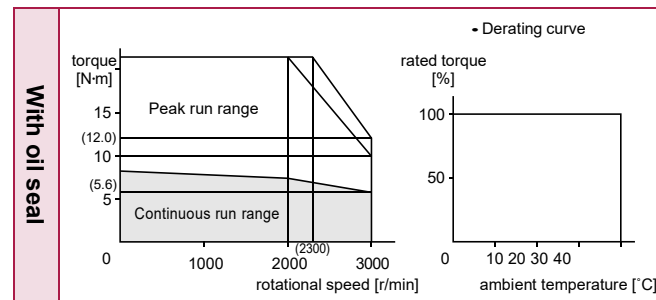
Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.58.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.181	—	—	P.182	—
Encoder connector Small size (JN2) type	—	P.182	—	—	P.182	—

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MDMF202L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MEDLT83SF</b>
	RS485 communication type <sup>2)</sup>	<b>MEDLN83SG</b>
	Basic type <sup>2)</sup>	<b>MEDLN83SE</b>
	Frame symbol	E-frame
Power supply capacity	(kVA)	3.8
Rated output	(W)	2000
Rated torque	(N·m)	9.55
Continuous stall torque	(N·m)	10.0
Momentary Max. peak torque	(N·m)	28.6
Rated current	(A(rms))	9.9
Max. current	(A(o-p))	42
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4285	No limit Note)2
Rated rotational speed	(r/min)	2000
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	12.1
	With brake	13.3
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
 (This brake will be released when it is energized.)  
 (Do not use this for braking the motor in motion.)

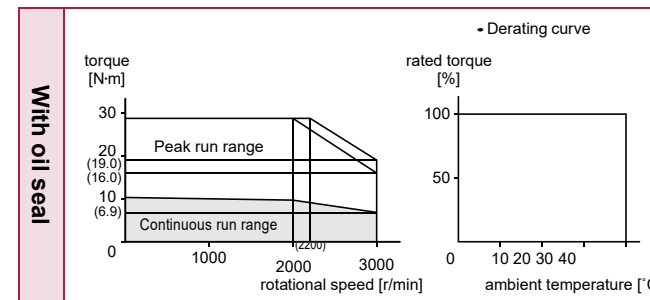
Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.183	—	—	P.183	—
Encoder connector Small size (JN2) type	—	P.183	—	—	P.184	—

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MDMF302L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MFDLTA3SF</b>
	RS485 communication type <sup>2)</sup>	<b>MFDLNA3SG</b>
	Basic type <sup>2)</sup>	<b>MFDLNA3SE</b>
	Frame symbol	F-frame
Power supply capacity	(kVA)	5.2
Rated output	(W)	3000
Rated torque	(N·m)	14.3
Continuous stall torque	(N·m)	15.0
Momentary Max. peak torque	(N·m)	43.0
Rated current	(A(rms))	16.4
Max. current	(A(o-p))	70
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4285×2	No limit Note)2
Rated rotational speed	(r/min)	2000
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	18.6
	With brake	19.6
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

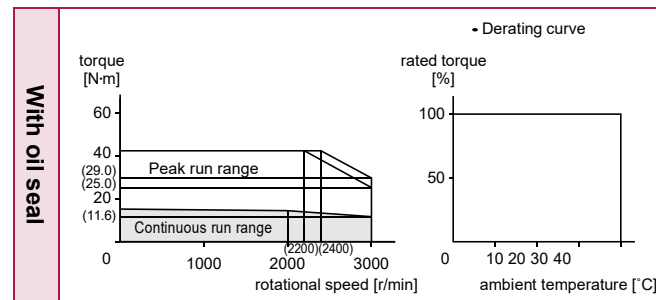
Static friction torque (N·m)	22.0 or more
Engaging time (ms)	110 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.90
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.184	—	—	P.184	—
Encoder connector Small size (JN2) type	—	P.185	—	—	P.185	—

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MDMF402L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MFDLTB3SF</b>
	RS485 communication type <sup>2)</sup>	<b>MFDLNB3SG</b>
	Basic type <sup>2)</sup>	<b>MFDLNB3SE</b>
	Frame symbol	F-frame
Power supply capacity	(kVA)	6.5
Rated output	(W)	4000
Rated torque	(N·m)	19.1
Continuous stall torque	(N·m)	22.0
Momentary Max. peak torque	(N·m)	57.3
Rated current	(A(rms))	20.0
Max. current	(A(o-p))	85
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4285×2	No limit Note)2
Rated rotational speed	(r/min)	2000
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	46.9
	With brake	52.3
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

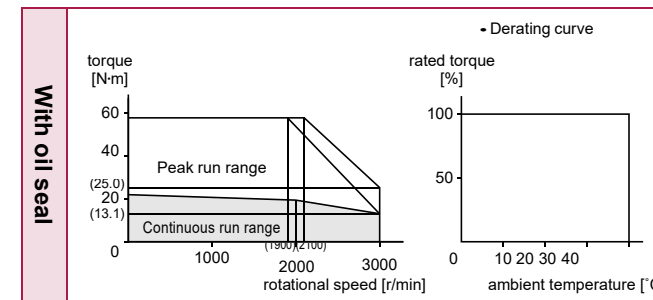
Static friction torque (N·m)	25.0 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.29
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.185	—	—	P.186	—
Encoder connector Small size (JN2) type	—	P.186	—	—	P.186	—

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MDMF502L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MFDLTB3SF</b>
	RS485 communication type <sup>2)</sup>	<b>MFDLNB3SG</b>
	Basic type <sup>2)</sup>	<b>MFDLNB3SE</b>
	Frame symbol	F-frame
Power supply capacity	(kVA)	7.8
Rated output	(W)	5000
Rated torque	(N·m)	23.9
Continuous stall torque	(N·m)	26.3
Momentary Max. peak torque	(N·m)	71.6
Rated current	(A(rms))	23.3
Max. current	(A(o-p))	99
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4285×2	No limit Note)2
Rated rotational speed	(r/min)	2000
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	58.2
	With brake	63.0
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
 (This brake will be released when it is energized.)  
 (Do not use this for braking the motor in motion.)

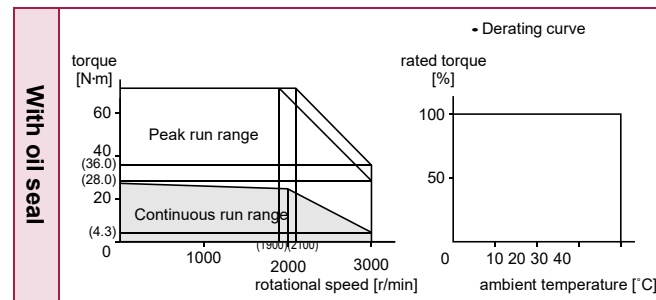
Static friction torque (N·m)	44.1 or more
Engaging time (ms)	150 or less
Releasing time (ms) Note)4	30 or less
Exciting current (DC) (A)	1.29
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.187	—	—	P.187	—
Encoder connector Small size (JN2) type	—	P.187	—	—	P.188	—

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MDMF752L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MGDLTC3SF</b>
	RS485 communication type <sup>2)</sup>	—
	Basic type <sup>2)</sup>	—
	Frame symbol	G-frame
Power supply capacity	(kVA)	11
Rated output	(W)	7500
Rated torque	(N·m)	47.8
Continuous stall torque	(N·m)	47.8
Momentary Max. peak torque	(N·m)	125
Rated current	(A(rms))	40.2
Max. current	(A(o-p))	154
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4285×3	No limit Note)2
Rated rotational speed	(r/min)	1500
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	122
	With brake	127
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
 (This brake will be released when it is energized.)  
 (Do not use this for braking the motor in motion.)

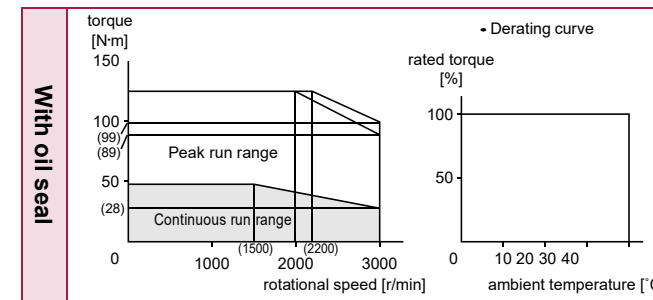
Static friction torque (N·m)	63.0 or more
Engaging time (ms)	200 or less
Releasing time (ms) Note)4	80 or less
Exciting current (DC) (A)	1.29
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	15 or less

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.60.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.188	—	—	P.188	—
Encoder connector Small size (JN2) type	—	P.189	—	—	P.189	—

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MDMFC12L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MHDLTE3SF</b>
	RS485 communication type <sup>2)</sup>	—
	Basic type <sup>2)</sup>	—
	Frame symbol	H-frame
Power supply capacity	(kVA)	15
Rated output	(W)	11000
Rated torque	(N·m)	70.0
Continuous stall torque	(N·m)	70.0
Momentary Max. peak torque	(N·m)	175
Rated current	(A(rms))	57.1
Max. current	(A(o-p))	209
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4285×6	No limit Note)2
Rated rotational speed	(r/min)	1500
Max. rotational speed	(r/min)	2000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	205
	With brake	214
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

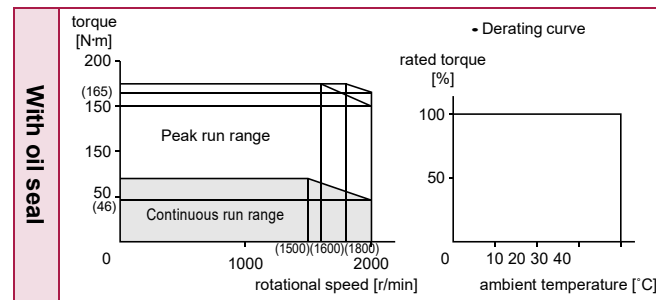
Static friction torque (N·m)	100 or more
Engaging time (ms)	300 or less
Releasing time (ms) Note)4	140 or less
Exciting current (DC) (A)	1.08
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	15 or less

• **Permissible load** (For details, refer to P.304)

During assembly	Radial load P-direction (N)	4508
	Thrust load A-direction (N)	1470
	Thrust load B-direction (N)	2646
During operation	Radial load P-direction (N)	2254
	Thrust load A, B-direction (N)	686

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.61.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.189	—	—	P.190	—
Encoder connector Small size (JN2) type	—	P.190	—	—	P.190	—

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MDMFC52L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MHDLTE3SF</b>
	RS485 communication type <sup>2)</sup>	—
	Basic type <sup>2)</sup>	—
	Frame symbol	H-frame
Power supply capacity	(kVA)	20
Rated output	(W)	15000
Rated torque	(N·m)	95.5
Continuous stall torque	(N·m)	95.5
Momentary Max. peak torque	(N·m)	224
Rated current	(A(rms))	65.8
Max. current	(A(o-p))	225
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4285×6	No limit Note)2
Rated rotational speed	(r/min)	1500
Max. rotational speed	(r/min)	2000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	280
	With brake	289
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

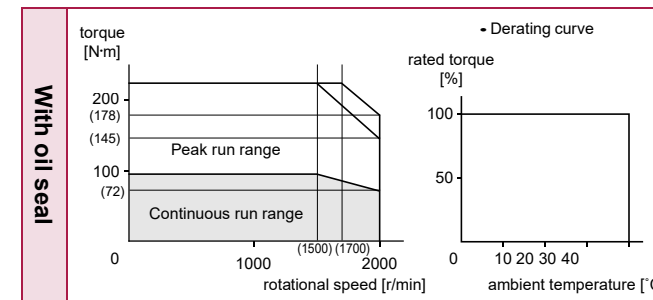
Static friction torque (N·m)	100 or more
Engaging time (ms)	300 or less
Releasing time (ms) Note)4	140 or less
Exciting current (DC) (A)	1.08
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	15 or less

• **Permissible load** (For details, refer to P.304)

During assembly	Radial load P-direction (N)	4508
	Thrust load A-direction (N)	1470
	Thrust load B-direction (N)	2646
During operation	Radial load P-direction (N)	2254
	Thrust load A, B-direction (N)	686

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.61.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.191	—	—	P.191	—
Encoder connector Small size (JN2) type	—	P.191	—	—	P.192	—

<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**

		AC200 V
Motor model <sup>1)</sup>	IP44	<b>MDMFD22L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MHDLTF3SF</b>
		RS485 communication type <sup>2)</sup> —
		Basic type <sup>2)</sup> —
	Frame symbol	H-frame
Power supply capacity	(kVA)	28
Rated output	(W)	22000
Rated torque	(N·m)	140
Continuous stall torque	(N·m)	140
Momentary Max. peak torque	(N·m)	350
Rated current	(A(rms))	80.9
Max. current	(A(o-p))	294
Regenerative brake frequency (times/min) <sup>Note)1</sup>	Without option	No limit <sup>Note)2</sup>
	DV0P4285×6	No limit <sup>Note)2</sup>
Rated rotational speed	(r/min)	1500
Max. rotational speed	(r/min)	2000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	431
	With brake	455
Recommended moment of inertia ratio of the load and the rotor <sup>Note)3</sup>		10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

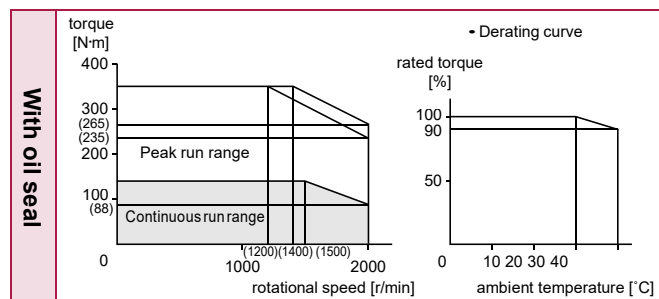
Static friction torque (N·m)	200 or more
Engaging time (ms)	300 or less
Releasing time (ms) <sup>Note)4</sup>	150 or less
Exciting current (DC) (A)	1.72
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	15 or less

• **Permissible load** (For details, refer to P.304)

During assembly	Radial load P-direction (N)	4508
	Thrust load A-direction (N)	1470
	Thrust load B-direction (N)	2646
During operation	Radial load P-direction (N)	2254
	Thrust load A, B-direction (N)	686

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.61.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.192	—	—	P.192	—
Encoder connector Small size (JN2) type	—	P.193	—	—	P.193	—

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MGMF092L1</b> □□
Applicable driver	Model No.	Multifunction type <b>MDDL45SF</b>
		RS485 communication type <sup>2)</sup> <b>MDDL45SG</b>
		Basic type <sup>2)</sup> <b>MDDL45SE</b>
	Frame symbol	D-frame
Power supply capacity	(kVA)	2.0
Rated output	(W)	850
Rated torque	(N·m)	5.41
Continuous stall torque	(N·m)	5.41
Momentary Max. peak torque	(N·m)	14.3
Rated current	(A(rms))	5.9
Max. current	(A(o-p))	22
Regenerative brake frequency (times/min) <sup>Note)1</sup>	Without option	No limit <sup>Note)2</sup>
	DV0P4284	No limit <sup>Note)2</sup>
Rated rotational speed	(r/min)	1500
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	6.18
	With brake	7.40
Recommended moment of inertia ratio of the load and the rotor <sup>Note)3</sup>		10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

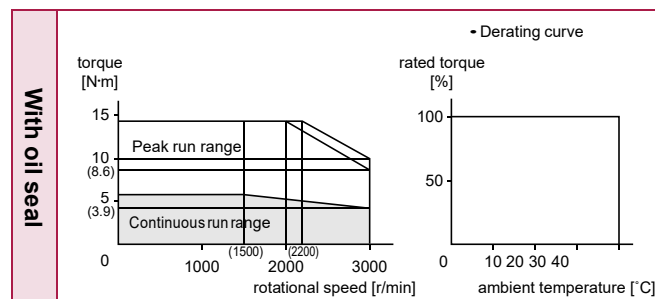
Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) <sup>Note)4</sup>	50 or less
Exciting current (DC) (A)	0.79
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.58.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.193	—	—	P.194	—
Encoder connector Small size (JN2) type	—	P.194	—	—	P.194	—

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MGMF132L1□□</b>
Applicable driver	Model No.	Multifunction type <b>MDDL T55SF</b>
		RS485 communication type <sup>2)</sup> <b>MDDL N55SG</b>
		Basic type <sup>2)</sup> <b>MDDL N55SE</b>
	Frame symbol	D-frame
Power supply capacity	(kVA)	2.6
Rated output	(W)	1300
Rated torque	(N·m)	8.28
Continuous stall torque	(N·m)	8.28
Momentary Max. peak torque	(N·m)	23.3
Rated current	(A(rms))	9.3
Max. current	(A(o-p))	37
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4284	No limit Note)2
Rated rotational speed	(r/min)	1500
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	9.16
	With brake	10.4
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

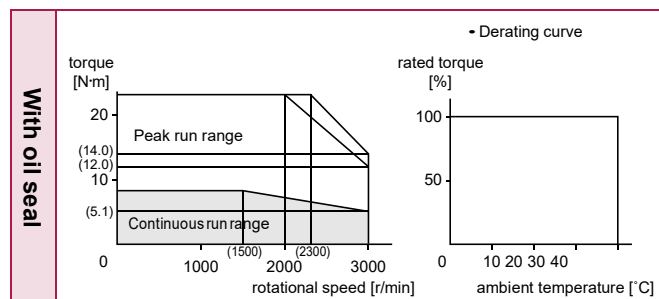
Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.58.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.195		—	P.195	
Encoder connector Small size (JN2) type	—	P.195		—	P.196	

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MGMF182L1□□</b>
Applicable driver	Model No.	Multifunction type <b>MEDLT83SF</b>
		RS485 communication type <sup>2)</sup> <b>MEDLN83SG</b>
		Basic type <sup>2)</sup> <b>MEDLN83SE</b>
	Frame symbol	E-frame
Power supply capacity	(kVA)	3.4
Rated output	(W)	1800
Rated torque	(N·m)	11.5
Continuous stall torque	(N·m)	11.5
Momentary Max. peak torque	(N·m)	28.7
Rated current	(A(rms))	11.8
Max. current	(A(o-p))	42
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4285×2	No limit Note)2
Rated rotational speed	(r/min)	1500
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	12.1
	With brake	13.3
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

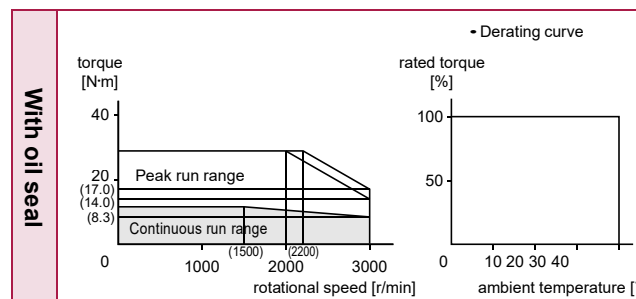
Static friction torque (N·m)	13.7 or more
Engaging time (ms)	100 or less
Releasing time (ms) Note)4	50 or less
Exciting current (DC) (A)	0.79
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.196		—	P.196	
Encoder connector Small size (JN2) type	—	P.197		—	P.197	

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MGMF242L1□□</b>
Applicable driver	Model No.	Multifunction type <b>MEDLT93SF</b>
		RS485 communication type <sup>2)</sup> <b>MEDLN93SG</b>
		Basic type <sup>2)</sup> <b>MEDLN93SE</b>
	Frame symbol	E-frame
Power supply capacity	(kVA)	4.5
Rated output	(W)	2400
Rated torque	(N·m)	15.3
Continuous stall torque	(N·m)	15.3
Momentary Max. peak torque	(N·m)	45.2
Rated current	(A(rms))	16.0
Max. current	(A(o-p))	67
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4285×2	No limit Note)2
Rated rotational speed	(r/min)	1500
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	46.9
	With brake	52.3
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

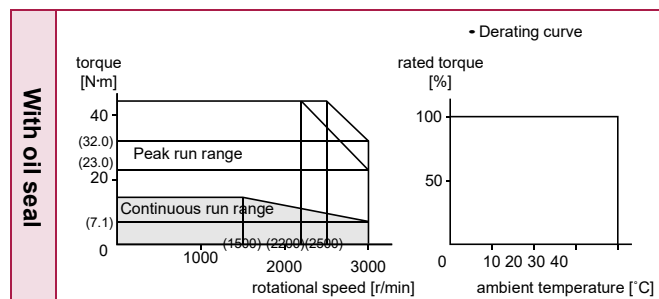
Static friction torque (N·m)	25.0 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.29
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.197		—	P.198	
Encoder connector Small size (JN2) type	—	P.198		—	P.198	

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MGMF292L1□□</b>
Applicable driver	Model No.	Multifunction type <b>MFDLTB3SF</b>
		RS485 communication type <sup>2)</sup> <b>MFDLNB3SG</b>
		Basic type <sup>2)</sup> <b>MFDLNB3SE</b>
	Frame symbol	F-frame
Power supply capacity	(kVA)	5.0
Rated output	(W)	2900
Rated torque	(N·m)	18.5
Continuous stall torque	(N·m)	18.5
Momentary Max. peak torque	(N·m)	45.2
Rated current	(A(rms))	19.3
Max. current	(A(o-p))	67
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4285×2	No limit Note)2
Rated rotational speed	(r/min)	1500
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	46.9
	With brake	52.3
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

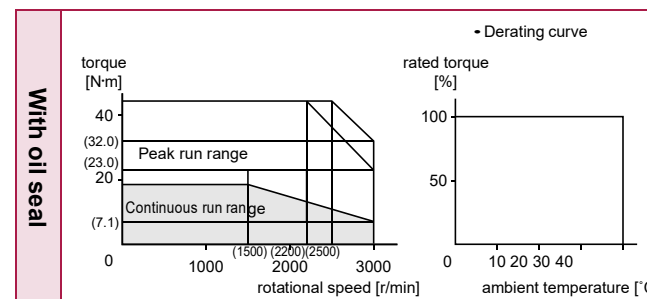
Static friction torque (N·m)	25.0 or more
Engaging time (ms)	80 or less
Releasing time (ms) Note)4	25 or less
Exciting current (DC) (A)	1.29
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.199		—	P.199	
Encoder connector Small size (JN2) type	—	P.199		—	P.200	

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MGMF442L1□□</b>
Applicable driver	Model No.	Multifunction type <b>MFDLTB3SF</b>
		RS485 communication type <sup>2)</sup> <b>MFDLNB3SG</b>
		Basic type <sup>2)</sup> <b>MFDLNB3SE</b>
	Frame symbol	F-frame
Power supply capacity	(kVA)	7.0
Rated output	(W)	4400
Rated torque	(N·m)	28.0
Continuous stall torque	(N·m)	28.0
Momentary Max. peak torque	(N·m)	70.0
Rated current	(A(rms))	27.2
Max. current	(A(o-p))	96
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4285×2	No limit Note)2
Rated rotational speed	(r/min)	1500
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	58.2
	With brake	63.0
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

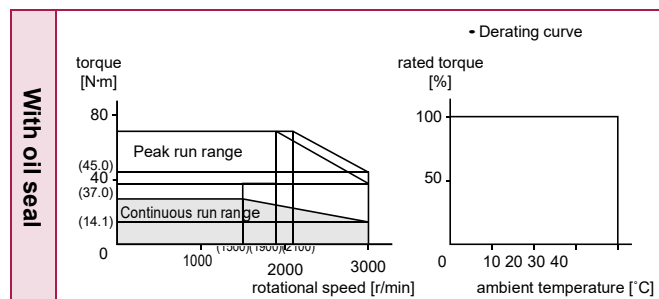
Static friction torque (N·m)	44.1 or more
Engaging time (ms)	150 or less
Releasing time (ms) Note)4	30 or less
Exciting current (DC) (A)	1.29
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	24±2.4

• **Permissible load** (For details, refer to P.304)

During assembly	Radial load P-direction (N)	1666
	Thrust load A-direction (N)	784
	Thrust load B-direction (N)	980
During operation	Radial load P-direction (N)	1470
	Thrust load A, B-direction (N)	490

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.59.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Key way shaft/ Round shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.200		—	P.200	
Encoder connector Small size (JN2) type	—	P.201		—	P.201	

<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**

		AC200 V
Motor model <sup>1)</sup>	IP67	<b>MGMF552L1□□</b>
Applicable driver	Model No.	Multifunction type <b>MGDLTC3SF</b>
		RS485 communication type <sup>2)</sup> —
		Basic type <sup>2)</sup> —
	Frame symbol	G-frame
Power supply capacity	(kVA)	8.5
Rated output	(W)	5500
Rated torque	(N·m)	35.0
Continuous stall torque	(N·m)	35.0
Momentary Max. peak torque	(N·m)	102
Rated current	(A(rms))	39.8
Max. current	(A(o-p))	164
Regenerative brake frequency (times/min) Note)1	Without option	No limit Note)2
	DV0P4285×3	No limit Note)2
Rated rotational speed	(r/min)	1500
Max. rotational speed	(r/min)	3000
Moment of inertia of rotor (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Without brake	83.0
	With brake	88.0
Recommended moment of inertia ratio of the load and the rotor	Note)3	10 times or less
Rotary encoder specifications <sup>3)</sup>		23-bit Absolute
	Resolution per single turn	8388608

• **Brake specifications** (For details, refer to P.305)  
(This brake will be released when it is energized.)  
(Do not use this for braking the motor in motion.)

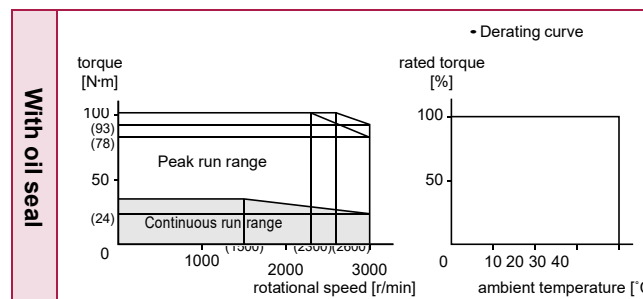
Static friction torque (N·m)	63.0 or more
Engaging time (ms)	200 or less
Releasing time (ms) Note)4	80 or less
Exciting current (DC) (A)	1.29
Releasing voltage (DC) (V)	2 or more
Exciting voltage (DC) (V)	15 or less

• **Permissible load** (For details, refer to P.304)

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

- For details of Note)1 to Note)4, refer to P.303.
- Dimensions of Driver, refer to P.60.
- \*1 □□ in the motor part number represents the motor specifications.
- \*2 Basic type and RS485 communication type are "Position control type".  
Detail of model designation, refer to P.22.
- \*3 When using a rotary encoder as an incremental system (not using multi-turn data), do not connect a battery for absolute encoder.

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



**Dimensions**

Motor specifications	Round shaft/ Key way, center tap shaft					
	without brake			with brake		
	without oil seal	with oil seal	with protective lip/ with oil seal	without oil seal	with oil seal	with protective lip/ with oil seal
Encoder connector Large size (JL10) type	—	P.201	—	—	P.202	—
Encoder connector Small size (JN2) type	—	P.202	—	—	P.202	—

<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.