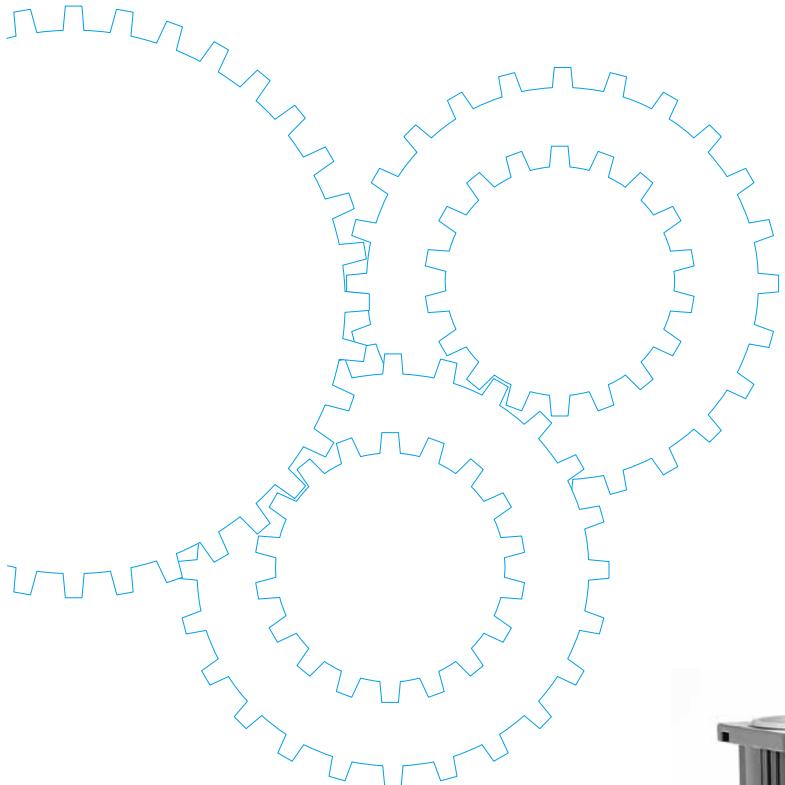


# Reversible Motor



## Contents

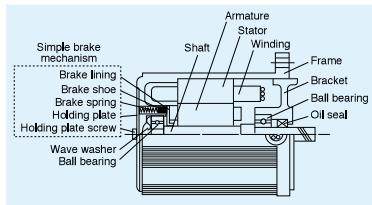
- Motor Overview B-64
- Model list B-68
- Product information for each model B-72
- Gear head combination dimensions B-120
- Round shaft motor dimensions B-123

## Outline of reversible motor

### Features

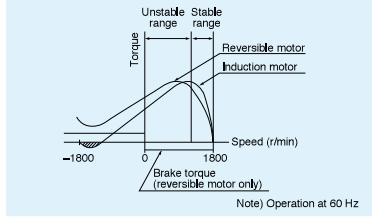
- A quick-reversal run is possible. <Single-phase motor>
  - Because of balanced winding, it offers the same performance at both normal and reverse runs.
  - The built-in simple brake mechanism makes the overrun small as compared with the induction motor, enabling a quick-reversal run.
  - The time rating is 30 minutes.
- Difference between induction motor and reversible motor: The reversible motor can make a quick-reversal run. In the case of the induction motor, even if the wire connections are changed for a reverse run, it is not possible to reverse the load instantaneously because the torque (shaded area in the figure below) acting in a direction opposite to the rotating magnetic field is produced. Therefore you need to stop the induction motor once, change the wire connections and make a reverse run.
- (Note) • Limit the frequency of reversal operation to 6 cycles per minute.  
 • If it is necessary that the frequency of reversal operation be 7 to 100 cycles per minute, use the C&B motor. (For running in one direction only)  
 • For applications that need holding, use the electromagnetic brake motor.

### Construction

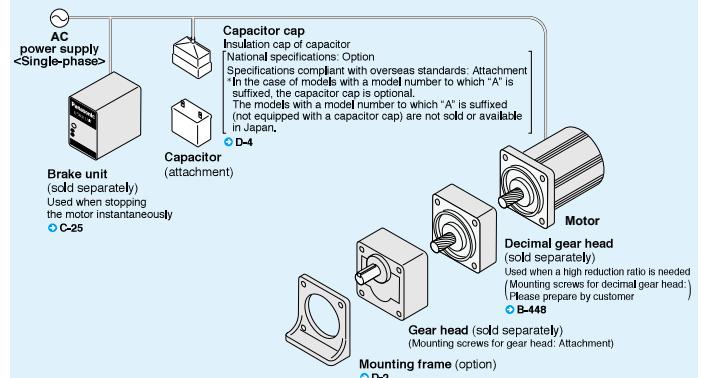


### Characteristics

#### Speed-torque characteristics



### System configuration diagram



### Coding system

M	9	R	X	40	G	4	L	G	A	
Size		Motor type	Output type	Output	Shape of shaft	Option	No. of poles	Voltage	Classification 1	Classification 2
● R : Reversible motor <Single-phase motor>				● 1 : 1 W 4 : 4 W 6 : 6 W 10 : 10 W 15 : 15 W 20 : 20 W 25 : 25 W 40 : 40 W 60 : 60 W 90 : 90 W	● 4 : 4 poles	● K : Sealed connector (Left aligned when no option is used)			● Motor with specifications compliant with overseas standards that is not equipped with a capacitor cap.	
● A : 42 mm sq. only (1.65 inch sq. only)				● G : Pinion shaft S : Round shaft				● G : Specifications compliant with overseas standards S : Round shaft (S for round shaft with national specifications only)		
X : 40 W or smaller								● Corresponding model number with overseas standards Pinion shaft	Shape of shaft classification	
Z : 60 W or larger								S : Single-phase 100 V Y : Single-phase 200 V D : Single-phase 110 V/115 V G : Single-phase 220 V/230 V	G : G S : G G : – S : S S : –	
● 4 : 42 mm sq. (1.65 inch sq.)								● Specifications compliant with overseas standards Round shaft		
6 : 60 mm sq. (2.36 inch sq.)								● National specifications Pinion shaft		
7 : 70 mm sq. (2.76 inch sq.)								● National specifications Round shaft		
8 : 80 mm sq. (3.15 inch sq.)								● National specifications Pinion shaft		
9 : 90 mm sq. (3.54 inch sq.)								● National specifications Round shaft		
								● 42 mm sq. round shaft specifications		

### Fit tolerance

Fit tolerance symbol is used in the outside dimension diagram of motor and gear head. For further information, see "Fit tolerance" on page A-33.

## Outline of reversible motor

### OVERRUN

In the case of the reversible motor, braking power is applied by the simple brake mechanism when the power is turned off. An overrun is defined as a revolution which the motor makes when the power is turned off. The overrun and brake torque (motor not loaded, reference value) of the reversible motor are shown in the table below.

#### List of overruns of reversible motor

Size	42 mm sq. (1.65 inch sq.)		60 mm sq. (2.36 inch sq.)		70 mm sq. (2.76 inch sq.)		80 mm sq. (3.15 inch sq.)		90 mm sq. (3.54 inch sq.)	
	Output 1 W	4 W	6 W	10 W	15 W	20 W	25 W	40 W	60 W	90 W
Motor model	MRA1G4L	M6RX4G4L	M6RX6G4L	M7RX10G4L	M7RX15G4L	M8RX20G4L	M8RX25G4L	M9RX40G4L	M9Z60G4L	M9Z80G4L
		M6RX4G4Y	M6RX6G4Y	M7RX10G4Y	M7RX15G4Y	M8RX20G4Y	M8RX25G4Y	M9RX40G4Y	M9Z60G4Y	M9Z80G4Y
	M6RX6G4LG(A)	M7RX10G4LG(A)	M7RX15G4LG(A)	M8RX20G4LG(A)	M8RX25G4LG(A)	M9RX40G4LG(A)	M9Z60G4LG(A)	M9Z80G4LG(A)		
	M6RX6G4DG(A)	M7RX10G4DG(A)	M7RX15G4DG(A)	M8RX20G4DG(A)	M8RX25G4DG(A)	M9RX40G4DG(A)	M9Z60G4DG(A)	M9Z80G4DG(A)		
	M6RX6G4YG(A)	M7RX10G4YG(A)	M7RX15G4YG(A)	M8RX20G4YG(A)	M8RX25G4YG(A)	M9RX40G4YG(A)	M9Z60G4YG(A)	M9Z80G4YG(A)		
	M6RX6G4GG(A)	M7RX10G4GG(A)	M7RX15G4GG(A)	M8RX20G4GG(A)	M8RX25G4GG(A)	M9RX40G4GG(A)	M9Z60G4GG(A)	M9Z80G4GG(A)		
Brake torque $\times 10^{-4}$ N·m (oz·in)	0.196 (0.28)	0.588 (0.83)	0.588 (0.83)	1.27 (1.8)	1.27 (1.8)	1.47 (2.08)	1.47 (2.08)	3.92 (5.5)	3.92 (5.5)	3.92 (5.5)
Overrun (revolution)	5.0	5.0	5.0	4.5	4.5	5.5	5.5	6.0	6.0	6.0

(Note) The simple brake mechanism of the reversible motor cannot be used for positioning.

The simple brake mechanism of the reversible motor cannot be used for holding.

The brake torque of the reversible motor varies and changes over time.

When selecting a motor, do so allowing for such variations and changes.

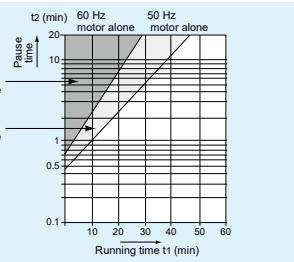
### Temperature rise of reversible motor

The reversible motor is of 30-minute rating when you run the motor alone, however, when you run it with the gear head or equipment, the continuous running time will be extended thanks to heat radiation effect. When you run the motor intermittently, the temperature rise will be saturated at a certain value depending on the cycle of intermittent running.

The limit of intermittent run of the reversible motor is shown in the table below.

#### How to read the limit of intermittent run of reversible motor

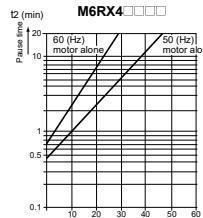
Example: M6RX4□□□□



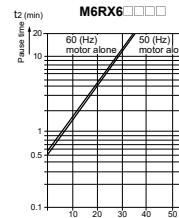
Note) You can make a continuous run with the gear head at 50 Hz and 60 Hz.

\* You can run the motor in the range above the running limit line.

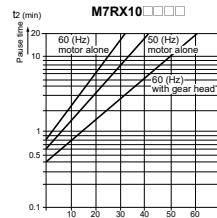
### Limit of intermittent run of reversible motor



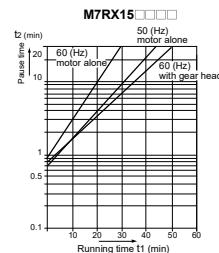
Note) You can make a continuous run with the gear head at 50 Hz and 60 Hz.



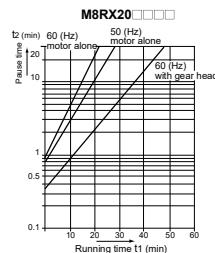
Note) You can make a continuous run with the gear head at 50 Hz and 60 Hz.



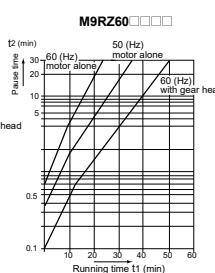
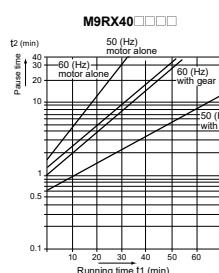
Note) You can make a continuous run with the gear head at 50 Hz.



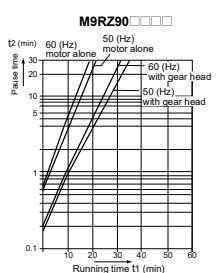
Note) You can make a continuous run with the gear head at 50 Hz.



Note) You can make a continuous run with the gear head at 50 Hz.



Note) You can make a continuous run with the gear head at 50 Hz.



## Model list of reversible motor

### Pinion shaft motor

### Applicable gear head

Size	Output (W)	Leadwire type		Sealed connector type		Model number	Specifications	Page
		Model number	Specifications	Page	Model number	Specifications	Page	
42 mm sq. (1.65 inches <sup>2</sup> )	1	MARA1G4L	100 V	B-72				
60 mm sq. (2.36 inches <sup>2</sup> )	4	M6RX4G4L	100 V	B-74				
	6	M6RX6G4L	100 V	B-76				
		MGRX6G4Y	200 V	B-76				
		M6RX6G4LG(A)	100 V	B-78				
		MGRX6G4DG(A)	110 V/115 V	B-78				
		MGRX6G4YG(A)	200 V	B-78				
70 mm sq. (2.76 inches <sup>2</sup> )	10	MTRX10G4L	100 V	B-80				
		MTRX10G4Y	200 V	B-80				
	15	MTRX15G4L	100 V	B-82				
		MTRX15G4Y	200 V	B-82				
		MTRX15G4LG(A)	100 V	B-84				
		MTRX15G4DG(A)	110 V/115 V	B-84				
		MTRX15G4YG(A)	200 V	B-84				
		MTRX15G4GG(A)	220 V/230 V	B-84				
80 mm sq. (3.15 inches <sup>2</sup> )	20	M8RX20G4L	100 V	B-86				
		M8RX20G4Y	200 V	B-86				
	25	M8RX25G4L	100 V	B-88	M8RX25GK4L	100 V	B-104	
		M8RX25G4Y	200 V	B-88	M8RX25GK4Y	200 V	B-104	
		M8RX25G4LG(A)	100 V	B-90	M8RX25GK4LG(A)	100 V	B-106	
		M8RX25G4DG(A)	110 V/115 V	B-90	M8RX25GK4DG(A)	110 V/115 V	B-106	
		M8RX25G4YG(A)	200 V	B-90	M8RX25GK4YG(A)	200 V	B-106	
90 mm sq. (3.54 inches <sup>2</sup> )	40	M9RX40G4L	100 V	B-92	M9RX40GK4L	100 V	B-108	
		M9RX40G4Y	200 V	B-92	M9RX40GK4Y	200 V	B-108	
		M9RX40G4LG(A)	100 V	B-94	M9RX40GK4LG(A)	100 V	B-110	
		M9RX40G4DG(A)	110 V/115 V	B-94	M9RX40GK4DG(A)	110 V/115 V	B-110	
		M9RX40G4YG(A)	200 V	B-94	M9RX40GK4YG(A)	200 V	B-110	
		M9RX40G4GG(A)	220 V/230 V	B-94	M9RX40GK4GG(A)	220 V/230 V	B-110	
60	M9RZ60G4L	100 V	B-96	M9RZ60GK4L	100 V	B-112		
		M9RZ60G4Y	200 V	B-96	M9RZ60GK4Y	200 V	B-112	
		M9RZ60G4LG(A)	100 V	B-98	M9RZ60GK4LG(A)	100 V	B-114	
		M9RZ60G4DG(A)	110 V/115 V	B-98	M9RZ60GK4DG(A)	110 V/115 V	B-114	
		M9RZ60G4YG(A)	200 V	B-98	M9RZ60GK4YG(A)	200 V	B-114	
		M9RZ60G4GG(A)	220 V/230 V	B-98	M9RZ60GK4GG(A)	220 V/230 V	B-114	
90	M9RZ90G4L	100 V	B-100	M9RZ90GK4L	100 V	B-116		
		M9RZ90G4Y	200 V	B-100	M9RZ90GK4Y	200 V	B-116	
		M9RZ90G4LG(A)	100 V	B-102	M9RZ90GK4LG(A)	100 V	B-118	
		M9RZ90G4DG(A)	110 V/115 V	B-102	M9RZ90GK4DG(A)	110 V/115 V	B-118	
		M9RZ90G4YG(A)	200 V	B-102	M9RZ90GK4YG(A)	200 V	B-118	
		M9RZ90G4GG(A)	220 V/230 V	B-102	M9RZ90GK4GG(A)	220 V/230 V	B-118	

\* The models with a motor model number to which "A" is suffixed are not equipped with a capacitor cap.

The models with a motor model number to which "A" is suffixed are not sold or available in Japan.

Size	Output (W)	Standard gear head			High torque gear head	Right-angle gear head	Gear head -Inch (U.S.A.)	Decimal gear head	Hinge attached
		Ball bearing	Metal bearing	Ball and metal bearing					
60 mm sq. (2.36 inches <sup>2</sup> )	4	MX6G□BA	MX6G□MA	MX6G□M	M4G□F	—	—	—	—
	6	MX7G□BA	MX7G□MA	MX7G□M	—	—	—	MX7G□BU	MX6G10XB
	10	MX8G□BA	MX8G□M	—	—	—	—	MX8G□BU	MX8G10XB
	15	MX8G□B	MX8G□M	—	—	—	—	MX8G□BU	MX8G10XB
	20	MX9G□B	MX9G□M	—	—	—	—	MX9G□BU	MX9G10XB
	25	MX9G□B	—	—	MR9G□B	—	—	MX9G□BU	MX9G10XB
90 mm sq. (3.54 inches <sup>2</sup> )	40	MX9G□B	MX9G□M	—	—	—	—	MX9G□BU	MX9G10XB
	60	MZ9G□B	—	—	MR9G□B	—	—	MZ9G□BU	MZ9G10XB
	90	MY9G□B	—	—	MP9G□B	—	—	MZ9G□BU	MZ9G10XB

Refer to page B-444 for dimensions and permissible torque of high torque gear head.

Refer to page B-446 for dimensions and permissible torque of right-angle gear head.

Refer to page B-451 for dimensions and permissible torque of gear head -Inch (U.S.A.).

Refer to page B-448 for dimensions of decimal gear head.

## Reversible motor (leadwire)

**80 mm (3.15 inch) sq. 25 W**

#### • Specifications

- The specifications and wire connections of the round shaft motor are the same as those of the pinion shaft type. For the dimensional outline drawing, refer to page B-123.

- Permissible torque at output shaft of gear head

The speed shown below is a calculated value based on the synchronous rotational speed. Depending on the load, the speed is less than the indicated value by 2 % to 20 %.

		Unit of permissible torque: upper (N·m) / lower (lb·in)																					
Reduction ratio		3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180
Speed (r/min)	50 Hz	500	416.7	300	250	200	166.7	150	120	100	83.3	75	60	50	41.7	30	25	20	16.7	15.3	12.5	10	
	60 Hz	600	500	360	300	240	200	180	144	120	100	90	72	60	50	36	30	24	20	18	15	12	10
Speed (r/min)	50 Hz	<b>MX8G3B to MX8G180B</b> (ball bearing)		0.39	0.47	0.66	0.78	0.98	1.18	1.27	1.57	1.96	2.35	2.55	3.14	3.82	4.61	6.37	7.64	7.84			
		(3.45)	(4.16)	(5.64)	(6.80)	(8.67)	(10.4)	(11.2)	(13.9)	(17.3)	(20.8)	(22.6)	(27.8)	(33.6)	(40.8)	(54.6)	(67.5)	(69.4)					
Speed (r/min)	60 Hz	<b>MX8G3M to MX8G180M</b> (metal bearing)		0.32	0.39	0.55	0.66	0.81	0.98	1.06	1.27	1.57	1.96	2.06	2.65	3.14	3.82	5.29	6.37	7.84			
		(2.83)	(3.45)	(4.87)	(5.84)	(7.17)	(8.67)	(9.56)	(11.2)	(13.9)	(17.3)	(18.2)	(23.5)	(27.8)	(33.8)	(46.8)	(66.4)	(69.4)					

<b>Rotational direction</b>	Same as motor rotational direction	Reverse to motor rotational direction
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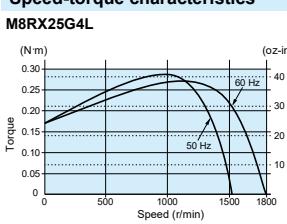
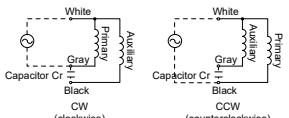
- Permissible torque at output shaft of gear head using decimal gear head

\* For external dimensions of the decimal gear head, refer to page B-448.

## Connection diagram

#### Speed-torque characteristics

**Speed-tel**  
**M9RY2FG4I**



\* Please read your User's manual carefully so that you will understand the operation and safety precautions before attempting to operate the system.

**Features B-64      System configuration B-65      Coding system B-65      Model list B-68**

Panasonic Corporation Electromechanical Control Business Division  
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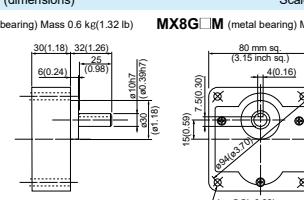
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(Note) Because the dimensions may be subject to change.

o change, also check the determinate dimensions



(Note) Because the dimensions may be subject to change, also check the determinate dimensions if the gear head is to be used for design.

Gear head combination B-121 Round shaft motor B-123 Decimal gear head B-448

(A) B-449 Controls C-4 Option D-2

Panasonic Corporation Electromechanical Control Business Division  
[industrial.panasonic.com/ac/e/](http://industrial.panasonic.com/ac/e/)

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## Reversible motor (leadwire)

80 mm(3.15 inch) sq. 25W

### • Specifications

Size	Motor model No.	Number of pole (P)	Output (W)	Voltage (V)	Frequency (Hz)	Rating (min)	Rating				Starting current (A)	Starting torque N·m (oz-in)	Capacitor (μF) (rated voltage)
							Input (W)	Current (A)	Speed (r/min)	Torque N·m (oz-in)			
80 mm sq.	M8RX25G4LG	4	25	100	50	30	59	0.60	1250	0.19 (26.9)	1.1	0.19 (26.9)	10
	M8RX25G4LGA			60			61	0.61	1550	0.15 (21.2)	1.1	0.19 (26.9)	(250 V)
	M8RX25G4DG	4	25	110	60	30	58	0.53	1575	0.15 (21.2)	1.1	0.17 (24.1)	8
	M8RX25G4DGA			115			61	0.53	1600	0.15 (21.2)	1.2	0.19 (26.9)	(250 V)
	M8RX25G4YG	4	25	200	60	30	59	0.30	1200	0.20 (28.3)	0.45	0.19 (26.9)	2.5
	M8RX25G4YGA			60			66	0.34	1525	0.16 (22.7)	0.45	0.19 (26.9)	(450 V)
	M8RX25G4GG	4	25	220	60	30	60	0.28	1225	0.19 (26.9)	0.47	0.18 (25.5)	2
	M8RX25G4GGA			60			60	0.27	1550	0.15 (21.2)	0.45	0.18 (25.5)	(450 V)
				230	60		62	0.28	1275	0.19 (26.9)	0.45	0.19 (26.9)	(450 V)

\* The specifications and wire connections of the round shaft motor are the same as those of the pinion shaft type. For the dimensional outline drawing, refer to page B-123.

\* The models with a motor model number to which "A" is suffixed are not equipped with a capacitor cap.

The models with a motor model number to which "A" is suffixed are not sold or available in Japan.

### • Permissible torque at output shaft of gear head

\* The speed shown below is a calculated value based on the synchronous rotational speed. Depending on the load, the speed is less than the indicated value by 2% to 20%.

Unit of permissible torque: upper (N·m) / lower (lb·in)

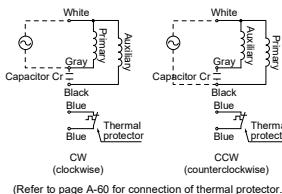
Reduction ratio	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180	
	50 Hz	500	416.7	300	250	200	166.7	150	120	100	83.3	75	60	50	41.7	30	25	20	16.7	15	12.5	10	8.3
Speed (r/min)	50 Hz	600	500	360	300	240	200	180	144	120	100	90	72	60	50	36	30	24	20	18	15	12	10
MX8G3B to MX8G180B (ball bearing)	50 Hz	0.39	0.47	0.66	0.78	0.98	1.18	1.27	1.57	1.98	2.35	2.55	3.14	3.82	4.61	6.37	7.64						7.84
	(3.45)	(4.16)	(5.84)	(6.90)	(8.67)	(10.4)	(11.2)	(13.9)	(17.3)	(20.8)	(22.6)	(27.8)	(33.8)	(40.8)	(56.4)	(67.6)							(69.4)
MX8G3M to MX8G180M (metal bearing)	60 Hz	0.32	0.39	0.55	0.66	0.81	0.98	1.06	1.27	1.57	1.96	2.06	2.65	3.14	3.92	5.29	6.37						7.84
	(2.83)	(3.45)	(4.87)	(5.84)	(7.17)	(8.67)	(9.56)	(11.2)	(13.9)	(17.3)	(18.2)	(23.5)	(27.6)	(33.8)	(46.8)	(56.4)							(69.4)
Rotational direction	Same as motor rotational direction												Reverse to motor rotational direction										

### • Permissible torque at output shaft of gear head using decimal gear head

\* For external dimensions of the decimal gear head, refer to page B-448.

Applicable gear head	Reduction ratio	200	250	300	360	500	600	750	900	1000	1200	1500	1800											
		Speed (r/min)	50 Hz	7.5	6	5	4.2	3	2.5	2	1.7	1.5	1.3	1	0.8									
MX8G10XB (ball bearing)	Permissible torque	N·m	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84									
	(lb·in)	(69.4)	(69.4)	(69.4)	(69.4)	(69.4)	(69.4)	(69.4)	(69.4)	(69.4)	(69.4)	(69.4)	(69.4)	(69.4)	(69.4)									
MX8G10XB (metal bearing)	Rotational direction	Same as motor rotational direction												Reverse to motor rotational direction										

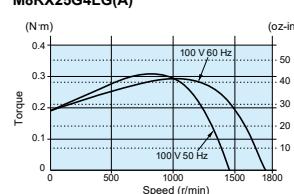
### Connection diagram



(Refer to page A-60 for connection of thermal protector.)

### Speed-torque characteristics

M8RX25G4LG(A)



\* Please read your User's manual carefully so that you will understand the operation and safety precautions before attempting to operate the system.

Features B-64 System configuration B-65 Coding system B-65 Model list B-68

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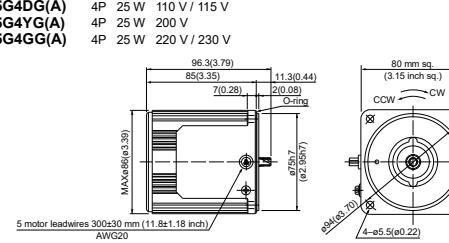
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### Motor (dimensions)

M8RX25G4LG(A)	4P	25 W	100 V
M8RX25G4DG(A)	4P	25 W	110 V / 115 V
M8RX25G4YG(A)	4P	25 W	200 V
M8RX25G4GG(A)	4P	25 W	220 V / 230 V

Scale: 1/3, Unit: mm (inch)

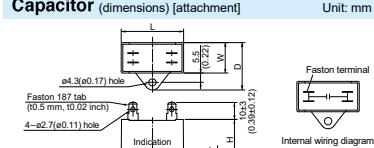
Mass 1.5 kg  
3.31 lb  
Helical gear  
Module 0.5  
Number of teeth 9



5 motor leadwires 300x30 mm (11.8±1.8 inch)  
AWG20

### Capacitor (dimensions) [attachment]

Unit: mm (inch)

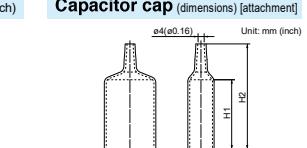


Faston 187 tab (0.5 mm, 10.02 inch)  
4-a2.7(0.11) hole  
Indication

Faston terminal  
Internal wiring diagram of capacitor

### Capacitor cap (dimensions) [attachment]

Unit: mm (inch)



W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
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H1 11 mm  
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W2 14 mm  
H1 11 mm  
H2 7 mm

W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

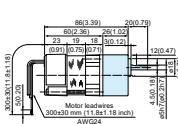
W1 21 mm  
W2 14 mm  
H1 11 mm  
H2 7 mm

W1

## Reversible motor (leadwire)

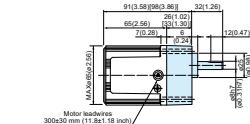
**42 mm sq. (1.65 inch sq.) 1 W**

M4RA1G4L + M4GA□F



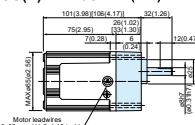
**60 mm sq. (2.36 inch sq.) 4 W**

M6RX4G4L + MX6G□BA(MA) / MX6G□B(M)



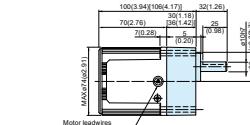
**60 mm sq. (2.36 inch sq.) 6 W**

M6RX6G4L + MX6G□BA(MA) / MX6G□B(M)  
M6RX6G4Y + MX6G□BA(MA) / MX6G□B(M)  
M6RX6G4LG(A) + MX6G□BA(MA) / MX6G□B(M)  
M6RX6G4DG(A) + MX6G□BA(MA) / MX6G□B(M)  
M6RX6G4YG(A) + MX6G□BA(MA) / MX6G□B(M)  
M6RX6G4GG(A) + MX6G□BA(MA) / MX6G□B(M)



**70 mm sq. (2.76 inch sq.) 10 W**

M7RX10G4L + MX7G□BA(MA) / MX7G□B(M)  
M7RX10G4Y + MX7G□BA(MA) / MX7G□B(M)

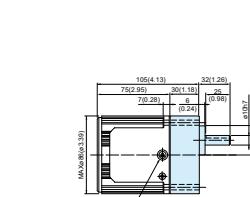


**70 mm sq. (2.76 inch sq.) 15 W**

M7RX15G4L + MX7G□BA(MA) / MX7G□B(M)  
M7RX15G4Y + MX7G□BA(MA) / MX7G□B(M)

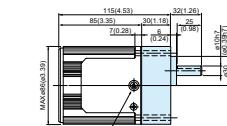
**80 mm sq. (3.15 inch sq.) 20 W**

M8RX20G4L + MX8G□B(M)  
M8RX20G4Y + MX8G□B(M)



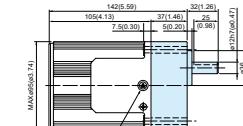
**80 mm sq. (3.15 inch sq.) 25 W**

M8RX25G4L + MX8G□B(M)  
M8RX25G4Y + MX8G□B(M)  
M8RX25G4LG(A) + MX8G□B(M)  
M8RX25G4DG(A) + MX8G□B(M)  
M8RX25G4YG(A) + MX8G□B(M)  
M8RX25G4GG(A) + MX8G□B(M)



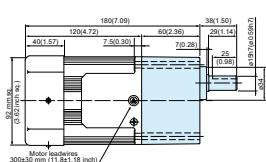
**90 mm sq. (3.54 inch sq.) 40 W**

M9RX40G4L + MX9G□B(M)  
M9RX40G4Y + MX9G□B(M)  
M9RX40G4LG(A) + MX9G□B(M)  
M9RX40G4DG(A) + MX9G□B(M)  
M9RX40G4YG(A) + MX9G□B(M)  
M9RX40G4GG(A) + MX9G□B(M)



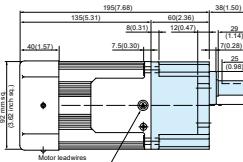
**90 mm sq. (3.54 inch sq.) 60 W**

M9RZ60G4L + MZ9G□B(MY9G□B)  
M9RZ60G4Y + MZ9G□B(MY9G□B)  
M9RZ60G4LG(A) + MZ9G□B(MY9G□B)  
M9RZ60G4DG(A) + MZ9G□B(MY9G□B)  
M9RZ60G4YG(A) + MZ9G□B(MY9G□B)  
M9RZ60G4GG(A) + MZ9G□B(MY9G□B)



**90 mm sq. (3.54 inch sq.) 90 W**

M9RZ90G4L + MY9G□B(MZ9G□B)  
M9RZ90G4Y + MY9G□B(MZ9G□B)  
M9RZ90G4LG(A) + MY9G□B(MZ9G□B)  
M9RZ90G4DG(A) + MY9G□B(MZ9G□B)  
M9RZ90G4YG(A) + MY9G□B(MZ9G□B)  
M9RZ90G4GG(A) + MY9G□B(MZ9G□B)



\* Figures in [ ] represent the dimensions of MX6G□B(M) (1/30 or larger reduction ratio).

The model number of the gear head with a reduction ratio of 1/25 or smaller is MX6G□BA(MA).)

\* Figures in [ ] represent the dimensions of MX7G□B(M) (1/30 or larger reduction ratio).  
The model number of the gear head with a reduction ratio of 1/25 or smaller is MX7G□BA(MA).)

\* Refer to page B-444 for high torque gear head.

\* Refer to page B-444 for high torque gear head.

\* Please read your User's manual carefully so that you will understand the operation and safety precautions before attempting to operate the system.

Features B-64 System configuration B-65 Coding system B-65 Model list B-68

\* The models with a motor model number to which "A" is suffixed are not equipped with a capacitor cap.  
\* The models with a motor model number to which "A" is suffixed are not sold or available in Japan.

(Note) Because the dimensions may be subject to change, also check the determinate dimensions if the gear head is to be used for design.

Specifications B-72 to B-119 Controls C-4 Option D-2

Induction motor

Reversible motor

3-phase motor

Electromagnetic brake motor

Variable speed induction motor

Variable speed variable torque motor

Variable speed single-phase motor

Variable speed bidirectional motor

Variable speed unit motor

Variable speed 2-phase motor

2-phase round shaft motor

Gear head

Gear head + inch