

(RoHS) RoHS-Compliant
2-Phase Stepping Motor and Driver Package

RBK Series



Motor Frame Sizes: 1.10, 1.38 & 1.65 inch, High-torque type
Motor Frame Sizes: 1.65 & 2.36 inch, **PL** geared types
Motor Frame Sizes: All motor frame sizes now feature encoders
(Except Terminal Box Type)

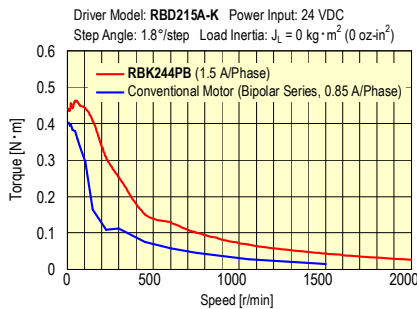


* Motor and/or encoder cables are included with the High-torque, **PL** geared and Encoder versions

The **RBK Series** is a motor and driver package consisting of a high current, bipolar 2-phase stepping motor with a 20 ~ 75 VDC* input microstep driver.
* 20 ~ 40 VDC input for some models.

Features

- Motor and driver have been designed to achieve superior performance throughout the entire speed range, guaranteed.
- High current bipolar motors (1.5 ~ 4.5 Amps) with or without encoder.
- Microstep driver includes Oriental Motor's proprietary Smooth Drive technology which easily provides low vibration and high torque at any speed.



PL Geared Type

Brand new high torque, low backlash, in-line output shaft planetary geared type now available.



Product Line

Type	Feature	Motor Frame Size		Basic Step Angle [deg/step]	Maximum Holding Torque
		w/o Encoder	w/ Encoder		
 High-Torque Type	A high-torque motor has approx. 1.3 ~ 1.5 times more torque when compared to a standard 2 phase stepping motor.	□28 mm (□1.10 in.) NEW	□28 mm (□1.10 in.) NEW	1.8	0.065 ~ 0.11 N·m (9.2 ~ 15.6 oz-in)
		□35 mm (□1.38 in.) NEW	□35 mm (□1.38 in.) NEW		0.2 ~ 0.37 N·m (28 ~ 52 oz-in)
		□42 mm (□1.65 in.) NEW	□42 mm (□1.65 in.) NEW		0.48 ~ 0.93 N·m (68 ~ 132 oz-in)
 Standard Type	The basic model offering a good balance of torque and low vibration/noise characteristics.	□56.4 mm (□2.22 in.)	□56.4 mm (□2.22 in.) NEW	1.8	0.48 ~ 1.75 N·m (68 ~ 240 oz-in)
		□85 mm (□3.35 in.)	□85 mm (□3.35 in.) NEW		2.2 ~ 6.6 N·m (310 ~ 930 oz-in)
 Terminal Box Type	A terminal box motor conforms to the IP65 standard of ingress protection against dust and water.	□56.4 mm (□2.22 in.)	-	1.8	0.48 ~ 1.75 N·m (68 ~ 240 oz-in)
		□85 mm (□3.35 in.)	-		2.2 ~ 6.6 N·m (310 ~ 930 oz-in)
 PL Geared Type	Geared stepping motor with planetary gear mechanism offering low backlash, high output torque. Gear Ratios: 5:1, 10:1, 36:1	□42 mm (□1.65 in.) NEW	□42 mm (□1.65 in.) NEW	0.05 ~ 0.36	1 ~ 3 N·m (8.8 ~ 26 lb-in)
		□60 mm (□2.36 in.) NEW	□60 mm (□2.36 in.) NEW		3.5 ~ 8 N·m (30 ~ 70 lb-in)

visit www.orientalmotor.com

For further information (specifications, dimensions, speed-torque characteristics)

Product Number Code

High-Torque Type, Standard Type

RBK 2 4 6 P A

① ② ③ ④ ⑤ ⑥

Terminal Box Type

RBK 2 6 6 T

① ② ③ ④ ⑦

High-Torque Type with Encoder, Standard Type with Encoder

RBK 2 4 6 P A - R 1 5

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

PL Geared Type

RBK 2 4 6 P A - P 10

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

PL Geared Type

RBK 2 4 4 P A R 1 5 - P 10

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

①	Series	RBK: RBK Series
②	2: 2-Phase	
③	Motor Frame Size	2: 28 mm (1.10 in.) 3: 35 mm (1.38 in.) 4: 42 mm (1.65 in.) 6: 56.4 mm (2.22 in.) 9: 85mm (3.35 in.)
④	Motor Case Length	
⑤	Motor Type	P: High-Torque Type Blank: Standard Type
⑥	Shaft Type	A: Single Shaft B: Double Shaft
⑦	Motor Classification	T: Terminal Box

①	Series	RBK: RBK Series
②	2: 2-Phase	
③	Motor Frame Size	2: 28 mm (1.10 in.) 3: 35 mm (1.38 in.) 4: 42 mm (1.65 in.) 6: 56.4 mm (2.22 in.) 9: 85mm (3.35 in.)
④	Motor Case Length	
⑤	Motor Type	P: High-Torque Type Blank: Standard Type
⑥	Shaft Type	A: Single Shaft
⑦	Encoder Version	
⑧	Encoder Output	1: 2-Channel A, B 2: 3-Channel A, B, I
⑨	Encoder Resolution	5: 200P/R 6: 400P/R

①	Series	RBK: RBK Series
②	2: 2-Phase	
③	Motor Frame Size	4: 42 mm (1.65 in.) 6: 60 mm (2.36 in.)
④	Motor Case Length	
⑤	Motor Type	
⑥	Shaft Type	A: Single Shaft B: Double Shaft
⑦	Gearhead Type	P: PL Gearhead Type
⑧	Gear Ratio	

①	Series	RBK: RBK Series
②	2: 2-Phase	
③	Motor Frame Size	4: 42 mm (1.65 in.) 6: 60 mm (2.36 in.)
④	Motor Case Length	
⑤	Motor Type	P: High-Torque Type
⑥	Shaft Type	A: Single Shaft
⑦	Encoder Version	
⑧	Encoder Output	1: 2-Channel A, B 2: 3-Channel A, B, I
⑨	Encoder Resolution	5: 200P/R 6: 400P/R
⑩	Gearhead Type	P: PL Gearhead Type
⑪	Gear Ratio	

Product Line

Notes:

- This documentation is to support additional products not found in the 2009/2010 General Catalog.
- For motors with encoder, Specifications and Speed-Torque Characteristic, Permissible Overhung Load and Permissible Thrust Load are same as motors without an encoder, please refer to Specifications for Basic Motor Model without an encoder.
- Refer to page 15 of this document for Permissible Overhung Load and Permissible Thrust Load.
- Refer to the 2009/2010 General Catalog for the Driver Specifications (Page C-172), General Specifications (Page C-172) and Connection and Operation (Page C-175).

High-Torque Type without Encoder

Model	Reference Page # for	
	Specifications and Speed-Torque Characteristics	Dimensions
RBK223PA	This document Page 5	This document Page 17
RBK223PB		
RBK224PA		
RBK224PB		
RBK225PA		
RBK225PB		
RBK233PA	This document Page 7	
RBK233PB		
RBK235PA		
RBK235PB	This document Page 9	
RBK244PA		
RBK244PB		
RBK246PA		
RBK246PB		

High-Torque Type with Encoder

Model	Basic Model w/o Encoder	Reference Page # for	
		Specifications and Speed-Torque Characteristics	Dimensions
RBK223PA-R15	RBK223PA	This document Page 5	This document Page 18
RBK224PA-R15	RBK224PA		
RBK225PA-R15	RBK225PA		
RBK233PA-R15	RBK233PA	This document Page 7	This document Page 18
RBK233PA-R16			
RBK233PA-R25			
RBK233PA-R26	RBK235PA		
RBK235PA-R15			
RBK235PA-R16			
RBK235PA-R25	RBK244PA		
RBK235PA-R26			
RBK244PA-R15			
RBK244PA-R16			
RBK244PA-R25	RBK246PA	This document Page 9	
RBK244PA-R26			
RBK246PA-R15			
RBK246PA-R16			
RBK246PA-R25			
RBK246PA-R26			

Standard Type without Encoder

Model	Reference Page # for	
	Specifications and Speed-Torque Characteristics	Dimensions
RBK264A	2009/2010 General Catalog C-168	2009/2010 General Catalog C-173
RBK264B		
RBK266A		
RBK266B		
RBK268A		
RBK268B		
RBK296AA	2009/2010 General Catalog C-169	
RBK296BA		
RBK299AA		
RBK299BA		
RBK2913AA		
RBK2913BA		

Standard Type with Encoder

Model	Basic Model w/o Encoder	Reference Page # for	
		Specifications and Speed-Torque Characteristics	Dimensions
RBK264A-R15	RBK264A	2009/2010 General Catalog C-168	This document Page 19
RBK264A-R16			
RBK264A-R25			
RBK264A-R26			
RBK266A-R15	RBK266A		
RBK266A-R16			
RBK266A-R25			
RBK266A-R26	RBK268A		
RBK268A-R15			
RBK268A-R16			
RBK268A-R25			
RBK268A-R26	RBK296AA		
RBK296AA-R15			
RBK296AA-R16			
RBK296AA-R25			
RBK296AA-R26	RBK299AA	2009/2010 General Catalog C-169	This document Page 19
RBK299AA-R15			
RBK299AA-R16			
RBK299AA-R25			
RBK299AA-R26	RBK2913AA		
RBK2913AA-R15			
RBK2913AA-R16			
RBK2913AA-R25			
RBK2913AA-R26			

Terminal Box Type without Encoder

Model	Reference Page # for	
	Specifications and Speed-Torque Characteristics	Dimensions
RBK264T	2009/2010 General Catalog C-170	2009/2010 General Catalog C-174
RBK266T		
RBK268T		
RBK296T	2009/2010 General Catalog C-171	
RBK299T		
RBK2913T		

● PL Geared Type without Encoder

Model	Reference Page # for	
	Specifications and Speed-Torque Characteristics	Dimensions
RBK244PA-P5	This document Page 11	This document Page 20
RBK244PB-P5		
RBK244PA-P10		
RBK244PB-P10		
RBK244PA-P36		
RBK244PB-P36	This document Page 13	
RBK266PA-P5		
RBK266PB-P5		
RBK266PA-P10		
RBK266PB-P10		
RBK264PA-P36		
RBK264PB-P36		

● PL Geared Type with Encoder

Model	Basic Model w/o Encoder	Reference Page # for		
		Specifications and Speed-Torque Characteristics	Dimensions	
RBK244PAR15-P5	RBK244PA-P5	This document Page 11	This document Page 21	
RBK244PAR16-P5				
RBK244PAR25-P5				
RBK244PAR26-P5				
RBK244PAR15-P10	RBK244PA-P10			
RBK244PAR16-P10				
RBK244PAR25-P10				
RBK244PAR26-P10	RBK244PA-P36			
RBK244PAR15-P36				
RBK244PAR16-P36				
RBK244PAR25-P36				
RBK244PAR26-P36	RBK266PA-P5	This document Page 13	This document Page 21	
RBK266PAR15-P5				
RBK266PAR16-P5				
RBK266PAR25-P5				
RBK266PAR26-P5				
RBK266PAR15-P10				RBK266PA-P10
RBK266PAR16-P10				
RBK266PAR25-P10				
RBK266PAR26-P10				RBK266PA-P36
RBK266PAR15-P36				
RBK266PAR16-P36				
RBK266PAR25-P36				
RBK266PAR26-P36				

High-Torque Type Motor Frame Size 28 mm (1.10 in.)

Specifications RoHS

Model	Single Shaft	RBK223PA	RBK224PA	RBK225PA
	Double Shaft	RBK223PB	RBK224PB	RBK225PB
	With Encoder	RBK223PA-R15	RBK224PA-R15	RBK225PA-R15
Maximum Holding Torque*	N·m (oz-in)	0.065 (9.2)	0.097 (13.7)	0.11 (15.6)
Rotor Inertia J	kg·m ² (oz-in ²)	9 × 10 ⁻⁷ (0.049)	12 × 10 ⁻⁷ (0.066)	18 × 10 ⁻⁷ (0.098)
Rated Current	A/Phase	1.5		
Basic Step Angle		1.8°		
Power Source		20~40 VDC 1.7 A		
Excitation Mode		Microstep		
Mass	Motor	kg (lb.)	0.11 (0.24)	0.14 (0.31)
	Driver	kg (lb.)	0.35 (0.77)	

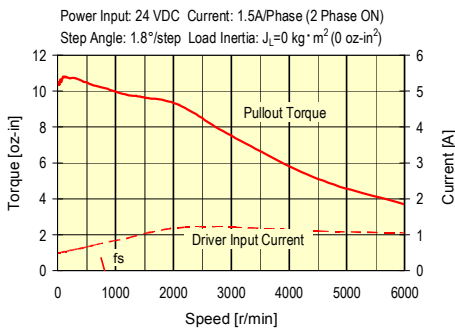
* The holding torque (2-phase excitation) is the maximum holding power (torque) the stepping motor has when power is being supplied but the motor shaft is not rotating (rated current). At motor standstill, the driver's automatic current cutback function reduces the maximum holding torque by approximately 50%.

Speed – Torque Characteristics fs: Maximum Starting Speed

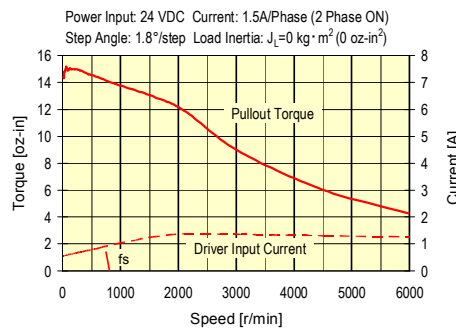
Unit for Torque = [oz-in]

24 VDC Input

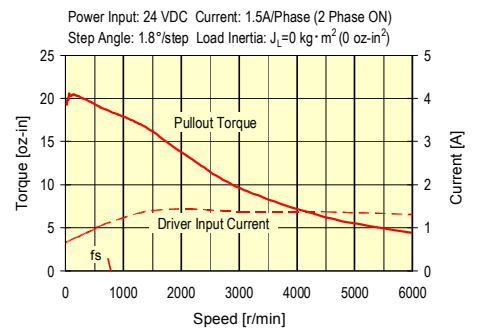
RBK223PA/RBK223PB/RBK223PA-R15



RBK224PA/RBK224PB/RBK224PA-R15

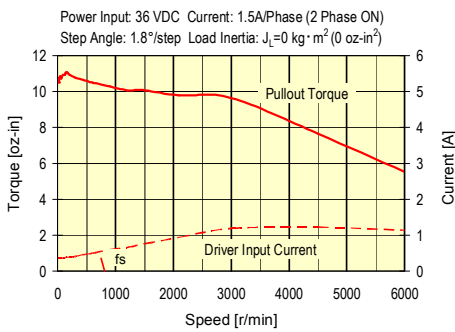


RBK225PA/RBK225PB/RBK225PA-R15

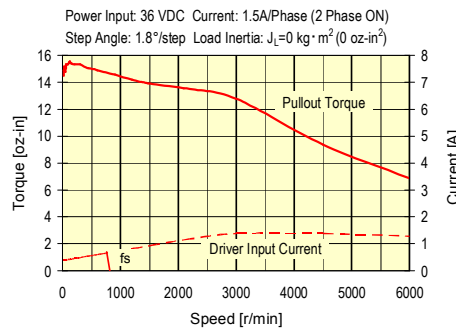


36 VDC Input

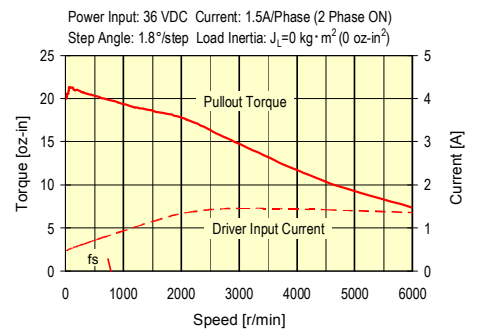
RBK223PA/RBK223PB/RBK223PA-R15



RBK224PA/RBK224PB/RBK224PA-R15



RBK225PA/RBK225PB/RBK225PA-R15



● The pulse input circuit responds to approximately 100 kHz with a pulse duty of 50%.

Notes:

- Pay attention to heat dissipation from motor as there will be a considerable amount of heat under certain conditions. Be sure to keep the temperature of the motor case under 100°C (212°F).
- The driver's automatic current cutback function at motor standstill reduces maximum holding torque by approximately 50%.

High-Torque Type Motor Frame Size 28 mm (1.10 in.)

Specifications RoHS

Same specification table as on the previous page

Model	Single Shaft		RBK223PA	RBK224PA	RBK225PA
	Double Shaft		RBK223PB	RBK224PB	RBK225PB
	With Encoder		RBK223PA-R15	RBK224PA-R15	RBK225PA-R15
Maximum Holding Torque*	N·m (oz-in)		0.065 (9.2)	0.097 (13.7)	0.11 (15.6)
Rotor Inertia J	kg·m ² (oz-in ²)		9 × 10 ⁻⁷ (0.049)	12 × 10 ⁻⁷ (0.066)	18 × 10 ⁻⁷ (0.098)
Rated Current	A/Phase		1.5		
Basic Step Angle			1.8°		
Power Source			20~40 VDC 1.7 A		
Excitation Mode			Microstep		
Mass	Motor	kg (lb.)	0.11 (0.24)	0.14 (0.31)	0.2 (0.44)
	Driver	kg (lb.)	0.35 (0.77)		

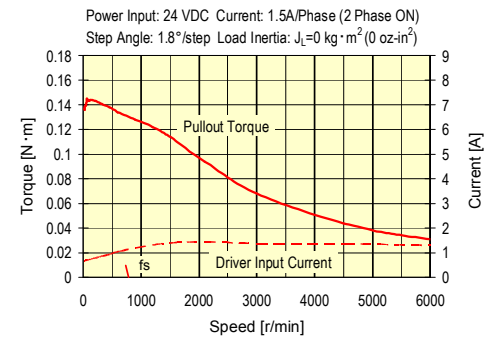
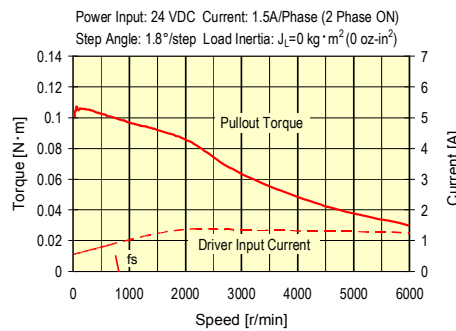
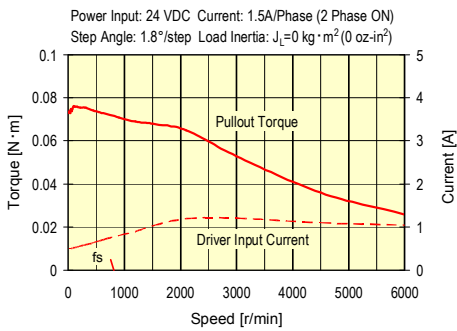
* The holding torque (2-phase excitation) is the maximum holding power (torque) the stepping motor has when power is being supplied but the motor shaft is not rotating (rated current). At motor standstill, the driver's automatic current cutback function reduces the maximum holding torque by approximately 50%.

Speed – Torque Characteristics fs: Maximum Starting Speed

Unit for Torque = [N·m]

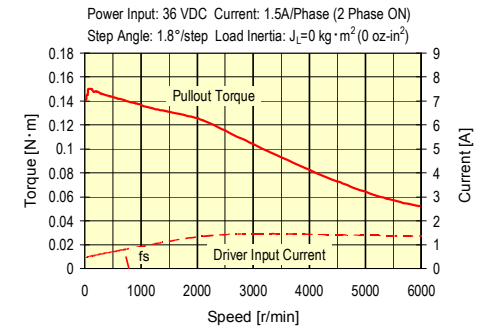
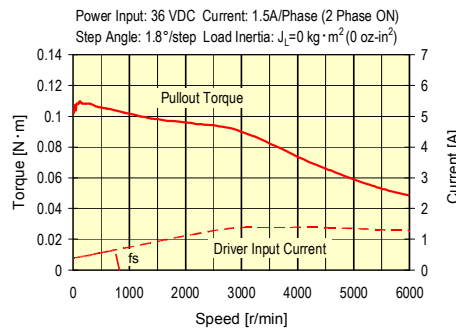
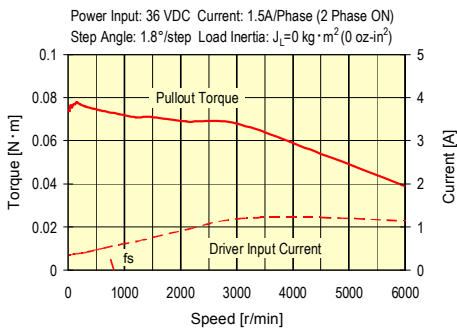
24 VDC Input

RBK223PA/RBK223PB/RBK223PA-R15 **RBK224PA/RBK224PB/RBK224PA-R15** **RBK225PA/RBK225PB/RBK225PA-R15**



36 VDC Input

RBK223PA/RBK223PB/RBK223PA-R15 **RBK224PA/RBK224PB/RBK224PA-R15** **RBK225PA/RBK225PB/RBK225PA-R15**



● The pulse input circuit responds to approximately 100 kHz with a pulse duty of 50%.

Notes:

- Pay attention to heat dissipation from motor as there will be a considerable amount of heat under certain conditions. Be sure to keep the temperature of the motor case under 100°C (212°F).
- The driver's automatic current cutback function at motor standstill reduces maximum holding torque by approximately 50%.

High-Torque Type Motor Frame Size 35 mm (1.38 in.)

Specifications RoHS

Model	Single Shaft	RBK233PA	RBK235PA
	Double Shaft	RBK233PB	RBK235PB
	With Encoder	RBK233PA-R ■ ^{*2}	RBK235PA-R ■ ^{*2}
Maximum Holding Torque ^{*1}	N·m (oz-in)	0.2 (28)	0.37 (52)
Rotor Inertia J	kg·m ² (oz-in ²)	24 × 10 ⁻⁷ (0.131)	50 × 10 ⁻⁷ (0.27)
Rated Current	A/Phase	1.5	
Basic Step Angle		1.8°	
Power Source		20~40 VDC 1.7A	
Excitation Mode		Microstep	
Mass	Motor	kg (lb.)	0.18 (0.40)
	Driver	kg (lb.)	0.35 (0.77)

*1 The holding torque (2-phase excitation) is the maximum holding power (torque) the stepping motor has when power is being supplied but the motor shaft is not rotating (rated current). At motor standstill, the driver's automatic current cutback function reduces the maximum holding torque by approximately 50%.

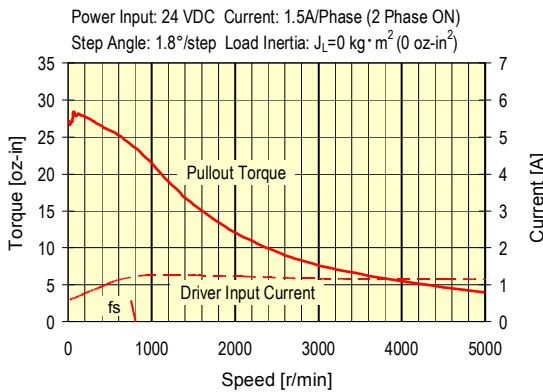
*2 Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.

Speed – Torque Characteristics fs: Maximum Starting Speed

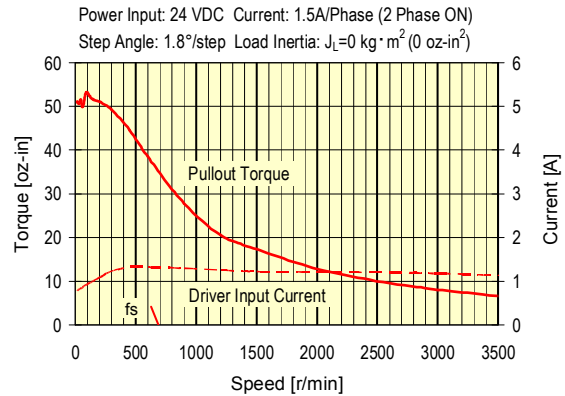
Unit for Torque = [oz-in]

24 VDC Input

RBK233PA/RBK233PB/RBK233PA-R■

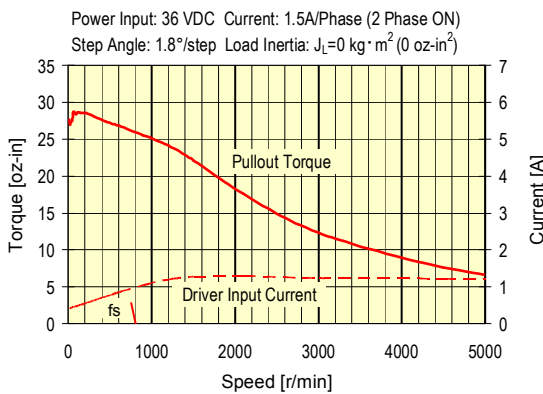


RBK235PA/RBK235PB/RBK235PA-R■

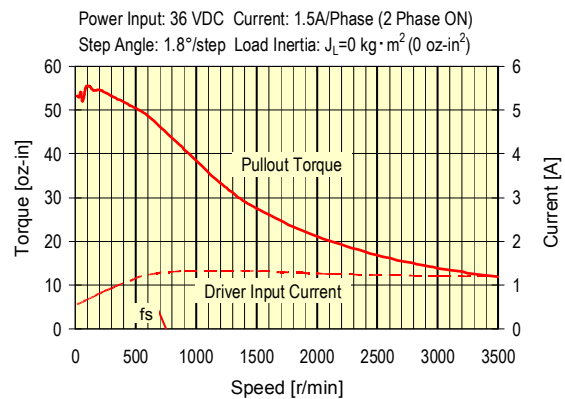


36 VDC Input

RBK233PA/RBK233PB/RBK233PA-R■



RBK235PA/RBK235PB/RBK235PA-R■



- Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
- The pulse input circuit responds to approximately 100 kHz with a pulse duty of 50%.

Notes:

- Pay attention to heat dissipation from motor as there will be a considerable amount of heat under certain conditions. Be sure to keep the temperature of the motor case under 100°C (212°F).
- The driver's automatic current cutback function at motor standstill reduces maximum holding torque by approximately 50%.

High-Torque Type Motor Frame Size 35 mm (1.38 in.)

Specifications (RoHS)

Same specification table as on the previous page

Model	Single Shaft	RBK233PA		RBK235PA		
	Double Shaft	RBK233PB		RBK235PB		
	With Encoder	RBK233PA-R■ ^{*2}		RBK235PA-R■ ^{*2}		
Maximum Holding Torque ^{*1}	N·m (oz-in)		0.2 (28)		0.37 (52)	
Rotor Inertia J	kg·m ² (oz-in ²)		24 × 10 ⁻⁷ (0.131)		50 × 10 ⁻⁷ (0.27)	
Rated Current	A/Phase		1.5			
Basic Step Angle			1.8°			
Power Source			20~40 VDC 1.7A			
Excitation Mode			Microstep			
Mass	Motor	kg (lb.)	0.18 (0.40)		0.285 (0.63)	
	Driver	kg (lb.)	0.35 (0.77)			

*1 The holding torque (2-phase excitation) is the maximum holding power (torque) the stepping motor has when power is being supplied but the motor shaft is not rotating (rated current). At motor standstill, the driver's automatic current cutback function reduces the maximum holding torque by approximately 50%.

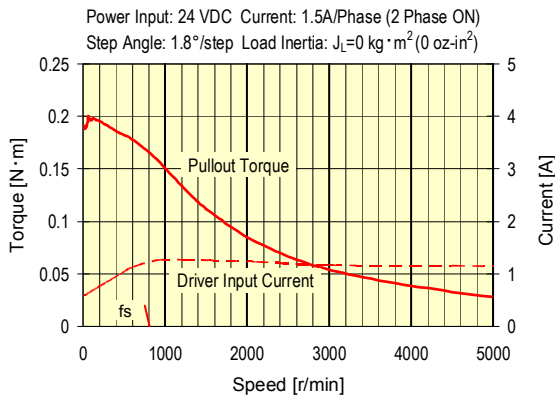
*2 Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.

Speed – Torque Characteristics fs: Maximum Starting Speed

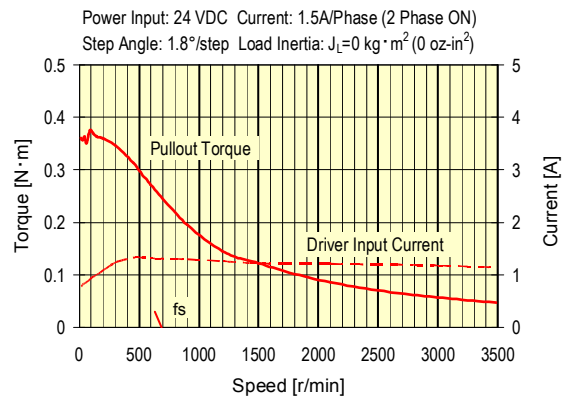
Unit for Torque = [N·m]

24 VDC Input

RBK233PA/RBK233PB/RBK233PA-R■

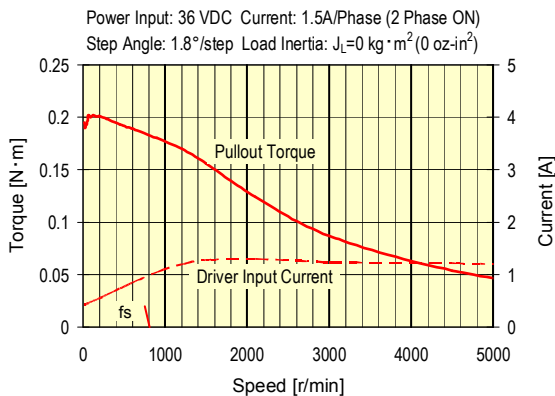


RBK235PA/RBK235PB/RBK235PA-R■

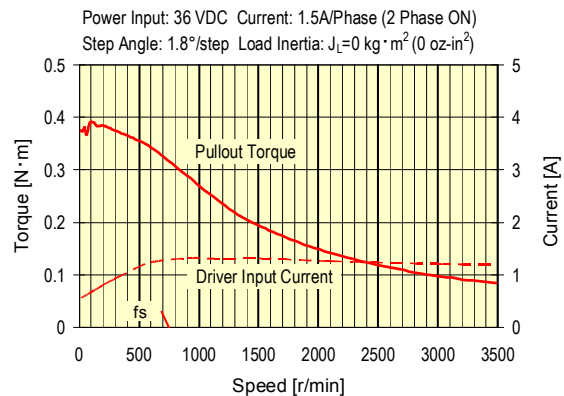


36 VDC Input

RBK233PA/RBK233PB/RBK233PA-R■



RBK235PA/RBK235PB/RBK235PA-R■



- Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
- The pulse input circuit responds to approximately 100 kHz with a pulse duty of 50%.

Notes:

- Pay attention to heat dissipation from motor as there will be a considerable amount of heat under certain conditions. Be sure to keep the temperature of the motor case under 100°C (212°F).
- The driver's automatic current cutback function at motor standstill reduces maximum holding torque by approximately 50%.

High-Torque Type Motor Frame Size 42 mm (1.65 in.)

Specifications RoHS

Model	Single Shaft	RBK244PA	RBK246PA
	Double Shaft	RBK244PB	RBK246PB
	With Encoder	RBK244PA-R ■ ^{*2}	RBK246PA-R ■ ^{*2}
Maximum Holding Torque ^{*1}	N·m (oz-in)	0.48 (68)	0.93 (132)
Rotor Inertia J	kg·m ² (oz-in ²)	57 × 10 ⁻⁷ (0.31)	114 × 10 ⁻⁷ (0.62)
Rated Current	A/Phase	1.5	
Basic Step Angle		1.8°	
Power Source		20-40 VDC 1.7 A	
Excitation Mode		Microstep	
Mass	Motor	kg (lb.)	0.3 (0.66)
	Driver	kg (lb.)	0.5 (1.1)
			0.35 (0.77)

*1 The holding torque (2-phase excitation) is the maximum holding power (torque) the stepping motor has when power is being supplied but the motor shaft is not rotating (rated current). At motor standstill, the driver's automatic current cutback function reduces the maximum holding torque by approximately 50%.

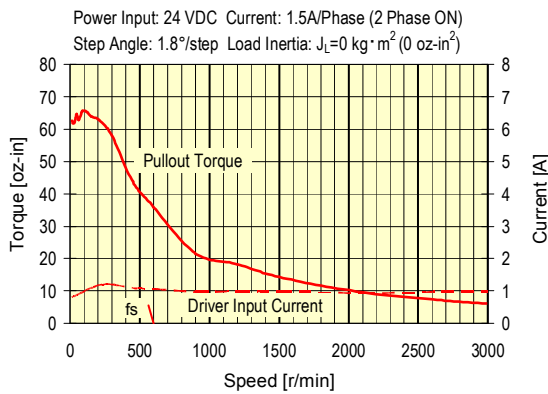
*2 Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.

Speed – Torque Characteristics fs: Maximum Starting Speed

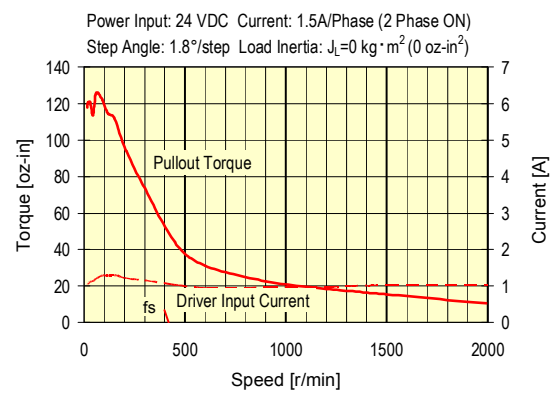
Unit for Torque = [oz-in]

24 VDC Input

RBK244PA/RBK244PB/RBK244PA-R■

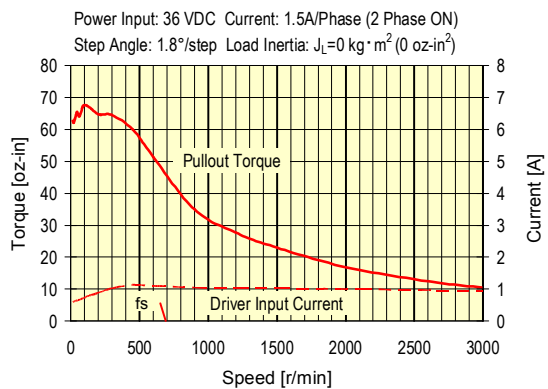


RBK246PA/RBK246PB/RBK246PA-R■

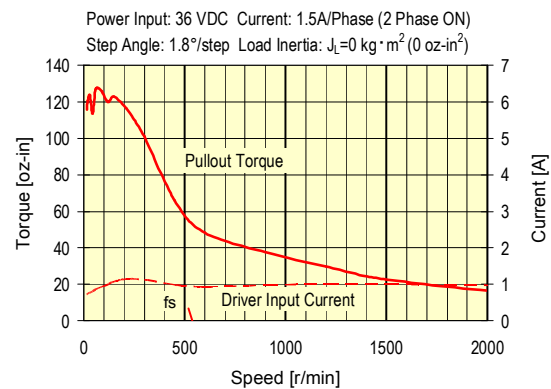


36 VDC Input

RBK244PA/RBK244PB/RBK244PA-R■



RBK246PA/RBK246PB/RBK246PA-R■



- Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
- The pulse input circuit responds to approximately 100 kHz with a pulse duty of 50%.

Notes:

- Pay attention to heat dissipation from motor as there will be a considerable amount of heat under certain conditions. Be sure to keep the temperature of the motor case under 100°C (212°F).
- The driver's automatic current cutback function at motor standstill reduces maximum holding torque by approximately 50%.

High-Torque Type Motor Frame Size 42 mm (1.65 in.)

Specifications RoHS

Same specification table as on the previous page

Model	Single Shaft	RBK244PA	RBK246PA
	Double Shaft	RBK244PB	RBK246PB
	With Encoder	RBK244PA-R ■ ^{*2}	RBK246PA-R ■ ^{*2}
Maximum Holding Torque ^{*1}	N·m (oz-in)	0.48 (68)	0.93 (132)
Rotor Inertia J	kg·m ² (oz-in ²)	57 × 10 ⁻⁷ (0.31)	114 × 10 ⁻⁷ (0.62)
Rated Current	A/Phase	1.5	
Basic Step Angle		1.8°	
Power Source		20-40 VDC 1.7 A	
Excitation Mode		Microstep	
Mass	Motor	kg (lb.)	0.3 (0.66)
	Driver	kg (lb.)	0.35 (0.77)

*1 The holding torque (2-phase excitation) is the maximum holding power (torque) the stepping motor has when power is being supplied but the motor shaft is not rotating (rated current). At motor standstill, the driver's automatic current cutback function reduces the maximum holding torque by approximately 50%.

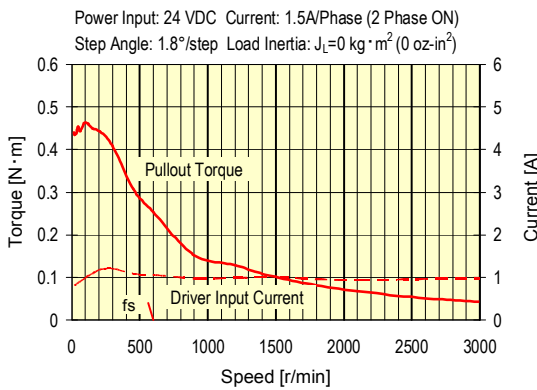
*2 Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.

Speed – Torque Characteristics fs: Maximum Starting Speed

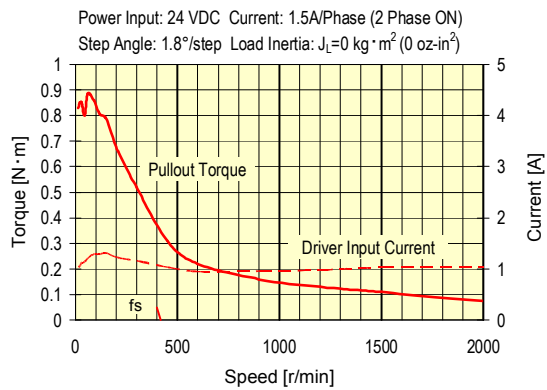
Unit for Torque = [N·m]

24 VDC Input

RBK244PA/RBK244PB/RBK244PA-R■

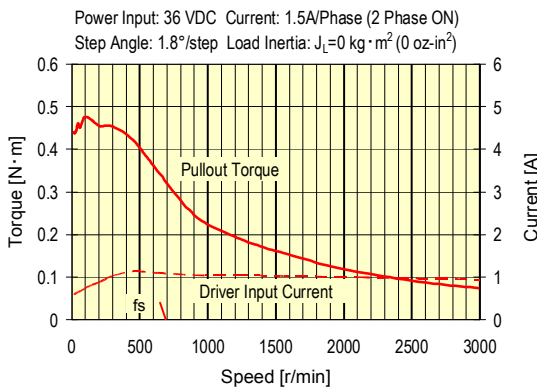


RBK246PA/RBK246PB/RBK246PA-R■

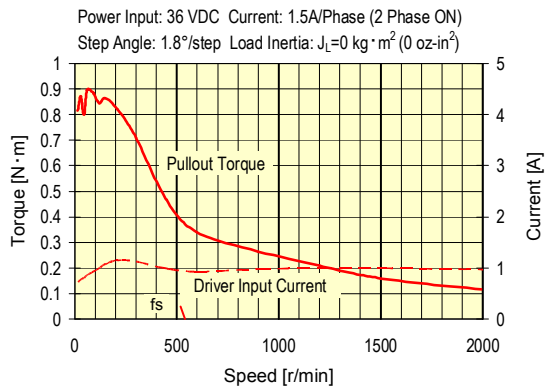


36 VDC Input

RBK244PA/RBK244PB/RBK244PA-R■



RBK246PA/RBK246PB/RBK246PA-R■



- Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
- The pulse input circuit responds to approximately 100 kHz with a pulse duty of 50%.

Notes:

- Pay attention to heat dissipation from motor as there will be a considerable amount of heat under certain conditions. Be sure to keep the temperature of the motor case under 100°C (212°F).
- The driver's automatic current cutback function at motor standstill reduces maximum holding torque by approximately 50%.

PL Geared Type Motor Frame Size 42 mm (1.65 in.)

Specifications RoHS

Model	Single Shaft	RBK244PA-P5	RBK244PA-P10	RBK244PA-P36
	Double Shaft	RBK244PB-P5	RBK244PB-P10	RBK244PB-P36
	With Encoder	RBK244PAR■-P5^{*2}	RBK244PAR■-P10^{*2}	RBK244PAR■-P36^{*2}
Maximum Holding Torque ^{*1}	N·m (lb-in)	1 (8.8)	1.5 (13.2)	3 (26)
Rotor Inertia J	kg·m ² (oz-in ²)	57 × 10 ⁻⁷ (0.31)		
Rated Current	A/Phase	1.5		
Basic Step Angle		0.36°	0.18°	0.05°
Gear Ratio		5:1	10:1	36:1
Permissible Torque	N·m (lb-in)	1 (8.8)	1.5 (13.2)	3 (26)
Backlash	arc minute (degrees)	35 (0.58°)		
Permissible Speed Range		0~360	0~180	0~50
Power Source		20~40VDC 1.7 A		
Excitation Mode		Microstep		
Mass	Motor	kg (lb.)	0.48 (1.06)	0.6 (1.32)
	Driver	kg (lb.)	0.35 (0.77)	

*1 The holding torque (2-phase excitation) is the maximum holding power (torque) the stepping motor has when power is being supplied but the motor shaft is not rotating (rated current). At motor standstill, the driver's automatic current cutback function reduces the maximum holding torque by approximately 50%.

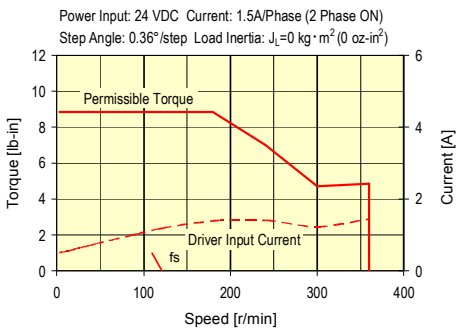
*2 Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.

Speed – Torque Characteristics fs: Maximum Starting Speed

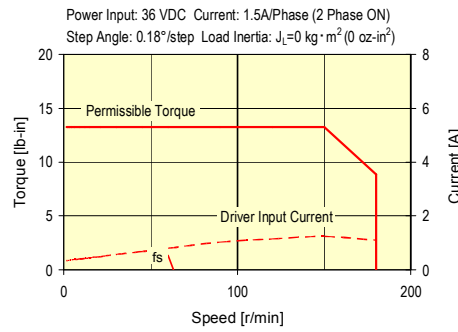
Unit for Torque = [lb-in]

24 VDC Input

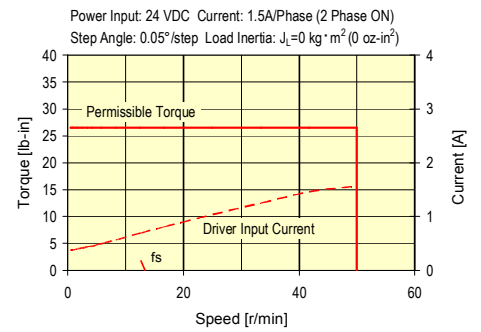
RBK244PA-P5/RBK244PB-P5 RBK244PAR■-P5



RBK244PA-P10/RBK244PB-P10 RBK244PAR■-P10

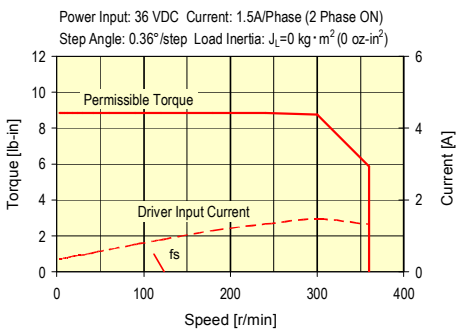


RBK244PA-P36/RBK244PB-P36 RBK244PAR■-P36

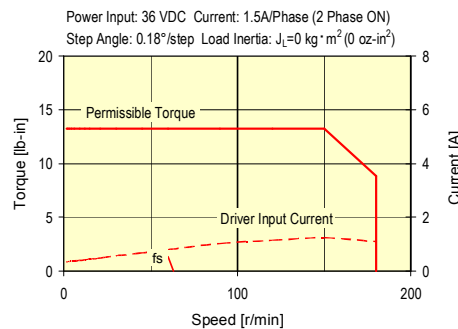


36 VDC Input

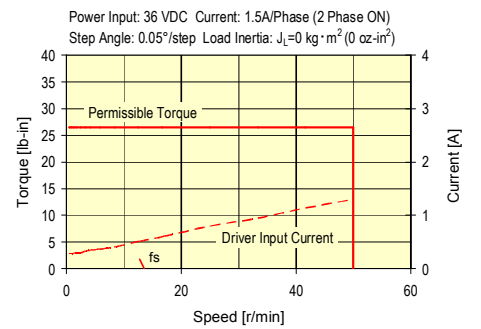
RBK244PA-P5/RBK244PB-P5 RBK244PAR■-P5



RBK244PA-P10/RBK244PB-P10 RBK244PAR■-P10



RBK244PA-P36/RBK244PB-P36 RBK244PAR■-P36



- Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
- The pulse input circuit responds to approximately 100 kHz with a pulse duty of 50%.

Notes:

- Pay attention to heat dissipation from motor as there will be a considerable amount of heat under certain conditions. Be sure to keep the temperature of the motor case under 100°C (212°F).
- The driver's automatic current cutback function at motor standstill reduces maximum holding torque by approximately 50%.

PL Geared Type Motor Frame Size 42 mm (1.65 in.)

Specifications RoHS

Same specification table as on the previous page

Model	Single Shaft	RBK244PA-P5	RBK244PA-P10	RBK244PA-P36
	Double Shaft	RBK244PB-P5	RBK244PB-P10	RBK244PB-P36
	With Encoder	RBK244PAR■-P5 ^{*2}	RBK244PAR■-P10 ^{*2}	RBK244PAR■-P36 ^{*2}
Maximum Holding Torque ^{*1}	N·m (lb-in)	1 (8.8)	1.5 (13.2)	3 (26)
Rotor Inertia J	kg·m ² (oz-in ²)	57 × 10 ⁻⁷ (0.31)		
Rated Current	A/Phase	1.5		
Basic Step Angle		0.36°	0.18°	0.05°
Gear Ratio		5:1	10:1	36:1
Permissible Torque	N·m (lb-in)	1 (8.8)	1.5 (13.2)	3 (26)
Backlash	arc minute (degrees)	35 (0.58°)		
Permissible Speed Range		0~360	0~180	0~50
Power Source		20~40VDC 1.7 A		
Excitation Mode		Microstep		
Mass	Motor	kg (lb.)	0.48 (1.06)	0.6 (1.32)
	Driver	kg (lb.)	0.35 (0.77)	

*1 The holding torque (2-phase excitation) is the maximum holding power (torque) the stepping motor has when power is being supplied but the motor shaft is not rotating (rated current). At motor standstill, the driver's automatic current cutback function reduces the maximum holding torque by approximately 50%.

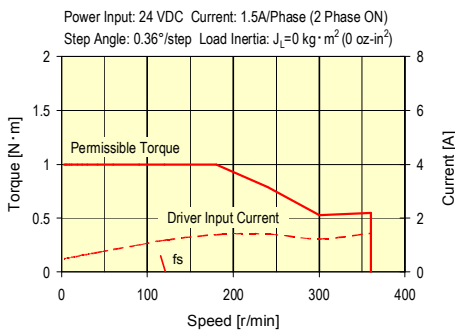
*2 Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.

Speed – Torque Characteristics fs: Maximum Starting Speed

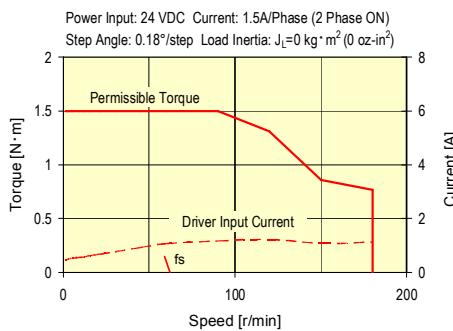
Unit for Torque = [N·m]

24 VDC Input

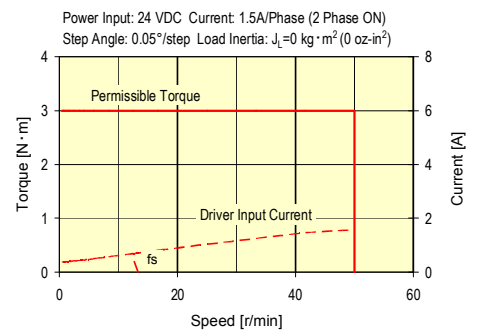
RBK244PA-P5/RBK244PB-P5 RBK244PAR■-P5



RBK244PA-P10/RBK244PB-P10 RBK244PAR■-P10

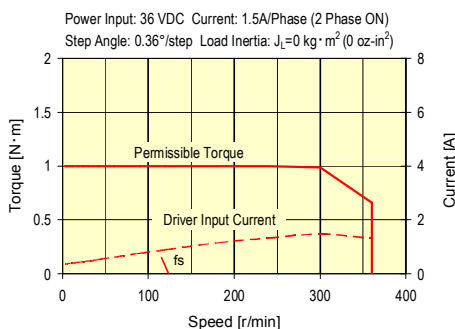


RBK244PA-P36/RBK244PB-P36 RBK244PAR■-P36

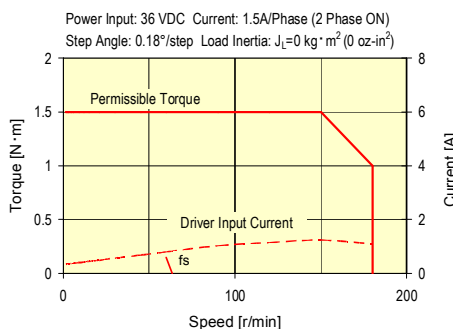


36 VDC Input

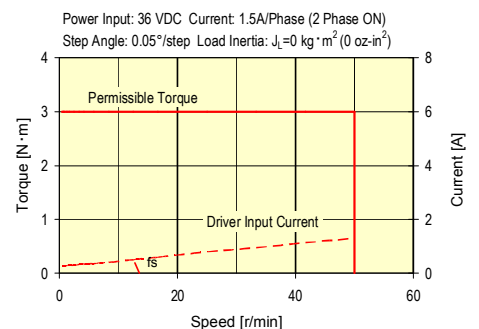
RBK244PA-P5/RBK244PB-P5 RBK244PAR■-P5



RBK244PA-P10/RBK244PB-P10 RBK244PAR■-P10



RBK244PA-P36/RBK244PB-P36 RBK244PAR■-P36



- Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
- The pulse input circuit responds to approximately 100 kHz with a pulse duty of 50%.

Notes:

- Pay attention to heat dissipation from motor as there will be a considerable amount of heat under certain conditions. Be sure to keep the temperature of the motor case under 100°C (212°F).
- The driver's automatic current cutback function at motor standstill reduces maximum holding torque by approximately 50%.

PL Geared Type Motor Frame Size 60 mm (2.36 in.)

Specifications RoHS

Model	Single Shaft	RBK266PA-P5	RBK266PA-P10	RBK264PA-P36
	Double Shaft	RBK266PB-P5	RBK266PB-P10	RBK264PB-P36
	With Encoder	RBK266PAR-■-P5^{*2}	RBK266PAR-■-P10^{*2}	RBK264PAR-■-P36^{*2}
Maximum Holding Torque ^{*1}	N·m (lb-in)	3.5 (30)	5 (44)	8 (70)
Rotor Inertia J	kg·m ² (oz-in ²)	290 × 10 ⁻⁷ (1.59)		120 × 10 ⁻⁷ (0.66)
Rated Current	A/Phase	2.8		
Basic Step Angle		0.36°	0.18°	0.05°
Gear Ratio		5:1	10:1	36:1
Permissible Torque	N·m (lb-in)	3.5 (30)	5 (44)	8 (70)
Backlash	arc minute	20 (0.33°)		
Permissible Speed Range		0~360	0~180	0~50
Power Source		20~40VDC 3.7 A		
Excitation Mode		Microstep		
Mass	Motor	1.23 (2.7)		1.26 (2.8)
	Driver	0.35 (0.77)		

*1 The holding torque (2-phase excitation) is the maximum holding power (torque) the stepping motor has when power is being supplied but the motor shaft is not rotating (rated current). At motor standstill, the driver's automatic current cutback function reduces the maximum holding torque by approximately 50%.

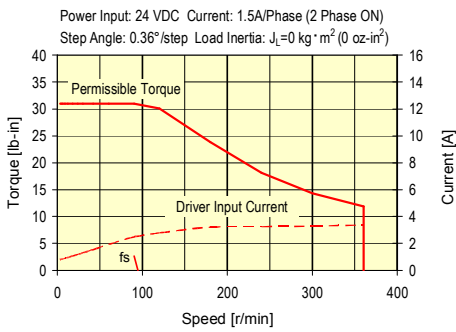
*2 Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.

Speed – Torque Characteristics fs: Maximum Starting Speed

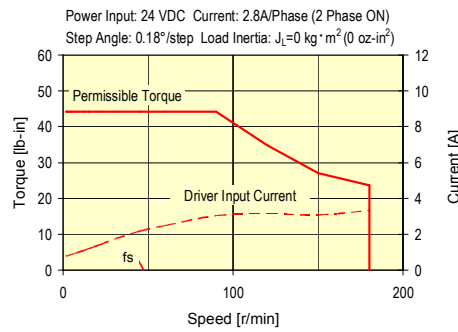
Unit for Torque = [lb-in]

24 VDC Input

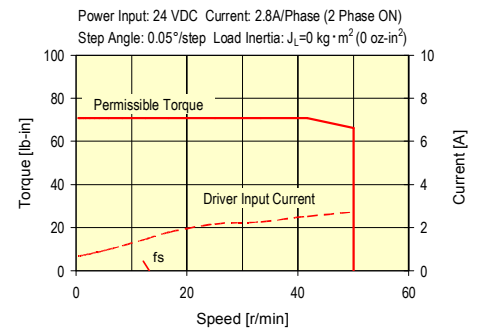
RBK266PA-P5/RBK266PB-P5 RBK266PAR-■-P5



RBK266PA-P10/RBK266PB-P10 RBK266PAR-■-P10

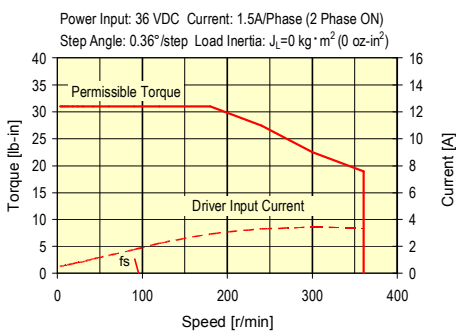


RBK264PA-P36/RBK264PB-P36 RBK264PAR-■-P36

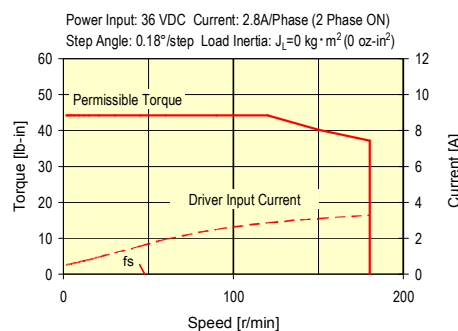


36 VDC Input

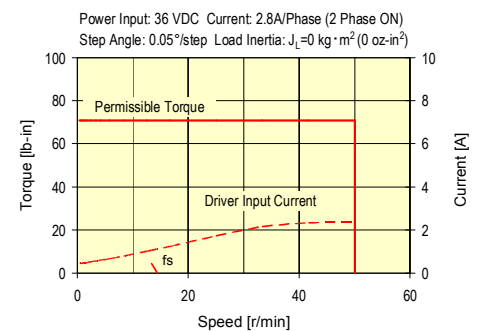
RBK266PA-P5/RBK266PB-P5 RBK266PAR-■-P5



RBK266PA-P10/RBK266PB-P10 RBK266PAR-■-P10



RBK264PA-P36/RBK264PB-P36 RBK264PAR-■-P36



- Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
- The pulse input circuit responds to approximately 100 kHz with a pulse duty of 50%.

Notes:

- Pay attention to heat dissipation from motor as there will be a considerable amount of heat under certain conditions. Be sure to keep the temperature of the motor case under 100°C (212°F).
- The driver's automatic current cutback function at motor standstill reduces maximum holding torque by approximately 50%.

PL Geared Type Motor Frame Size 60 mm (2.36 in.)

Specifications (RoHS)

Same specification table as on the previous page

Model	Single Shaft	RBK266PA-P5	RBK266PA-P10	RBK264PA-P36
	Double Shaft	RBK266PB-P5	RBK266PB-P10	RBK264PB-P36
	With Encoder	RBK266PAR- ■ -P5 ^{*2}	RBK266PAR- ■ -P10 ^{*2}	RBK264PAR- ■ -P36 ^{*2}
Maximum Holding Torque ^{*1}	N·m (lb-in)	3.5 (30)	5 (44)	8 (70)
Rotor Inertia J	kg·m ² (oz-in ²)	290 × 10 ⁻⁷ (1.59)		120 × 10 ⁻⁷ (0.66)
Rated Current	A/Phase	2.8		
Basic Step Angle		0.36°	0.18°	0.05°
Gear Ratio		5:1	10:1	36:1
Permissible Torque	N·m (lb-in)	3.5 (30)	5 (44)	8 (70)
Backlash	arc minute	20 (0.33°)		
Permissible Speed Range		0~360	0~180	0~50
Power Source		20~40VDC 3.7 A		
Excitation Mode		Microstep		
Mass	Motor	kg (lb.)		1.23 (2.7)
	Driver	kg (lb.)		0.35 (0.77)

*1 The holding torque (2-phase excitation) is the maximum holding power (torque) the stepping motor has when power is being supplied but the motor shaft is not rotating (rated current). At motor standstill, the driver's automatic current cutback function reduces the maximum holding torque by approximately 50%.

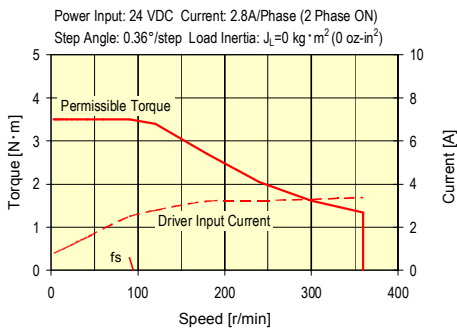
*2 Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.

Speed – Torque Characteristics fs: Maximum Starting Speed

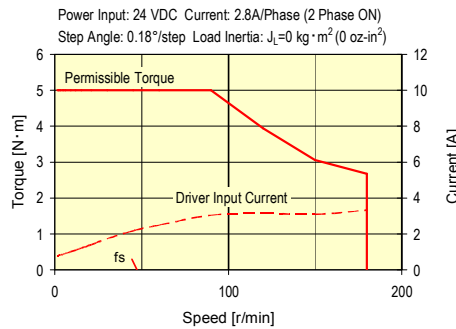
Unit for Torque = [N·m]

24 VDC Input

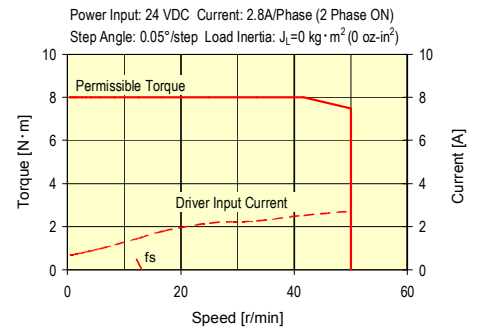
RBK266PA-P5/RBK266PB-P5
RBK266PAR-■-P5



RBK266PA-P10/RBK266PB-P10
RBK266PAR-■-P10

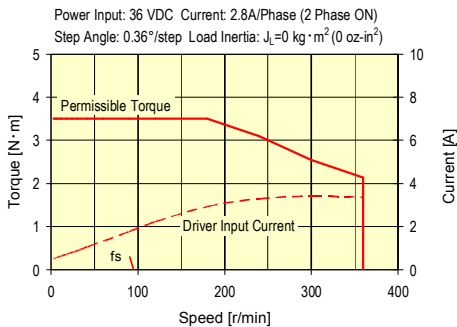


RBK264PA-P36/RBK264PB-P36
RBK264PAR-■-P36

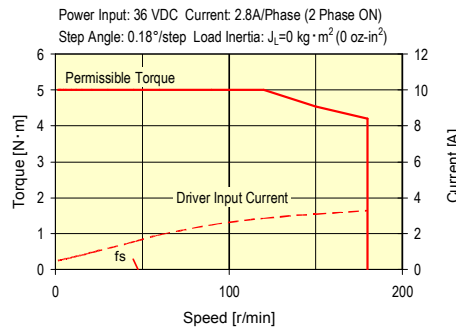


36 VDC Input

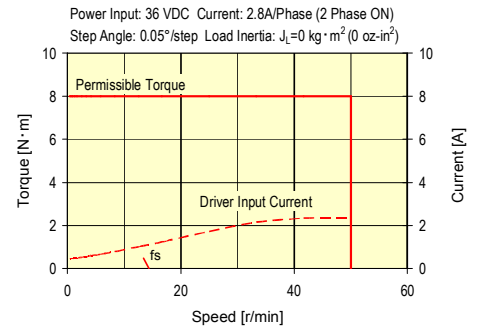
RBK266PA-P5/RBK266PB-P5
RBK266PAR-■-P5



RBK266PA-P10/RBK266PB-P10
RBK266PAR-■-P10



RBK264PA-P36/RBK264PB-P36
RBK264PAR-■-P36



- Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
- The pulse input circuit responds to approximately 100 kHz with a pulse duty of 50%.

Notes:

- Pay attention to heat dissipation from motor as there will be a considerable amount of heat under certain conditions. Be sure to keep the temperature of the motor case under 100°C (212°F).
- The driver's automatic current cutback function at motor standstill reduces maximum holding torque by approximately 50%.

■ Permissible Overhung Load and Permissible Thrust Load

Unit = N (lb.)

Type	Model	Permissible Overhung Load					Permissible Thrust Load	
		Distance from Shaft End						
		0mm (0 in.)	5 mm (0.2 in.)	10 mm (0.39 in.)	15 mm (0.59 in.)	20 mm (0.79 in.)		
High-Torque Type	RBK223P◇ RBK224P◇ RBK225P◇	25 (5.6)	34 (7.6)	52 (11.7)	-	-	The permissible thrust load shall be no greater than the motor mass.	
	RBK233P◇ RBK235P◇	20 (4.5)	25 (5.6)	34 (7.6)	52 (11.7)	-		
	RBK244P◇ RBK246P◇	20 (4.5)	25 (5.6)	34 (7.6)	52 (11.7)	-		
	RBK264◇ RBK266◇ RBK268◇	54 (12.1)	67 (15)	89 (20)	130 (29)	-		
Standard Type	RBK296◇A RBK299◇A RBK2913◇A	260 (58)	290 (65)	340 (76)	390 (87)	480 (108)		
	RBK264T RBK266T RBK268T	54 (12.1)	67 (15)	89 (20)	130 (29)	-		
Terminal Box Type	RBK296T RBK299T RBK2913T	260 (58)	290 (65)	340 (76)	390 (87)	480 (108)		
	RBK244P◇-P5 RBK244P◇-P10	73 (16.4)	84 (18.9)	100 (22)	123 (27)	-		
PL Geared Type	RBK244P◇-P36	109 (24)	127 (28)	150 (33)	184 (41)	-		50 (11.2)
	RBK266P◇-P5	200 (45)	220 (49)	250 (56)	280 (63)	320 (72)		100 (22)
	RBK266P◇-P10	250 (56)	270 (60)	300 (67)	340 (76)	390 (87)		
	RBK264P◇-P36	330 (74)	360 (81)	400 (90)	450 (101)	520 (117)		

● Enter **A** (single shaft) or **B** (double shaft) in the box (◇) within the model name.

Encoder Specifications

□28 mm (□1.10 in.)

Encoder Code	R15	
Model	E4 Series (US-Digital)	
Type	Incremental	
Resolution (P/R)	200	
Output	2-Channel A, B	
Input Current (mA)	15 (Typ.)	
Input Voltage (V)	5±10%	
Output Type	TTL	
Output Voltage	Low	0.4 volts @ 8mA (Max.)
	High	2.4 volts @ -0.2mA (Min.)
Response Frequency (kHz)	60 (Max.)	
Operating Temperature (°C)	-40 to +100	

□35 mm (□1.38 in.), □42 mm (□1.65 in.), □56.4 mm (□2.22 in.), □60 mm (□2.36 in.), □85 mm (□3.35 in.)

Encoder Code	R15	R16	R25	R26
Model	E5 Series (US-Digital)			
Type	Incremental			
Resolution (P/R)	200	400	200	400
Output	2-Channel A, B		3-Channel A, B, I	
Input Current (mA)	17 (Typ.)		57 (Typ.)	
Input Voltage (V)	5±10%			
Output Type	TTL			
Output Voltage	Low	0.4 volts @ 3.2mA (Max.)	0.5 volts @ 8mA (Max.)	
	High	2.4 volts @ -40 μA (Min.)	2.4 volts @ -200 μA (Min.)	
Response Frequency (kHz)	100 (Max.)			
Operating Temperature (°C)	-40 to +100			

Encoder Pin-outs

□28 mm (□1.10 in.)

Pin	Lead Color	Encoder Code R15
1	Red	+5 VDC power
2	Blue	A Channel
3	Black	GND
4	Yellow	B Channel

□35 mm (□1.38 in.), □42 mm (□1.65 in.), □56.4 mm (□2.22 in.), □60 mm (□2.36 in.), □85 mm (□3.35 in.)

Pin	Lead Color	Encoder Code	
		R15, R16	R25, R26
1	Brown	GND	
2	Purple	N.C.	Index Channel
3	Blue	A Channel	
4	Orange	+5 VDC power	
5	Yellow	B Channel	

Dimensions Unit = mm [in.]

● Motor

◇ High-Torque Type without Encoder

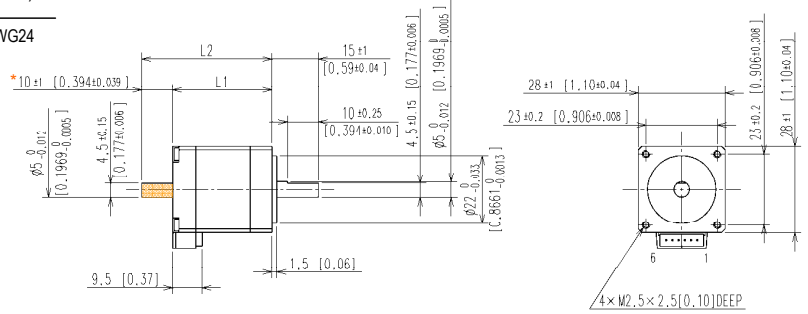
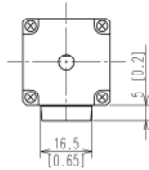
① □28 mm (□1.10 in.)

Model	Motor Model	L1	L2	Mass Kg (lb.)
RBK223PA	PK223PDA	32 [1.26]	-	0.11 (0.24)
RBK223PB	PK223PDB		42 [1.65]	
RBK224PA	PK224PDA	40 [1.57]	-	0.14 (0.31)
RBK224PB	PK224PDB		50 [1.97]	
RBK225PA	PK225PDA	51.5 [2.03]	-	0.2 (0.44)
RBK225PB	PK225PDB		61.5 [2.42]	

Motor lead wire/connector assembly of 0.6 m (2 ft.) is included with the package. UL Style 3265, AWG24
If you are purchasing only a motor for maintenance purpose, etc., motor lead wire/connector assembly and connector will not be supplied. They must be purchased separately.

→ Page 24

- Applicable Connector for Motor:
Connector housing: 51065-0600 (MOLEX)
Contact: 50212-8100 (MOLEX)
Crimp tool: 57176-5000 (MOLEX)



* The length of machining on the double shaft model is 10±0.25 [0.394±0.010].

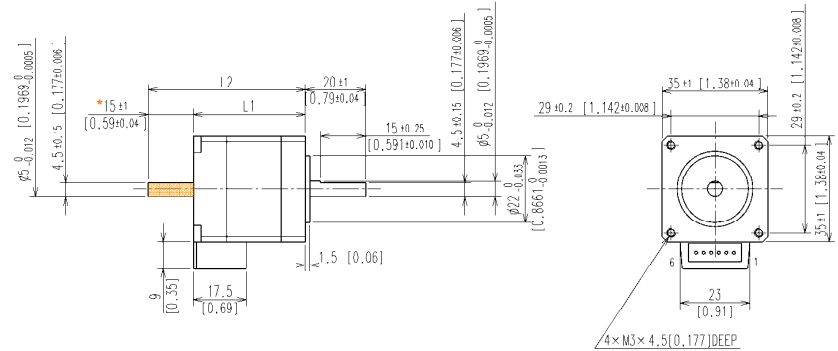
② □35mm (□1.38 in.)

Model	Motor Model	L1	L2	Mass Kg (lb.)
RBK233PA	PK233PDA	37 [1.46]	-	0.18 (0.4)
RBK233PB	PK233PDB		52 [2.05]	
RBK235PA	PK235PDA	52 [2.05]	-	0.29 (0.63)
RBK235PB	PK235PDB		67 [2.64]	

Motor lead wire/connector assembly of 0.6 m (2 ft.) is included with the package. UL Style 3265, AWG24
If you are purchasing only a motor for maintenance purpose, etc., motor lead wire/connector assembly and connector will not be supplied. They must be purchased separately.

→ Page 24

- Applicable Connector for Motor:
Connector housing: 51103-0600 (MOLEX)
Contact: 50351-8100 (MOLEX)
Crimp tool: 57295-5000 (MOLEX)



* The length of machining on the double shaft model is 15±0.25 [0.591±0.010].

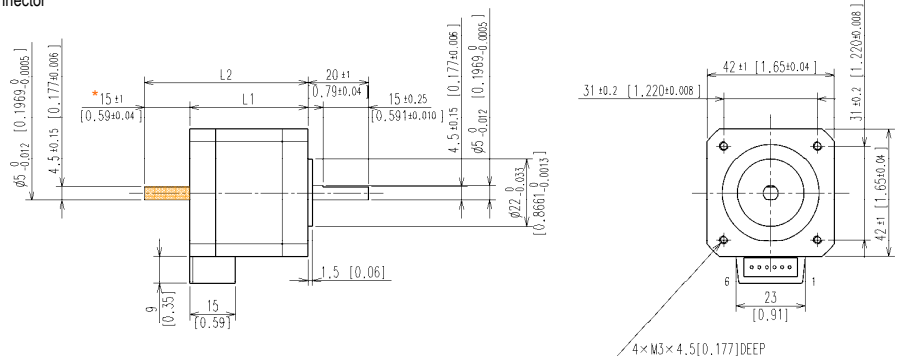
③ □42mm (□1.65 in.)

Model	Motor Model	L1	L2	Mass Kg (lb.)
RBK244PA	PK244PDA	39 [1.54]	-	0.3 (0.66)
RBK244PB	PK244PDB		54 [2.13]	
RBK246PA	PK246PDA	59 [2.32]	-	0.5 (1.1)
RBK246PB	PK246PDB		74 [2.91]	

Motor lead wire/connector assembly of 0.6 m (2 ft.) is included with the package. UL Style 3265, AWG24
If you are purchasing only a motor for maintenance purpose, etc., motor lead wire/connector assembly and connector will not be supplied. They must be purchased separately.

→ Page 24

- Applicable Connector for Motor:
Connector housing: 51103-0600 (MOLEX)
Contact: 50351-8100 (MOLEX)
Crimp tool: 57295-5000 (MOLEX)



* The length of machining on the double shaft model is 15±0.25 [0.591±0.010].

● These dimensions are for the double shaft models. For the single shaft models, ignore the shaded () area.

◆High-Torque Type with Encoder

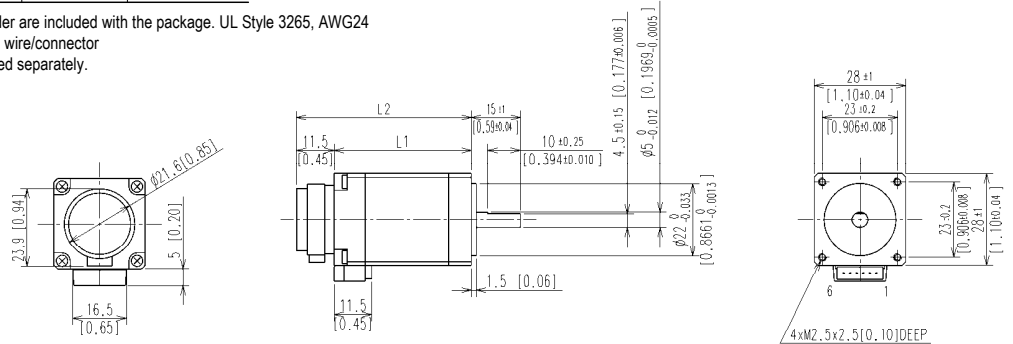
④ □28 mm (□1.10 in.)

Model	Motor Model	L1	L2	Mass Kg (lb.)
RBK223PA-R15	PK223PDAR15	34 [1.34]	45.5 [1.79]	0.11 (0.24)
RBK224PA-R15	PK224PDAR15	42 [1.66]	53.5 [2.11]	0.14 (0.31)
RBK225PA-R15	PK225PDAR15	53.5 [2.11]	65 [2.56]	0.2 (0.44)

● Lead wire/connector assemblies of 0.6 m (2 ft.) for motor and encoder are included with the package. UL Style 3265, AWG24
If you are purchasing only a motor for maintenance purpose, etc., lead wire/connector assemblies and connector will not be supplied. They must be purchased separately.

→ Page 24

- Applicable Connector for Motor:
Connector housing: 51065-0600 (MOLEX)
Contact: 50212-8100 (MOLEX)
Crimp tool: 57176-5000 (MOLEX)
- Applicable Connector for Encoder:
Connector housing: 51021-0400 (MOLEX)
Contact: 50079-8000 (MOLEX)
Crimp tool: 63819-0400 (MOLEX)



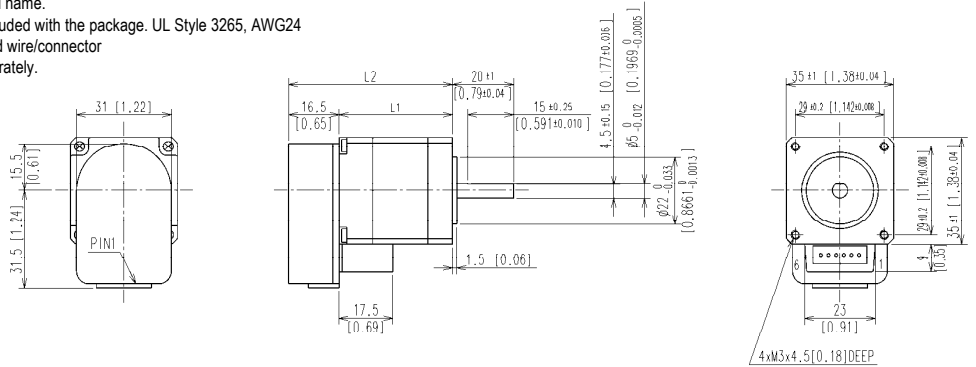
⑤ □35 mm (□1.38 in.)

Model	Motor Model	L1	L2	Mass Kg (lb.)
RBK233PA-R■	PK233PDAR■	37 [1.46]	53.5 [2.11]	0.2 (0.44)
RBK235PA-R■	PK235PDAR■	52 [2.05]	68.5 [2.70]	0.31 (0.67)

● Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
Lead wire/connector assembly of 0.6 m (2 ft.) for motor and encoder are included with the package. UL Style 3265, AWG24
If you are purchasing only a motor for maintenance purpose, etc., motor lead wire/connector assembly and connector will not be supplied. They must be purchased separately.

→ Page 24

- Applicable Connector for Motor:
Connector housing: 51103-0600 (MOLEX)
Contact: 50351-8100 (MOLEX)
Crimp tool: 57295-5000 (MOLEX)
- Applicable Connector for Encoder:
Connector housing: 50-57-9450 (MOLEX)
Contact: 16-02-0104 (MOLEX)
Crimp tool: 63811-8700 (MOLEX)



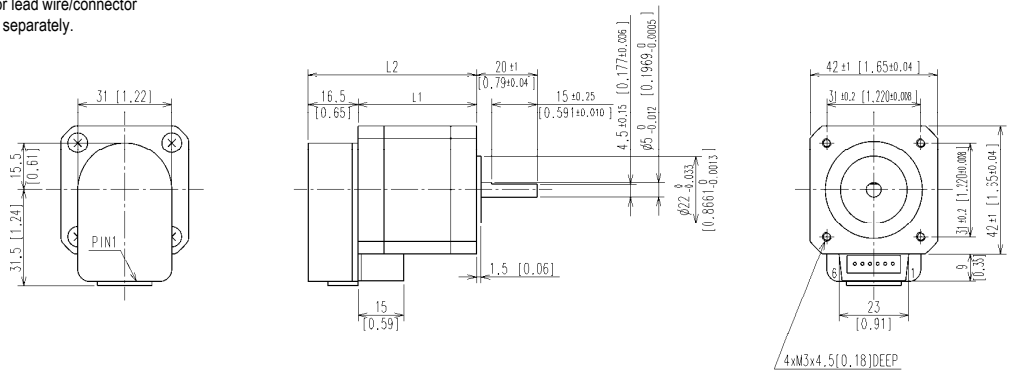
⑥ □42mm (□1.65 in.)

Model	Motor Model	L1	L2	Mass Kg (lb.)
RBK244PA-R■	PK244PDAR■	39 [1.54]	55.5 [2.19]	0.32 (0.70)
RBK246PA-R■	PK246PDAR■	59 [2.32]	75.5 [2.97]	0.52 (1.14)

● Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
Lead wire/connector assembly of 0.6 m (2 ft.) for motor and encoder are included with the package. UL Style 3265, AWG24
If you are purchasing only a motor for maintenance purpose, etc., motor lead wire/connector assembly and connector will not be supplied. They must be purchased separately.

→ Page 24

- Applicable Connector for Motor:
Connector housing: 51103-0600 (MOLEX)
Contact: 50351-8100 (MOLEX)
Crimp tool: 57295-5000 (MOLEX)
- Applicable Connector for Encoder:
Connector housing: 50-57-9450 (MOLEX)
Contact: 16-02-0104 (MOLEX)
Crimp tool: 63811-8700 (MOLEX)



◇ Standard Type with Encoder

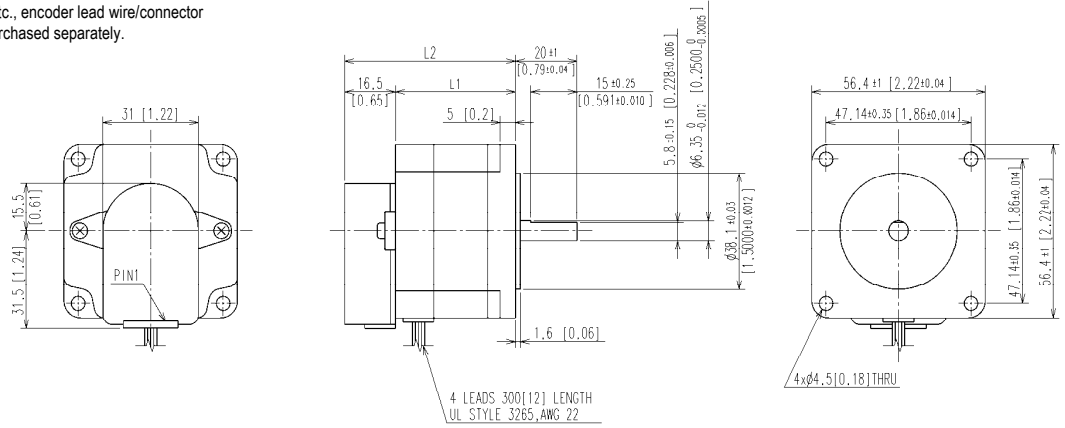
⑦ □56.4mm (□2.22 in.)

Model	Motor Model	L1	L2	Mass Kg (lb.)
RBK264A-R ■	PK264DAR ■	39 [1.54]	55.5 [2.19]	0.47 (1.03)
RBK266A-R ■	PK266DAR ■	54 [2.13]	70.5 [2.78]	0.72 (1.58)
RBK268A-R ■	PK268DAR ■	76 [2.99]	92.5 [3.64]	1.02 (2.24)

● Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
Encoder lead wire/connector assembly of 0.6 m (2 ft.) is included with the package. UL Style 3265, AWG24
If you are purchasing only a motor for maintenance purpose, etc., encoder lead wire/connector assembly and connector will not be supplied. They must be purchased separately.

→ Page 24

- Applicable Connector for Encoder:
Connector housing: 50-57-9450 (MOLEX)
Contact: 16-02-0104 (MOLEX)
Crimp tool: 63811-8700 (MOLEX)



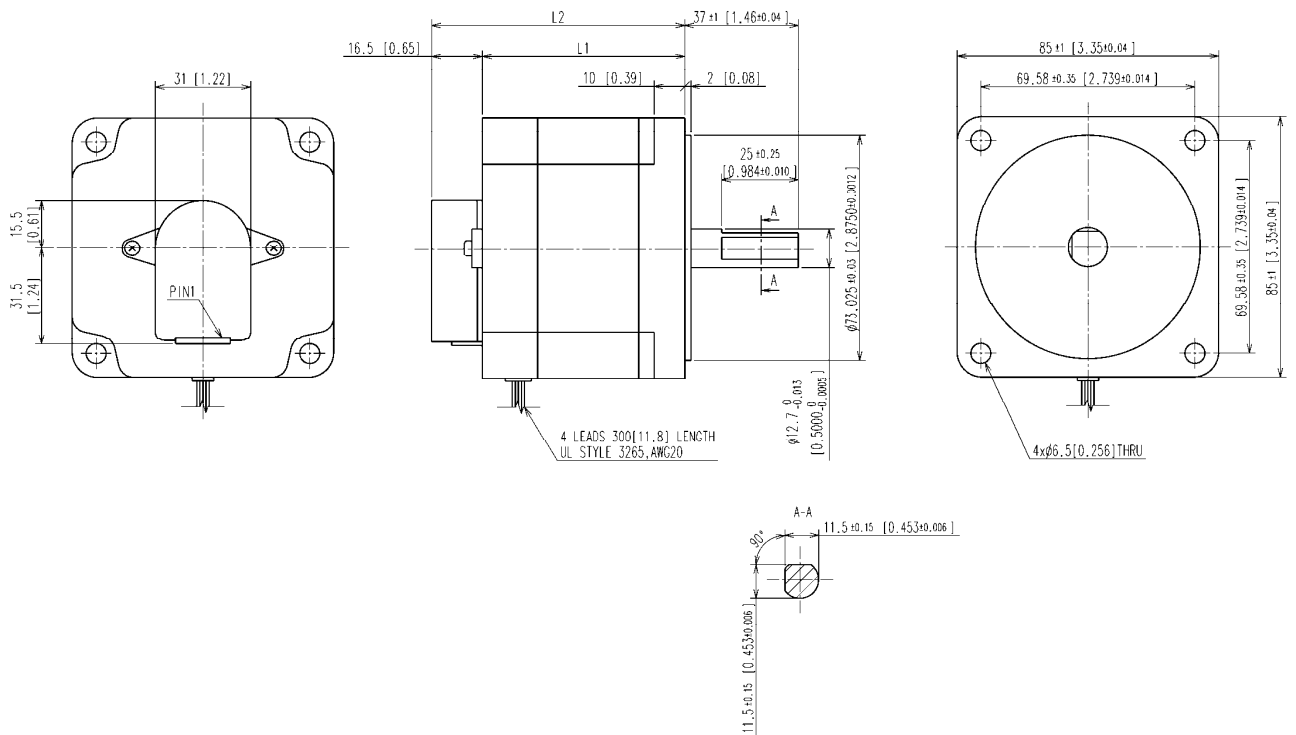
⑧ □85 mm (□3.35 in.)

Model	Motor Model	L1	L2	Mass Kg (lb.)
RBK296AA-R ■	PK296DAAR ■	66 [2.6]	82.5 [3.25]	1.72 (3.8)
RBK299AA-R ■	PK299DAAR ■	96 [3.78]	112.5 [4.43]	2.8 (6.2)
RBK2913AA-R ■	PK2913DAAR ■	126 [4.96]	142.5 [5.61]	3.8 (8.4)

● Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
Encoder lead wire/connector assembly of 0.6 m (2 ft.) is included with the package. UL Style 3265, AWG24
If you are purchasing only a motor for maintenance purpose, etc., encoder lead wire/connector assembly and connector will not be supplied. They must be purchased separately.

→ Page 24

- Applicable Connector for Encoder:
Connector housing: 50-57-9450 (MOLEX)
Contact: 16-02-0104 (MOLEX)
Crimp tool: 63811-8700 (MOLEX)



◇ PL Geared Type without Encoder

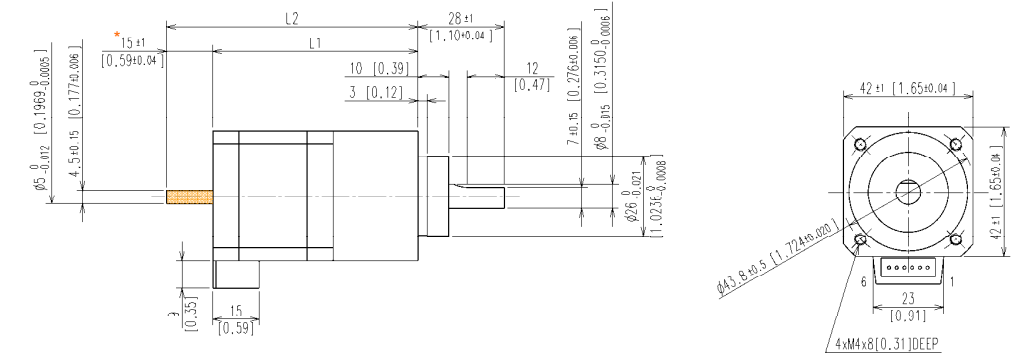
⑨ □42mm (□1.65 in.)

Model	Motor Model	L1	L2	Mass Kg (lb.)
RBK244PA-P5	PK244PDA-P5	66.5 [2.62]	-	0.48 (1.06)
RBK244PB-P5	PK244PDB-P5		81.5 [3.21]	
RBK244PA-P10	PK244PDA-P10		-	
RBK244PB-P10	PK244PDB-P10		81.5 [3.21]	
RBK244PA-P36	PK244PDA-P36	90 [3.54]	-	0.6 (1.32)
RBK244PB-P36	PK244PDB-P36		105 [4.13]	

Motor lead wire/connector assembly of 0.6 m (2 ft.) is included with the package. UL Style 3265, AWG24
If you are purchasing only a motor for maintenance purpose, etc., motor lead wire/connector assembly and connector will not be supplied. They must be purchased separately.

→ Page 24

- Applicable Connector for Motor:
Connector housing: 51103-0600 (MOLEX)
Contact: 50351-8100 (MOLEX)
Crimp tool: 57295-5000 (MOLEX)



* The length of machining on the double shaft model is 15 ± 0.25 [0.591 ± 0.010].

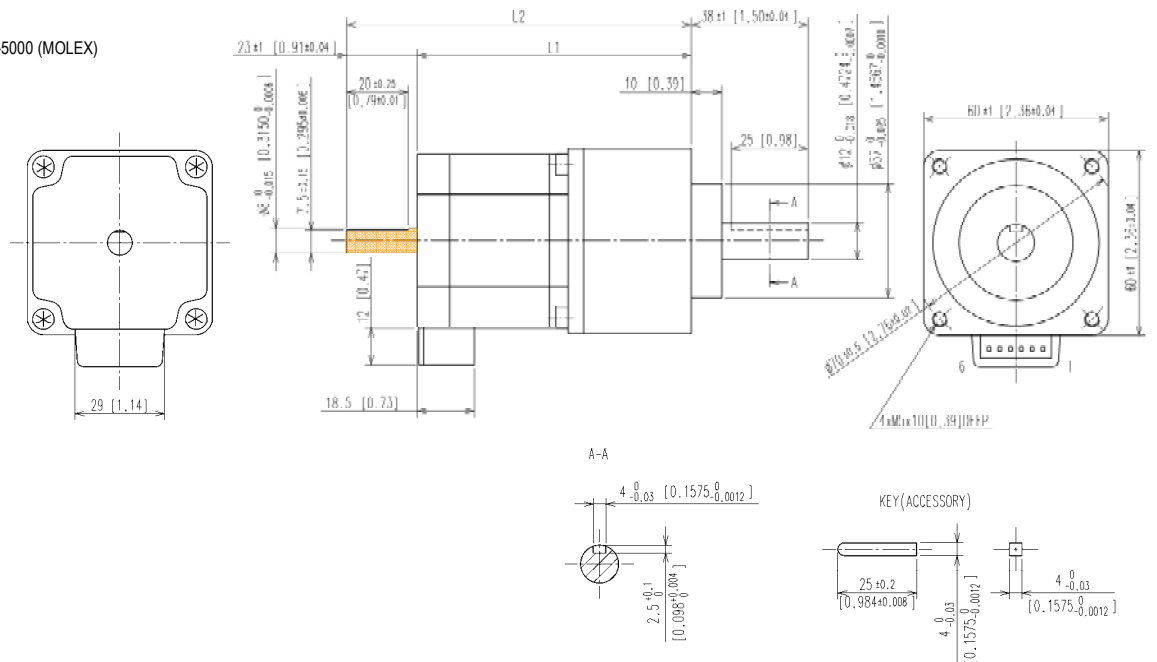
⑩ □60mm (□2.36 in.)

Model	Motor Model	L1	L2	Mass Kg (lb.)
RBK266PA-P5	PK266PDA-P5	89 [3.5]	-	1.23 (2.71)
RBK266PB-P5	PK266PDB-P5		112 [4.41]	
RBK266PA-P10	PK266PDA-P10		-	
RBK266PB-P10	PK266PDB-P10		112 [4.41]	
RBK264PA-P36	PK264PDA-P36	99 [3.9]	-	1.26 (2.77)
RBK264PB-P36	PK264PDB-P36		122 [4.8]	

Motor lead wire/connector assembly of 0.6 m (2 ft.) is included with the package. UL Style 3265, AWG24
If you are purchasing only a motor for maintenance purpose, etc., motor lead wire/connector assembly and connector will not be supplied. They must be purchased separately.

→ Page 24

- Applicable Connector for Motor:
Connector housing: 51067-0600 (MOLEX)
Contact: 50217-9101 (MOLEX)
Crimp tool: 57189-5000 (MOLEX) or 57190-5000 (MOLEX)



Parallel Key (Included)

● These dimensions are for the double shaft models. For the single shaft models, ignore the shaded () area.

◇ PL Geared Type with Encoder

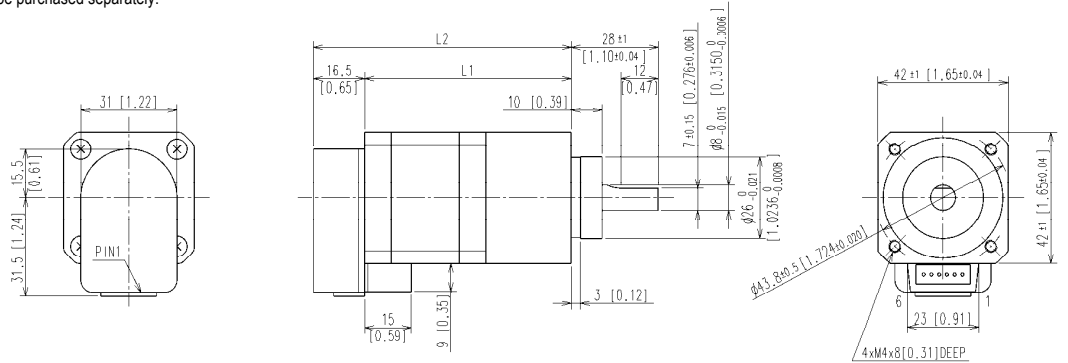
⑪ □42mm (□1.65 in.)

Model	Motor Model	L1	L2	Mass Kg (lb.)
RBK244PAR ■ -P5	PK244PDAR ■ -P5	66.5 [2.62]	83 [3.27]	0.5 (1.06)
RBK244PAR ■ -P10	PK244PDAR ■ -P10			
RBK244PAR ■ -P36	PK244PDAR ■ -P36	90 [3.54]	106.5 [4.19]	0.62 (1.37)

● Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
 Motor lead wire/connector assembly of 0.6 m (2 ft.) is included with the package. UL Style 3265, AWG24
 If you are purchasing only a motor for maintenance purpose, etc., motor lead wire/connector assembly and connector will not be supplied. They must be purchased separately.

→ Page 24

- Applicable Connector for Motor:
 Connector housing: 51103-0600 (MOLEX)
 Contact: 50351-8100 (MOLEX)
 Crimp tool: 57295-5000 (MOLEX)
- Applicable Connector for Encoder:
 Connector housing: 50-57-9450 (MOLEX)
 Contact: 16-02-0104 (MOLEX)
 Crimp tool: 63811-8700 (MOLEX)



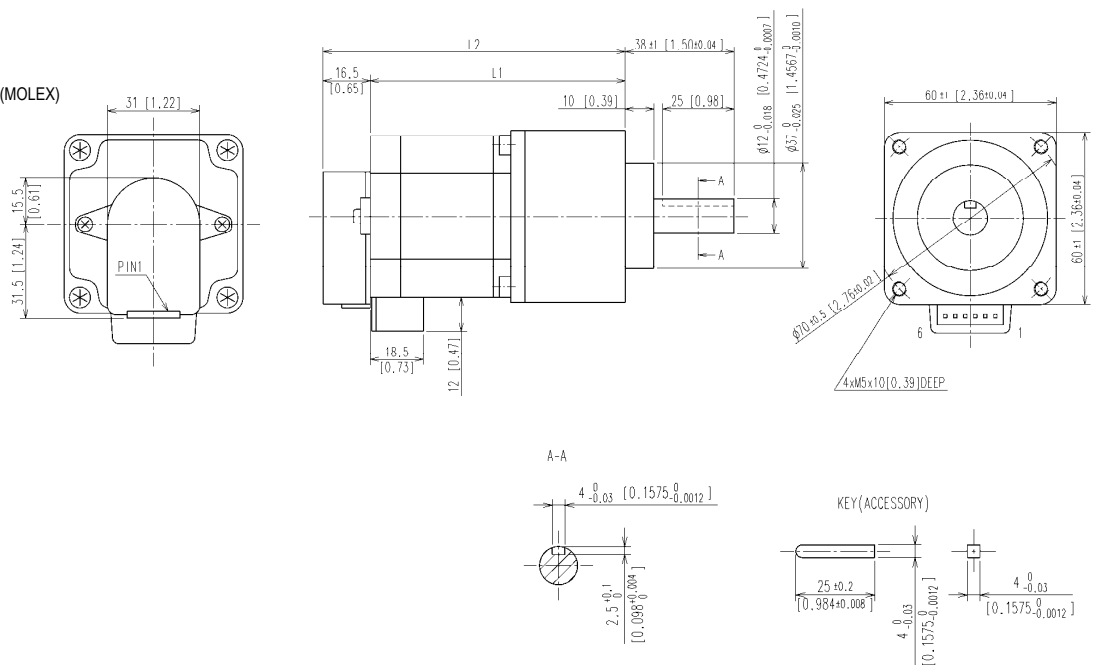
⑫ □60mm (□2.36 in.)

Model	Motor Model	L1	L2	Mass Kg (lb.)
RBK266PAR ■ -P5	PK266PDAR ■ -P5	88.5 [3.5]	105 [4.15]	1.25 (2.76)
RBK266PAR ■ -P10	PK266PDAR ■ -P10			
RBK264PAR ■ -P36	PK264PDAR ■ -P36	99 [3.9]	115.5 [4.55]	1.28 (2.83)

● Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
 Motor lead wire/connector assembly of 0.6 m (2 ft.) is included with the package. UL Style 3265, AWG24
 If you are purchasing only a motor for maintenance purpose, etc., motor lead wire/connector assembly and connector will not be supplied. They must be purchased separately.

→ Page 24

- Applicable Connector for Motor:
 Connector housing: 51067-0600 (MOLEX)
 Contact: 50217-9101 (MOLEX)
 Crimp tool: 57189-5000 (MOLEX) or 57190-5000 (MOLEX)
- Applicable Connector for Encoder:
 Connector housing: 50-57-9450 (MOLEX)
 Contact: 16-02-0104 (MOLEX)
 Crimp tool: 63811-8700 (MOLEX)

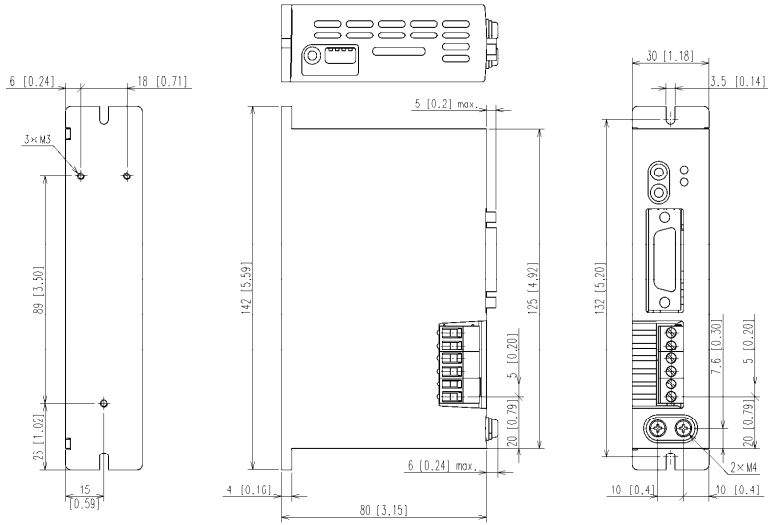


Parallel Key (Included)

● Driver

⑬ RBD215A-K, RBD228A-K, RBD242A-K, RBD245A-K

Mass: 0.35kg (0.77lb.)



■ List of Motor and Driver Combinations

Model names for motor and driver combinations are shown below.

Type	Model	Motor Model	Driver Model
High-Torque Type without Encoder	RBK223PA	PK223PDA	RBD215A-K
	RBK223PB	PK223PDB	
	RBK224PA	PK224PDA	
	RBK224PB	PK224PDB	
	RBK225PA	PK225PDA	
	RBK225PB	PK225PDB	
	RBK233PA	PK233PDA	
	RBK233PB	PK233PDB	
	RBK235PA	PK235PDA	
	RBK235PB	PK235PDB	
	RBK244PA	PK244PDA	
	RBK244PB	PK244PDB	
	RBK246PA	PK246PDA	
	RBK246PB	PK246PDB	
High-Torque Type with Encoder	RBK223PA-R15	PK223PDAR15	RBD215A-K
	RBK224PA-R15	PK224PDAR15	
	RBK225PA-R15	PK225PDAR15	
	RBK233PA-R15	PK233PDAR15	
	RBK233PA-R16	PK233PDAR16	
	RBK233PA-R25	PK233PDAR25	
	RBK233PA-R26	PK233PDAR26	
	RBK235PA-R15	PK235PDAR15	
	RBK235PA-R16	PK235PDAR16	
	RBK235PA-R25	PK235PDAR25	
	RBK235PA-R26	PK235PDAR26	
	RBK244PA-R15	PK244PDAR15	
	RBK244PA-R16	PK244PDAR16	
	RBK244PA-R25	PK244PDAR25	
	RBK244PA-R26	PK244PDAR26	
	RBK246PA-R15	PK246PDAR15	
	RBK246PA-R16	PK246PDAR16	
	RBK246PA-R25	PK246PDAR25	
RBK246PA-R26	PK246PDAR26		
Standard Type with Encoder	RBK264A-R15	PK264DAR15	RBD242A-V
	RBK264A-R16	PK264DAR16	
	RBK264A-R25	PK264DAR25	
	RBK264A-R26	PK264DAR26	
	RBK266A-R15	PK266DAR15	
	RBK266A-R16	PK266DAR16	
	RBK266A-R25	PK266DAR25	
	RBK266A-R26	PK266DAR26	
	RBK268A-R15	PK268DAR15	
	RBK268A-R16	PK268DAR16	
	RBK268A-R25	PK268DAR25	RBD245A-V
	RBK268A-R26	PK268DAR26	
	RBK296AA-R15	PK296DAAR15	
	RBK296AA-R16	PK296DAAR16	
	RBK296AA-R25	PK296DAAR25	
	RBK296AA-R26	PK296DAAR26	
	RBK299AA-R15	PK299DAAR15	
	RBK299AA-R16	PK299DAAR16	
	RBK299AA-R25	PK299DAAR25	
	RBK299AA-R26	PK299DAAR26	
	RBK2913AA-R15	PK2913DAAR15	
	RBK2913AA-R16	PK2913DAAR16	
RBK2913AA-R25	PK2913DAAR25		
RBK2913AA-R26	PK2913DAAR26		

Type	Model	Motor Model	Driver Model	
PL Geared Type without Encoder	RBK244PA-P5	PK244PDA-P5	RBD228A-K	
	RBK244PB-P5	PK244PDB-P5		
	RBK244PA-P10	PK244PDA-P10		
	RBK244PB-P10	PK244PDB-P10		
	RBK244PA-P36	PK244PDA-P36		
	RBK244PB-P36	PK244PDB-P36		
	RBK266PA-P5	PK266PDA-P5		
	RBK266PB-P5	PK266PDB-P5		
	RBK266PA-P10	PK266PDA-P10		
	RBK266PB-P10	PK266PDB-P10		
	RBK264PA-P36	PK264PDA-P36		
	RBK264PB-P36	PK264PDB-P36		
	RBK244PAR15-P5	PK244PDAR15-P5		RBD228A-K
	RBK244PAR16-P5	PK244PDAR16-P5		
RBK244PAR25-P5	PK244PDAR25-P5			
RBK244PAR26-P5	PK244PDAR26-P5			
RBK244PAR15-P10	PK244PDAR15-P10			
RBK244PAR16-P10	PK244PDAR16-P10			
RBK244PAR25-P10	PK244PDAR25-P10			
RBK244PAR26-P10	PK244PDAR26-P10			
RBK244PAR15-P36	PK244PDAR15-P36			
RBK244PAR16-P36	PK244PDAR16-P36			
RBK244PAR25-P36	PK244PDAR25-P36			
RBK244PAR26-P36	PK244PDAR26-P36			
RBK266PAR15-P5	PK266PDAR15-P5			
RBK266PAR16-P5	PK266PDAR16-P5			
RBK266PAR25-P5	PK266PDAR25-P5			
RBK266PAR26-P5	PK266PDAR26-P5			
RBK266PAR15-P10	PK266PDAR15-P10			
RBK266PAR16-P10	PK266PDAR16-P10			
RBK266PAR25-P10	PK266PDAR25-P10			
RBK266PAR26-P10	PK266PDAR26-P10			
RBK264PAR15-P36	PK264PDAR15-P36			
RBK264PAR16-P36	PK264PDAR16-P36			
RBK264PAR25-P36	PK264PDAR25-P36			
RBK264PAR26-P36	PK264PDAR26-P36			

Lead Wire/Connector Assembly RoHS

These lead wires with connector assemblies are available for use with the appropriate connector-coupled motors and/or encoder versions.

[Cables of 0.6 m (2 ft.) are included with the motor and driver packages.]



Motor cable for connector coupled motor



Encoder cable

Product Line

Motor Cables for Connector Coupled Motor

Model	Applicable Product	Applicable Motor	Length m (ft.)
LC2B06A	RBK22□P◇	PK22□PD◇	0.6 (2)
	RBK22□PA-R15	PK22□PDAR15	
LC2B06B	RBK23□P◇	PK23□PD◇	
	RBK23□PA-R■	PK23□PDAR■	
	RBK24□P◇	PK24□PD◇	
	RBK24□PA-R■	PK24□PDAR■	
	RBK244P◇-P◆	PK244PD◇-P◆	
LC2B06C	RBK244PAR■-P◆	PK244PDAR■-P◆	
	RBK26□P◇-P◆	PK26□PD◇-P◆	
	RBK266PAR■-P◆	PK266PDAR■-P◆	
	RBK264PAR■-P36	PK264PDAR■-P36	

- Enter the motor case length in the box (□) within the model name.
- Enter **A** (single shaft) or **B** (double shaft) in the box (◇) within the model name.
- Enter the encoder code (15, 16, 25 or 26) in the box (■) within the model name.
- Enter the gear ratio in the box (◆) within the model name.

Encoder Cables

Model	Applicable Product	Applicable Motor	Length m (ft.)
LCR04060B	RBK22□PA-R15	PK22□PDAR15	0.6 (2)
LCR04060A	RBK23□PA-R15	PK23□PDAR15	0.6 (2)
	RBK23□PA-R16	PK23□PDAR16	
	RBK24□PA-R15	PK24□PDAR15	
	RBK24□PA-R16	PK24□PDAR16	
	RBK26□A-R15	PK26□DAR15	
	RBK26□A-R16	PK26□DAR16	
	RBK29□A-R15	PK29□DAR15	
	RBK29□A-R16	PK29□DAR16	
	RBK244PAR15-P◆	PK244PDAR15-P◆	
	RBK244PAR16-P◆	PK244PDAR16-P◆	
LCR05060A	RBK26□PAR15-P◆	PK26□PDAR15-P◆	0.6 (2)
	RBK26□PAR16-P◆	PK26□PDAR16-P◆	
	RBK23□PA-R25	PK23□PDAR25	
	RBK23□PA-R26	PK23□PDAR26	
	RBK24□PA-R25	PK24□PDAR25	
	RBK24□PA-R26	PK24□PDAR26	
	RBK26□A-R25	PK26□DAR25	
	RBK26□A-R26	PK26□DAR26	
	RBK29□A-R25	PK29□DAR25	
	RBK29□A-R26	PK29□DAR26	
RBK244PAR25-P◆	PK244PDAR25-P◆		
RBK244PAR26-P◆	PK244PDAR26-P◆		
RBK26□PAR25-P◆	PK26□PDAR25-P◆		
RBK26□PAR26-P◆	PK26□PDAR26-P◆		

- Enter the motor case length in the box (□) within the model name.
- Enter the gear ratio in the box (◆) within the model name.