

RM Series AC Servo Motor Selection Guide



A&TS TECHNOLOGY CORPORATION LIMITED

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The information provided in this publication will be updated regularly, and any necessary corrections will be implemented in subsequent releases. Suggestions for improvement are welcome at any time.

Version	Product	Release Date	Note
V-20-01	RT Motor	01.06.2020	N/A
V-22-01	RT Motor	14.10.2022	N/A
V-23-03	RT Motor	10.05.2023	N/A
V-26-01	RM Motor	19.01.2026	N/A

Forward

The RT series AC servo system is provided by the A&TS Technology Corporation Limited in China.

To have a thorough understanding, please read this guide carefully and follow all safety precautions before moving, installing, operating and maintaining the servo. It doesn't include all the security matters or considerations.

Local laws and regulations

All the local laws, regulations, and codes of practice should be obeyed first, besides the instructions in the guide.

Disclaimer of liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

Thank you for choosing A&TS.

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Safety Precautions

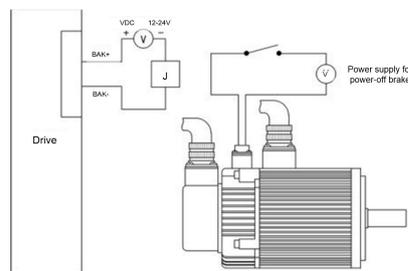
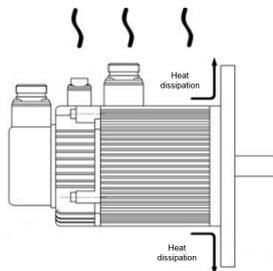
General precautions

When installing, operating, and maintaining the RT series ac servo, please follow all the safety instructions in this guide and the RT Series AC Servo Drive User Manual both, especially where there is safety symbols. All the safety symbols are the tips to the safety precautions. It doesn't include all the security matters or considerations.

Basic installation requirement

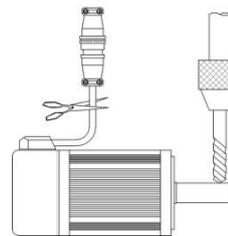
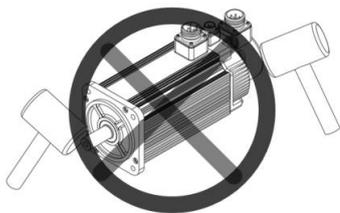
- Only qualified or strictly trained engineers are allowed to install, operate and maintain equipment.
- Only qualified professionals are allowed to dismantle devices and repair equipment.
- Replacing or changing hardware & software must be carried out by the authorized engineers.
- The operator shall report the failure or error to the person in charge in time promptly.

INSTALLATION ATTENTIONS



The servo motor adopts natural self-cooling heat dissipation. Please select a large enough mounting board when installing. The servo motor works for a long time, and the body itself will have a certain temperature, which is normal.

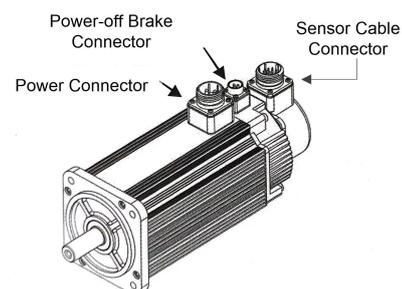
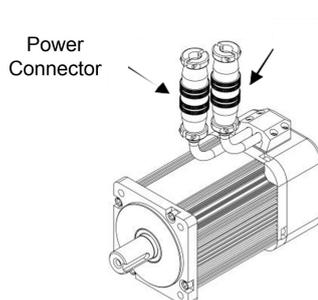
For a servo motor with a power-off brake, the power supply of the brake must be controlled by the servo drive. Otherwise it will cause a poor working state.



The servo motor is equipped with precise feedback components. It is strictly forbidden to vigorously hit the motor shaft extension and rear. Please pay attention to the maximum diameter and axial force limits of the motor shaft extension.

It is strictly prohibited to modify, disassemble and process motor parts arbitrarily. Please send us your needs and we will be at your service.

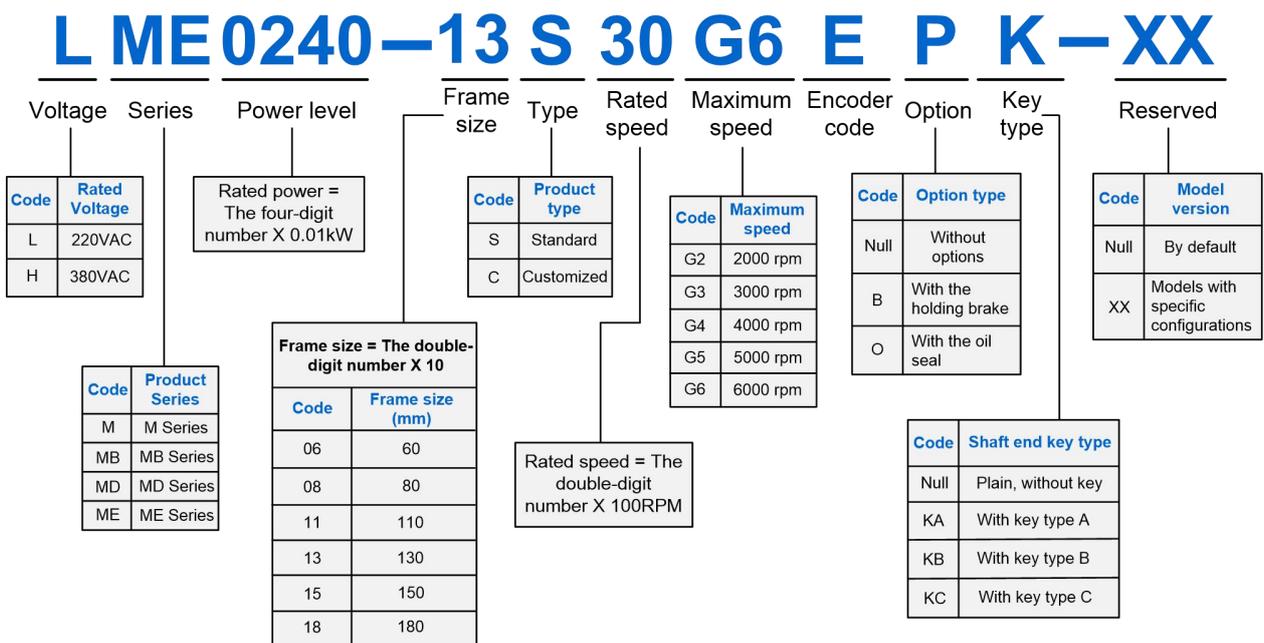
MOTOR CONNECTOR



Encoder Code

- I, INCREMENTAL ENCODER (2500C/T) I1, ABZ INCREMENTAL ENCODER (2500C/T)
- I2, INCREMENTAL ENCODER (5000C/T)
- A, TAMAGAWA ABSOLUTE ENCODER (17bit/33bit)
- A1, TAMAGAWA ABSOLUTE ENCODER (23bit/39bit)
- M, MAGNETIC ENCODER

RM series Servo Motor Order Number



LM Series Servo Motor

FEATURES

ITEM	DESCRIPTION
FRAME SIZE (mm)	110, 130, 150
RATED SPEED (rpm)	1500, 2000, 2500, 3000
POWER OFF BRAKE	Optional
INSULATION GRADE	B
INSTALLATION METHOD	FLANGE
ENVIRONMENT TEMPERATURE	0-55°C
RATED TORQUE (Nm)	2.0-27.0
RATED POWER (kW)	0.6-5.5

POLE PAIRS	4
PROTECTION CLASS	IP65
DRIVE WORKING VOLTAGE (VAC)	220
ENVIRONMENT HUMIDITY	< 90% (No condensation)

LM Series Motor List

MOTOR MODEL	TECHNICAL SPECIFICATIONS			
	RATED POWER	RATED SPEED	RATED CURRENT	RATED TORQUE
LM0060-11S30□	0.6 kW	3000 rpm	4.0 A	2.0 Nm
LM0120-11S30□	1.2 kW	3000 rpm	5.0 A	4.0 Nm
LM0150-11S30□	1.5 kW	3000 rpm	6.0 A	5.0 Nm
LM0120-11S20□	1.2 kW	2000 rpm	6.0 A	6.0 Nm
LM0180-11S30□	1.8 kW	3000 rpm	8.0 A	6.0 Nm
LM0100-13S25□	1.0 kW	2500 rpm	4.0 A	4.0 Nm
LM0130-13S25□	1.3 kW	2500 rpm	5.0 A	5.0 Nm
LM0150-13S25□	1.5 kW	2500 rpm	6.0 A	6.0 Nm
LM0160-13S20□	1.6 kW	2000 rpm	6.0 A	7.7 Nm
LM0200-13S25□	2.0 kW	2500 rpm	7.5 A	7.7 Nm
LM0240-13S30□	2.4 kW	3000 rpm	9.0 A	7.7 Nm
LM0150-13S15□	1.5 kW	1500 rpm	6.0 A	10.0 Nm
LM0260-13S25□	2.6 kW	2500 rpm	10.0 A	10.0 Nm
LM0230-13S15□	2.3 kW	1500 rpm	9.5 A	15.0 Nm
LM0380-13S25□	3.8 kW	2500 rpm	17.0 A	15.0 Nm
LM0390-15S25□	3.9 kW	2500 rpm	16.5 A	15.0 Nm
LM0360-15S20□	3.6 kW	2000 rpm	16.5 A	18.0 Nm
LM0470-15S20□	4.7 kW	2000 rpm	20.5 A	23.0 Nm
LM0550-15S20□	5.5 kW	2000 rpm	20.5 A	27.0 Nm

□ Encoder code

LMD Series Servo Motor

FEATURES

ITEM	DESCRIPTION
FRAME SIZE (mm)	110, 130
RATED SPEED (rpm)	1500, 2000, 2500, 3000
POWER OFF BRAKE	Optional
INSULATION GRADE	F
INSTALLATION METHOD	FLANGE
ENVIRONMENT TEMPERATURE	0-55°C
RATED TORQUE (Nm)	4.2-17.8
MAXIMUM SPEED (rpm)	2000, 3000, 4000
RATED POWER (kW)	0.65-3.1
POLE PAIRS	5
PROTECTION CLASS	IP67
DRIVE WORKING VOLTAGE (VAC)	220
ENVIRONMENT HUMIDITY	< 90% (No condensation)

LMD Series Motor List

MOTOR MODEL	TECHNICAL SPECIFICATIONS				
	RATED POWER	RATED SPEED	MAX SPEED	RATED CURRENT	RATED TORQUE
LMD0088-11S20G3□	0.88 kW	2000 rpm	3000 rpm	4.7 A	4.2 Nm
LMD0130-11S30G4□	1.3 kW	3000 rpm	4000 rpm	7.1 A	4.2 Nm
LMD0110-11S20G3□	1.1 kW	2000 rpm	3000 rpm	6.0 A	5.4 Nm
LMD0170-11S30G4□	1.7 kW	3000 rpm	4000 rpm	9.0 A	5.4 Nm
LMD0130-11S20G3□	1.3 kW	2000 rpm	3000 rpm	7.0 A	6.4 Nm
LMD0170-11S25G4□	1.7 kW	2500 rpm	4000 rpm	9.5 A	6.4 Nm
LMD0200-11S30G4□	2.0 kW	3000 rpm	4000 rpm	10.5 A	6.4 Nm
LMD0160-11S20G3□	1.6 kW	2000 rpm	3000 rpm	9.0 A	7.5 Nm
LMD0230-11S30G4□	2.3 kW	3000 rpm	4000 rpm	11.0 A	7.5 Nm
LMD0066-13S15G3□	0.66 kW	1500 rpm	3000 rpm	5.2 A	4.2 Nm

LMD0130-13S30G4□	1.3 kW	3000 rpm	4000 rpm	7.0 A	4.2 Nm
LMD0085-13S15G3□	0.85 kW	1500 rpm	3000 rpm	6.5 A	5.4 Nm
LMD0170-13S30G4□	1.7 kW	3000 rpm	4000 rpm	9.5 A	5.4 Nm
LMD0100-13S15G3□	1.0 kW	1500 rpm	3000 rpm	8.0 A	6.4 Nm
LMD0200-13S30G4□	2.0 kW	3000 rpm	4000 rpm	11.5 A	6.4 Nm
LMD0120-13S15G3□	1.2 kW	1500 rpm	3000 rpm	9.0 A	7.5 Nm
LMD0240-13S30G4□	2.4 kW	3000 rpm	4000 rpm	12.0 A	7.5 Nm
LMD0130-13S15G3□	1.3 kW	1500 rpm	3000 rpm	9.5 A	8.4 Nm
LMD0260-13S30G4□	2.6 kW	3000 rpm	4000 rpm	13.5 A	8.4 Nm
LMD0150-13S15G3□	1.5 kW	1500 rpm	3000 rpm	11.0 A	9.6 Nm
LMD0250-13S25G4□	2.5 kW	2500 rpm	4000 rpm	16.0 A	9.6 Nm
LMD0180-13S15G3□	1.8 kW	1500 rpm	3000 rpm	12.5 A	11.5 Nm
LMD0240-13S20G4□	2.4 kW	2000 rpm	4000 rpm	17.8 A	11.5 Nm
LMD0230-13S15G2□	2.3 kW	1500 rpm	2000 rpm	11.0 A	14.6 Nm
LMD0230-13S15G3□	2.3 kW	1500 rpm	3000 rpm	16.0 A	14.6 Nm
LMD0310-13S20G4□	3.1 kW	2000 rpm	4000 rpm	23.0 A	14.6 Nm
LMD0280-13S15G2□	2.8 kW	1500 rpm	2000 rpm	19.0 A	17.8 Nm

□ Encoder code

LME Series Servo Motor

FEATURES

ITEM	DESCRIPTION
FRAME SIZE (mm)	60, 80
RATED SPEED (rpm)	3000
POWER OFF BRAKE	Optional
INSULATION GRADE	F
INSTALLATION METHOD	FLANGE
ENVIRONMENT TEMPERATURE	0-55°C
RATED TORQUE (Nm)	0.32-4.0

MAXIMUM SPEED (rpm)	6000
RATED POWER (kW)	0.1-1.3
POLE PAIRS	5
PROTECTION CLASS	IP67
DRIVE WORKING VOLTAGE (VAC)	220
ENVIRONMENT HUMIDITY	< 90% (No condensation)

LME Series Motor List

MOTOR MODEL	TECHNICAL SPECIFICATIONS				
	RATED POWER	RATED SPEED	MAX SPEED	RATED CURRENT	RATED TORQUE
LME0010-06S30G6□	0.1 kW	3000 rpm	6000 rpm	0.8 A	0.32 Nm
LME0020-06S30G6□	0.2 kW	3000 rpm	6000 rpm	1.3 A	0.64 Nm
LME0040-06S30G6□	0.4 kW	3000 rpm	6000 rpm	2.3 A	1.27 Nm
LME0055-06S30G6□	0.55 kW	3000 rpm	6000 rpm	3.9 A	1.75 Nm
LME0040-08S30G6□	0.4 kW	3000 rpm	6000 rpm	2.5 A	1.3 Nm
LME0075-08S30G6□	0.75 kW	3000 rpm	6000 rpm	4.5 A	2.4 Nm
LME0100-08S30G6□	1.0 kW	3000 rpm	6000 rpm	6.0 A	3.3 Nm
LME0130-08S30G6□	1.3 kW	3000 rpm	6000 rpm	7.3 A	4.0 Nm

□ Encoder code

HM Series Servo Motor

FEATURES

ITEM	DESCRIPTION
FRAME SIZE (mm)	110, 130, 150
RATED SPEED (rpm)	1500, 2000, 2500, 3000
POWER OFF BRAKE	Optional
INSULATION GRADE	B
INSTALLATION METHOD	FLANGE
ENVIRONMENT TEMPERATURE	0-55°C

RATED TORQUE (Nm)	2.0-27.0
RATED POWER (kW)	0.6-5.5
POLE PAIRS	4
PROTECTION CLASS	IP65
DRIVE WORKING VOLTAGE (VAC)	380
ENVIRONMENT HUMIDITY	< 90% (No condensation)

HM Series Motor List

MOTOR MODEL	TECHNICAL SPECIFICATIONS			
	RATED POWER	RATED SPEED	RATED CURRENT	RATED TORQUE
HM0060-11S30□	0.6 kW	3000 rpm	3.0 A	2.0 Nm
HM0120-11S30□	1.2 kW	3000 rpm	4.0 A	4.0 Nm
HM0150-11S30□	1.5 kW	3000 rpm	4.5 A	5.0 Nm
HM0120-11S20□	1.2 kW	2000 rpm	3.5 A	6.0 Nm
HM0160-11S30□	1.6 kW	3000 rpm	5.0 A	6.0 Nm
HM0100-13S25□	1.0 kW	2500 rpm	3.0 A	4.0 Nm
HM0100-13S20□	1.0 kW	2000 rpm	3.0 A	5.0 Nm
HM0130-13S25□	1.3 kW	2500 rpm	3.5 A	5.0 Nm
HM0150-13S25□	1.5 kW	2500 rpm	4.5 A	6.0 Nm
HM0160-13S20□	1.6 kW	2000 rpm	4.0 A	7.7 Nm
HM0200-13S25□	2.0 kW	2500 rpm	5.5 A	7.7 Nm
HM0240-13S30□	2.4 kW	3000 rpm	6.5 A	7.7 Nm
HM0150-13S15□	1.5 kW	1500 rpm	4.5 A	10.0 Nm
HM0260-13S25□	2.6 kW	2500 rpm	7.0 A	10.0 Nm
HM0230-13S15□	2.3 kW	1500 rpm	7.0 A	15.0 Nm
HM0380-13S25□	3.8 kW	2500 rpm	11.5 A	15.0 Nm
HM0380-15S25□	3.8 kW	2500 rpm	10.0 A	15.0 Nm
HM0360-15S20□	3.6 kW	2000 rpm	10.5 A	18.0 Nm
HM0470-15S20□	4.7 kW	2000 rpm	13.5 A	23.0 Nm
HM0550-15S20□	5.5 kW	2000 rpm	13.5 A	27.0 Nm

□ Encoder code

HMB Series Servo Motor

FEATURES

ITEM	DESCRIPTION
FRAME SIZE (mm)	150
RATED SPEED (rpm)	1500, 2000
POWER OFF BRAKE	Optional
INSULATION GRADE	B
INSTALLATION METHOD	FLANGE
ENVIRONMENT TEMPERATURE	0-55°C
RATED TORQUE (Nm)	14.3-28.7
MAXIMUM SPEED (rpm)	3000
RATED POWER (kW)	2.3-5.5
POLE PAIRS	4
PROTECTION CLASS	IP65
DRIVE WORKING VOLTAGE (VAC)	380
ENVIRONMENT HUMIDITY	< 90% (No condensation)

HMB Series Motor List

MOTOR MODEL	TECHNICAL SPECIFICATIONS				
	RATED POWER	RATED SPEED	MAX SPEED	RATED CURRENT	RATED TORQUE
HMB0230-15S15G3□	2.3 kW	1500 rpm	3000 rpm	9.0 A	14.6 Nm
HMB0300-15S15G3□	3.0 kW	1500 rpm	3000 rpm	12.0 A	19.1 Nm
HMB0350-15S15G3□	3.5 kW	1500 rpm	3000 rpm	13.0 A	22.3 Nm
HMB0450-15S15G3□	4.5 kW	1500 rpm	3000 rpm	17.0 A	28.7 Nm
HMB0300-15S20G3□	3.0 kW	2000 rpm	3000 rpm	9.0 A	14.3 Nm
HMB0500-15S20G3□	5.0 kW	2000 rpm	3000 rpm	14.0 A	23.9 Nm
HMB0550-15S20G3□	5.5 kW	2000 rpm	3000 rpm	15.5 A	26.3 Nm

□ Encoder code

HMD Series Servo Motor

FEATURES

ITEM	DESCRIPTION
FRAME SIZE (mm)	110, 130, 180
RATED SPEED (rpm)	1500, 2000, 3000
POWER OFF BRAKE	Optional
INSULATION GRADE	F
INSTALLATION METHOD	FLANGE
ENVIRONMENT TEMPERATURE	0-55°C
RATED TORQUE (Nm)	4.2-55.0
MAXIMUM SPEED (rpm)	2000, 3000, 4000, 6000
RATED POWER (kW)	0.65-8.6
POLE PAIRS	5
PROTECTION CLASS	IP67
DRIVE WORKING VOLTAGE (VAC)	380
ENVIRONMENT HUMIDITY	< 90% (No condensation)

HMD SERIES MOTOR LIST

MOTOR MODEL	TECHNICAL SPECIFICATIONS				
	RATED POWER	RATED SPEED	MAX SPEED	RATED CURRENT	RATED TORQUE
HMD0088-11S20G3□	0.88 kW	2000 rpm	3000 rpm	2.8 A	4.2 Nm
HMD0130-11S30G4□	1.3 kW	3000 rpm	4000 rpm	4.1 A	4.2 Nm
HMD0110-11S20G3□	1.1 kW	2000 rpm	3000 rpm	3.5 A	5.4 Nm
HMD0170-11S30G4□	1.7 kW	3000 rpm	4000 rpm	5.0 A	5.4 Nm
HMD0130-11S20G3□	1.3 kW	2000 rpm	3000 rpm	4.5 A	6.4 Nm
HMD0200-11S20G4□	2.0 kW	2000 rpm	4000 rpm	5.7 A	6.4 Nm
HMD0200-11S30G4□	2.0 kW	3000 rpm	4000 rpm	6.0 A	6.4 Nm
HMD0160-11S20G3□	1.6 kW	2000 rpm	3000 rpm	5.0 A	7.5 Nm
HMD0230-11S30G4□	2.3 kW	3000 rpm	4000 rpm	6.5 A	7.5 Nm
HMD0066-13S15G3□	0.66 kW	1500 rpm	3000 rpm	3.1 A	4.2 Nm
HMD0088-13S20G4□	0.88 kW	2000 rpm	4000 rpm	3.9 A	4.2 Nm

HMD0130-13S30G4□	1.3 kW	3000 rpm	4000 rpm	3.5 A	4.2 Nm
HMD0085-13S15G3□	0.85 kW	1500 rpm	3000 rpm	3.6 A	5.4 Nm
HMD0170-13S30G4□	1.7 kW	3000 rpm	4000 rpm	5.0 A	5.4 Nm
HMD0110-13S20G4□	1.1 kW	2000 rpm	4000 rpm	5.0 A	5.4 Nm
HMD0100-13S15G3□	1.0 kW	1500 rpm	3000 rpm	4.2 A	6.4 Nm
HMD0200-13S30G4□	2.0 kW	3000 rpm	4000 rpm	5.8 A	6.4 Nm
HMD0130-13S20G4□	1.3 kW	2000 rpm	4000 rpm	5.5 A	6.4 Nm
HMD0120-13S15G3□	1.2 kW	1500 rpm	3000 rpm	4.8 A	7.5 Nm
HMD0240-13S30G4□	2.4 kW	3000 rpm	4000 rpm	6.6 A	7.5 Nm
HMD0160-13S20G4□	1.6 kW	2000 rpm	4000 rpm	6.2 A	7.5 Nm
HMD0130-13S15G3□	1.3 kW	1500 rpm	3000 rpm	5.8 A	8.4 Nm
HMD0180-13S20G4□	1.8 kW	2000 rpm	4000 rpm	6.8 A	8.4 Nm
HMD0150-13S15G3□	1.5 kW	1500 rpm	3000 rpm	6.5 A	9.6 Nm
HMD0200-13S20G4□	2.0 kW	2000 rpm	4000 rpm	8.0 A	9.6 Nm
HMD0180-13S15G3□	1.8 kW	1500 rpm	3000 rpm	8.0 A	11.5 Nm
HMD0240-13S20G4□	2.4 kW	2000 rpm	4000 rpm	9.5 A	11.5 Nm
HMD0230-13S15G3□	2.3 kW	1500 rpm	3000 rpm	9.0 A	14.6 Nm
HMD0310-13S20G4□	3.1 kW	2000 rpm	4000 rpm	13.2 A	14.6 Nm
HMD0280-13S15G2□	2.8 kW	1500 rpm	2000 rpm	8.0 A	17.8 Nm
HMD0300-13S30G6□	3.0 kW	3000 rpm	6000 rpm	10.0 A	9.8 Nm
HMD0400-13S30G6□	4.0 kW	3000 rpm	6000 rpm	13.0 A	12.6 Nm
HMD0500-13S30G6□	5.0 kW	3000 rpm	6000 rpm	16.0 A	15.8 Nm
HMD0290-18S15G3□	2.9 kW	1500 rpm	3000 rpm	11.0 A	18.6 Nm
HMD0370-18S20G4□	3.7 kW	2000 rpm	4000 rpm	14.2 A	18.6 Nm
HMD0360-18S15G3□	3.6 kW	1500 rpm	3000 rpm	13.3 A	23.0 Nm
HMD0480-18S20G4□	4.8 kW	2000 rpm	4000 rpm	18.5 A	23.0 Nm
HMD0440-18S15G3□	4.4 kW	1500 rpm	3000 rpm	16.5 A	28.0 Nm
HMD0590-18S20G4□	5.9 kW	2000 rpm	4000 rpm	22.0 A	28.0 Nm
HMD0550-18S15G3□	5.5 kW	1500 rpm	3000 rpm	20.5 A	35.0 Nm
HMD0730-18S20G4□	7.3 kW	2000 rpm	4000 rpm	27.0 A	35.0 Nm
HMD0750-18S15G3□	7.5 kW	1500 rpm	3000 rpm	27.0 A	48.0 Nm
HMD0860-18S15G3□	8.6 kW	1500 rpm	3000 rpm	31.0 A	55.0 Nm

□ Encoder code

HME Series Servo Motor

FEATURES

ITEM	DESCRIPTION
FRAME SIZE (mm)	80
RATED SPEED (rpm)	3000
POWER OFF BRAKE	Optional
INSULATION GRADE	F
INSTALLATION METHOD	FLANGE
ENVIRONMENT TEMPERATURE	0-55°C
RATED TORQUE (Nm)	1.3-4.0
MAXIMUM SPEED (rpm)	6000
RATED POWER (kW)	0.4-1.3
POLE PAIRS	5
PROTECTION CLASS	IP67
DRIVE WORKING VOLTAGE (VAC)	380
ENVIRONMENT HUMIDITY	< 90% (No condensation)

HME Series Motor List

MOTOR MODEL	TECHNICAL SPECIFICATIONS				
	RATED POWER	RATED SPEED	MAX SPEED	RATED CURRENT	RATED TORQUE
HME0040-08S30G6□	0.4 kW	3000 rpm	6000 rpm	1.6 A	1.3 Nm
HME0075-08S30G6□	0.75 kW	3000 rpm	6000 rpm	2.7 A	2.4 Nm
HME0100-08S30G6□	1.0 kW	3000 rpm	6000 rpm	3.5 A	3.33 Nm
HME0130-08S30G6□	1.3 kW	3000 rpm	6000 rpm	4.4 A	4.0 Nm

□ Encoder code



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