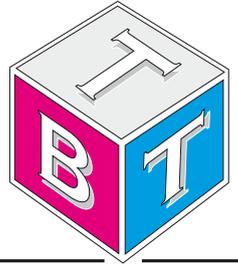


# Traffa



Technisches Büro Traffa

## Servomotor J5



*Innovative Antriebslösungen*

*Der optimale Antrieb individuell für Ihre Anforderung*

# 4 Rotary Servo Motors

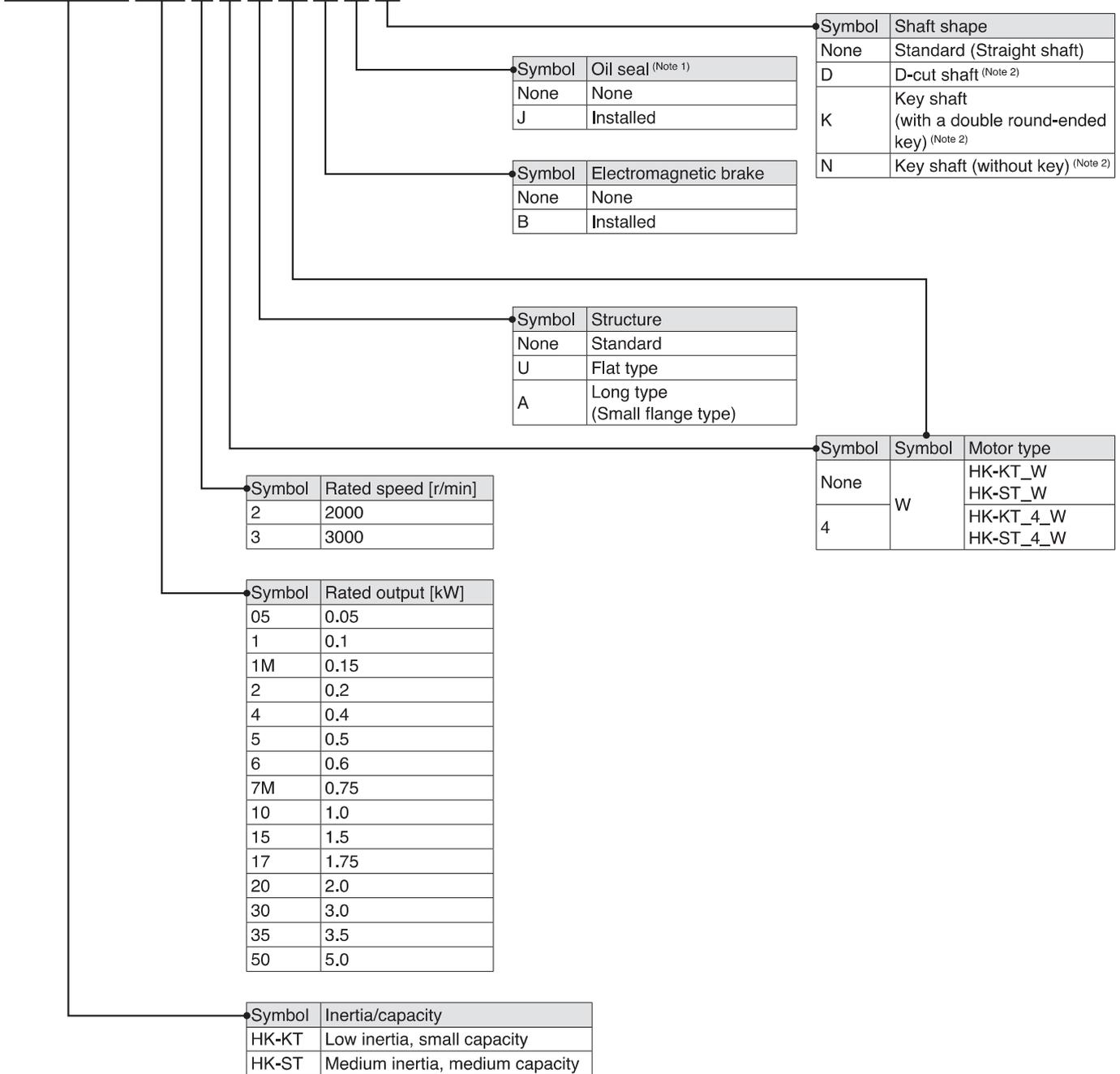
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\* Refer to p. 7-55 in this catalog for conversion of units.

# Rotary Servo Motors

## Model Designation (Note 3, 4)

H K - K T 0 5 3 4 U W B



- Notes: 1. Dimensions are the same regardless of whether or not an oil seal is installed.  
 2. Refer to the special shaft dimensions of each series in this catalog for the available models.  
 3. Contact your local sales office for geared servo motors.  
 4. This section describes what each symbol in a model name indicates. Some combinations of symbols are not available.

## HK-KT\_W (Low Inertia, Small Capacity)

Specifications when connected with a 200 V servo amplifier

Flange size		[mm]	40 × 40			60 × 60			
Rotary servo motor model		HK-KT	053W	13W	1M3W	13UW	23W	43W	63W
Continuous running duty (Note 4)	Rated output	[kW]	0.05	0.1	0.15	0.1	0.2	0.4	0.6
	Rated torque (Note 5)	[N·m]	0.16	0.32	0.48	0.32	0.64	1.3	1.9
Maximum torque (Note 3)		[N·m]	0.56 (0.72)	1.1 (1.4)	1.7 (2.1)	1.1 (1.4)	2.2 (2.9)	4.5 (5.7)	6.7 (8.6)
Rated speed (Note 4)		[r/min]	3000						
Maximum speed (Note 4)		[r/min]	6700						
Power rate at continuous rated torque	Standard	[kW/s]	6.4	14.8	23.3	8.4	19.4	39.5	61.0
	With electromagnetic brake	[kW/s]	5.8	14.0	22.4	6.6	16.0	36.7	58.0
Rated current		[A]	1.3	1.2	1.2	1.1	1.4	2.6	4.5
Maximum current (Note 3)		[A]	4.6 (6.2)	4.6 (6.0)	4.5 (6.0)	4.6 (6.0)	5.4 (7.1)	9.8 (14)	19 (25)
Moment of inertia J	Standard	[× 10 <sup>-4</sup> kg·m <sup>2</sup> ]	0.0394	0.0686	0.0977	0.121	0.209	0.410	0.598
	With electromagnetic brake	[× 10 <sup>-4</sup> kg·m <sup>2</sup> ]	0.0434	0.0725	0.102	0.153	0.254	0.442	0.629
Recommended load to motor inertia ratio (Note 1)			20 times or less (Note 9)		20 times or less	10 times or less (Note 9)	23 times or less (Note 8)	23 times or less	25 times or less
Speed/position detector		Batteryless absolute/incremental 26-bit encoder (resolution: 67,108,864 pulses/rev)							
Oil seal		None (Servo motors with an oil seal are available. (HK-KT_J)) (Note 6)							
Electromagnetic brake		None (Servo motors with an electromagnetic brake are available. (HK-KT_B))							
Thermistor		None							
Insulation class		155 (F)							
Structure		Totally enclosed, natural cooling (IP rating: IP67) (Note 2, 7)							
Vibration resistance *1		X: 49 m/s <sup>2</sup> Y: 49 m/s <sup>2</sup>							
Vibration rank		V10 <sup>-3</sup>							
Permissible load for the shaft *2	L	[mm]	25			30			
	Radial	[N]	88			245			
	Thrust	[N]	59			98			
Mass	Standard	[kg]	0.27	0.37	0.47	0.57	0.77	1.2	1.5
	With electromagnetic brake	[kg]	0.53	0.63	0.73	0.99	1.2	1.6	1.9

- Notes: 1. Contact your local sales office if the load to motor inertia ratio exceeds the value in the table.  
 2. The shaft-through portion is excluded. Refer to asterisk 4 of "Annotations for Rotary Servo Motor Specifications" on p. 4-20 in this catalog for the shaft-through portion.  
 3. The value in brackets is applicable when the torque is increased with a combination with a larger-capacity servo amplifier. Refer to "Combinations of Rotary Servo Motors and Servo Amplifiers" in this catalog for the available combinations.  
 4. The continuous running duty and the speed are not guaranteed when the power supply voltage is dropped.  
 5. When unbalanced torque is generated, such as in a vertical lift machine, keep the unbalanced torque of the machine under 70 % of the servo motor rated torque.  
 6. For the HK-KT053W with an oil seal, use 80 % of the rated output.  
 7. When IP67 cables are required, please contact Mitsubishi Electric System & Service Co., Ltd. OVERSEAS SERVICE SECTION. (Email: osb.webmaster@ melsc.jp)  
 8. 28 times or less for 6000 r/min or less.  
 9. When the servo motor is combined with a 100 W servo amplifier, the recommended load to motor inertia ratio is for operating the servo motor at the rated speed. If operating the servo motor at a speed exceeding the rated speed, check the need for a regenerative option with the drive system sizing software Motorizer. A servo amplifier with a larger capacity can be combined.

Refer to "Annotations for Rotary Servo Motor Specifications" on p. 4-20 in this catalog for details about asterisks 1 to 3.

### Electromagnetic brake specifications (Note 1)

Model	HK-KT	053WB	13WB	1M3WB	13UWB	23WB	43WB	63WB		
Type	Spring actuated type safety brake									
Rated voltage	24 V DC -10 %									
Power consumption	[W] at 20 °C	6.4					7.9			
Electromagnetic brake static friction torque	[N·m]	0.48 or higher					1.9 or higher			
Permissible braking work	Per braking	[J]	5.6					22		
	Per hour	[J]	56					220		
Electromagnetic brake life (Note 2)	Number of braking times	20000								
	Work per braking	[J]	5.6					22		

- Notes: 1. The electromagnetic brake is for holding. It cannot be used for deceleration applications.  
 2. Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until readjustment is needed.

Common Specifications  
 Servo System Controllers  
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 Support

# Rotary Servo Motors

## HK-KT\_W (Low Inertia, Small Capacity)

Specifications when connected with a 200 V servo amplifier

Flange size		[mm]	80 × 80				90 × 90				
Rotary servo motor model		HK-KT	23UW	43UW	7M3W	103W	7M3UW	103UW	153W	203W	202W
Continuous running duty (Note 4)	Rated output	[kW]	0.2	0.4	0.75	1.0	0.75	1.0	1.5	2.0	2.0
	Rated torque (Note 5)	[N·m]	0.64	1.3	2.4	3.2	2.4	3.2	4.8	6.4	9.5
Maximum torque (Note 3)		[N·m]	1.9 (2.5)	4.5 (5.7)	8.4 (10.7)	11.1 (14.3)	8.4 (10.7)	11.1 (14.3)	16.7 (21.5)	19.1 (25.5)	28.6 (38.2)
Rated speed (Note 4)		[r/min]	3000								2000
Maximum speed (Note 4)		[r/min]	6700			6500	6700	6000	5000	3000	
Power rate at continuous rated torque	Standard	[kW/s]	9.7	22.3	41.6	60.3	27.0	37.0	52.0	71.7	111
	With electromagnetic brake	[kW/s]	7.3	18.8	37.7	56.0	23.3	32.9	48.3	67.7	107
Rated current		[A]	1.5	2.1	4.7	5.0	4.0	4.9	6.5	9.0	9.0
Maximum current (Note 3)		[A]	5.9 (9.0)	9.2 (13)	20 (26)	21 (28)	16 (22)	21 (27)	26 (34)	30 (41)	30 (41)
Moment of inertia J	Standard	[× 10 <sup>-4</sup> kg·m <sup>2</sup> ]	0.419	0.726	1.37	1.68	2.11	2.74	4.38	5.65	8.18
	With electromagnetic brake	[× 10 <sup>-4</sup> kg·m <sup>2</sup> ]	0.557	0.864	1.51	1.81	2.45	3.08	4.72	5.99	8.53
Recommended load to motor inertia ratio (Note 1)			10 times or less		16 times or less	17 times or less	10 times or less	15 times or less			
Speed/position detector		Batteryless absolute/incremental 26-bit encoder (resolution: 67,108,864 pulses/rev)									
Oil seal		None (Servo motors with an oil seal are available. (HK-KT_J))									
Electromagnetic brake		None (Servo motors with an electromagnetic brake are available. (HK-KT_B))									
Thermistor		None									
Insulation class		155 (F)									
Structure		Totally enclosed, natural cooling (IP rating: IP67) (Note 2, 6)									
Vibration resistance *1		X: 49 m/s <sup>2</sup> Y: 49 m/s <sup>2</sup>					X: 24.5 m/s <sup>2</sup> Y: 49 m/s <sup>2</sup>		X: 24.5 m/s <sup>2</sup> Y: 24.5 m/s <sup>2</sup>		
Vibration rank		V10 *3									
Permissible load for the shaft *2	L	[mm]	30		40						
	Radial	[N]	245		392						
	Thrust	[N]	98		147						
Mass	Standard	[kg]	1.2	1.5	2.2	2.4	2.3	2.7	3.6	4.4	5.9
	With electromagnetic brake	[kg]	1.9	2.2	2.9	3.1	3.4	3.8	4.7	5.5	7.0

- Notes: 1. Contact your local sales office if the load to motor inertia ratio exceeds the value in the table.  
 2. The shaft-through portion is excluded. Refer to asterisk 4 of "Annotations for Rotary Servo Motor Specifications" on p. 4-20 in this catalog for the shaft-through portion.  
 3. The value in brackets is applicable when the torque is increased with a combination with a larger-capacity servo amplifier. Refer to "Combinations of Rotary Servo Motors and Servo Amplifiers" in this catalog for the available combinations.  
 4. The continuous running duty and the speed are not guaranteed when the power supply voltage is dropped.  
 5. When unbalanced torque is generated, such as in a vertical lift machine, keep the unbalanced torque of the machine under 70 % of the servo motor rated torque.  
 6. When IP67 cables are required, please contact Mitsubishi Electric System & Service Co., Ltd. OVERSEAS SERVICE SECTION. (Email: osb.webmaster@melsc.jp)

Refer to "Annotations for Rotary Servo Motor Specifications" on p. 4-20 in this catalog for details about asterisks 1 to 3.

## Electromagnetic brake specifications (Note 1)

Model	HK-KT	23UWB	43UWB	7M3WB	103WB	7M3UWB	103UWB	153WB	203WB	202WB	
Type	Spring actuated type safety brake										
Rated voltage	24 V DC, ±0%										
Power consumption	[W] at 20 °C	8.2		10		9.0		13.8			
Electromagnetic brake static friction torque	[N·m]	1.3 or higher		3.2 or higher		3.2 or higher		9.5 or higher			
Permissible braking work	Per braking	[J]	22		64		66		64		
	Per hour	[J]	220		640		660		640		
Electromagnetic brake life (Note 2)	Number of braking times	20000									
	Work per braking	[J]	22		64		33		64		

- Notes: 1. The electromagnetic brake is for holding. It cannot be used for deceleration applications.  
 2. Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until readjustment is needed.

## HK-KT\_4\_W (Low Inertia, Small Capacity)

Specifications when connected with a 200 V servo amplifier

Flange size		[mm]	60 × 60	80 × 80	90 × 90					
Rotary servo motor model		HK-KT	434W	634W	7M34W	1034W	1534W	2034W	2024W	
Continuous running duty (Note 4)	Rated output	[kW]	0.2	0.3	0.375	0.5	0.75	1.0	1.0	
	Rated torque (Note 5)	[N•m]	1.3	1.9	2.4	3.2	4.8	6.4	9.5	
Maximum torque (Note 3)		[N•m]	4.5 (5.7)	6.7 (8.6)	8.4 (10.7)	11.1 (14.3)	21.5	25.5	38.2	
Rated speed (Note 4)		[r/min]	1500						1000	
Maximum speed (Note 4)		[r/min]	3500			3000	2500		1500	
Power rate at continuous rated torque	Standard	[kW/s]	39.5	61.0	41.6	60.3	52.0	71.7	111	
	With electromagnetic brake	[kW/s]	36.7	58.0	37.7	56.0	48.3	67.7	107	
Rated current		[A]	1.3	2.3	2.4	2.5	3.3	4.5	4.5	
Maximum current (Note 3)		[A]	4.9 (6.6)	9.1 (13)	9.7 (13)	11 (14)	17	21	21	
Moment of inertia J	Standard	[× 10 <sup>-4</sup> kg•m <sup>2</sup> ]	0.410	0.598	1.37	1.68	4.38	5.65	8.18	
	With electromagnetic brake	[× 10 <sup>-4</sup> kg•m <sup>2</sup> ]	0.442	0.629	1.51	1.81	4.72	5.99	8.53	
Recommended load to motor inertia ratio (Note 1)			25 times or less		17 times or less		15 times or less			
Speed/position detector			Batteryless absolute/incremental 26-bit encoder (resolution: 67,108,864 pulses/rev)							
Oil seal			None (Servo motors with an oil seal are available. (HK-KT_J))							
Electromagnetic brake			None (Servo motors with an electromagnetic brake are available. (HK-KT_B))							
Thermistor			None							
Insulation class			155 (F)							
Structure			Totally enclosed, natural cooling (IP rating: IP67) (Note 2, 6)							
Vibration resistance *1			X: 49 m/s <sup>2</sup> Y: 49 m/s <sup>2</sup>				X: 24.5 m/s <sup>2</sup> Y: 24.5 m/s <sup>2</sup>			
Vibration rank			V10 <sup>-3</sup>							
Permissible load for the shaft *2	L	[mm]	30		40					
	Radial	[N]	245		392					
	Thrust	[N]	98		147					
Mass	Standard	[kg]	1.2	1.5	2.2	2.4	3.6	4.4	5.9	
	With electromagnetic brake	[kg]	1.6	1.9	2.9	3.1	4.7	5.5	7.0	

- Notes: 1. Contact your local sales office if the load to motor inertia ratio exceeds the value in the table.  
 2. The shaft-through portion is excluded. Refer to asterisk 4 of "Annotations for Rotary Servo Motor Specifications" on p. 4-20 in this catalog for the shaft-through portion.  
 3. The value in brackets is applicable when the torque is increased with a combination with a larger-capacity servo amplifier. Refer to "Combinations of Rotary Servo Motors and Servo Amplifiers" in this catalog for the available combinations.  
 4. The continuous running duty and the speed are not guaranteed when the power supply voltage is dropped.  
 5. When unbalanced torque is generated, such as in a vertical lift machine, keep the unbalanced torque of the machine under 70 % of the servo motor rated torque.  
 6. When IP67 cables are required, please contact Mitsubishi Electric System & Service Co., Ltd. OVERSEAS SERVICE SECTION. (Email: osb.webmaster@ melsc.jp)

Refer to "Annotations for Rotary Servo Motor Specifications" on p. 4-20 in this catalog for details about asterisks 1 to 3.

### Electromagnetic brake specifications (Note 1)

Model	HK-KT	434WB	634WB	7M34WB	1034WB	1534WB	2034WB	2024WB
Type	Spring actuated type safety brake							
Rated voltage	24 V DC, ±0%							
Power consumption	[W] at 20 °C	7.9			10	13.8		
Electromagnetic brake static friction torque	[N•m]	1.9 or higher			3.2 or higher		9.5 or higher	
Permissible braking work	Per braking	[J]	22			64		
	Per hour	[J]	220			640		
Electromagnetic brake life (Note 2)	Number of braking times	20000						
	Work per braking	[J]	22		64		64	

- Notes: 1. The electromagnetic brake is for holding. It cannot be used for deceleration applications.  
 2. Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until readjustment is needed.

Common Specifications  
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# Rotary Servo Motors

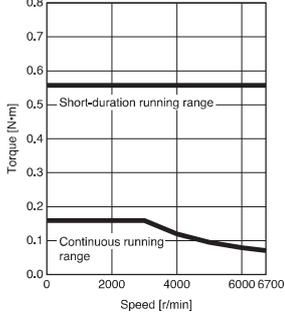
## HK-KT\_W Torque Characteristics (Note 1)

When connected with a 200 V servo amplifier

— : For 3-phase 200 V AC  
 — : For 1-phase 200 V AC

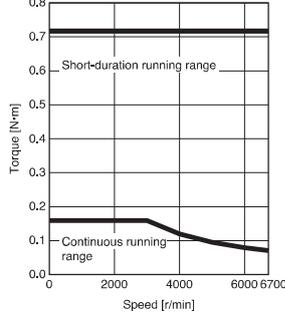
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Standard torque



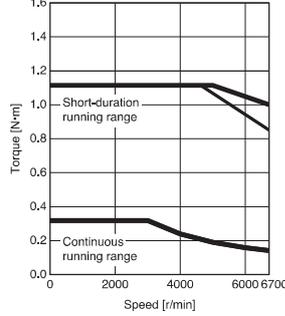
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Torque increased



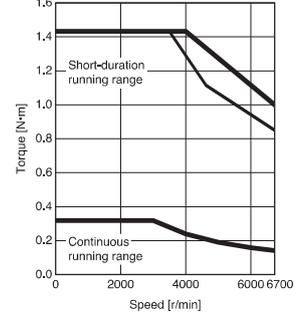
### HK-KT13W

Standard torque



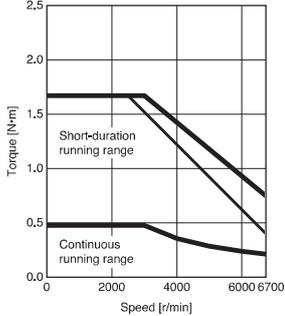
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Torque increased



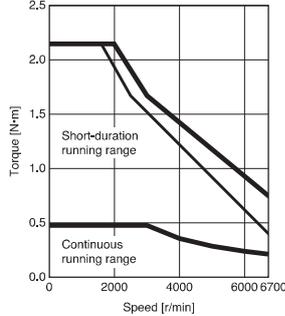
### HK-KT1M3W

Standard torque



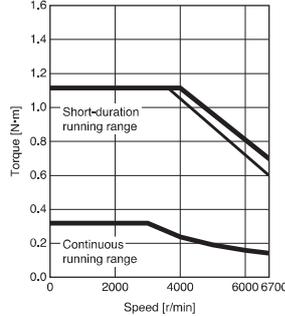
### HK-KT1M3W

Torque increased



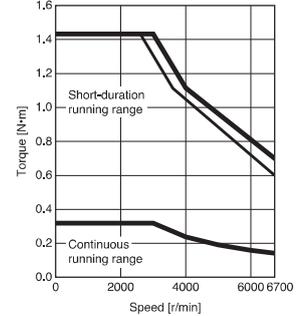
### HK-KT13UW

Standard torque



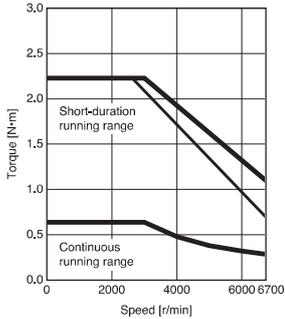
### HK-KT13UW

Torque increased



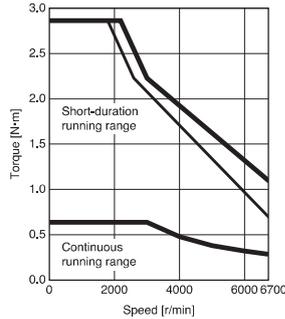
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Standard torque



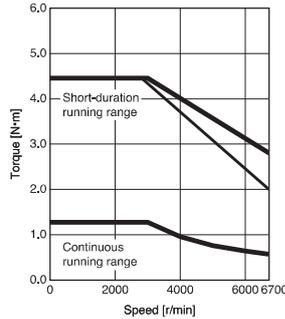
### HK-KT23W

Torque increased



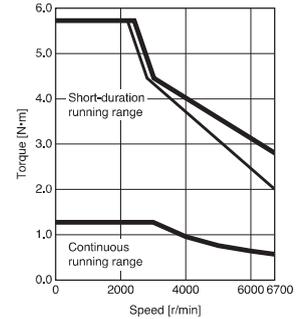
### HK-KT43W

Standard torque



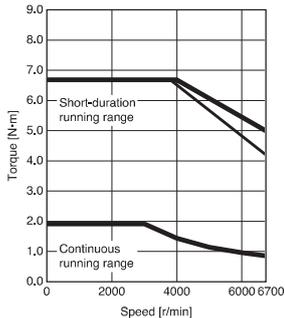
### HK-KT43W

Torque increased



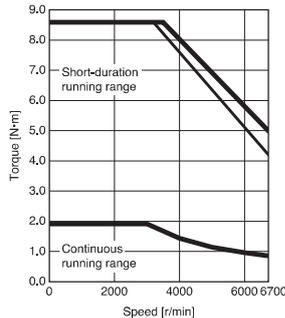
### HK-KT63W

Standard torque



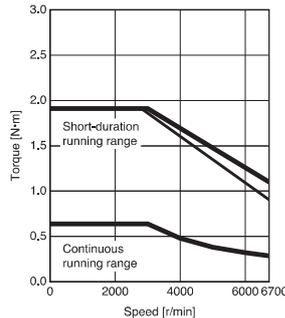
### HK-KT63W

Torque increased



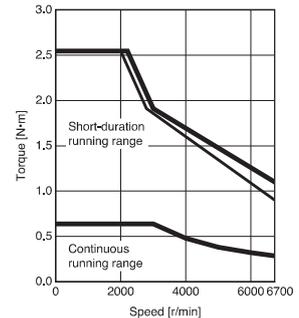
### HK-KT23UW

Standard torque



### HK-KT23UW

Torque increased



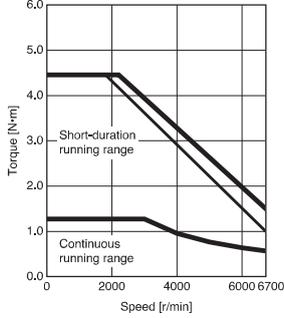
Notes: 1. Torque drops when the power supply voltage is below the specified value.

## HK-KT\_W Torque Characteristics (Note 1)

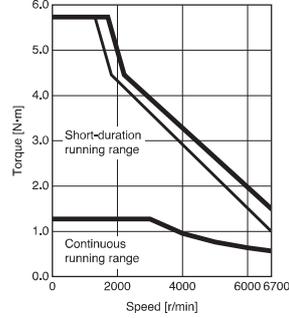
When connected with a 200 V servo amplifier

— : For 3-phase 200 V AC  
 — : For 1-phase 200 V AC

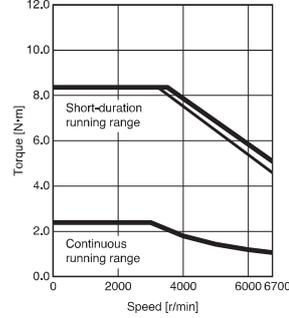
**HK-KT43UW**  
Standard torque



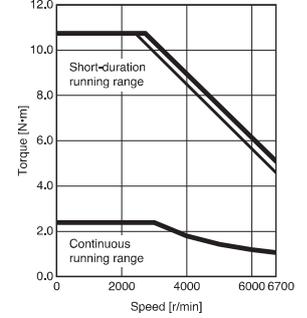
**HK-KT43UW**  
Torque increased



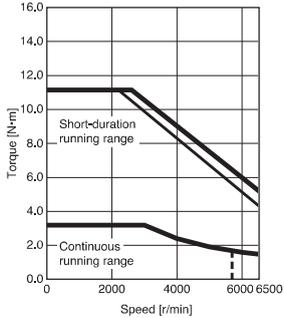
**HK-KT7M3W**  
Standard torque



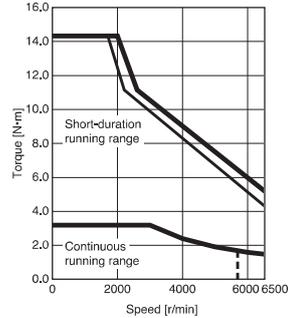
**HK-KT7M3W**  
Torque increased



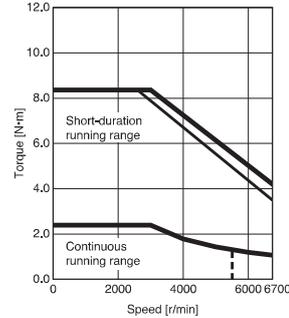
**HK-KT103W**  
Standard torque



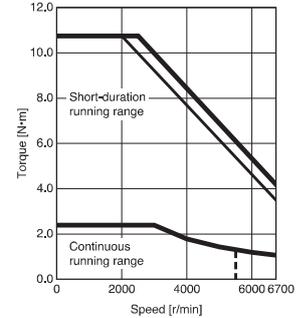
**HK-KT103W**  
Torque increased



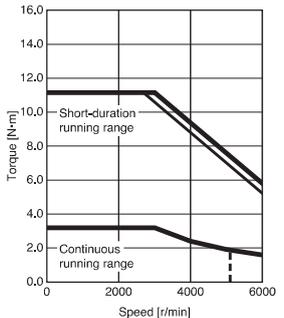
**HK-KT7M3UW**  
Standard torque



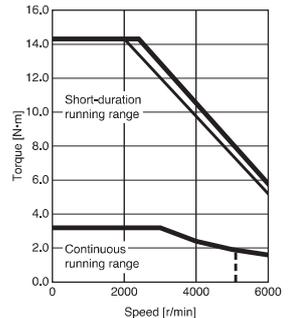
**HK-KT7M3UW**  
Torque increased



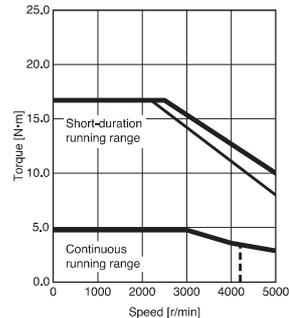
**HK-KT103UW**  
Standard torque



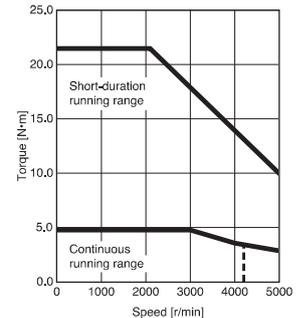
**HK-KT103UW**  
Torque increased



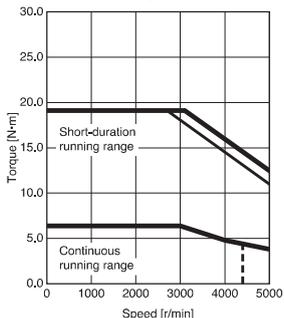
**HK-KT153W**  
Standard torque



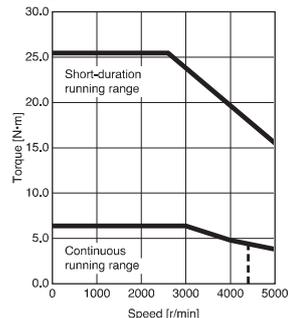
**HK-KT153W**  
Torque increased



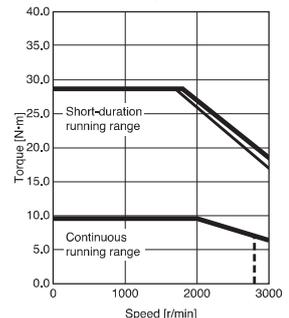
**HK-KT203W**  
Standard torque



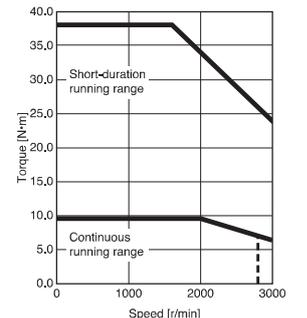
**HK-KT203W**  
Torque increased



**HK-KT202W**  
Standard torque



**HK-KT202W**  
Torque increased



Notes: 1. Torque drops when the power supply voltage is below the specified value. - - - - : A rough indication for 3-phase 170 V AC

# Rotary Servo Motors

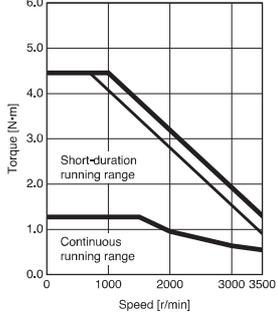
## HK-KT\_4\_W Torque Characteristics (Note 1)

When connected with a 200 V servo amplifier

— : For 3-phase 200 V AC  
 — : For 1-phase 200 V AC

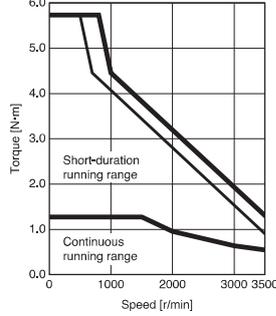
### HK-KT434W

Standard torque



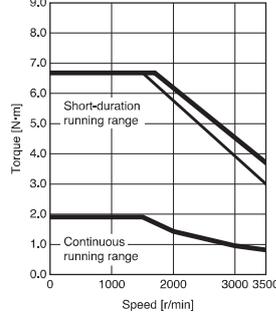
### HK-KT434W

Torque increased



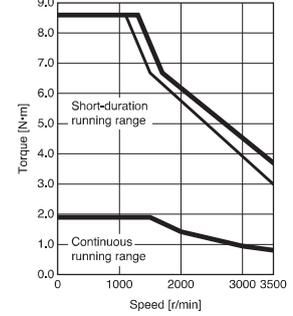
### HK-KT634W

Standard torque



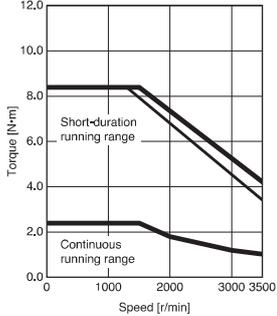
### HK-KT634W

Torque increased



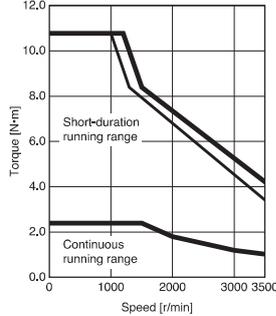
### HK-KT7M34W

Standard torque



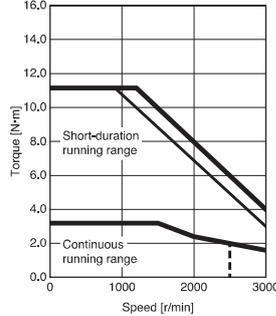
### HK-KT7M34W

Torque increased



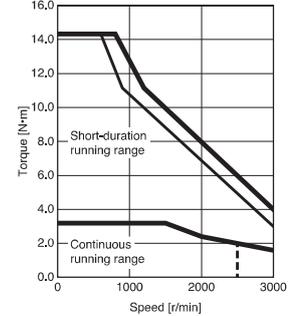
### HK-KT1034W

Standard torque



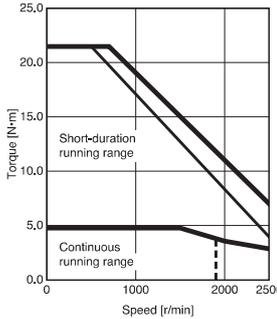
### HK-KT1034W

Torque increased



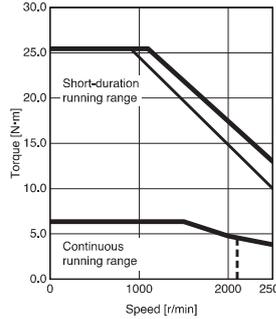
### HK-KT1534W

Standard torque



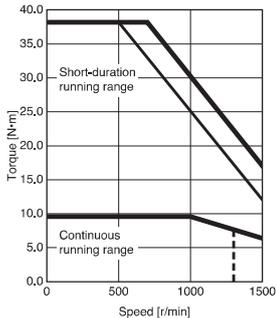
### HK-KT2034W

Standard torque



### HK-KT2024W

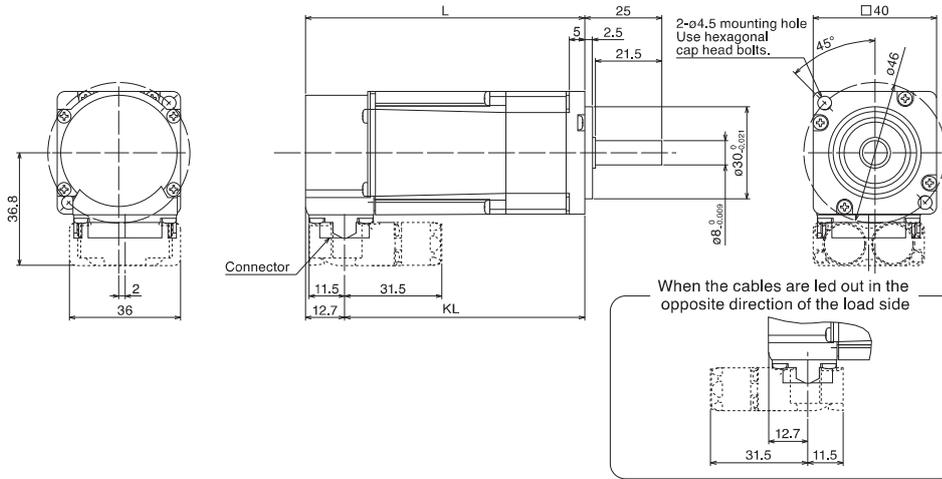
Standard torque



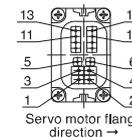
Notes: 1. Torque drops when the power supply voltage is below the specified value. - - - - : A rough indication for 3-phase 170 V AC

## HK-KT Series Dimensions (Note 3, 4)

HK-KT053W(B), HK-KT13W(B), HK-KT1M3W(B)



Connector



Electromagnetic brake (Note 2)

Pin No.	Signal name
5	B1
6	B2

Power supply

Pin No.	Signal name
1	(PE)
2	U
3	W
4	V

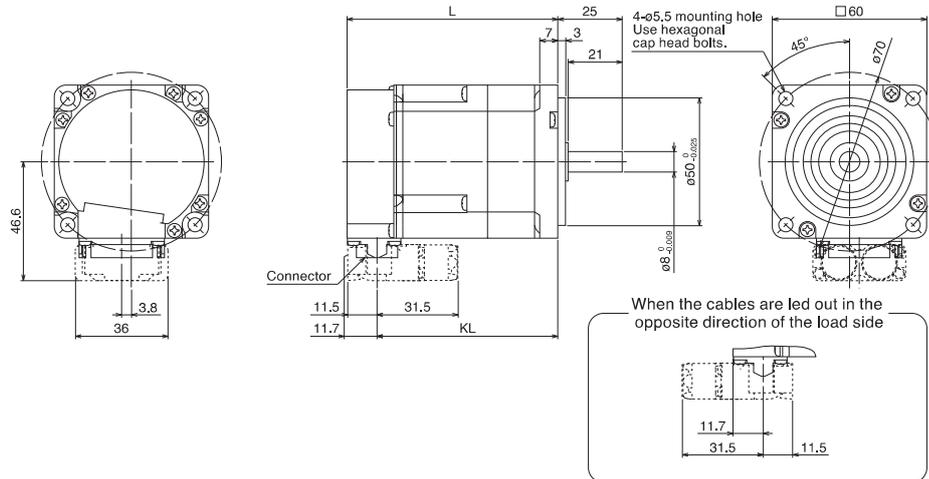
Encoder

Pin No.	Signal name
11	P5
12	MR
13	LG
14	MRR

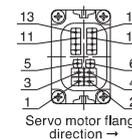
Model	Variable dimensions (Note 1)	
	L	KL
HK-KT053W(B)	55.5 (90.5)	42.8 (77.8)
HK-KT13W(B)	68 (103)	55.3 (90.3)
HK-KT1M3W(B)	80.5 (115.5)	67.8 (102.8)

[Unit: mm]

## HK-KT13UW(B)



Connector



Electromagnetic brake (Note 2)

Pin No.	Signal name
5	B1
6	B2

Power supply

Pin No.	Signal name
1	(PE)
2	U
3	W
4	V

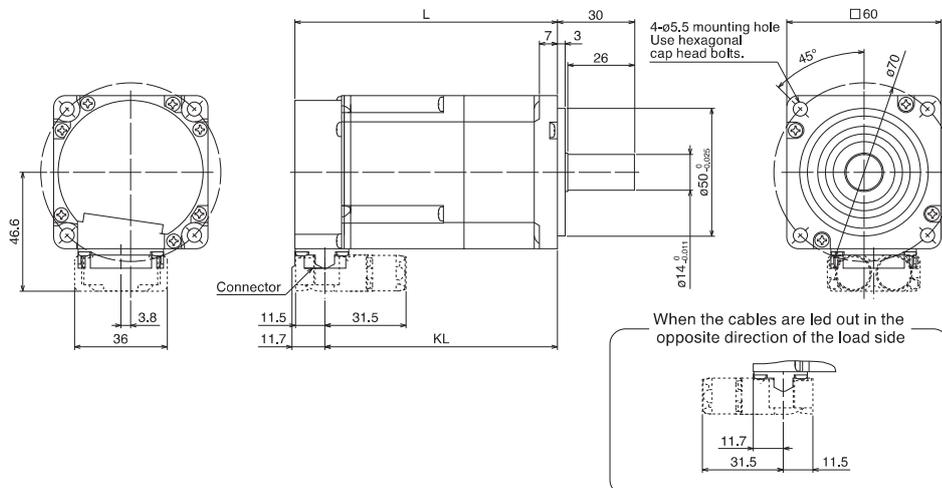
Encoder

Pin No.	Signal name
11	P5
12	MR
13	LG
14	MRR

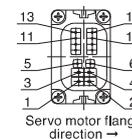
Model	Variable dimensions (Note 1)	
	L	KL
HK-KT13UW(B)	58.5 (82)	46.8 (70.3)

[Unit: mm]

## HK-KT23W(B), HK-KT43W(B), HK-KT63W(B), HK-KT434W(B), HK-KT634W(B)



Connector



Electromagnetic brake (Note 2)

Pin No.	Signal name
5	B1
6	B2

Power supply

Pin No.	Signal name
1	(PE)
2	U
3	W
4	V

Encoder

Pin No.	Signal name
11	P5
12	MR
13	LG
14	MRR

Model	Variable dimensions (Note 1)	
	L	KL
HK-KT23W(B)	67.5 (102.1)	55.8 (90.4)
HK-KT43W(B)	85.5 (120.1)	73.8 (108.4)
HK-KT63W(B)	103.5 (138.1)	91.8 (126.4)

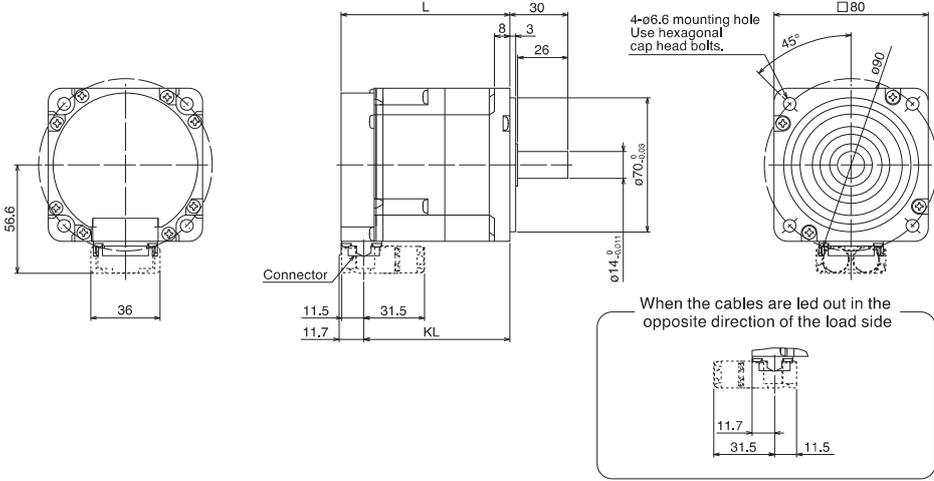
[Unit: mm]

- Notes:
1. Dimensions in brackets are for the models with an electromagnetic brake.
  2. The electromagnetic brake terminals (B1, B2) do not have polarity.
  3. Dimensions are the same regardless of whether or not an oil seal is installed.
  4. Use a friction coupling to fasten a load.

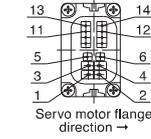
# Rotary Servo Motors

## HK-KT Series Dimensions (Note 3, 4)

### HK-KT23UW(B), HK-KT43UW(B)



#### Connector



#### Electromagnetic brake (Note 2)

Pin No.	Signal name
5	B1
6	B2

#### Power supply

Pin No.	Signal name
1	(PE)
2	U
3	W
4	V

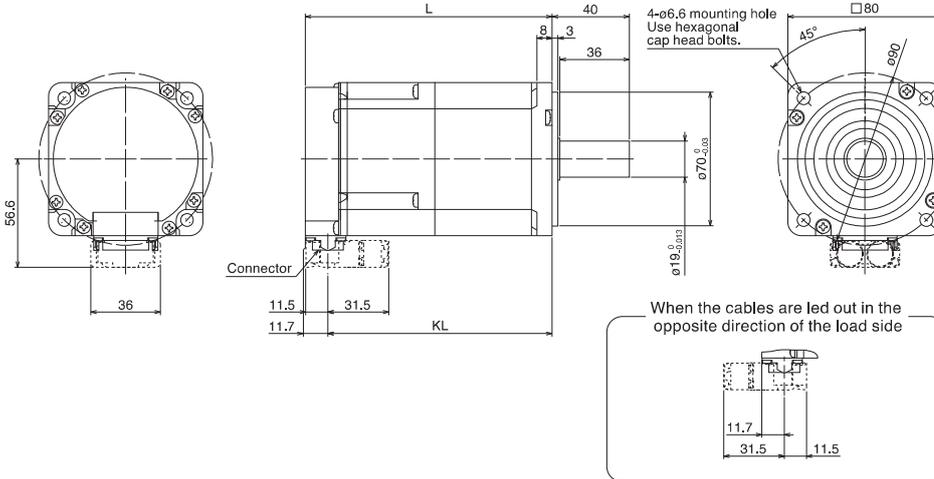
#### Encoder

Pin No.	Signal name
11	P5
12	MR
13	LG
14	MRR

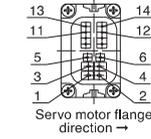
Model	Variable dimensions (Note 1)	
	L	KL
HK-KT23UW(B)	65.5 (87.5)	53.8 (75.8)
HK-KT43UW(B)	74.5 (96.5)	62.8 (84.8)

[Unit: mm]

### HK-KT7M3W(B), HK-KT103W(B), HK-KT7M34W(B), HK-KT1034W(B)



#### Connector



#### Electromagnetic brake (Note 2)

Pin No.	Signal name
5	B1
6	B2

#### Power supply

Pin No.	Signal name
1	(PE)
2	U
3	W
4	V

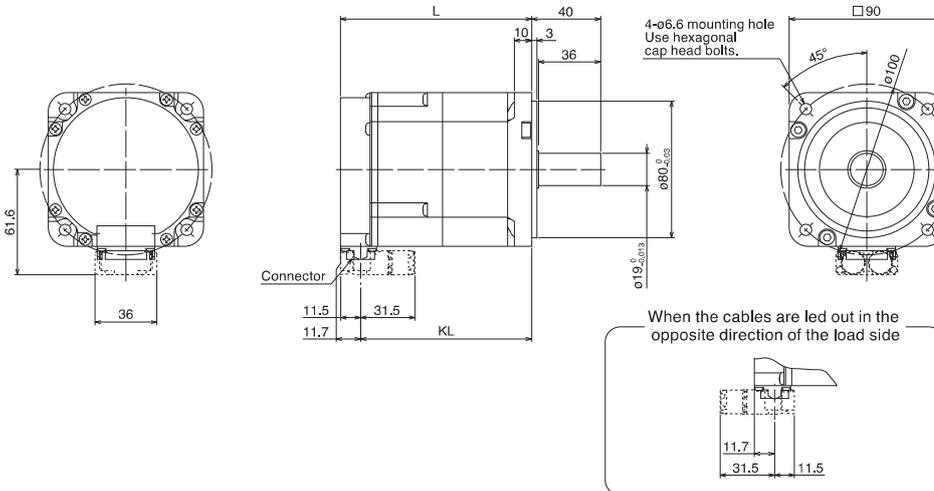
#### Encoder

Pin No.	Signal name
11	P5
12	MR
13	LG
14	MRR

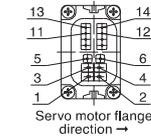
Model	Variable dimensions (Note 1)	
	L	KL
HK-KT7M3W(B)	92.5	80.8
HK-KT7M34W(B)	(128)	(116.3)
HK-KT103W(B)	101.5	89.8
HK-KT1034W(B)	(137)	(125.3)

[Unit: mm]

### HK-KT7M3UW(B), HK-KT103UW(B), HK-KT153W(B), HK-KT203W(B), HK-KT202W(B), HK-KT1534W(B), HK-KT2034W(B), HK-KT2024W(B)



#### Connector



#### Electromagnetic brake (Note 2)

Pin No.	Signal name
5	B1
6	B2

#### Power supply

Pin No.	Signal name
1	(PE)
2	U
3	W
4	V

#### Encoder

Pin No.	Signal name
11	P5
12	MR
13	LG
14	MRR

Model	Variable dimensions (Note 1)	
	L	KL
HK-KT7M3UW(B)	83.5 (111)	71.8 (99.3)
HK-KT103UW(B)	92.5 (120)	80.8 (108.3)
HK-KT153W(B)	118.9	107.2
HK-KT1534W(B)	(158.3)	(146.6)
HK-KT203W(B)	136.9	125.2
HK-KT2034W(B)	(176.3)	(164.6)
HK-KT202W(B)	172.9	161.2
HK-KT2024W(B)	(212.3)	(200.6)

[Unit: mm]

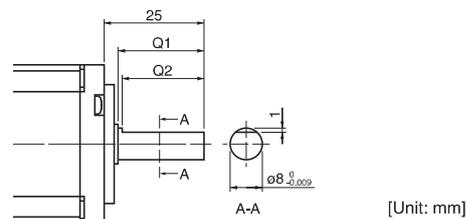
- Notes:
1. Dimensions in brackets are for the models with an electromagnetic brake.
  2. The electromagnetic brake terminals (B1, B2) do not have polarity.
  3. Dimensions are the same regardless of whether or not an oil seal is installed.
  4. Use a friction coupling to fasten a load.

## HK-KT Series with Special Shaft Dimensions

Servo motors with the following specifications are also available.

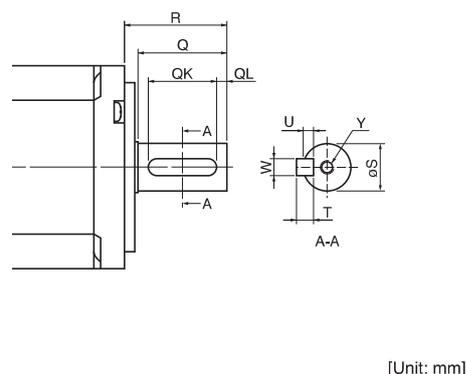
### D: D-cut shaft (Note 1)

Model	Variable dimensions	
	Q1	Q2
HK-KT053WD HK-KT13WD HK-KT1M3WD	21.5	20.5
HK-KT13UWD	21	20



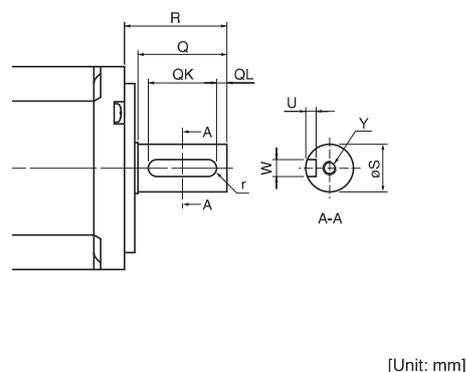
### K: Key shaft (with a double round-ended key) (Note 1)

Model	Variable dimensions									
	S	R	Q	W	QK	QL	U	T	Y	
HK-KT053WK HK-KT13WK HK-KT1M3WK	$8_{-0.009}^0$	25	21.5	3	14	5	1.8	3	M3	Screw depth: 8
HK-KT13UWK			21							
HK-KT23WK HK-KT43(4)WK HK-KT63(4)WK HK-KT23UWK HK-KT43UWK	$14_{-0.011}^0$	30	26	5	20	3	3	5	M4	Screw depth: 15
HK-KT7M3(4)WK HK-KT103(4)WK HK-KT7M3UWK HK-KT103UWK HK-KT153(4)WK HK-KT203(4)WK HK-KT202(4)WK	$19_{-0.013}^0$	40	36	6	25	5	3.5	6	M5	Screw depth: 20



### N: Key shaft (without key) (Note 1, 2)

Model	Variable dimensions									
	S	R	Q	W	QK	QL	U	r	Y	
HK-KT053WN HK-KT13WN HK-KT1M3WN	$8_{-0.009}^0$	25	21.5	$3_{-0.004}^0$ $-0.025$	14	5	$1.8_{-0.1}^0$	1.5	M3	Screw depth: 8
HK-KT13UWN			21							
HK-KT23WN HK-KT43(4)WN HK-KT63(4)WN HK-KT23UWN HK-KT43UWN	$14_{-0.011}^0$	30	26	$5_{-0.03}^0$	20	3	$3_{-0.1}^0$	2.5	M4	Screw depth: 15
HK-KT7M3(4)WN HK-KT103(4)WN HK-KT7M3UWN HK-KT103UWN HK-KT153(4)WN HK-KT203(4)WN HK-KT202(4)WN	$19_{-0.013}^0$	40	36	$6_{-0.03}^0$	25	5	$3.5_{-0.1}^0$	3	M5	Screw depth: 20



Notes: 1. Do not use a servo motor with a D-cut shaft or a key shaft for frequent start/stop applications as this may cause the damage to the shaft.  
2. The servo motor is supplied without a key. The user needs to prepare a key.

# Rotary Servo Motors

## HK-ST\_W (Medium Inertia, Medium Capacity)

Specifications when connected with a 200 V servo amplifier

Flange size		[mm]	130 × 130					176 × 176	
Rotary servo motor model		HK-ST	52W	102W	172W	202AW	302W	202W	352W
Continuous running duty (Note 4)	Rated output	[kW]	0.5	1.0	1.75	2.0	3.0	2.0	3.5
	Rated torque (Note 3, 5)	[N·m]	2.4 (3.2)	4.8 (6.4)	8.4	9.5 (11.6)	14.3	9.5 (12.7)	16.7
Maximum torque (Note 3)		[N·m]	7.2 (12.7)	14.3 (19.1)	25.1	28.6 (34.7)	43.0	28.6 (38.2)	50.1
Rated speed (Note 3, 4)		[r/min]	2000 (1500)	2000 (1500)	2000	2000 (1650)	2000	2000 (1500)	2000
Maximum speed (Note 4)		[r/min]	4000				2500	4000	3500
Power rate at continuous rated torque (Note 3)	Standard	[kW/s]	9.7 (17.2)	26.3 (46.8)	61.2	53.9 (79.2)	91.5	25.1 (44.6)	52.1
	With electromagnetic brake	[kW/s]	7.0 (12.4)	20.9 (37.2)	51.1	47.8 (70.3)	83.6	22.0 (39.2)	47.7
Rated current (Note 3)		[A]	3.0 (4.0)	5.3 (7.0)	9.3	11 (13)	11	10 (14)	16
Maximum current (Note 3)		[A]	11 (19)	18 (24)	32	34 (42)	34	32 (45)	52
Moment of inertia J	Standard	[× 10 <sup>-4</sup> kg·m <sup>2</sup> ]	5.90	8.65	11.4	16.9	22.4	36.4	53.6
	With electromagnetic brake	[× 10 <sup>-4</sup> kg·m <sup>2</sup> ]	8.15	10.9	13.7	19.1	24.5	41.4	58.6
Recommended load to motor inertia ratio (Note 1)			15 times or less (Note 6)	23 times or less	24 times or less			15 times or less (Note 7)	12 times or less (Note 8)
Speed/position detector			Batteryless absolute/incremental 26-bit encoder (resolution: 67,108,864 pulses/rev)						
Oil seal			None (Servo motors with an oil seal are available. (HK-ST_J))						
Electromagnetic brake			None (Servo motors with an electromagnetic brake are available. (HK-ST_B))						
Thermistor			None						
Insulation class			155 (F)						
Structure			Totally enclosed, natural cooling (IP rating: IP67) (Note 2)						
Vibration resistance *1			X: 24.5 m/s <sup>2</sup> Y: 49 m/s <sup>2</sup>						
Vibration rank			V10 <sup>-3</sup>						
Permissible load for the shaft *2	L	[mm]	55					79	
	Radial	[N]	980					2058	
	Thrust	[N]	490					980	
Mass	Standard	[kg]	4.3	5.2	6.2	8.0	9.8	12	15
	With electromagnetic brake	[kg]	6.0	6.9	7.8	10	12	17	20

- Notes:
1. Contact your local sales office if the load to motor inertia ratio exceeds the value in the table.
  2. The shaft-through portion is excluded. Refer to asterisk 4 of "Annotations for Rotary Servo Motor Specifications" on p. 4-20 in this catalog for the shaft-through portion.
  3. The value in brackets is applicable when the torque is increased with a combination with a larger-capacity servo amplifier. Refer to "Combinations of Rotary Servo Motors and Servo Amplifiers" in this catalog for the available combinations.
  4. The continuous running duty and the speed are not guaranteed when the power supply voltage is dropped.
  5. When unbalanced torque is generated, such as in a vertical lift machine, keep the unbalanced torque of the machine under 70 % of the servo motor rated torque.
  6. 19 times or less for 3000 r/min or less.
  7. 20 times or less for 3000 r/min or less.
  8. 22 times or less for 3000 r/min or less.

Refer to "Annotations for Rotary Servo Motor Specifications" on p. 4-20 in this catalog for details about asterisks 1 to 3.

## Electromagnetic brake specifications (Note 1)

Model		HK-ST	52WB	102WB	172WB	202AWB	302WB	202WB	352WB
Type		Spring actuated type safety brake							
Rated voltage		24 V DC .0%							
Power consumption		[W] at 20 °C	20			23		34	
Electromagnetic brake static friction torque		[N·m]	8.5 or higher			16 or higher		44 or higher	
Permissible braking work	Per braking	[J]	400			400		4500	
	Per hour	[J]	4000			4000		45000	
Electromagnetic brake life (Note 2)	Number of braking times		20000			5000		20000	
	Work per braking	[J]	200			400		1000	

- Notes:
1. The electromagnetic brake is for holding. It cannot be used for deceleration applications.
  2. Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until readjustment is needed.

### HK-ST\_4\_W (Medium Inertia, Medium Capacity)

Specifications when connected with a 200 V servo amplifier

Flange size		[mm]	130 × 130					176 × 176			
Rotary servo motor model		HK-ST	524W	1024W	1724W	2024AW	3024W	2024W	3524W	5024W	
Continuous running duty (Note 4)	Rated output	[kW]	0.3	0.6	0.85	1.0	1.5	1.2	2.0	3.0	
	Rated torque (Note 5)	[N•m]	2.9	5.7	8.1	9.5	14.3	11.5	19.1	28.6	
Maximum torque (Note 3)		[N•m]	11.5	17.2 (20.1)	24.4	33.4	43.0	40.1	57.3 (66.8)	85.9	
Rated speed (Note 4)		[r/min]	1000								
Maximum speed (Note 4)		[r/min]	2000				1200	2000	1500	2000	
Power rate at continuous rated torque	Standard	[kW/s]	13.9	37.9	57.8	53.9	91.5	36.1	68.0	116	
	With electromagnetic brake	[kW/s]	10.1	30.1	48.3	47.8	83.6	31.7	62.3	108	
Rated current		[A]	1.8	3.2	4.5	5.2	5.1	6.0	9.0	16	
Maximum current (Note 3)		[A]	8.3	11 (13)	17	20	17	24	32 (37)	52	
Moment of inertia J	Standard	[× 10 <sup>-4</sup> kg•m <sup>2</sup> ]	5.90	8.65	11.4	16.9	22.4	36.4	53.6	70.8	
	With electromagnetic brake	[× 10 <sup>-4</sup> kg•m <sup>2</sup> ]	8.15	10.9	13.7	19.1	24.5	41.4	58.6	75.8	
Recommended load to motor inertia ratio (Note 1)			15 times or less	24 times or less		20 times or less	24 times or less	23 times or less			
Speed/position detector			Batteryless absolute/incremental 26-bit encoder (resolution: 67,108,864 pulses/rev)								
Oil seal			None (Servo motors with an oil seal are available. (HK-ST_J))								
Electromagnetic brake			None (Servo motors with an electromagnetic brake are available. (HK-ST_B))								
Thermistor			None								
Insulation class			155 (F)								
Structure			Totally enclosed, natural cooling (IP rating: IP67) (Note 2)								
Vibration resistance *1			X: 24.5 m/s <sup>2</sup> Y: 49 m/s <sup>2</sup>							X: 24.5 m/s <sup>2</sup> Y: 29.4 m/s <sup>2</sup>	
Vibration rank			V10 <sup>-3</sup>								
Permissible load for the shaft *2	L	[mm]	55					79			
	Radial	[N]	980							2058	
	Thrust	[N]	490							980	
Mass	Standard	[kg]	4.3	5.2	6.2	8.0	9.8	12	15	18	
	With electromagnetic brake	[kg]	6.0	6.9	7.8	10	12	17	20	23	

- Notes: 1. Contact your local sales office if the load to motor inertia ratio exceeds the value in the table.  
 2. The shaft-through portion is excluded. Refer to asterisk 4 of "Annotations for Rotary Servo Motor Specifications" on p. 4-20 in this catalog for the shaft-through portion.  
 3. The value in brackets is applicable when the torque is increased with a combination with a larger-capacity servo amplifier. Refer to "Combinations of Rotary Servo Motors and Servo Amplifiers" in this catalog for the available combinations.  
 4. The continuous running duty and the speed are not guaranteed when the power supply voltage is dropped.  
 5. When unbalanced torque is generated, such as in a vertical lift machine, keep the unbalanced torque of the machine under 70 % of the servo motor rated torque.

Refer to "Annotations for Rotary Servo Motor Specifications" on p. 4-20 in this catalog for details about asterisks 1 to 3.

### Electromagnetic brake specifications (Note 1)

Model	HK-ST	524WB	1024WB	1724WB	2024AWB	3024WB	2024WB	3524WB	5024WB	
Type	Spring actuated type safety brake									
Rated voltage	24 V DC -10 %									
Power consumption	[W] at 20 °C	20				23	34			
Electromagnetic brake static friction torque	[N•m]	8.5 or higher				16 or higher		44 or higher		
Permissible braking work	Per braking	[J]	400				400	4500		
	Per hour	[J]	4000				4000	45000		
Electromagnetic brake life (Note 2)	Number of braking times		20000				5000	20000		
	Work per braking	[J]	200				400	1000		

- Notes: 1. The electromagnetic brake is for holding. It cannot be used for deceleration applications.  
 2. Brake gap is not adjustable. Electromagnetic brake life is defined as the time period until readjustment is needed.

# Rotary Servo Motors

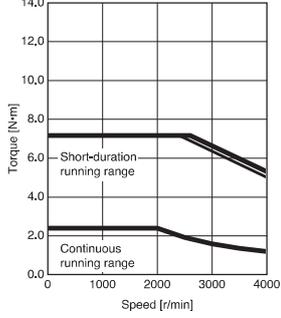
## HK-ST\_W Torque Characteristics (Note 1)

When connected with a 200 V servo amplifier

— : For 3-phase 200 V AC  
 — : For 1-phase 200 V AC

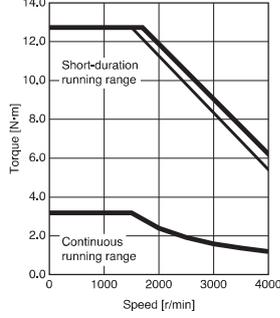
### HK-ST52W

Standard torque



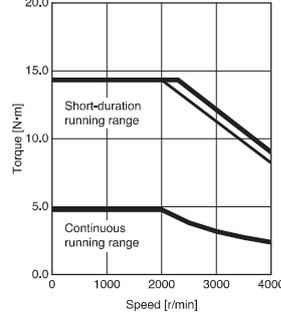
### HK-ST52W

Torque increased



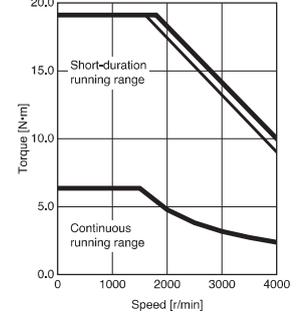
### HK-ST102W

Standard torque



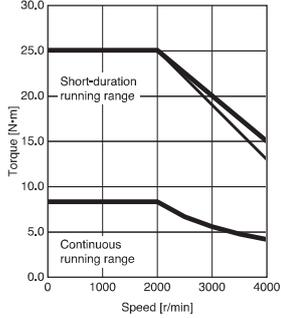
### HK-ST102W

Torque increased



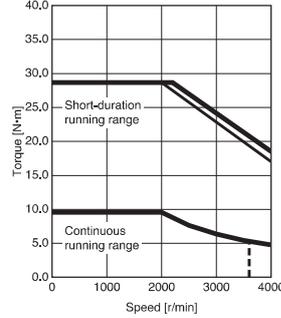
### HK-ST172W

Standard torque



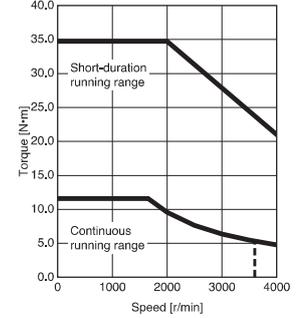
### HK-ST202AW

Standard torque



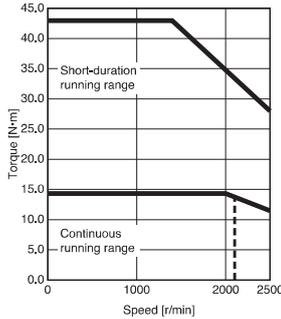
### HK-ST202AW

Torque increased



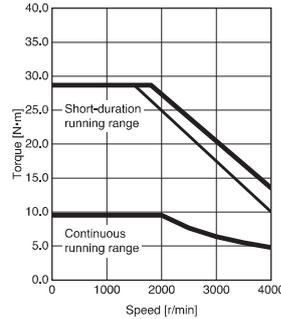
### HK-ST302W

Standard torque



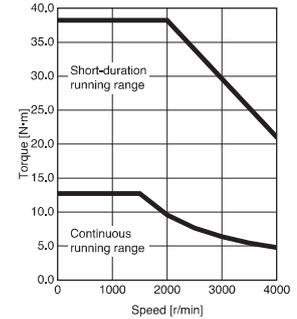
### HK-ST202W

Standard torque



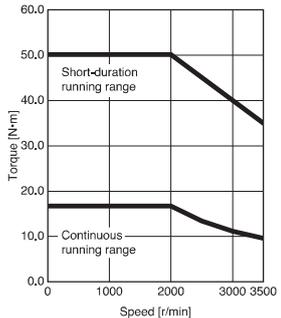
### HK-ST202W

Torque increased



### HK-ST352W

Standard torque



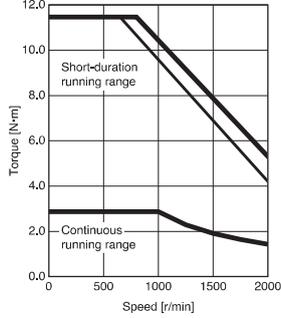
Notes: 1. Torque drops when the power supply voltage is below the specified value. - - - - : A rough indication for 3-phase 170 V AC

**HK-ST\_4\_W Torque Characteristics (Note 1)**

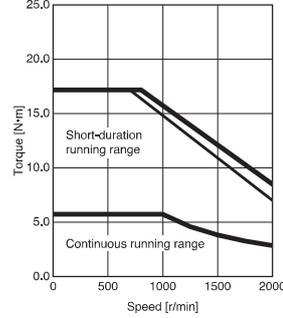
When connected with a 200 V servo amplifier

— : For 3-phase 200 V AC  
 — : For 1-phase 200 V AC

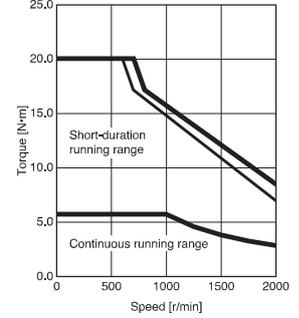
**HK-ST524W**  
 Standard torque



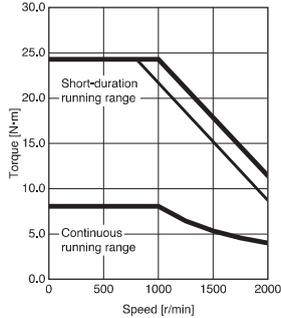
**HK-ST1024W**  
 Standard torque



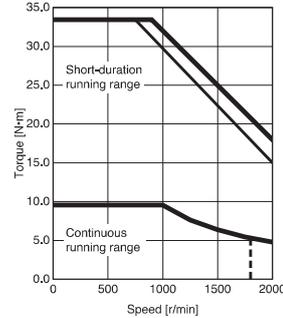
**HK-ST1024W**  
 Torque increased



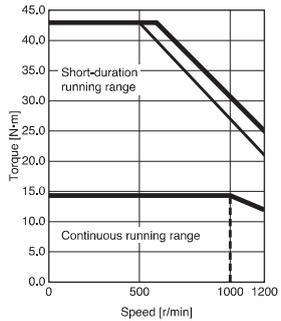
**HK-ST1724W**  
 Standard torque



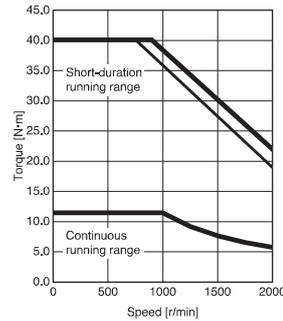
**HK-ST2024AW**  
 Standard torque



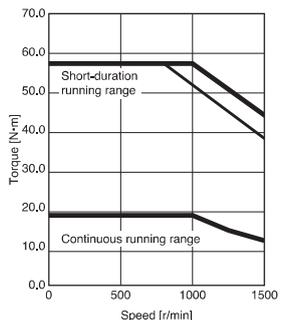
**HK-ST3024W**  
 Standard torque



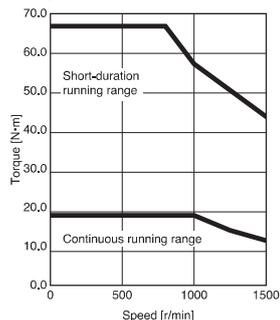
**HK-ST2024W**  
 Standard torque



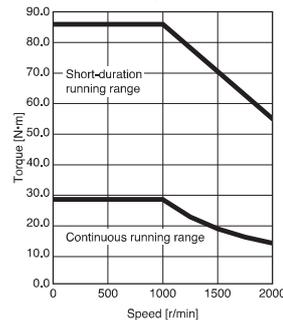
**HK-ST3524W**  
 Standard torque



**HK-ST3524W**  
 Torque increased



**HK-ST5024W**  
 Standard torque



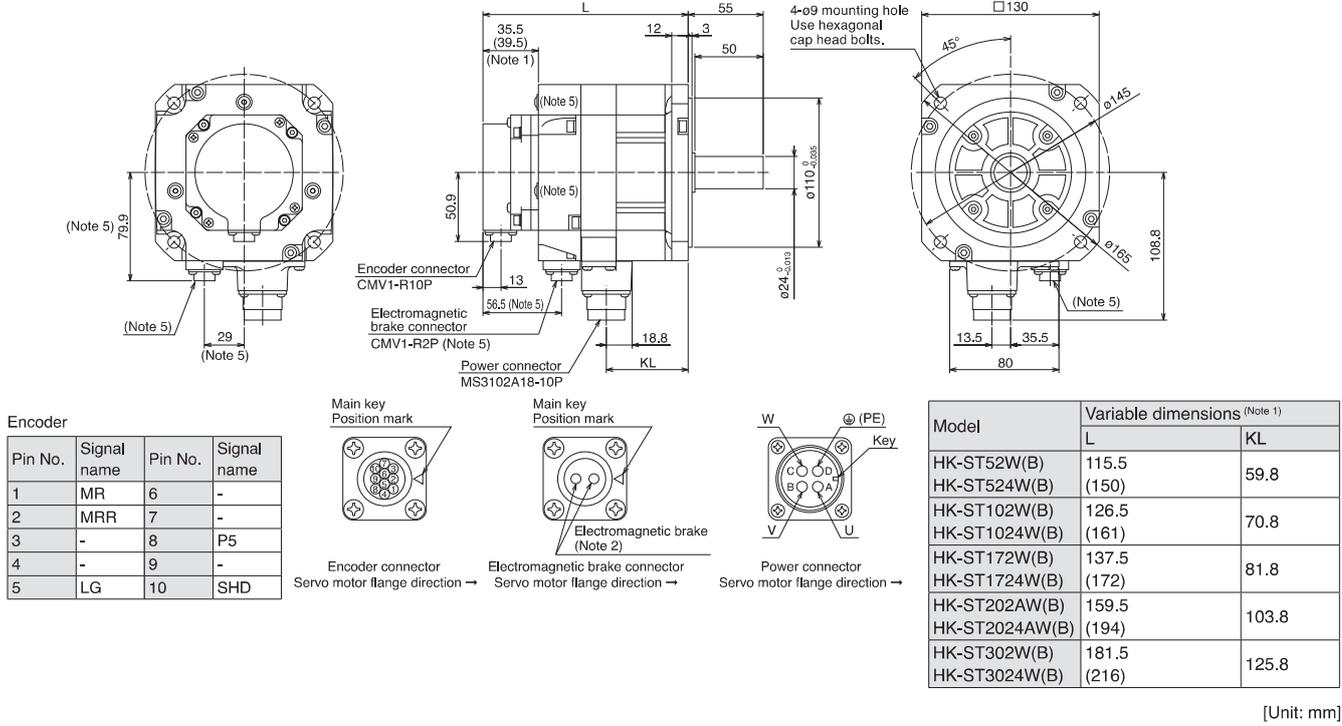
Notes: 1. Torque drops when the power supply voltage is below the specified value. - - - - : A rough indication for 3-phase 170 V AC

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 Support

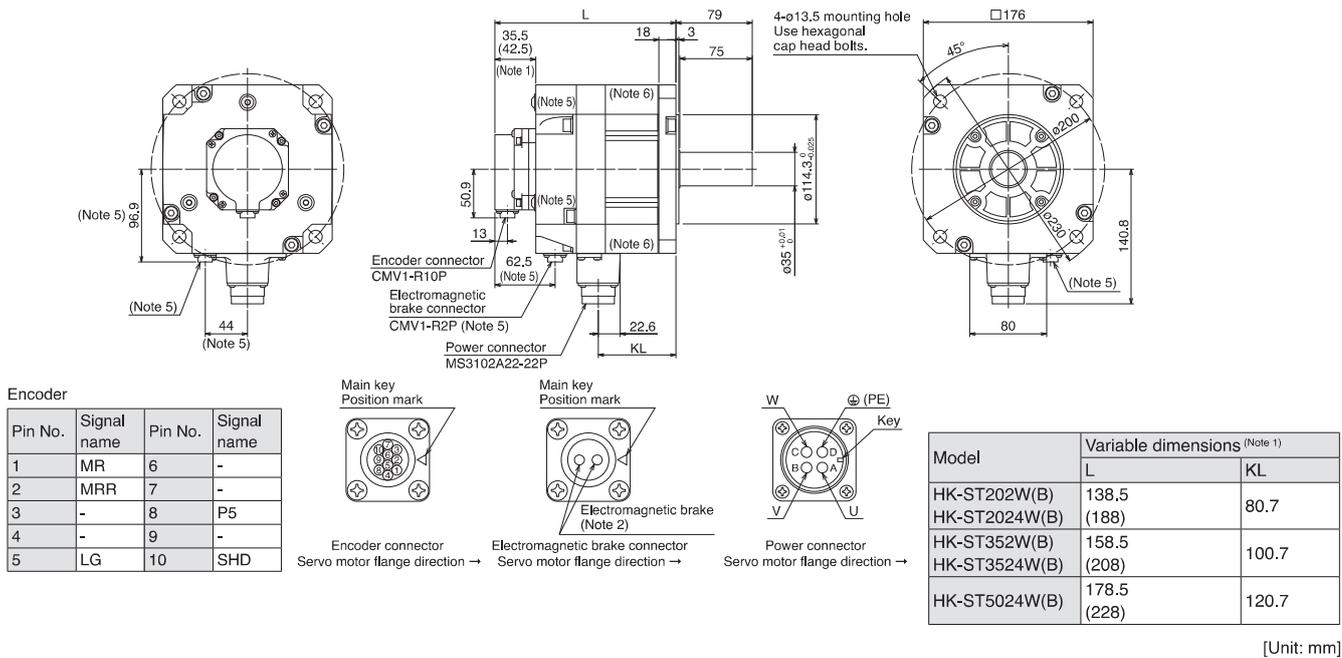
# Rotary Servo Motors

## HK-ST Series Dimensions (Note 3, 4)

HK-ST52W(B), HK-ST102W(B), HK-ST172W(B), HK-ST202AW(B), HK-ST302W(B),  
 HK-ST524W(B), HK-ST1024W(B), HK-ST1724W(B), HK-ST2024AW(B), HK-ST3024W(B)



HK-ST202W(B), HK-ST352W(B),  
 HK-ST2024W(B), HK-ST3524W(B), HK-ST5024W(B)



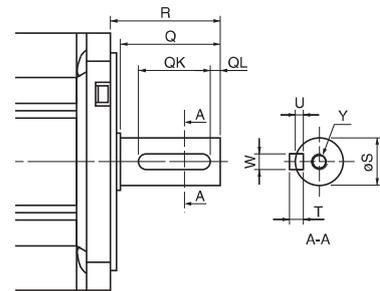
- Notes:
1. Dimensions in brackets are for the models with an electromagnetic brake.
  2. The electromagnetic brake terminals do not have polarity.
  3. Dimensions are the same regardless of whether or not an oil seal is installed.
  4. Use a friction coupling to fasten a load.
  5. Only for the models with an electromagnetic brake.
  6. HK-ST352W(B), HK-ST3524W(B), and HK-ST5024W(B) have screw holes (M8) for eyebolts.

### HK-ST Series with Special Shaft Dimensions

Servo motors with the following specifications are also available.

#### K: Key shaft (with a double round-ended key) (Note 1)

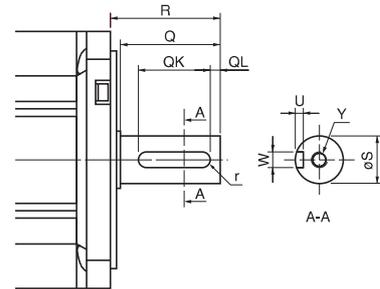
Model	Variable dimensions									Screw depth: 20
	S	R	Q	W	QK	QL	U	T	Y	
HK-ST52(4)WK HK-ST102(4)WK HK-ST172(4)WK HK-ST202(4)AWK HK-ST302(4)WK	24 <sup>0</sup> <sub>-0,013</sub>	55	50	8	36	5	4	7	M8	Screw depth: 20
HK-ST202(4)WK HK-ST352(4)WK ST5024WK	35 <sup>0,010</sup> <sub>0</sub>	79	75	10	55	5	5	8	M8	



[Unit: mm]

#### N: Key shaft (without key) (Note 1, 2)

Model	Variable dimensions									Screw depth: 20
	S	R	Q	W	QK	QL	U	r	Y	
HK-ST52(4)WN HK-ST102(4)WN HK-ST172(4)WN HK-ST202(4)AWN HK-ST302(4)WN	24 <sup>0</sup> <sub>-0,013</sub>	55	50	8 <sup>0</sup> <sub>-0,036</sub>	36	5	4 <sup>+0,2</sup> <sub>0</sub>	4	M8	Screw depth: 20
HK-ST202(4)WN HK-ST352(4)WN ST5024WN	35 <sup>0,010</sup> <sub>0</sub>	79	75	10 <sup>0</sup> <sub>-0,036</sub>	55	5	5 <sup>+0,2</sup> <sub>0</sub>	5	M8	



[Unit: mm]

- Notes: 1. Do not use a servo motor with a key shaft for frequent start/stop applications as this may cause the damage to the shaft.  
2. The servo motor is supplied without a key. The user needs to prepare a key.

# Rotary Servo Motors

## Power Supply Capacity

1-axis servo amplifiers

Rotary servo motor		Servo amplifier	Power supply capacity [kVA] (Note 1)
HK-KT_W	HK-KT053W	MR-J5-10G/A	0.3
		MR-J5-20G/A	0.3
		MR-J5-40G/A	0.3
	HK-KT13W	MR-J5-10G/A	0.3
		MR-J5-20G/A	0.3
		MR-J5-40G/A	0.3
	HK-KT1M3W	MR-J5-20G/A	0.5
		MR-J5-40G/A	0.5
		MR-J5-60G/A	0.5
	HK-KT13UW	MR-J5-10G/A	0.3
		MR-J5-20G/A	0.3
	HK-KT23W	MR-J5-20G/A	0.5
		MR-J5-40G/A	0.5
		MR-J5-60G/A	0.5
	HK-KT43W	MR-J5-40G/A	0.9
		MR-J5-60G/A	0.9
		MR-J5-70G/A	0.9
	HK-KT63W	MR-J5-70G/A	1.3
		MR-J5-100G/A	1.3
		MR-J5-200G/A	1.3
	HK-KT23UW	MR-J5-20G/A	0.5
		MR-J5-40G/A	0.5
		MR-J5-60G/A	0.5
	HK-KT43UW	MR-J5-40G/A	0.8
		MR-J5-60G/A	0.8
		MR-J5-70G/A	0.8
	HK-KT7M3W	MR-J5-70G/A	1.3
		MR-J5-100G/A	1.3
		MR-J5-200G/A	1.3
	HK-KT103W	MR-J5-100G/A	1.9
		MR-J5-200G/A	1.9
		MR-J5-350G/A	2.0
	HK-KT7M3UW	MR-J5-70G/A	1.3
		MR-J5-100G/A	1.3
		MR-J5-200G/A	1.3
	HK-KT103UW	MR-J5-100G/A	1.8
MR-J5-200G/A		1.8	
MR-J5-350G/A		1.8	
HK-KT153W	MR-J5-200G/A	2.6	
	MR-J5-350G/A	2.8	
HK-KT203W	MR-J5-200G/A	3.2	
	MR-J5-350G/A	3.6	
HK-KT202W	MR-J5-200G/A	3.3	
	MR-J5-350G/A	3.6	

Rotary servo motor		Servo amplifier	Power supply capacity [kVA] (Note 1)
HK-KT_4_W	HK-KT434W	MR-J5-20G/A	0.6
		MR-J5-40G/A	0.6
		MR-J5-60G/A	0.6
	HK-KT634W	MR-J5-40G/A	0.8
		MR-J5-60G/A	0.8
		MR-J5-70G/A	0.8
	HK-KT7M34W	MR-J5-40G/A	0.9
		MR-J5-60G/A	0.9
		MR-J5-70G/A	0.9
	HK-KT1034W	MR-J5-60G/A	1.1
		MR-J5-70G/A	1.1
		MR-J5-100G/A	1.1
	HK-KT1534W	MR-J5-70G/A	1.5
		MR-J5-100G/A	1.5
		MR-J5-200G/A	1.5
	HK-KT2034W	MR-J5-100G/A	1.9
		MR-J5-200G/A	1.9
		MR-J5-350G/A	2.0
HK-KT2024W	MR-J5-100G/A	1.9	
	MR-J5-200G/A	1.9	
	MR-J5-350G/A	2.1	
HK-ST_W	HK-ST52W	MR-J5-60G/A	1.0
		MR-J5-70G/A	1.0
		MR-J5-100G/A	1.0
	HK-ST102W	MR-J5-100G/A	1.7
		MR-J5-200G/A	1.7
		MR-J5-350G/A	1.8
	HK-ST172W	MR-J5-200G/A	3.0
		MR-J5-350G/A	3.2
		MR-J5-200G/A	3.5
	HK-ST202AW	MR-J5-200G/A	3.5
		MR-J5-350G/A	3.5
	HK-ST302W	MR-J5-350G/A	4.9
MR-J5-200G/A		3.5	
HK-ST202W	MR-J5-350G/A	3.5	
	MR-J5-200G/A	3.5	
HK-ST352W	MR-J5-350G/A	5.5	
	MR-J5-200G/A	3.5	
HK-ST_4_W	HK-ST524W	MR-J5-40G/A	0.7
		MR-J5-60G/A	0.7
		MR-J5-70G/A	0.7
	HK-ST1024W	MR-J5-60G/A	1.3
		MR-J5-70G/A	1.3
		MR-J5-100G/A	1.3
	HK-ST1724W	MR-J5-100G/A	1.7
		MR-J5-200G/A	1.7
		MR-J5-350G/A	1.8
	HK-ST2024W	MR-J5-100G/A	1.9
		MR-J5-200G/A	1.9
		MR-J5-350G/A	2.0
	HK-ST3024W	MR-J5-200G/A	2.6
		MR-J5-350G/A	2.8
	HK-ST2024W	MR-J5-200G/A	2.1
		MR-J5-350G/A	2.2
	HK-ST3524W	MR-J5-200G/A	3.2
		MR-J5-350G/A	3.5
HK-ST5024W	MR-J5-350G/A	4.9	

Notes: 1. The power supply capacity varies depending on the power supply impedance.

## Power Supply Capacity

### Multi-axis servo amplifiers

Rotary servo motor	Servo amplifier	Power supply capacity [kVA] (Note 1, 2)	
HK-KT_W	HK-KT053W	MR-J5W2-22G	0.3
		MR-J5W2-44G	0.3
		MR-J5W3-222G	0.3
		MR-J5W3-444G	0.3
	HK-KT13W	MR-J5W2-22G	0.3
		MR-J5W2-44G	0.3
		MR-J5W3-222G	0.3
		MR-J5W3-444G	0.3
	HK-KT1M3W	MR-J5W2-22G	0.5
		MR-J5W2-44G	0.5
		MR-J5W3-222G	0.5
		MR-J5W3-444G	0.5
	HK-KT13UW	MR-J5W2-22G	0.3
		MR-J5W2-44G	0.3
		MR-J5W3-222G	0.3
		MR-J5W3-444G	0.3
	HK-KT23W	MR-J5W2-22G	0.5
		MR-J5W2-44G	0.5
		MR-J5W3-222G	0.5
		MR-J5W3-444G	0.5
	HK-KT43W	MR-J5W2-44G	0.9
		MR-J5W2-77G	0.9
		MR-J5W2-1010G	0.9
		MR-J5W3-444G	0.9
	HK-KT63W	MR-J5W2-77G	1.3
		MR-J5W2-1010G	1.3
	HK-KT23UW	MR-J5W2-22G	0.5
		MR-J5W2-44G	0.5
		MR-J5W3-222G	0.5
		MR-J5W3-444G	0.5
HK-KT43UW	MR-J5W2-44G	0.8	
	MR-J5W2-77G	0.8	
	MR-J5W2-1010G	0.8	
	MR-J5W3-444G	0.8	
HK-KT7M3W	MR-J5W2-77G	1.3	
	MR-J5W2-1010G	1.3	
HK-KT103W	MR-J5W2-1010G	1.9	
HK-KT7M3UW	MR-J5W2-77G	1.3	
	MR-J5W2-1010G	1.3	
HK-KT103UW	MR-J5W2-1010G	1.3	

Rotary servo motor	Servo amplifier	Power supply capacity [kVA] (Note 1, 2)	
HK-KT_4_W	HK-KT434W	MR-J5W2-22G	0.6
		MR-J5W2-44G	0.6
		MR-J5W3-222G	0.6
		MR-J5W3-444G	0.6
	HK-KT634W	MR-J5W2-44G	0.8
		MR-J5W2-77G	0.8
		MR-J5W2-1010G	0.8
		MR-J5W3-444G	0.8
	HK-KT7M34W	MR-J5W2-44G	0.9
		MR-J5W2-77G	0.9
		MR-J5W2-1010G	0.9
		MR-J5W3-444G	0.9
	HK-KT1034W	MR-J5W2-77G	1.1
		MR-J5W2-1010G	1.1
MR-J5W2-77G		1.5	
MR-J5W2-1010G		1.5	
HK-KT1534W	MR-J5W2-77G	1.9	
	MR-J5W2-1010G	1.9	
	MR-J5W2-77G	1.0	
	MR-J5W2-1010G	1.0	
HK-KT2034W	MR-J5W2-1010G	1.7	
	MR-J5W2-1010G	1.7	
HK-KT2024W	MR-J5W2-77G	0.7	
	MR-J5W2-44G	0.7	
HK-KT434W	MR-J5W2-77G	0.7	
	MR-J5W3-444G	0.7	
	MR-J5W2-77G	1.3	
HK-KT1024W	MR-J5W2-77G	1.3	
	MR-J5W2-1010G	1.3	
HK-KT1724W	MR-J5W2-1010G	1.7	
	MR-J5W2-1010G	1.7	
HK-KT2024AW	MR-J5W2-1010G	1.9	

Notes: 1. The power supply capacity varies depending on the power supply impedance.

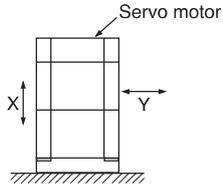
2. The listed values are the power supply capacity for one servo motor. For the multi-axis servo amplifiers, calculate the power supply capacity with the equation below:  
 Power supply capacity [kVA] = Sum of power supply capacity [kVA] of the connected servo motors

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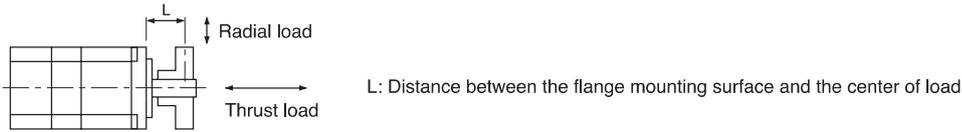
# Rotary Servo Motors

## Annotations for Rotary Servo Motor Specifications

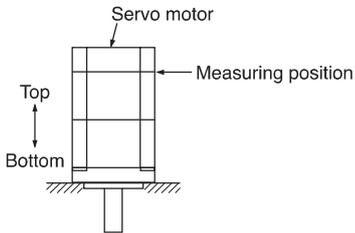
- \*1. The vibration direction is shown in the diagram below. The numerical value indicates the maximum value of the component (commonly the bracket in the opposite direction of the load side).  
Fretting tends to occur on the bearing when the servo motor stops. Thus, maintain vibration level at approximately one-half of the allowable value.



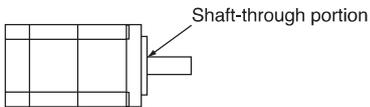
- \*2. Refer to the diagram below for the permissible load for the shaft. Ensure that loads applied on the shaft do not exceed the values specified in the table. The values in the table are applicable when each load is applied singly.



- \*3. V10 indicates that the amplitude of the servo motor itself is 10  $\mu\text{m}$  or less. The following shows mounting orientation and measuring position of the servo motor during the measurement:



- \*4. Refer to the diagram below for the shaft-through portion.





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