

Motor Only/Driver Only

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
*α*STEP
Absolute
AZ

0.36°/Geared
*α*STEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
*α*STEP
Absolute
AZ

0.36°/Geared
*α*STEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°, 0.9°
PKP Series/PK Series

1.8°/0.9°
PKP/PK

Geared
PKP Series/PK Series

Geared
PKP/PK

0.72°, 0.36°
PKP Series/PK Series

0.72°/0.36°
PKP/PK

Driver

Driver

Accessories

Page

1.8°, 0.9° PKP Series/PK Series	A-352
Geared PKP Series/PK Series	A-417
0.72°, 0.36° PKP Series/PK Series	A-432

1.8°/0.9° Stepper Motors

PKP Series/PK Series



These products are high-torque 1.8°/0.9° stepper motors. A wide variety of products is available for selecting a motor that meets your design specifications.

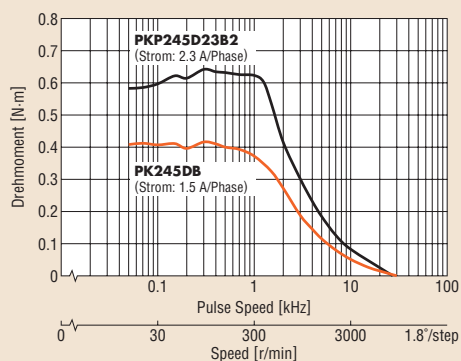
- Standard Type with a Resolution of 200 Steps per Revolution (Basic step angle: 1.8°/step)
- High-Resolution Type with a Resolution of 400 Steps per Revolution (Basic step angle: 0.9°/step)
- Oriental Motor's Flattest Type of 1.8° Stepper Motor
- High-Torque and High-Resolution **SH** Geared Type
- Bipolar (4 lead wires) and Unipolar (5 or 6 lead wires) Are Available.
- Type with Encoder and Type with an Electromagnetic Brake Are Available.
- There is a Wide Variety of Motor Current Specifications.

Features

Increased Torque over the Entire Speed Range from Low to High

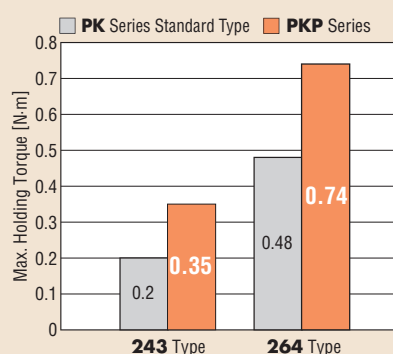
After revising the magnetic design and structure design of the **PKP** Series, it produces much more torque than standard **PK** Series motors of the same size. In addition, torque can be increased in the high-speed range by using high current motors.

Comparison of Speed – Torque Characteristics of the Same Size Motors



High current is possible due to the revised motor winding design and the highly efficient design of the drive circuit that can be combined. Increased torque over the entire speed range from low to high is achieved.

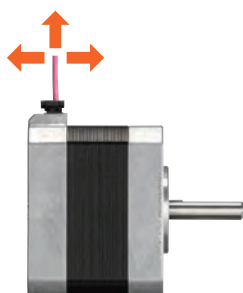
Comparison of Maximum Holding Torque



Compact and Flat Connector

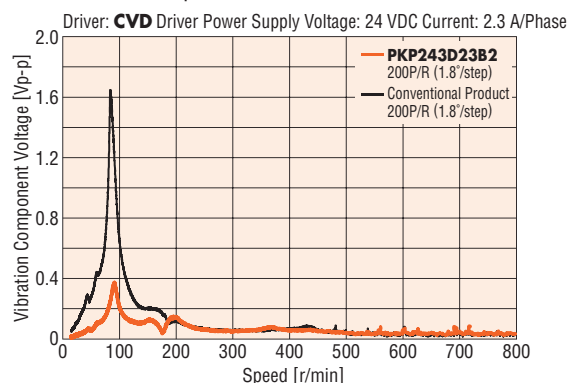
The **PKP** Series uses a compact and flat connector, which shortens the length of the connector's overhang. In addition, the degree of freedom for the cable outlet direction has been increased, because the outlet direction points upward.

- Because the connector is provided for some products only, refer to dimensions of each model for details.



Lower Vibration

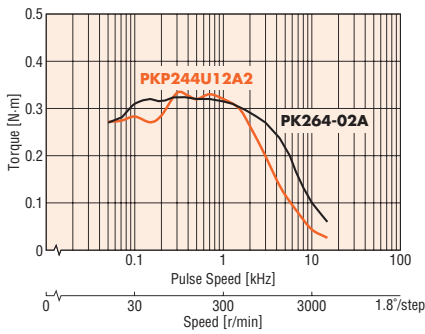
Revising the magnetic design has achieved lower vibration than with conventional products.



Downsizing

Use a **PKP** Series motor in place of a standard motor from the **PK** series with the equivalent torque in order to downsize motors.

Comparison of Torque Characteristics of **PKP244U12A2** and **PK264-02A**

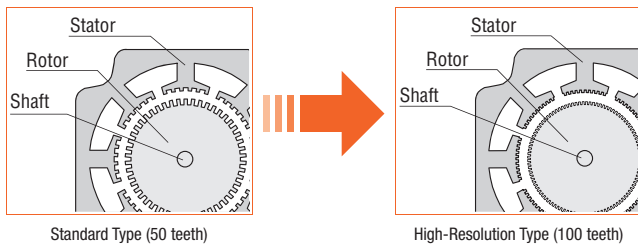


Downsizing is Possible with the Same Torque!

High-Resolution Type

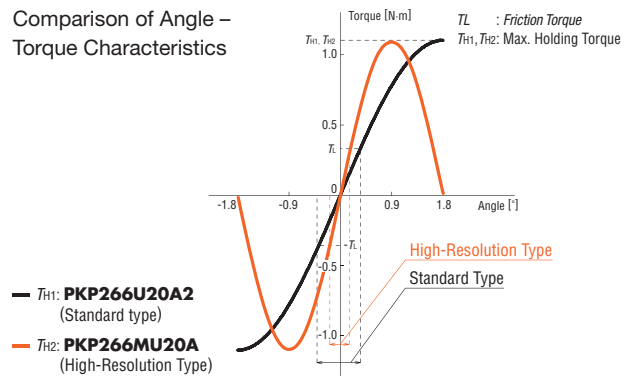
This is a high-resolution stepper motor with a basic step angle of 0.9°. Stopping accuracy is improved.

- **Increased Resolution (Compared to Standard Type)**
The number of rotor teeth has doubled to 100, compared to 50 with the standard type. As a result, the basic step angle is 0.9°/step, which is half that of the standard type.



- **Improved Stopping Accuracy (Compared to Standard Type)**
The stopping accuracy improves as the torque increases while minimizing the negative effects of frictional load.

Comparison of Angle – Torque Characteristics

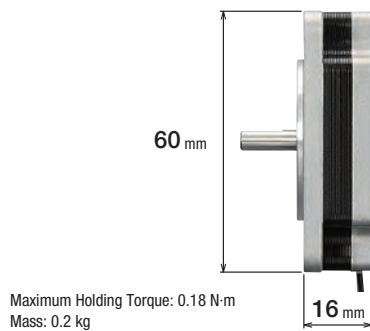


- **Avoidance of Resonance Regions**
If the pulse speed is within a resonance region, vibration may increase. Resonance regions can be avoided by switching to a high-resolution type.

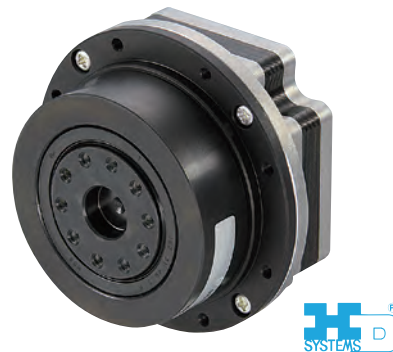
Flat Type

This is Oriental Motor's flattest type of 1.8° stepper motors.

- **Flat and Lightweight Design**
The motor can be installed in a narrow space by being flatter.



- **With Harmonic Gears**
Products assembled with harmonic gears are also available. Attach the load to the surface of the flange to fix the load.



Maximum holding torque: 5.4 N·m
Installation Size: $\phi 72$ mm
Mass: 0.6 kg

● is a registered trademark of Harmonic Drive Systems Inc.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared α STEP Absolute AZ

0.36°/Geared α STEP AR

0.72°/Geared RKII

DC Input Motor & Driver

0.36°/Geared α STEP Absolute AZ

0.36°/Geared α STEP AR

1.8°/0.72°/0.36° CVK

0.72°/0.36°/Geared CRK

1.8°/Geared RBK

Motor Only /Driver Only

1.8°/0.9° PKP/PK

Geared PKP/PK

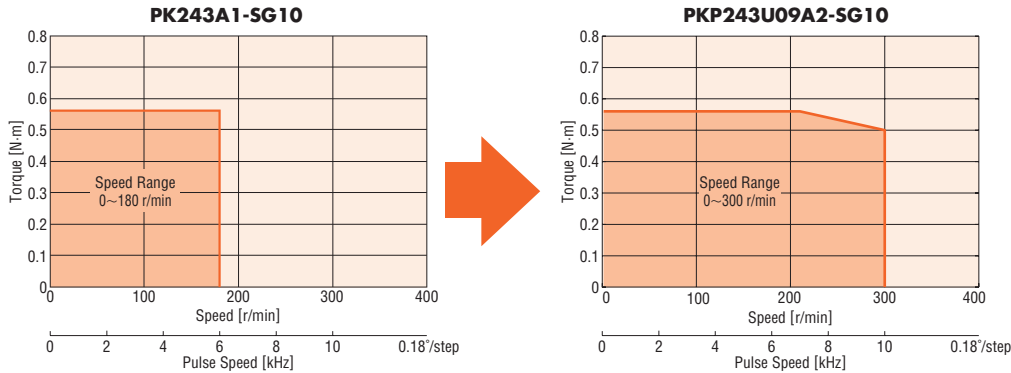
0.72°/0.36° PKP/PK

Driver

Accessories

SH Geared Type

This type is advantageous for its deceleration, greater torque, higher resolution and anti-vibration measures. It experiences less backlash than conventional products. The increased speed range makes it even easier to use.



Product Line Equipped with Additional Functions to Further Broaden Applications

● With Encoder

(Provided for standard type and high-resolution type)

Encoder Specifications → Page A-430

● Main Specifications

Type	Standard Type	High-Resolution Type
Resolution	200 P/R, 400 P/R	400 P/R
Output Signal	A Phase, B Phase, Z Phase (3ch)	

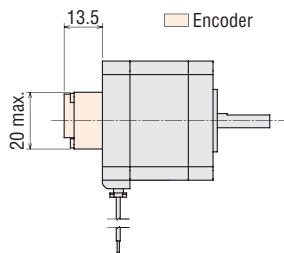


◇ Motor Position Detection is Possible.

Monitoring the current position and detecting positional errors are possible. For example, comparing the command position and current position enables you to check the normal operation of the motor.

◇ Equipped with a Compact Encoder

● When frame size is 42 mm



◇ High Reliability with Line Driver Output Circuit Type

Noise resistance is improved by differential output, and the wiring distance can be longer than with the voltage output type.

● Type with an Electromagnetic Brake

(Provided for standard type and high-resolution type)

Electromagnetic Brake → Page A-430



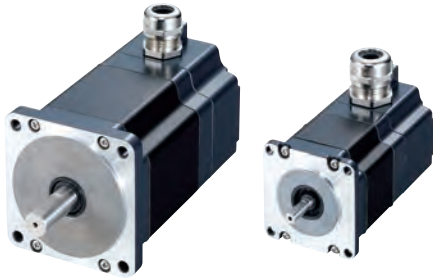
◇ Position Can Be Held When the Power Is OFF or a Power Failure Occurs.

This type features an electromagnetic brake that activates when the power is off.

When the power is accidentally cut off due to a power failure or other unexpected event, the electromagnetic brake holds the load in position to prevent it from dropping or moving. Also, the load can be held by the electromagnetic brake when the motor is stopped, and the heat generated by the motor can be curtailed by switching the motor current off.

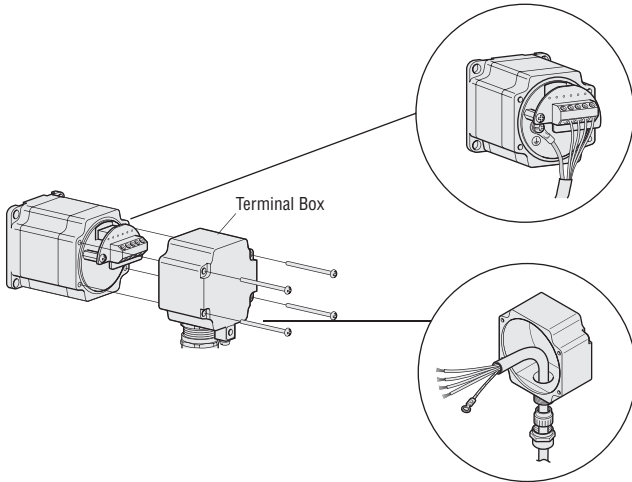
● Standard Type with Terminal Box

Terminal boxes have excellent watertightness and dust-resistance. This product conforms to the IP65 motor specification for the degree of protection (excluding shaft penetration).



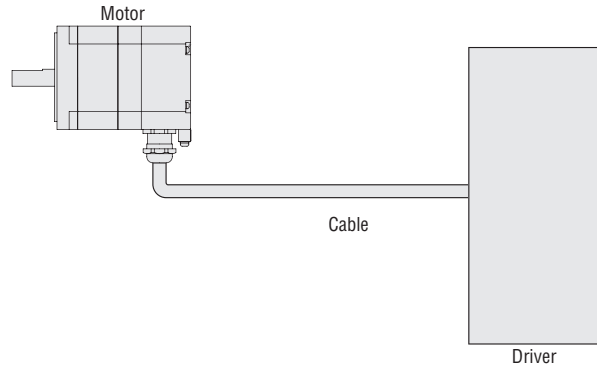
◇ Terminal-Block Connection Design

The motor can be wired directly from its terminal block.



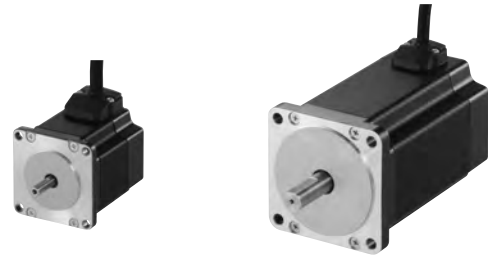
◇ No Motor/Driver Relay

Since the motor cable can be connected directly to the driver terminals, there is no need for wire connection or soldering on a relay terminal block.



● Standard Type with Cable

The motor conforms to the IP54 standard by changing the lead wire outlet from lead wire to cable and cable clamp (excluding the mounting surface.)



Combined Drivers (Sold separately)

The compact and lightweight bipolar driver and unipolar driver are available.

● Bipolar Drivers

● Right Angle Type with an Installation Plate
The connector points outward.



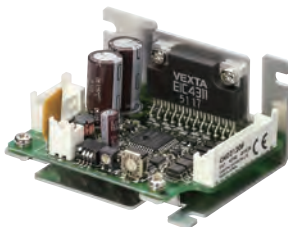
● With an Installation Plate
The connector points upward.



● Without an Installation Plate
The connector direction is upward.



● Unipolar Driver



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1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK




0.72°/0.36°
PKP/PK

Driver

Accessories




Product Line of PKP Series, PK Series

● Standard Type, High-Resolution Type, Flat Type

Motor Product Line (Basic Step Angle)	Series/Frame Size, Wiring Type															
	PKP 20 mm		PKP 28 mm		PKP 35 mm		PKP 42 mm		PK 50 mm		PKP 56.4 mm*		PK 60 mm		PKP 85 mm	
	Bipolar	Unipolar	Bipolar	Unipolar	Bipolar	Unipolar	Bipolar	Unipolar	Bipolar	Unipolar	Bipolar	Unipolar	Bipolar	Unipolar	Bipolar	Unipolar
Standard Type (1.8°) 	○	○	●	●	●	●	●	●	-	○	●	●	○	○	○	○
	○	○	●	●	●	●	●	●	-	-	●	●	-	-	-	-
	-	-	●	●	●	●	●	●	-	-	●	●	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	○ (PK)	-	-	-	○ (PK)	-
	-	-	-	-	-	-	-	-	-	-	● (PK)	-	-	-	● (PK)	● (PK)
High-Resolution Type (0.9°) 	-	-	-	-	-	-	●	●	-	-	●	●	-	-	-	-
	-	-	-	-	-	-	●	●	-	-	●	●	-	-	-	-
	-	-	-	-	-	-	●	●	-	-	●	●	-	-	-	-
Flat Type (1.8°~0.018°) 	-	-	-	-	-	-	-	-	-	-	○	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	○	-	-	-	-	-

●: Connector-coupled motors or motors equipped with a terminal box ○: Cable or Lead Wire Type
*Flat type is 60 mm, flat type with harmonic gears is φ72 mm.

● Geared Type

Motor Product Line (Basic Step Angle)	Series/Frame Size, Wiring Type									
	PKP 28 mm		PKP 42 mm		PKP 60 mm		PK 60 mm		PK 90 mm	
	Bipolar	Unipolar	Bipolar	Unipolar	Bipolar	Unipolar	Bipolar	Unipolar	Bipolar	Unipolar
SH Geared Type (0.5°~0.05°) 	●	●	●	●	●	●	-	-	-	○
TH Geared Type (0.5°~0.05°) 	-	-	○ (PK)	○ (PK)	-	-	○	○	-	-
PS Geared Type (0.36°~0.18°) 	● (PK)	-	-	-	-	-	-	-	-	-

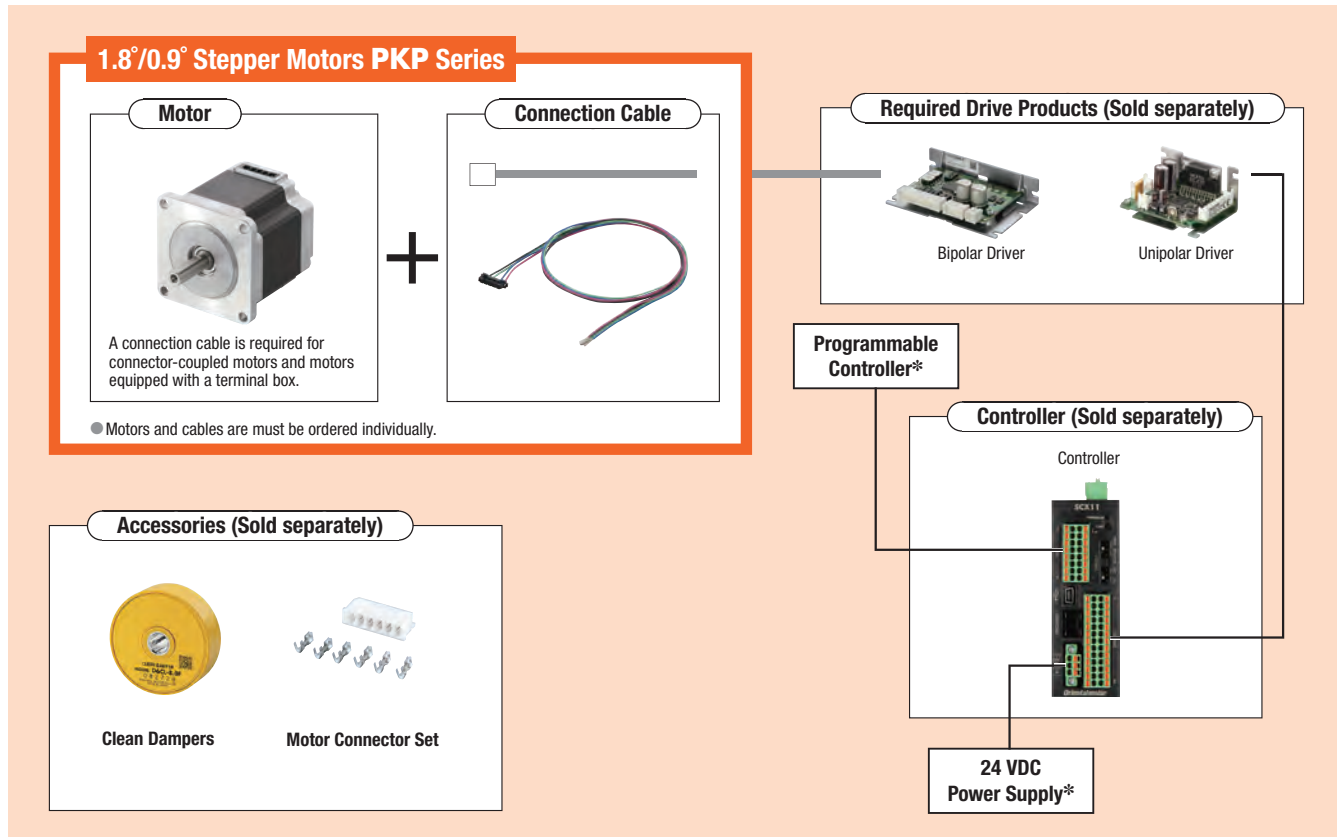
●: Connector Connection Method ○: Lead Wire Type

System Configuration

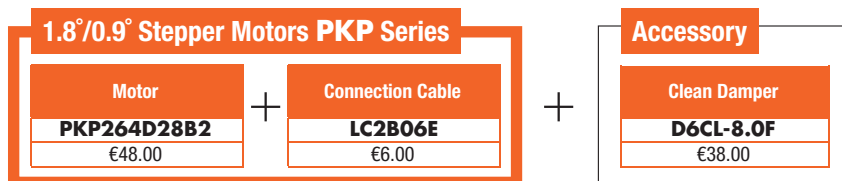
These accessories allow the 1.8°/0.9° Stepper Motor **PKP** Series to be used for various operations.

An example of a system configuration with the **SCX11** controller is shown below.

* Not supplied.



● Example of System Configuration



● The system configuration shown above is an example. Other combinations are also available.

Overview, Product Series

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0.36°/Geared
*Q*STEP Absolute
AZ

0.36°/Geared
*Q*STEP
AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
*Q*STEP Absolute
AZ

0.36°/Geared
*Q*STEP
AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Product Number

Motor

PKP Series

◇ Standard Type/Standard Type with Electromagnetic Brake

PKP 2 6 4 D 28 A 2

① ② ③ ④ ⑦ ⑧ ⑨ ⑩

◇ High-Resolution Type/High-Resolution Type with Electromagnetic Brake

PKP 2 6 4 M D 28 A

① ② ③ ④ ⑥ ⑦ ⑧ ⑨

◇ Flat Type

PKP 2 6 2 F D 15 A W

① ② ③ ④ ⑤ ⑦ ⑧ ⑨ ⑩

①	Series Name	PKP: PKP Series
②	2: 1.8°/0.9° Stepper Motor	
③	Motor Frame Size	1: 20 mm 2: 28 mm 3: 35 mm 4: 42 mm 6: 56.4 mm (60 mm when the motor classification is "F") 9: 85 mm
④	Motor Case Length	
⑤	Motor Classification	F: Motor Frame Size of 60 mm
⑥	Motor Type	Blank: Standard Type M: High-Resolution Type
⑦	Number of Lead Wires	D: 4 Leads U: 5 or 6 Leads
⑧	Motor Winding Specifications	
⑨	Configuration	A: Single Shaft B: Double Shaft M: With Electromagnetic Brake
⑩	Reference Number	
⑪	Cable Identification	Blank: Connector Connection Method or Lead Wire Type W: Lead Wire Type

◇ Standard Type with Encoder

PKP 2 4 3 D 15 A 2 - R2F L

① ② ③ ④ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

◇ High-Resolution Type with Encoder

PKP 2 4 3 M D 15 A - R2F L

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑩ ⑪

①	Series Name	PKP: PKP Series
②	2: 1.8°/0.9° Stepper Motor	
③	Motor Frame Size	1: 20 mm 2: 28 mm 3: 35 mm 4: 42 mm 6: 56.4 mm
④	Motor Case Length	
⑤	Motor Type	Blank: Standard Type M: High-Resolution Type
⑥	Number of Lead Wires	D: 4 Leads U: 5 or 6 Leads
⑦	Motor Winding Specifications	
⑧	Configuration	A: Single Shaft
⑨	Reference Number	
⑩	Encoder Resolution	R2E: 200P/R R2F: 400P/R
⑪	Encoder Output Circuit Type	L: Line Driver Output*

*Encoder of voltage output for output circuit type is also available. For details, please contact your nearest Oriental Motor sales office.

◇ Flat Type with Harmonic Gears

PKP 2 6 2 F D 15 A W - H 100S

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

①	Series Name	PKP: PKP Series
②	2: 1.8° Stepper Motor	
③	Motor Frame Size	6: 60 mm (The type with harmonic gears is $\phi 72$ mm)
④	Motor Case Length	
⑤	Motor Classification	F: Motor Frame Size of 60 mm
⑥	Number of Lead Wires	D: 4 Leads
⑦	Motor Winding Specifications	
⑧	Configuration	A: Single Shaft
⑨	Cable Identification	W: Lead Wire Type
⑩	Geared Type	H: Harmonic Geared Type
⑪	Gear Ratio	

◇ SH Geared Type

PKP 2 4 3 U 09 B 2 - SG 18

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

①	Series Name	PKP: PKP Series
②	2: 1.8° Stepper Motor	
③	Motor Frame Size	2: 28 mm 4: 42 mm 6: 60 mm
④	Motor Case Length	
⑤	Number of Lead Wires	D: 4 Leads U: 5 or 6 Leads
⑥	Motor Winding Specifications	
⑦	Configuration	A: Single Shaft B: Double Shaft
⑧	Reference Number	
⑨	Gear Type	SG: SH geared Type
⑩	Gear Ratio	

PK Series

◇ Standard Type

PK 2 6 4 J D B

① ② ③ ④ ⑤ ⑥ ⑦

①	Series Name	PK: PK Series
②	2: 1.8° Stepper Motor	
③	Motor Frame Size	6: 60 mm
④	Motor Case Length	
⑤	Motor Type	J: High-Torque Type
⑥	Number of Lead Wires	Blank: 6 Leads D: 4 Leads
⑦	Configuration	A: Single Shaft B: Double Shaft

◇ Standard Type (Unipolar 6 lead wires)

PK 2 5 6 - 0 2 B

① ② ③ ④ ⑤ ⑥ ⑦

①	Series Name	PK: PK Series
②	2: 1.8° Stepper Motor	
③	Motor Frame Size	5: 50 mm
④	Motor Case Length	
⑤	Reference Number	
⑥	Motor Winding Specifications	
⑦	Configuration	A: Single Shaft B: Double Shaft

◇ Standard Type with Cabtire Cable
Standard Type with Terminal Box

PK 2 9 6 E A T

①	Series Name	PK: PK Series
②	Motor Frame Size	2: 1.8" Stepper Motor
③	Motor Case Length	6: 56.4 mm 9: 85 mm
④	Number of Lead Wires or Motor Terminals	D, D1: 4 Leads, 4 Terminals E: 8 Terminals
⑤	Motor Shaft Type	A: Single Shaft
⑥	Motor Type	W: With Cabtire Cable T: With Terminal Box

● Connection Cable
◇ Connection Cable for Motor

LC 2 B 06 A

①	Cable	LC: Connector Leads
②	Cable Type	2: 1.8"/0.9" Stepper Motor
③	Cable Length	B: For Bipolar U: For Unipolar
④	Reference number	06: 0.6 m 10: 1 m

◇ Geared Type

PK 2 9 6 A E - SG 10

①	Series	PK: PK Series
②	Motor Frame Size	2: 28 mm 4: 42 mm 6: 60 mm 9: 90 mm
③	Motor Case Length	
④	Motor Type	
⑤	Number of Lead Wires	1 or 2: 6 Leads D: 4 Leads E: 8 Leads
⑥	Shaft Type	A: Single Shaft B: Double Shaft
⑦	Gearhead Type	SG: SH Geared Type T: TH Geared Type PS: PS Geared Type
⑧	Gear Ratio	

◇ Connection Cable for Encoder

LC E 08 A - 006

①	Cable	LC: Connector Leads
②	Cable Type	E: For Encoder
③	Applicable Models	08: For Line Driver Output*
④	Reference Number	
⑤	Cable Length	006: 0.6 m

*The voltage output cable is also available.

For details, please contact your nearest Oriental Motor sales office.

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CRK

1.8°/Geared
RBK

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1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Product Line

● Motor

◇ Standard Type

● Bipolar (4 Lead Wires)

Product Name (Single Shaft)	List Price	Product Name (Double Shaft)	List Price
PKP213D05A	€48.00	PKP213D05B	€51.00
PKP214D06A	€52.00	PKP214D06B	€54.00
PKP223D15A2	€33.00	PKP223D15B2	€36.00
PKP225D15A2	€39.00	PKP225D15B2	€42.00
PKP233D15A	€33.00	PKP233D15B	€36.00
PKP233D23A	€33.00	PKP233D23B	€36.00
PKP235D15A	€39.00	PKP235D15B	€42.00
PKP235D23A	€39.00	PKP235D23B	€42.00
PKP243D15A2	€37.00	PKP243D15B2	€39.00
PKP243D23A2	€37.00	PKP243D23B2	€39.00
PKP244D15A2	€39.00	PKP244D15B2	€41.00
PKP244D23A2	€39.00	PKP244D23B2	€41.00
PKP245D15A2	€43.00	PKP245D15B2	€46.00
PKP245D23A2	€43.00	PKP245D23B2	€46.00
PKP246D15A2	€46.00	PKP246D15B2	€48.00
PKP246D23A2	€46.00	PKP246D23B2	€48.00
PKP264D14A2	€46.00	PKP264D14B2	€48.00
PKP264D28A2	€46.00	PKP264D28B2	€48.00
PKP264D42A2	€46.00	PKP264D42B2	€48.00
PKP266D14A2	€50.00	PKP266D14B2	€52.00
PKP266D28A2	€50.00	PKP266D28B2	€52.00
PKP266D42A2	€50.00	PKP266D42B2	€52.00
PKP268D14A2	€61.00	PKP268D14B2	€63.00
PKP268D28A2	€61.00	PKP268D28B2	€63.00
PKP268D42A2	€61.00	PKP268D42B2	€63.00
PK264JDA	€81.00	PK264JDB	€85.00
PK266JDA	€90.00	PK266JDB	€92.00
PK267JDA	€105.00	PK267JDB	€108.00
PK269JDA	€132.00	PK269JDB	€136.00
PKP296D45A	€98.00	PKP296D45B	€105.00
PKP296D63A	€98.00	PKP296D63B	€105.00
PKP299D45A	€151.00	PKP299D45B	€159.00
PKP299D63A	€151.00	PKP299D63B	€159.00
PKP2913D45A	€191.00	PKP2913D45B	€198.00
PKP2913D56A	€191.00	PKP2913D56B	€198.00

◇ Standard Type with Encoder

● Bipolar (4 Lead Wires)

Product Name (Encoder Resolution: 200 P/R)	List Price	Product Name (Encoder Resolution: 400 P/R)	List Price
PKP213D05A-R2EL	€104.00	-	-
PKP214D06A-R2EL	€107.00	-	-
PKP223D15A2-R2EL	€88.00	-	-
PKP225D15A2-R2EL	€94.00	-	-
PKP233D15A-R2EL	€88.00	-	-
PKP235D15A-R2EL	€94.00	-	-
PKP243D15A2-R2EL	€88.00	PKP243D15A2-R2FL	€88.00
PKP243D23A2-R2EL	€88.00	PKP243D23A2-R2FL	€88.00
PKP244D15A2-R2EL	€91.00	PKP244D15A2-R2FL	€91.00
PKP244D23A2-R2EL	€91.00	PKP244D23A2-R2FL	€91.00
PKP245D15A2-R2EL	€94.00	PKP245D15A2-R2FL	€94.00
PKP245D23A2-R2EL	€94.00	PKP245D23A2-R2FL	€94.00
PKP246D15A2-R2EL	€97.00	PKP246D15A2-R2FL	€97.00
PKP246D23A2-R2EL	€97.00	PKP246D23A2-R2FL	€97.00
PKP264D14A2-R2EL	€97.00	PKP264D14A2-R2FL	€97.00
PKP264D28A2-R2EL	€97.00	PKP264D28A2-R2FL	€97.00
PKP264D42A2-R2EL	€97.00	PKP264D42A2-R2FL	€97.00
PKP266D14A2-R2EL	€102.00	PKP266D14A2-R2FL	€102.00
PKP266D28A2-R2EL	€102.00	PKP266D28A2-R2FL	€102.00
PKP266D42A2-R2EL	€102.00	PKP266D42A2-R2FL	€102.00
PKP268D14A2-R2EL	€113.00	PKP268D14A2-R2FL	€113.00
PKP268D28A2-R2EL	€113.00	PKP268D28A2-R2FL	€113.00
PKP268D42A2-R2EL	€113.00	PKP268D42A2-R2FL	€113.00

● Unipolar (5 or 6 Lead Wires)

Product Name (Single Shaft)	List Price	Product Name (Double Shaft)	List Price
PKP213U05A	€48.00	PKP213U05B	€51.00
PKP214U06A	€52.00	PKP214U06B	€54.00
PKP223U09A2	€33.00	PKP223U09B2	€36.00
PKP225U09A2	€39.00	PKP225U09B2	€42.00
PKP233U12A	€33.00	PKP233U12B	€36.00
PKP235U12A	€39.00	PKP235U12B	€42.00
PKP243U09A2	€37.00	PKP243U09B2	€39.00
PKP244U12A2	€39.00	PKP244U12B2	€41.00
PKP245U12A2	€46.00	PKP245U12B2	€48.00
PKP246U12A2	€38.00	PKP246U12B2	€40.00
PK256-02A	€63.00	PK256-02B	€65.00
PK258-02A	€69.00	PK258-02B	€71.00
PKP264U10A2	€46.00	PKP264U10B2	€48.00
PKP264U20A2	€46.00	PKP264U20B2	€48.00
PKP266U10A2	€50.00	PKP266U10B2	€52.00
PKP266U20A2	€50.00	PKP266U20B2	€52.00
PKP268U10A2	€61.00	PKP268U10B2	€63.00
PKP268U20A2	€61.00	PKP268U20B2	€63.00
PK264JA	€81.00	PK264JB	€85.00
PK266JA	€90.00	PK266JB	€92.00
PK267JA	€105.00	PK267JB	€108.00
PK269JA	€132.00	PK269JB	€136.00
PKP296U20A	€98.00	PKP296U20B	€105.00
PKP296U30A	€98.00	PKP296U30B	€105.00
PKP296U45A	€98.00	PKP296U45B	€105.00
PKP299U20A	€151.00	PKP299U20B	€159.00
PKP299U30A	€151.00	PKP299U30B	€159.00
PKP299U45A	€151.00	PKP299U45B	€159.00
PKP2913U20A	€191.00	PKP2913U20B	€198.00
PKP2913U40A	€191.00	PKP2913U40B	€198.00

● Unipolar (5 or 6 Lead Wires)

Product Name (Encoder Resolution: 200 P/R)	List Price	Product Name (Encoder Resolution: 400 P/R)	List Price
PKP213U05A-R2EL	€104.00	-	-
PKP214U06A-R2EL	€107.00	-	-
PKP223U09A2-R2EL	€88.00	-	-
PKP225U09A2-R2EL	€94.00	-	-
PKP233U12A-R2EL	€88.00	-	-
PKP235U12A-R2EL	€94.00	-	-
PKP243U09A2-R2EL	€88.00	PKP243U09A2-R2FL	€88.00
PKP244U12A2-R2EL	€91.00	PKP244U12A2-R2FL	€91.00
PKP245U12A2-R2EL	€94.00	PKP245U12A2-R2FL	€94.00
PKP246U12A2-R2EL	€97.00	PKP246U12A2-R2FL	€97.00
PKP264U10A2-R2EL	€97.00	PKP264U10A2-R2FL	€97.00
PKP264U20A2-R2EL	€97.00	PKP264U20A2-R2FL	€97.00
PKP266U10A2-R2EL	€102.00	PKP266U10A2-R2FL	€102.00
PKP266U20A2-R2EL	€102.00	PKP266U20A2-R2FL	€102.00
PKP268U10A2-R2EL	€113.00	PKP268U10A2-R2FL	€113.00
PKP268U20A2-R2EL	€113.00	PKP268U20A2-R2FL	€113.00

◇ Standard Type with Electromagnetic Brake

• Bipolar (4 Lead Wires)

Product Name	List Price
PKP223D15M2	€106.00
PKP225D15M2	€105.00
PKP233D15M	€127.00
PKP235D15M	€132.00
PKP243D15M	€127.00
PKP244D15M	€129.00
PKP245D15M	€132.00
PKP246D15M	€136.00
PKP264D28M	€147.00
PKP266D28M	€151.00
PKP268D28M	€162.00

◇ High-Resolution Type

• Bipolar (4 Lead Wires)

Product Name (Single Shaft)	List Price	Product Name (Double Shaft)	List Price
PKP243MD15A	€33.00	PKP243MD15B	€36.00
PKP244MD15A	€36.00	PKP244MD15B	€38.00
PKP264MD28A	€42.00	PKP264MD28B	€44.00
PKP266MD28A	€46.00	PKP266MD28B	€49.00
PKP268MD28A	€58.00	PKP268MD28B	€60.00

◇ High-Resolution Type with Encoder

• Bipolar (4 Lead Wires)

Product Name (Encoder Resolution: 400 P/R)	List Price
PKP243MD15A-R2FL	€88.00
PKP244MD15A-R2FL	€91.00
PKP264MD28A-R2FL	€97.00
PKP266MD28A-R2FL	€102.00
PKP268MD28A-R2FL	€113.00

◇ High-Resolution Type with Electromagnetic Brake

• Bipolar (4 Lead Wires)

Product Name	List Price
PKP243MD15M	€127.00
PKP244MD15M	€129.00
PKP264MD28M	€147.00
PKP266MD28M	€151.00
PKP268MD28M	€162.00

◇ Flat Type

• Bipolar (4 Lead Wires)

Product Name (Single Shaft)	List Price
PKP262FD15AW	€56.00

◇ Flat Type with Harmonic Gears

• Bipolar (4 Lead Wires)

Product Name (Single Shaft)	List Price
PKP262FD15AW-H50S	€754.00
PKP262FD15AW-H100S	€754.00

• Unipolar (6 Lead Wires)

Product Name	List Price
PKP223U09M2	€99.00
PKP225U09M2	€105.00
PKP233U12M	€127.00
PKP235U12M	€132.00
PKP243U09M	€127.00
PKP244U12M	€129.00
PKP245U12M	€132.00
PKP246U12M	€136.00
PKP264U20M	€147.00
PKP266U20M	€151.00
PKP268U20M	€162.00

• Unipolar (6 Lead Wires)

Product Name (Single Shaft)	List Price	Product Name (Double Shaft)	List Price
PKP243MU09A	€33.00	PKP243MU09B	€36.00
PKP244MU12A	€36.00	PKP244MU12B	€38.00
PKP264MU20A	€42.00	PKP264MU20B	€44.00
PKP266MU20A	€46.00	PKP266MU20B	€49.00
PKP268MU20A	€58.00	PKP268MU20B	€60.00

• Unipolar (6 Lead Wires)

Product Name (Encoder Resolution: 400 P/R)	List Price
PKP243MU09A-R2FL	€88.00
PKP244MU12A-R2FL	€91.00
PKP264MU20A-R2FL	€97.00
PKP266MU20A-R2FL	€102.00
PKP268MU20A-R2FL	€113.00

• Unipolar (6 Lead Wires)

Product Name	List Price
PKP243MU09M	€127.00
PKP244MU12M	€129.00
PKP264MU20M	€147.00
PKP266MU20M	€151.00
PKP268MU20M	€162.00

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
*α*STEP
Absolute
AZ

0.36°/Geared
*α*STEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
*α*STEP
Absolute
AZ

0.36°/Geared
*α*STEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

◇ SH Geared Type

● Bipolar (4 Lead Wires)

Product Name (Single Shaft)	List Price	Product Name (Double Shaft)	List Price
PKP223D15A-SG7.2	€86.00	PKP223D15B-SG7.2	€88.00
PKP223D15A-SG9	€86.00	PKP223D15B-SG9	€88.00
PKP223D15A-SG10	€86.00	PKP223D15B-SG10	€88.00
PKP223D15A-SG18	€103.00	PKP223D15B-SG18	€105.00
PKP223D15A-SG36	€103.00	PKP223D15B-SG36	€105.00
PKP243D15A2-SG3.6	€99.00	PKP243D15B2-SG3.6	€101.00
PKP243D23A2-SG3.6	€99.00	PKP243D23B2-SG3.6	€101.00
PKP243D15A2-SG7.2	€99.00	PKP243D15B2-SG7.2	€101.00
PKP243D23A2-SG7.2	€99.00	PKP243D23B2-SG7.2	€101.00
PKP243D15A2-SG9	€99.00	PKP243D15B2-SG9	€101.00
PKP243D23A2-SG9	€99.00	PKP243D23B2-SG9	€101.00
PKP243D15A2-SG10	€99.00	PKP243D15B2-SG10	€101.00
PKP243D23A2-SG10	€99.00	PKP243D23B2-SG10	€101.00
PKP243D15A2-SG18	€116.00	PKP243D15B2-SG18	€118.00
PKP243D23A2-SG18	€116.00	PKP243D23B2-SG18	€118.00
PKP243D15A2-SG36	€116.00	PKP243D15B2-SG36	€118.00
PKP243D23A2-SG36	€116.00	PKP243D23B2-SG36	€118.00
PKP264D14A2-SG3.6	€119.00	PKP264D14B2-SG3.6	€120.00
PKP264D28A2-SG3.6	€119.00	PKP264D28B2-SG3.6	€120.00
PKP264D14A2-SG7.2	€119.00	PKP264D14B2-SG7.2	€120.00
PKP264D28A2-SG7.2	€119.00	PKP264D28B2-SG7.2	€120.00
PKP264D14A2-SG9	€119.00	PKP264D14B2-SG9	€120.00
PKP264D28A2-SG9	€119.00	PKP264D28B2-SG9	€120.00
PKP264D14A2-SG10	€119.00	PKP264D14B2-SG10	€120.00
PKP264D28A2-SG10	€119.00	PKP264D28B2-SG10	€120.00
PKP264D14A2-SG18	€130.00	PKP264D14B2-SG18	€132.00
PKP264D28A2-SG18	€130.00	PKP264D28B2-SG18	€132.00
PKP264D14A2-SG36	€130.00	PKP264D14B2-SG36	€132.00
PKP264D28A2-SG36	€130.00	PKP264D28B2-SG36	€132.00

● Connection Cable

◇ Motor Cable (For bipolar)

Product Name	Length L (m)	List Price
LC2B06A	0.6	€6.00
LC2B06B	0.6	€6.00
LC2B06C	0.6	€6.00
LC2B06E	0.6	€6.00

◇ Encoder Type (Line driver output)

Product Name	Length L (m)	List Price
LC08A-006	0.6	€11.00

■ Included

Type	Motor Installation Screw	Parallel Key	Varistor	Operating Manual
Standard Type				
High-Resolution Type	–	–	–	1 Set
Flat Type				
Type with an Electromagnetic Brake	–	–	1 Piece	1 Set
SH Geared Type	Frame Size 28 mm			
	Frame Size 42 mm	–	–	1 Set
	Frame Size 60 mm			
	Frame Size 90 mm	M6×18 P1.0 (4 Screws)	1 Piece	–

● Unipolar (5 or 6 Lead Wires)

Product Name (Single Shaft)	List Price	Product Name (Double Shaft)	List Price
PKP223U09A-SG7.2	€86.00	PKP223U09B-SG7.2	€88.00
PKP223U09A-SG9	€86.00	PKP223U09B-SG9	€88.00
PKP223U09A-SG10	€86.00	PKP223U09B-SG10	€88.00
PKP223U09A-SG18	€103.00	PKP223U09B-SG18	€105.00
PKP223U09A-SG36	€103.00	PKP223U09B-SG36	€105.00
PKP243U09A2-SG3.6	€99.00	PKP243U09B2-SG3.6	€101.00
PKP243U09A2-SG7.2	€99.00	PKP243U09B2-SG7.2	€101.00
PKP243U09A2-SG9	€99.00	PKP243U09B2-SG9	€101.00
PKP243U09A2-SG10	€99.00	PKP243U09B2-SG10	€101.00
PKP243U09A2-SG18	€116.00	PKP243U09B2-SG18	€118.00
PKP243U09A2-SG36	€116.00	PKP243U09B2-SG36	€118.00
PKP264U10A2-SG3.6	€119.00	PKP264U10B2-SG3.6	€120.00
PKP264U20A2-SG3.6	€119.00	PKP264U20B2-SG3.6	€120.00
PKP264U10A2-SG7.2	€119.00	PKP264U10B2-SG7.2	€120.00
PKP264U20A2-SG7.2	€119.00	PKP264U20B2-SG7.2	€120.00
PKP264U10A2-SG9	€119.00	PKP264U10B2-SG9	€120.00
PKP264U20A2-SG9	€119.00	PKP264U20B2-SG9	€120.00
PKP264U10A2-SG10	€119.00	PKP264U10B2-SG10	€120.00
PKP264U20A2-SG10	€119.00	PKP264U20B2-SG10	€120.00
PKP264U10A2-SG18	€130.00	PKP264U10B2-SG18	€132.00
PKP264U20A2-SG18	€130.00	PKP264U20B2-SG18	€132.00
PKP264U10A2-SG36	€130.00	PKP264U10B2-SG36	€132.00
PKP264U20A2-SG36	€130.00	PKP264U20B2-SG36	€132.00

● Bipolar/Unipolar (8 Lead wires)

Product Name (Single Shaft)	List Price	Product Name (Double Shaft)	List Price
PK296AE-SG3.6	€234.00	PK296BE-SG3.6	€238.00
PK296AE-SG7.2	€234.00	PK296BE-SG7.2	€238.00
PK296AE-SG9	€234.00	PK296BE-SG9	€238.00
PK296AE-SG10	€234.00	PK296BE-SG10	€238.00
PK296AE-SG18	€234.00	PK296BE-SG18	€238.00
PK296AE-SG36	€244.00	PK296BE-SG36	€248.00

◇ Motor Cable (For unipolar)

Product Name	Length L (m)	List Price
LC2U06A	0.6	€6.00
LC2U10A	1	€8.00
LC2U06B	0.6	€6.00
LC2U10B	1	€9.00
LC2U06C	0.6	€6.00
LC2U10C	1	€10.00
LC2U06E	0.6	€6.00

Product Line (Products on the WEB)

● Motor

◇ Standard Type with Cabtire Cable

Product Name (Single Shaft)	List Price
PK264DW	€94.00
PK266DW	€99.00
PK268DW	€117.00
PK296DW	€153.00
PK299DW	€215.00
PK2913DW	€300.00

◇ TH Geared Type

● Bipolar (4 Lead Wires)

Product Name (Single Shaft)	List Price	Product Name (Double Shaft)	List Price
PK243DA-T3.6	€176.00	PK243DB-T3.6	€179.00
PK243DA-T7.2	€176.00	PK243DB-T7.2	€179.00
PK243DA-T10	€191.00	PK243DB-T10	€192.00
PK243DA-T20	€191.00	PK243DB-T20	€192.00
PK243DA-T30	€191.00	PK243DB-T30	€192.00
PK264DA-T3.6	€203.00	PK264DB-T3.6	€205.00
PK264DA-T7.2	€203.00	PK264DB-T7.2	€205.00
PK264DA-T10	€217.00	PK264DB-T10	€219.00
PK264DA-T20	€217.00	PK264DB-T20	€219.00
PK264DA-T30	€217.00	PK264DB-T30	€219.00

◇ PS Geared Type

● Bipolar (4 Lead Wires)

Product Name (Single Shaft)	List Price	Product Name (Double Shaft)	List Price
PK223PDA-PS5	€349.00	PK223PDB-PS5	€351.00
PK223PDA-PS10	€349.00	PK223PDB-PS10	€351.00

The following items are included in each product.

Motor, Operating Manual

◇ Standard Type with Terminal Box

Product Name (Single Shaft)	List Price
PK264DAT	€142.00
PK264D1T	€142.00
PK266DAT	€148.00
PK266D1T	€148.00
PK268DAT	€164.00
PK268D1T	€149.00
PK296DT	€206.00
PK296EAT	€206.00
PK299DT	€263.00
PK299EAT	€263.00
PK2913DT	€341.00
PK2913EAT	€341.00

● Bipolar/Unipolar (6 Lead wires)

Product Name (Single Shaft)	List Price	Product Name (Double Shaft)	List Price
PK243A1-T3.6	€176.00	PK243B1-T3.6	€179.00
PK243A1-T7.2	€176.00	PK243B1-T7.2	€179.00
PK243A1-T10	€191.00	PK243B1-T10	€193.00
PK243A1-T20	€191.00	PK243B1-T20	€193.00
PK243A1-T30	€191.00	PK243B1-T30	€193.00
PK264A2-T3.6	€203.00	PK264B2-T3.6	€205.00
PK264A2-T7.2	€203.00	PK264B2-T7.2	€205.00
PK264A2-T10	€217.00	PK264B2-T10	€219.00
PK264A2-T20	€217.00	PK264B2-T20	€219.00
PK264A2-T30	€217.00	PK264B2-T30	€219.00

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories



For details (specifications, characteristics, dimensions and others) on these products please refer to our website or contact your nearest Oriental Motor sales office.

www.orientalmotor.eu

Standard Type Frame Size 20 mm (Bipolar 4 lead wires)

Specifications

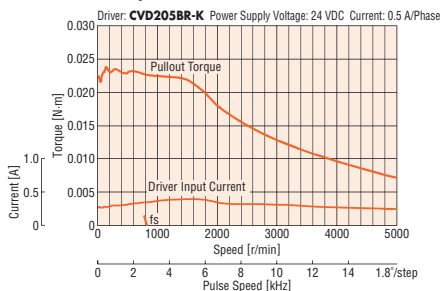
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP213D05□	0.02	1.6×10^{-7}	0.5	4.25	8.5	4.1	1.8°	CVD205BR-K
PKP214D06□	0.036	2.9×10^{-7}	0.6	3.9	6.5	3.5		CVD206BR-K

● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.

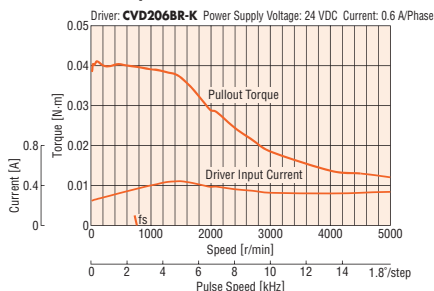
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP213D05A/PKP213D05B



PKP214D06A/PKP214D06B



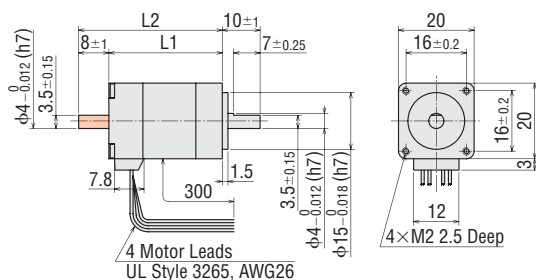
Note

- Data for the speed – torque characteristics is based on Oriental Motor’s internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

Product Name	L1	L2	Mass kg
PKP213D05A	30	—	0.05
PKP213D05B		38	
PKP214D06A	40	—	0.07
PKP214D06B		48	



- These dimensions are for double shaft motors. For single shaft motors, ignore the shaded areas.
- Back shaft of double shaft products have a flat the whole length.

Inner Wiring Diagram of Motor

Wiring Diagram No.: ③

- Refer to page A-431 for inner wiring diagram of motor.

Standard Type Frame Size 20 mm (Unipolar 5 lead wires)

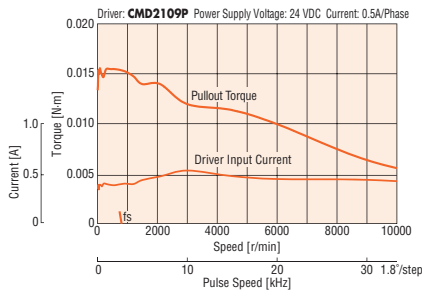
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP213U05□	0.014	1.6×10^{-7}	0.5	4.25	8.5	2.9	1.8°	CMD2109P
PKP214U06□	0.026	2.9×10^{-7}	0.6	4.2	7	2.4		

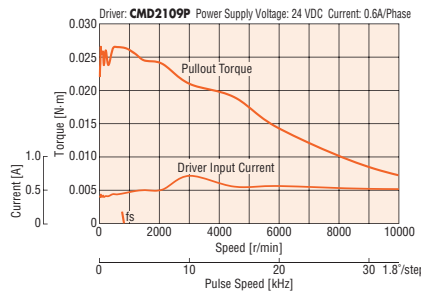
● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP213U05A/PKP213U05B



PKP214U06A/PKP214U06B



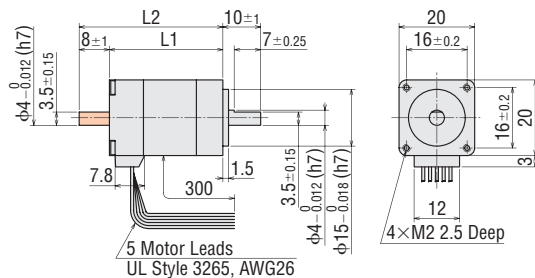
Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

Product Name	L1	L2	Mass kg
PKP213U05A	30	—	0.05
PKP213U05B		38	
PKP214U06A	40	—	0.07
PKP214U06B		48	



- These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.
- Back shaft of double shaft products have a flat the whole length.

Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑤

- Refer to page A-431 for inner wiring diagram of motor.

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type with Encoder Frame Size 20 mm (Bipolar 4 lead wires)

Specifications

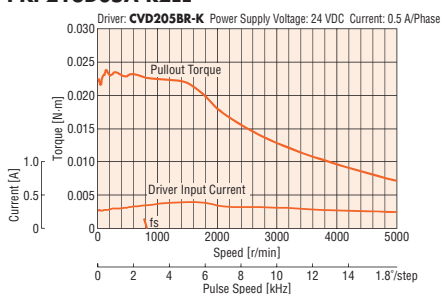
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP213D05A-R2EL	0.02	1.66×10^{-7}	0.5	4.25	8.5	4.1	1.8°	CVD205BR-K
PKP214D06A-R2EL	0.036	2.96×10^{-7}	0.6	3.9	6.5	3.5		CVD206BR-K

● Refer to page A-430 for encoder specifications.

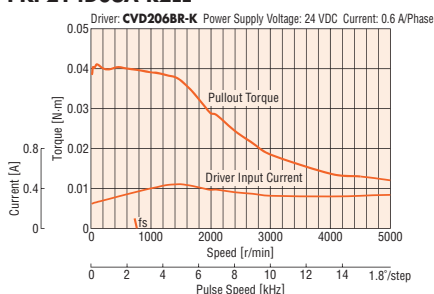
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP213D05A-R2EL



PKP214D06A-R2EL



Note

- Data for the speed – torque characteristics is based on Oriental Motor’s internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. To protect the encoder, be sure to keep the motor case temperature at 85°C max.

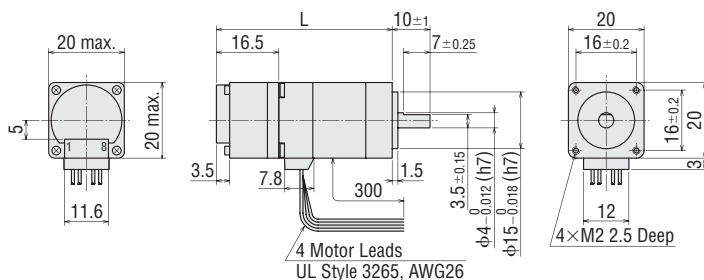
Dimensions (Unit = mm)

Motor

Product Name	L	Mass kg
PKP213D05A-R2EL	46.5	0.06
PKP214D06A-R2EL	56.5	0.08

● Applicable Connector (Molex)

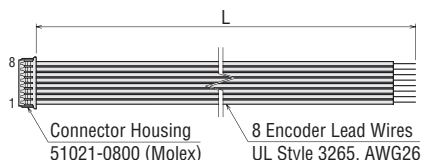
	Encoder
Connector Housing	51021-0800
Contact	50079-8100
Crimp Tool	57067-3000



Connection Cable (Sold separately)

◇ For Encoder

Product Name	Length L (m)
LCE08A-006	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ③

● Refer to page A-431 for inner wiring diagram of motor.

Standard Type with Encoder Frame Size 20 mm (Unipolar 5 lead wires)

Specifications

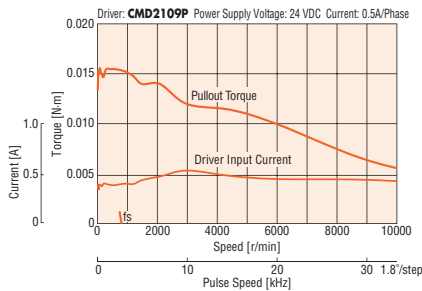
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP213U05A-R2EL	0.014	1.66×10^{-7}	0.5	4.25	8.5	2.9	1.8°	CMD2109P
PKP214U06A-R2EL	0.026	2.96×10^{-7}	0.6	4.2	7	2.4		

● Refer to page A-430 for encoder specifications.

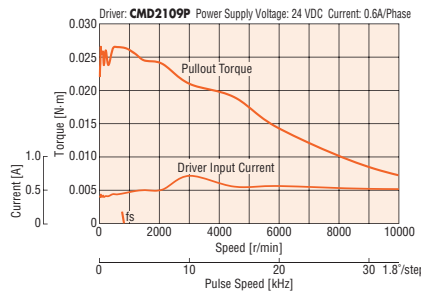
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP213U05A-R2EL



PKP214U06A-R2EL



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. To protect the encoder, be sure to keep the motor case temperature at 85°C max.

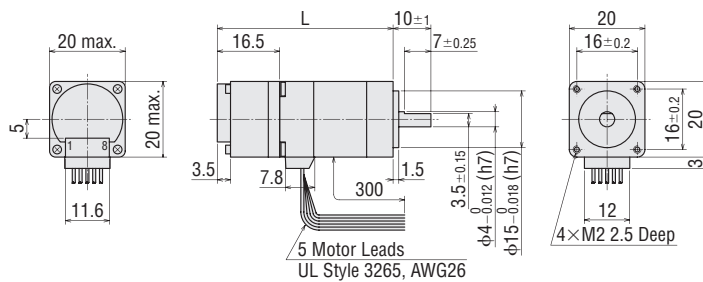
Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP213U05A-R2EL	46.5	0.06
PKP214U06A-R2EL	56.5	0.08

● Applicable Connector (Molex)

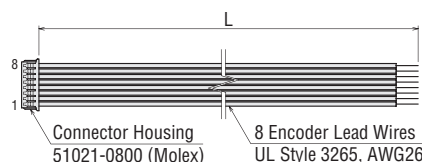
	Encoder
Connector Housing	51021-0800
Contact	50079-8100
Crimp Tool	57067-3000



● Connection Cable (Sold separately)

◇ For Encoder

Product Name	Length L (m)
LCE08A-006	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑤

● Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type Frame Size 28 mm (Bipolar 4 lead wires)

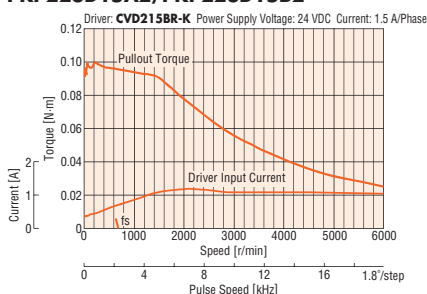
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP223D15□2	0.095	9×10^{-7}	1.5	1.77	1.18	0.96	1.8°	CVD215BR-K
PKP225D15□2	0.19	18×10^{-7}		3	2	1.6		

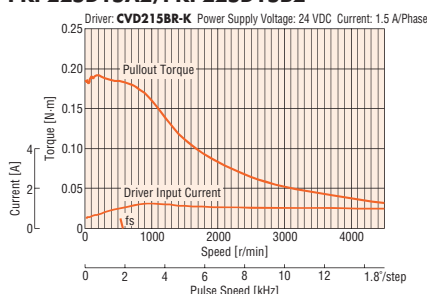
● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP223D15A2/PKP223D15B2



PKP225D15A2/PKP225D15B2



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

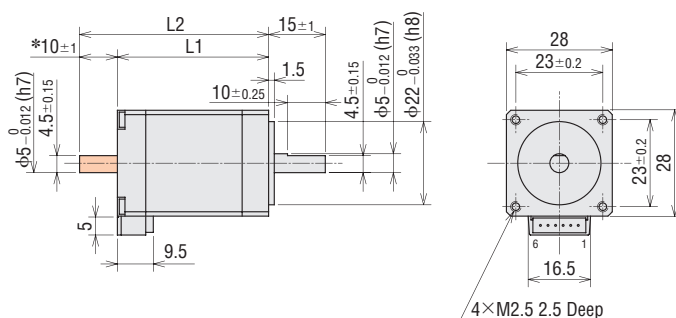
Dimensions (Unit = mm)

● Motor

Product Name	L1	L2	Mass kg
PKP223D15A2	32	–	0.11
PKP223D15B2		42	
PKP225D15A2	51.5	–	0.2
PKP225D15B2		61.5	

● Applicable Connector

Connector Housing: 51065-0600 (Molex)
Contact: 50212-8100 (Molex)
Crimp Tool: 57176-5000 (Molex)

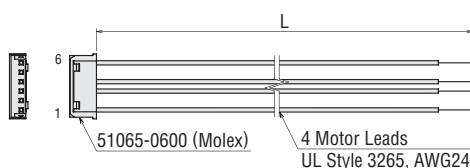


*The length of the shaft flat on the double shaft model is 10±0.25.
● These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

● Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2B06A	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ②

● Refer to page A-431 for inner wiring diagram of motor.

Standard Type Frame Size 28 mm (Unipolar 6 lead wires)

Specifications

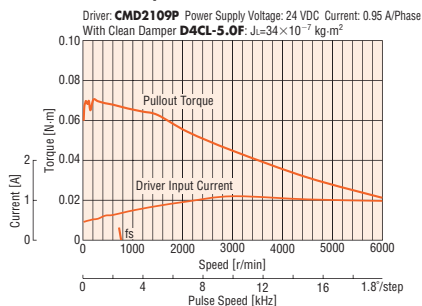
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP223U09□2	0.075	9×10 ⁻⁷	0.95	2.95	3.11	1.44	1.8°	CMD2109P
PKP225U09□2	0.135	18×10 ⁻⁷		4.4	4.6	2.11		

● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.

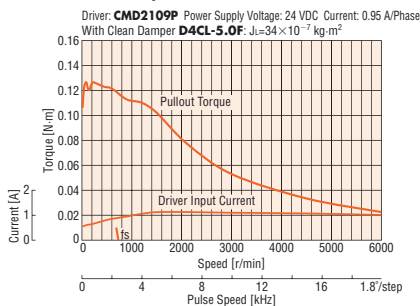
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP223U09A2/PKP223U09B2



PKP225U09A2/PKP225U09B2



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a "clean damper" entry in the speed - torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

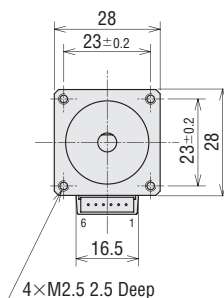
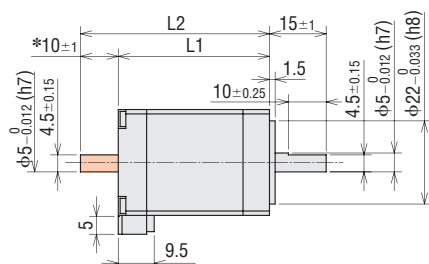
Product Name	L1	L2	Mass kg
PKP223U09A2	32	-	0.11
PKP223U09B2		42	
PKP225U09A2	51.5	-	0.2
PKP225U09B2		61.5	

Applicable Connector

Connector Housing: 51065-0600 (Molex)

Contact: 50212-8100 (Molex)

Crimp Tool: 57176-5000 (Molex)



*The length of the shaft flat on the double shaft model is 10±0.25.

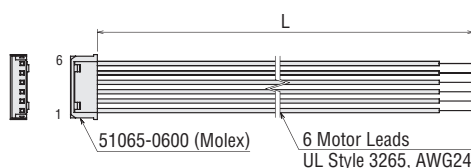
● These dimensions are for double shaft motors.

For single shaft motors, ignore the shaded areas.

Connection Cable (Sold separately)

For Motor

Product Name	Length L (m)
LC2U06A	0.6
LC2U10A	1



Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑥

● Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute
AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute
AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type with Encoder Frame Size 28 mm (Bipolar 4 lead wires)

Specifications

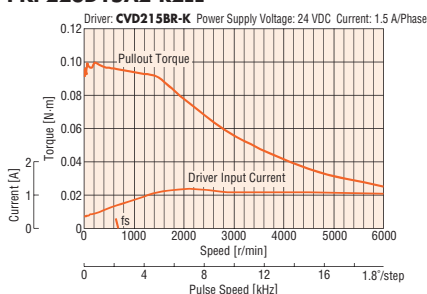
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP223D15A2-R2EL	0.095	9×10^{-7}	1.5	1.77	1.18	0.96	1.8°	CVD215BR-K
PKP225D15A2-R2EL	0.19	18×10^{-7}		3	2	1.6		

● Refer to page A-430 for encoder specifications.

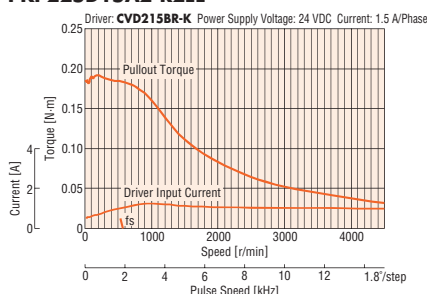
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP223D15A2-R2EL



PKP225D15A2-R2EL



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. To protect the encoder, be sure to keep the motor case temperature at 85°C max.

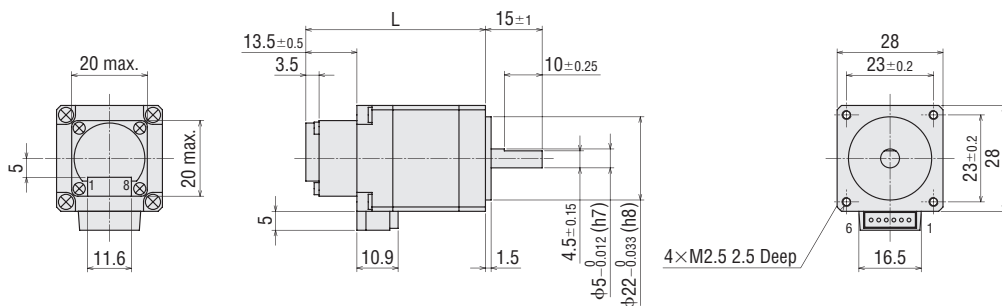
Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP223D15A2-R2EL	47.5	0.12
PKP225D15A2-R2EL	67	0.21

● Applicable Connector (Molex)

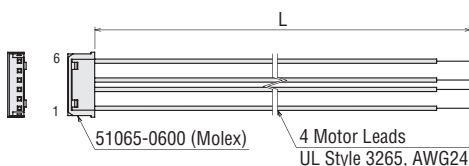
	Motor	Encoder
Connector Housing	51065-0600	51021-0800
Contact	50212-8100	50079-8100
Crimp Tool	57176-5000	57067-3000



● Connection Cable (Sold separately)

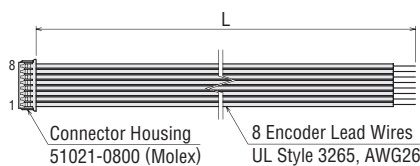
◇ For Motor

Product Name	Length L (m)
LC2B06A	0.6



◇ For Encoder

Product Name	Length L (m)
LCE08A-006	0.6



Standard Type with Encoder Frame Size 28 mm (Unipolar 6 lead wires)

Specifications

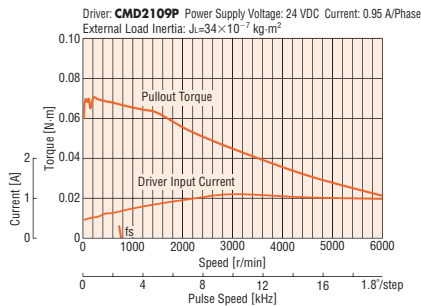
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP223U09A2-R2EL	0.075	9×10^{-7}	0.95	2.95	3.11	1.44	1.8°	CMD2109P
PKP225U09A2-R2EL	0.135	18×10^{-7}		4.4	4.6	2.11		

● Refer to page A-430 for encoder specifications.

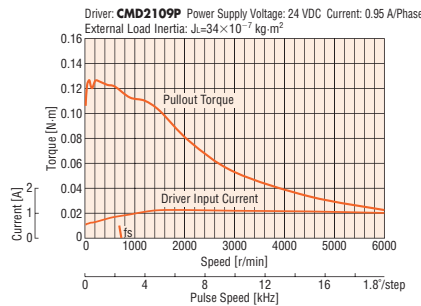
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP223U09A2-R2EL



PKP225U09A2-R2EL



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- The data in the speed - torque characteristics represents the use of an external load inertia.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. To protect the encoder, be sure to keep the motor case temperature at 85°C max.

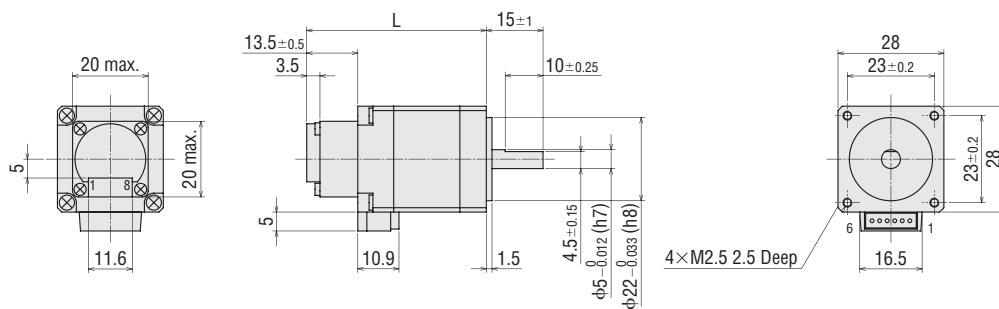
Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP223U09A2-R2EL	47.5	0.12
PKP225U09A2-R2EL	67	0.21

● Applicable Connector (Molex)

	Motor	Encoder
Connector Housing	51065-0600	51021-0800
Contact	50212-8100	50079-8100
Crimp Tool	57176-5000	57067-3000



Inner Wiring Diagram of Motor

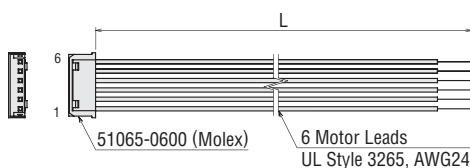
Wiring Diagram No.: ⑥

● Refer to page A-431 for inner wiring diagram of motor.

● Connection Cable (Sold separately)

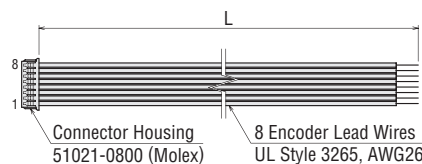
◇ For Motor

Product Name	Length L (m)
LC2U06A	0.6
LC2U10A	1



◇ For Encoder

Product Name	Length L (m)
LCE08A-006	0.6



Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type with Electromagnetic Brake

Frame Size 28 mm (Bipolar 4 lead wires)

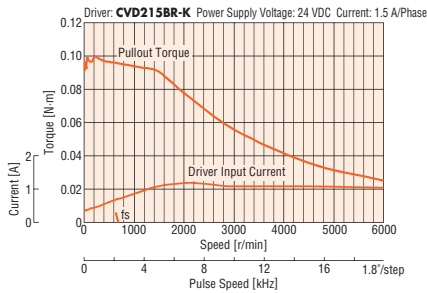
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle
PKP223D15M2	0.095	14×10^{-7}	1.5	1.77	1.18	0.96	1.8°
PKP225D15M2	0.19	23×10^{-7}		3	2	1.6	

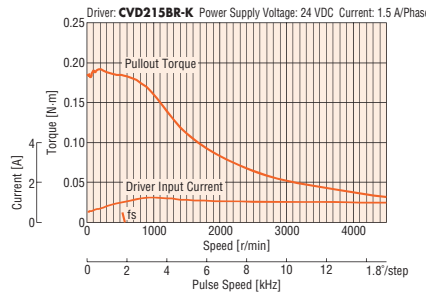
● Refer to page A-430 for electromagnetic brake specifications.

Speed – Torque Characteristics (Reference values)

PKP223D15M2



PKP225D15M2



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

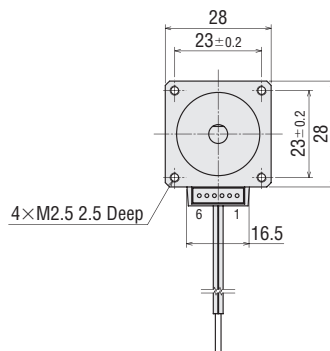
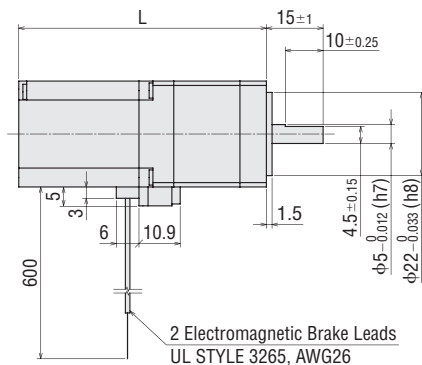
Dimensions (Unit = mm)

Motor

Product Name	L	Mass kg
PKP223D15M2	65.5	0.17
PKP225D15M2	85	0.26

● Applicable Connector

- Connector Housing: 51065-0600 (Molex)
- Contact: 50212-8100 (Molex)
- Crimp Tool: 57176-5000 (Molex)



Inner Wiring Diagram of Motor

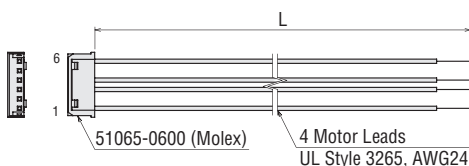
Wiring Diagram No.: ②

● Refer to page A-431 for inner wiring diagram of motor.

Connection Cable (Sold separately)

For Motor

Product Name	Length L (m)
LC2B06A	0.6



Standard Type with Electromagnetic Brake

Frame Size 28 mm (Unipolar 6 lead wires)

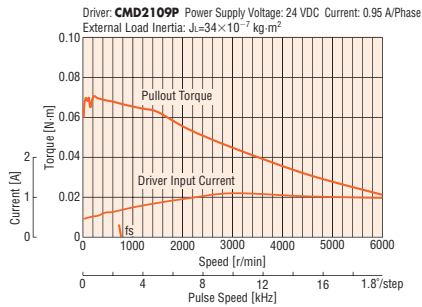
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle
PKP223U09M2	0.075	14×10^{-7}	0.95	2.95	3.11	1.44	1.8°
PKP225U09M2	0.135	23×10^{-7}		4.4	4.6	2.11	

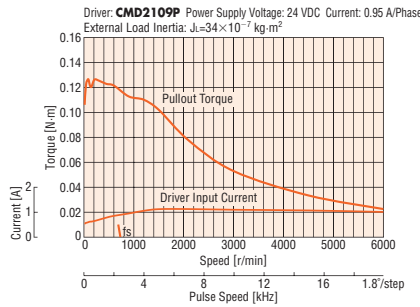
● Refer to page A-430 for electromagnetic brake specifications.

Speed – Torque Characteristics (Reference values)

PKP223U09M2



PKP225U09M2



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- The data in the speed - torque characteristics represents the use of an external load inertia.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

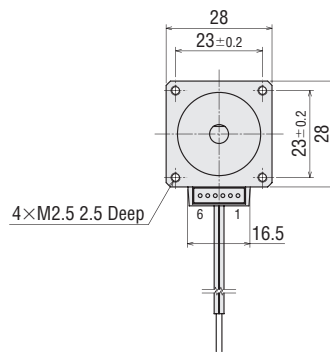
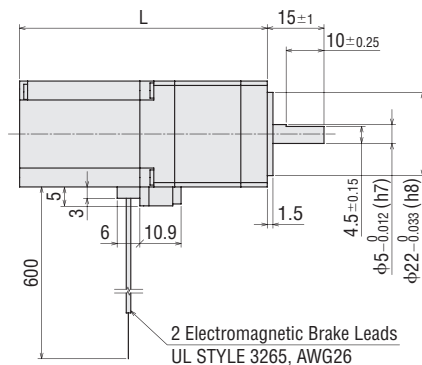
Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP223U09M2	65.5	0.17
PKP225U09M2	85	0.26

● Applicable Connector

Connector Housing: 51065-0600 (Molex)
 Contact: 50212-8100 (Molex)
 Crimp Tool: 57176-5000 (Molex)



Inner Wiring Diagram of Motor

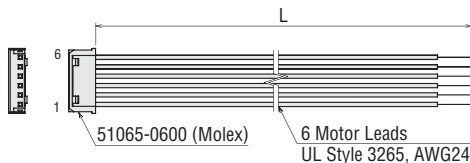
Wiring Diagram No.: ⑥

● Refer to page A-431 for inner wiring diagram of motor.

● Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2U06A	0.6
LC2U10A	1



Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type Frame Size 35 mm (Bipolar 4 lead wires)

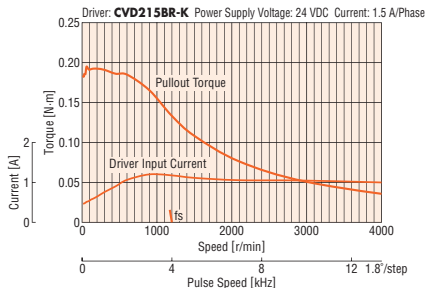
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP233D15□	0.2	24×10 ⁻⁷	1.5	2.43	1.62	1.5	1.8°	CVD215BR-K
PKP233D23□			2.3	1.56	0.68	0.67		CVD233BR-K
PKP235D15□	0.37	50×10 ⁻⁷	1.5	3.6	2.4	2.6		CVD215BR-K
PKP235D23□			2.3	2.23	0.97	1.2		CVD233BR-K

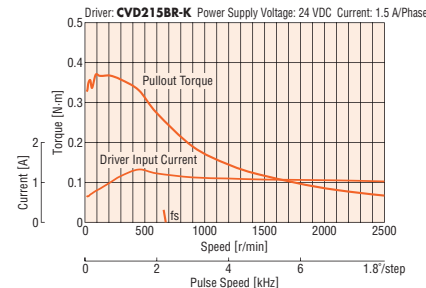
● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

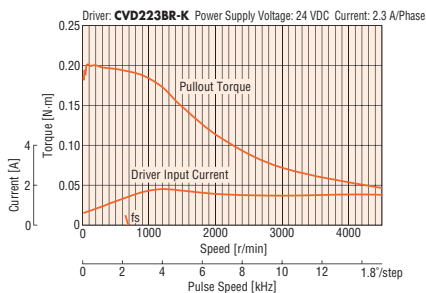
PKP233D15A/PKP233D15B



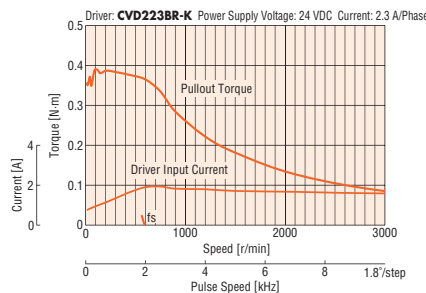
PKP235D15A/PKP235D15B



PKP233D23A/PKP233D23B



PKP235D23A/PKP235D23B



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

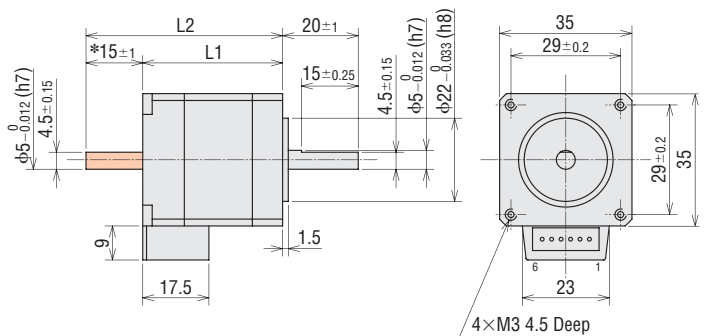
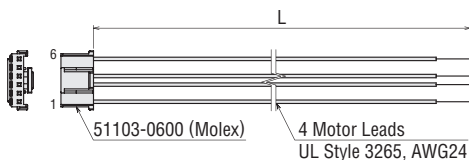
Product Name	L1	L2	Mass kg
PKP233D15A	37	-	0.18
PKP233D15B		52	
PKP233D23A		-	
PKP233D23B		52	
PKP235D15A	52	-	0.285
PKP235D15B		67	
PKP235D23A		-	
PKP235D23B		67	

- Applicable Connector
Connector Housing: 51103-0600 (Molex)
Contact: 50351-8100 (Molex)
Crimp Tool: 57295-5000 (Molex)

Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2B06B	0.6



- *The length of the shaft flat on the double shaft model is 15±0.25.
- These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

Inner Wiring Diagram of Motor

Wiring Diagram No.: ②

- Refer to page A-431 for inner wiring diagram of motor.

Standard Type Frame Size 35 mm (Unipolar 6 lead wires)

Specifications

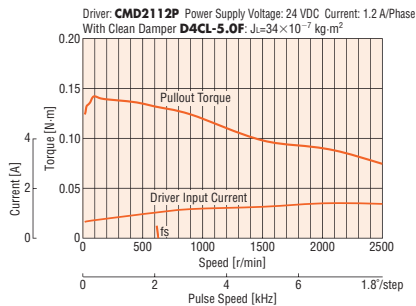
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP233U12□	0.16	24×10 ⁻⁷	1.2	3.24	2.7	1.4	1.8°	CMD2112P
PKP235U12□	0.3	50×10 ⁻⁷		4.08	3.4	2		

● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.

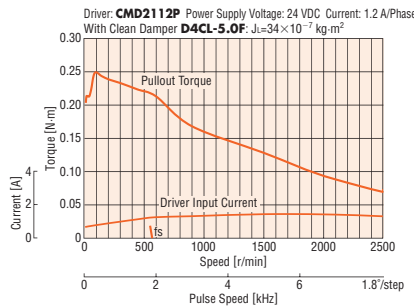
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP233U12A/PKP233U12B



PKP235U12A/PKP235U12B



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a "clean damper" entry in the speed - torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

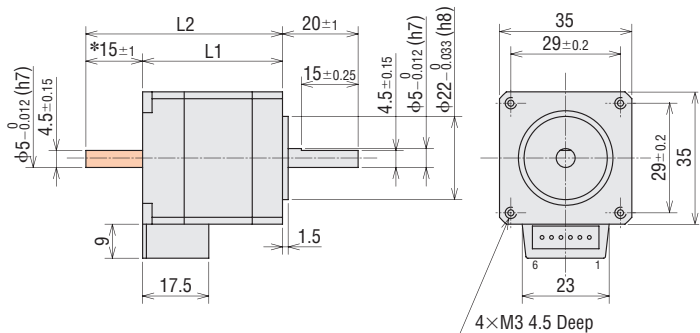
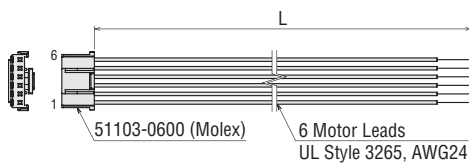
Product Name	L1	L2	Mass kg
PKP233U12A	37	–	0.18
PKP233U12B		52	
PKP235U12A	52	–	0.285
PKP235U12B		67	

- Applicable Connector
Connector Housing: 51103-0600 (Molex)
Contact: 50351-8100 (Molex)
Crimp Tool: 57295-5000 (Molex)

Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2U06B	0.6
LC2U10B	1



- *The length of the shaft flat on the double shaft model is 15±0.25.
- These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑥

- Refer to page A-431 for inner wiring diagram of motor.

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type with Encoder Frame Size 35 mm (Bipolar 4 lead wires)

Specifications

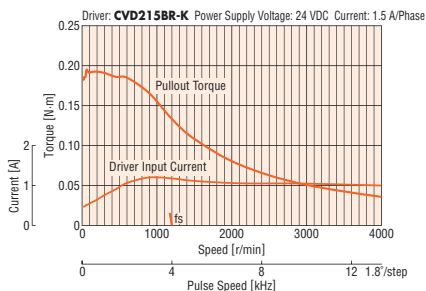
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP233D15A-R2EL	0.2	24×10 ⁻⁷	1.5	2.43	1.62	1.5	1.8°	CVD215BR-K
PKP235D15A-R2EL	0.37	50×10 ⁻⁷		3.6	2.4	2.6		

● Refer to page A-430 for encoder specifications.

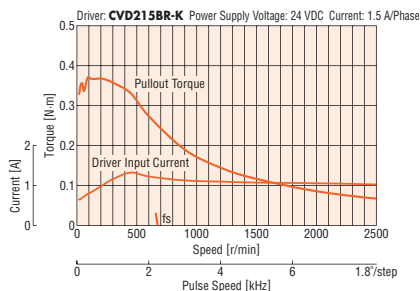
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP233D15A-R2EL



PKP235D15A-R2EL



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. To protect the encoder, be sure to keep the motor case temperature at 85°C max.

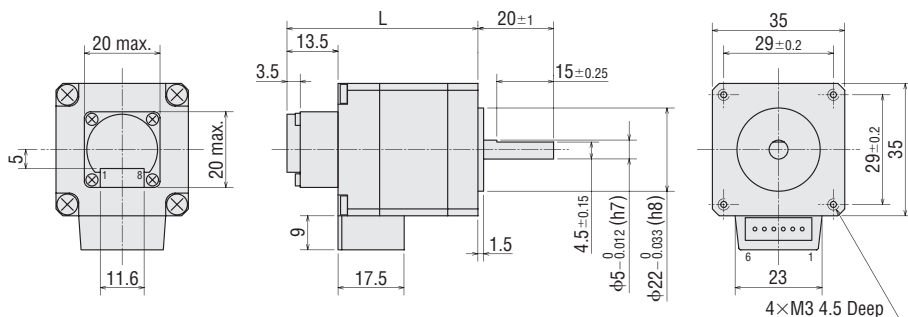
Dimensions (Unit = mm)

Motor

Product Name	L	Mass kg
PKP233D15A-R2EL	50.5	0.19
PKP235D15A-R2EL	65.5	0.295

● Applicable Connector (Molex)

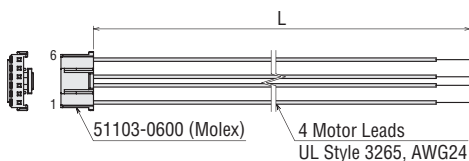
	Motor	Encoder
Connector Housing	51103-0600	51021-0800
Contact	50351-8100	50079-8100
Crimp Tool	57295-5000	57067-3000



Connection Cable (Sold separately)

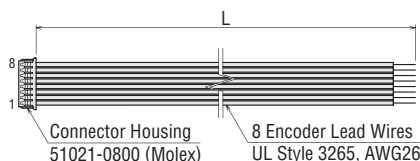
◇ For Motor

Product Name	Length L (m)
LC2B06B	0.6



◇ For Encoder

Product Name	Length L (m)
LCE08A-006	0.6



Standard Type with Encoder Frame Size 35 mm (Unipolar 6 lead wires)

Specifications

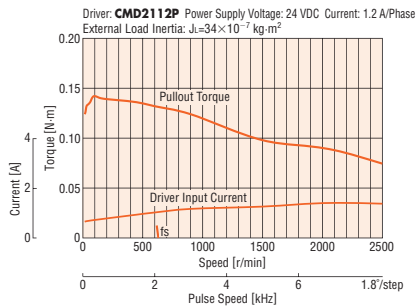
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP233U12A-R2EL	0.16	24×10^{-7}	1.2	3.24	2.7	1.4	1.8°	CMD2112P
PKP235U12A-R2EL	0.3	50×10^{-7}		4.08	3.4	2		

● Refer to page A-430 for encoder specifications.

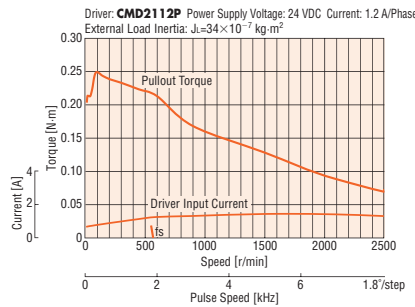
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP233U12A-R2EL



PKP235U12A-R2EL



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- The data in the speed – torque characteristics represents the use of an external load inertia.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. To protect the encoder, be sure to keep the motor case temperature at 85°C max.

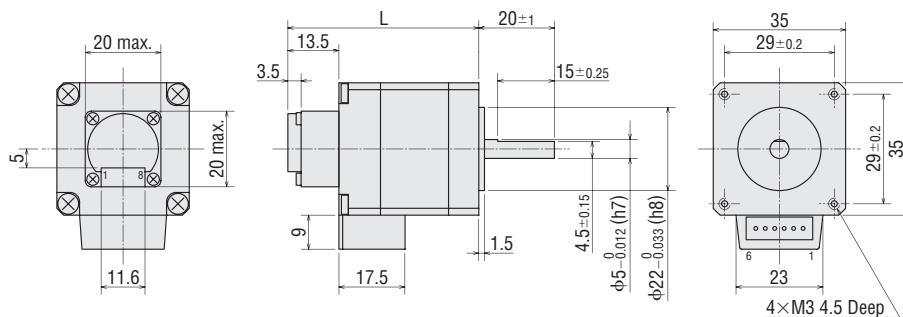
Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP233U12A-R2EL	50.5	0.19
PKP235U12A-R2EL	65.5	0.295

● Applicable Connector (Molex)

	Motor	Encoder
Connector Housing	51103-0600	51021-0800
Contact	50351-8100	50079-8100
Crimp Tool	57295-5000	57067-3000



Inner Wiring Diagram of Motor

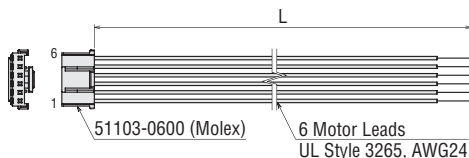
Wiring Diagram No.: ⑥

● Refer to page A-431 for inner wiring diagram of motor.

● Connection Cable (Sold separately)

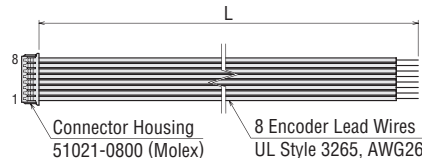
◇ For Motor

Product Name	Length L (m)
LC2U06B	0.6
LC2U10B	1



◇ For Encoder

Product Name	Length L (m)
LCE08A-006	0.6



Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type with Electromagnetic Brake

Frame Size 35 mm (Bipolar 4 lead wires)

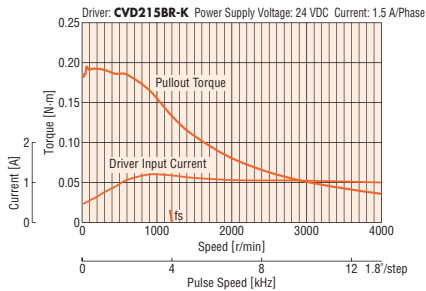
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Electromagnetic brake Static friction torque N·m
PKP233D15M	0.2	36×10 ⁻⁷	1.5	2.43	1.62	1.5	1.8°	0.3
PKP235D15M	0.37	62×10 ⁻⁷		3.6	2.4	2.6		

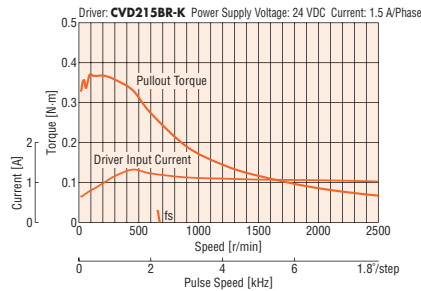
● Refer to page A-430 for electromagnetic brake specifications.

Speed – Torque Characteristics (Reference values)

PKP233D15M



PKP235D15M



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

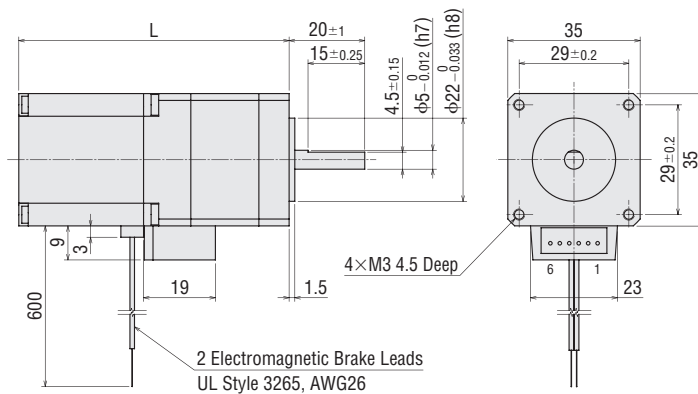
Product Name	L	Mass kg
PKP233D15M	71	0.285
PKP235D15M	86	0.39

- Applicable Connector (Molex)
Connector Housing: 51103-0600
Contact: 50351-8100
Crimp Tool: 57295-5000

Inner Wiring Diagram of Motor

Wiring Diagram No.: ②

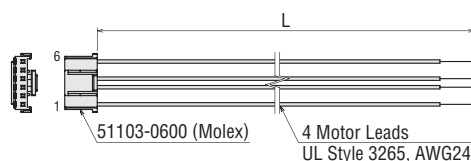
- Refer to page A-431 for inner wiring diagram of motor.



Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2B06B	0.6



Standard Type with Electromagnetic Brake Frame Size 35 mm (Unipolar 6 lead wires)

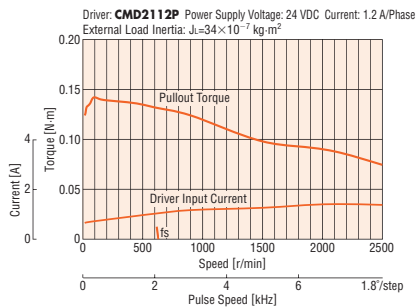
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Electromagnetic brake Static friction torque N·m
PKP233U12M	0.16	36×10^{-7}	1.2	3.24	2.7	1.4	1.8°	0.3
PKP235U12M	0.3	62×10^{-7}		4.08	3.4	2		

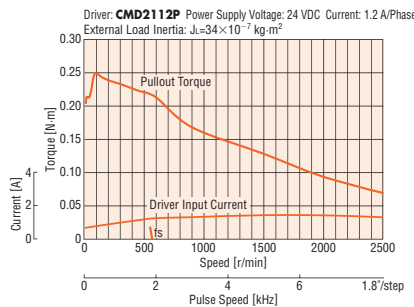
● Refer to page A-430 for electromagnetic brake specifications.

Speed – Torque Characteristics (Reference values)

PKP233U12M



PKP235U12M



Note

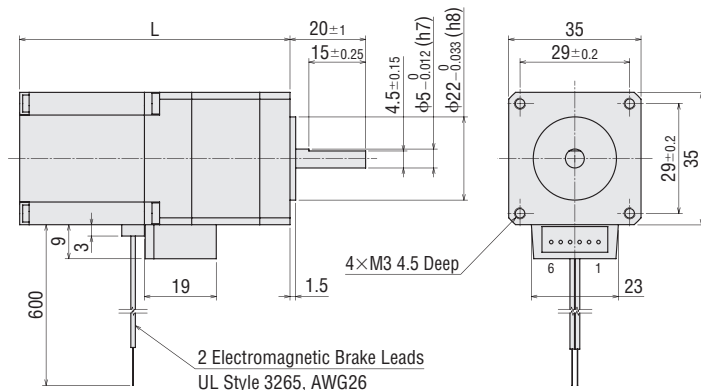
- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- The data in the speed - torque characteristics represents the use of an external load inertia.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP233U12M	71	0.285
PKP235U12M	86	0.39

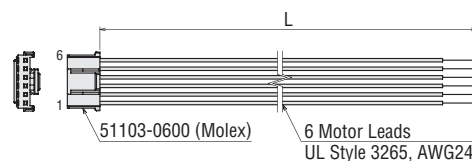
- Applicable Connector (Molex)
Connector Housing: 51103-0600
Contact: 50351-8100
Crimp Tool: 57295-5000



● Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2U06B	0.6
LC2U10B	1



Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑥

- Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type Frame Size 42 mm (Bipolar 4 lead wires)

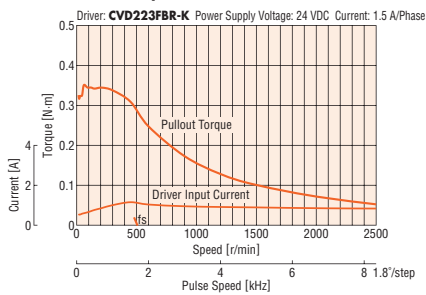
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP243D15□2	0.35	36×10 ⁻⁷	1.5	2.7	1.8	3.3	1.8°	CVD223FBR-K
PKP243D23□2			2.3	1.8	0.78	1.4		
PKP244D15□2	0.48	54×10 ⁻⁷	1.5	3.2	2.1	4.4		
PKP244D23□2			2.3	2.1	0.93	1.9		
PKP245D15□2	0.66	73×10 ⁻⁷	1.5	3.3	2.2	5.3		
PKP245D23□2			2.3	2.3	1	2.2		
PKP246D15□2	0.99	110×10 ⁻⁷	1.5	4.4	2.9	7.9		
PKP246D23□2			2.3	3.2	1.4	3.3		

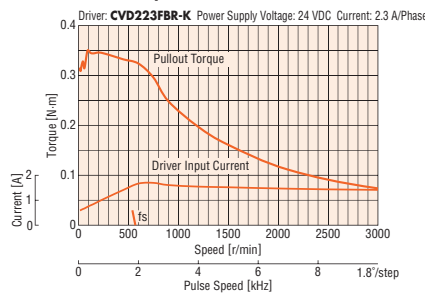
● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

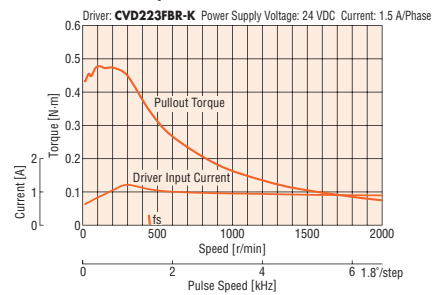
PKP243D15A2/PKP243D15B2



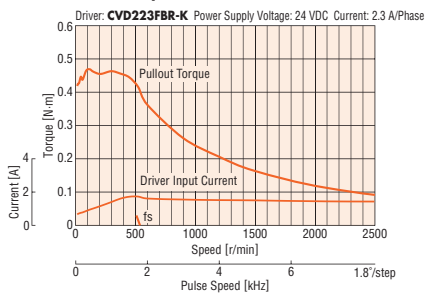
PKP243D23A2/PKP243D23B2



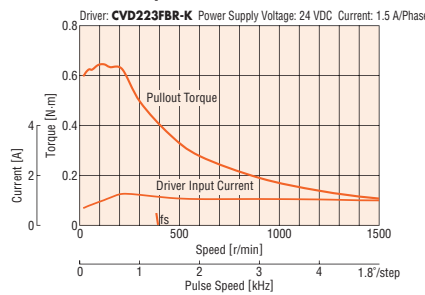
PKP244D15A2/PKP244D15B2



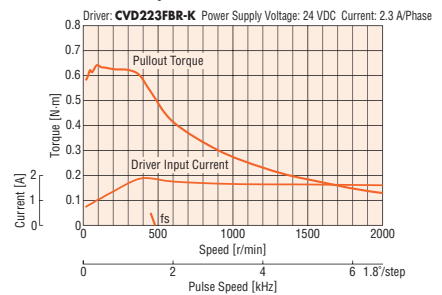
PKP244D23A2/PKP244D23B2



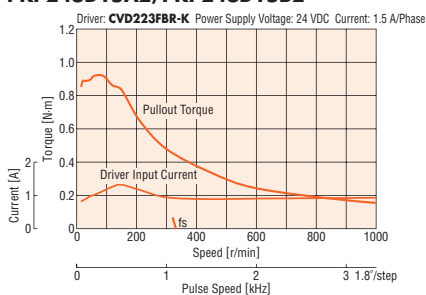
PKP245D15A2/PKP245D15B2



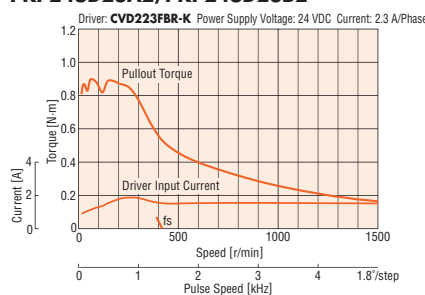
PKP245D23A2/PKP245D23B2



PKP246D15A2/PKP246D15B2



PKP246D23A2/PKP246D23B2



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

Product Name	L1	L2	Mass kg
PKP243D15A2	33	-	0.23
PKP243D15B2		48	
PKP243D23A2		-	
PKP243D23B2	39	48	0.3
PKP244D15A2		-	
PKP244D15B2		54	
PKP244D23A2	47	-	0.37
PKP244D23B2		54	
PKP245D15A2		-	
PKP245D15B2	47	62	0.37
PKP245D23A2		-	
PKP245D23B2		62	
PKP246D15A2	59	-	0.5
PKP246D15B2		74	
PKP246D23A2		-	
PKP246D23B2		74	

Applicable Connector

Connector Housing: MDF97-5S-3.5C (HIROSE ELECTRIC CO., LTD.)

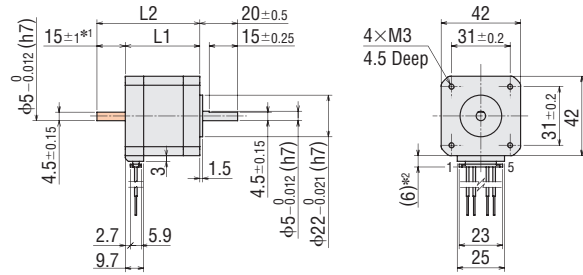
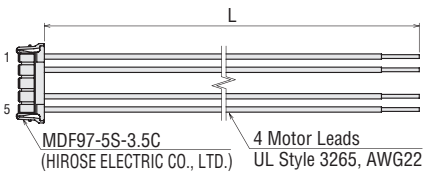
Contact: MDF97-22SC (HIROSE ELECTRIC CO., LTD.)

Crimp Tool: HT801/MDF97-22S (HIROSE ELECTRIC CO., LTD.)

Connection Cable (Sold separately)

For Motor

Product Name	Length L (m)
LC2B06E	0.6



*1 The length of the shaft flat on the double shaft model is 15 ± 0.25 .

*2 With connection cable

● These dimensions are for double shaft motors.

For single shaft motors, ignore the shaded areas.

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Inner Wiring Diagram of Motor

Wiring Diagram No.: ①

● Refer to page A-431 for inner wiring diagram of motor.

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type Frame Size 42 mm (Unipolar 5 lead wires)

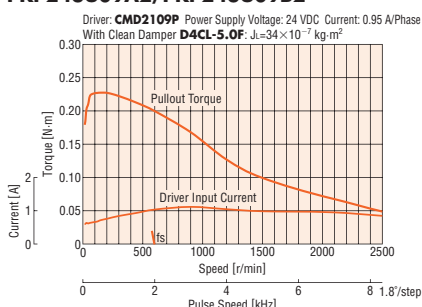
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP243U09□2	0.26	36×10 ⁻⁷	0.95	4.5	4.7	3.7	1.8°	CMD2109P
PKP244U12□2	0.39	54×10 ⁻⁷	1.2	4.8	4	3.7		
PKP245U12□2	0.49	73×10 ⁻⁷		3.8	3.2	3.7		
PKP246U12□2	0.75	110×10 ⁻⁷		6.1	5.1	6		

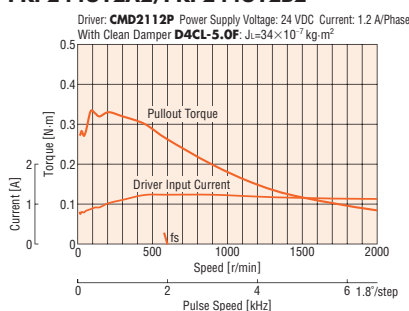
● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

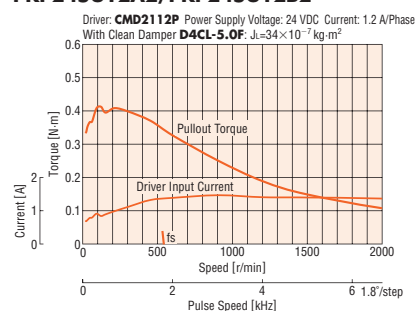
PKP243U09A2/PKP243U09B2



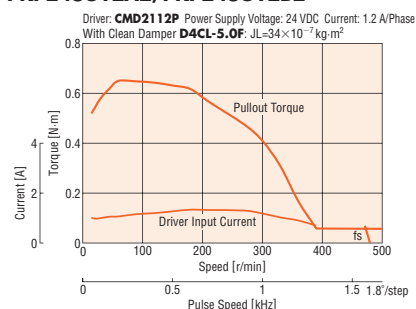
PKP244U12A2/PKP244U12B2



PKP245U12A2/PKP245U12B2



PKP246U12A2/PKP246U12B2



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a "clean damper" entry in the speed – torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

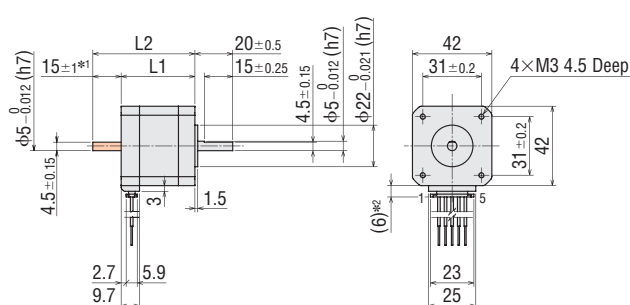
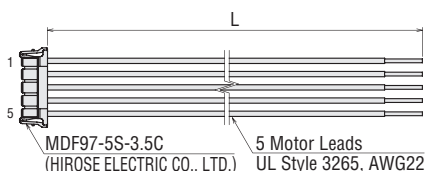
Product Name	L1	L2	Mass kg
PKP243U09A2	33	–	0.23
PKP243U09B2		48	
PKP244U12A2	39	–	0.3
PKP244U12B2		54	
PKP245U12A2	47	–	0.37
PKP245U12B2		62	
PKP246U12A2	59	–	0.5
PKP246U12B2		74	

- Applicable Connector
Connector Housing: MDF97-5S-3.5C (HIROSE ELECTRIC CO., LTD.)
Contact: MDF97-22SC (HIROSE ELECTRIC CO., LTD.)
Crimp Tool: HT801/MDF97-22S (HIROSE ELECTRIC CO., LTD.)

Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2U06E	0.6



- *1 The length of the shaft flat on the double shaft model is 15±0.25.
- *2 With connection cable
- These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

Inner Wiring Diagram of Motor

Wiring Diagram No.: ④

- Refer to page A-431 for inner wiring diagram of motor.

Standard Type with Encoder Frame Size 42 mm (Bipolar 4 lead wires)

Specifications

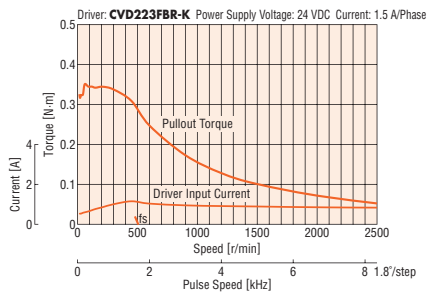
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP243D15A2-R2EL	0.35	36×10 ⁻⁷	1.5	2.7	1.8	3.3	1.8°	CVD223FBR-K
PKP243D15A2-R2FL			2.3	1.8	0.78	1.4		
PKP243D23A2-R2EL			1.5	3.2	2.1	4.4		
PKP243D23A2-R2FL			2.3	2.1	0.93	1.9		
PKP244D15A2-R2EL	0.48	54×10 ⁻⁷	1.5	3.2	2.1	4.4		
PKP244D15A2-R2FL			2.3	2.1	0.93	1.9		
PKP244D23A2-R2EL			1.5	3.3	2.2	5.3		
PKP244D23A2-R2FL			2.3	2.3	1	2.2		
PKP245D15A2-R2EL	0.66	73×10 ⁻⁷	1.5	3.3	2.2	5.3		
PKP245D15A2-R2FL			2.3	2.3	1	2.2		
PKP245D23A2-R2EL			1.5	4.4	2.9	7.9		
PKP245D23A2-R2FL			2.3	3.2	1.4	3.3		
PKP246D15A2-R2EL	0.99	110×10 ⁻⁷	1.5	4.4	2.9	7.9		
PKP246D15A2-R2FL			2.3	3.2	1.4	3.3		
PKP246D23A2-R2EL								
PKP246D23A2-R2FL								

● Refer to page A-430 for encoder specifications.

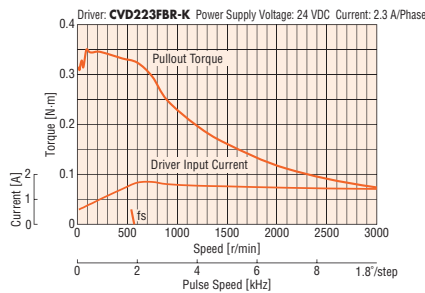
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

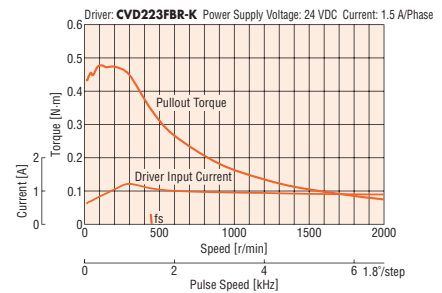
PKP243D15A2-R2EL
PKP243D15A2-R2FL



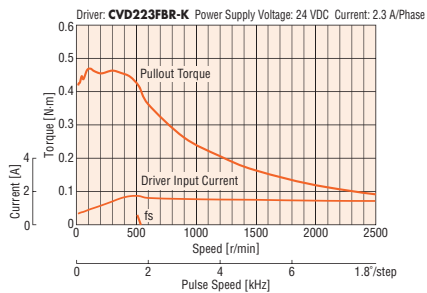
PKP243D23A2-R2EL
PKP243D23A2-R2FL



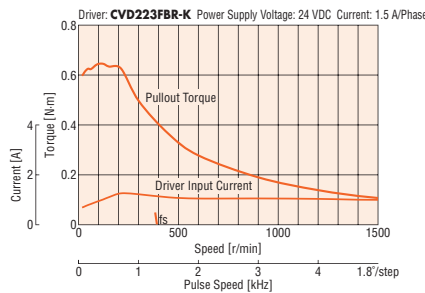
PKP244D15A2-R2EL
PKP244D15A2-R2FL



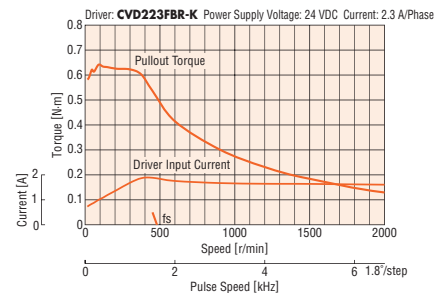
PKP244D23A2-R2EL
PKP244D23A2-R2FL



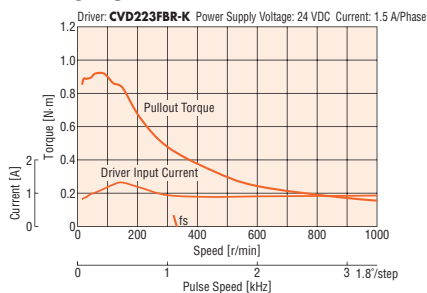
PKP245D15A2-R2EL
PKP245D15A2-R2FL



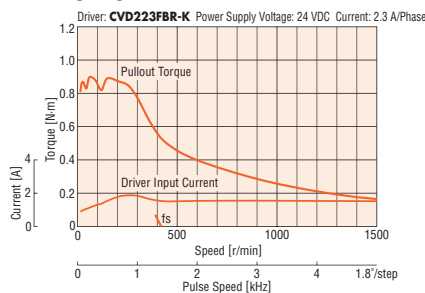
PKP245D23A2-R2EL
PKP245D23A2-R2FL



PKP246D15A2-R2EL
PKP246D15A2-R2FL



PKP246D23A2-R2EL
PKP246D23A2-R2FL



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. To protect the encoder, be sure to keep the motor case temperature at 85°C max.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute
AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute
AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

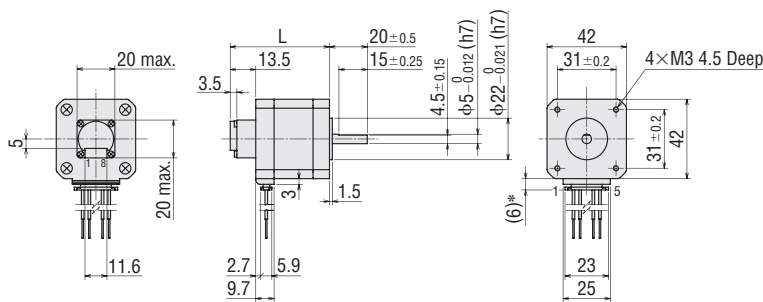
Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP243D15A2-R2EL	46.5	0.24
PKP243D15A2-R2FL		
PKP243D23A2-R2EL		
PKP243D23A2-R2FL	52.5	0.31
PKP244D15A2-R2EL		
PKP244D15A2-R2FL		
PKP244D23A2-R2EL	60.5	0.38
PKP244D23A2-R2FL		
PKP245D15A2-R2EL		
PKP245D15A2-R2FL	72.5	0.51
PKP245D23A2-R2EL		
PKP245D23A2-R2FL		
PKP246D15A2-R2EL	72.5	0.51
PKP246D15A2-R2FL		
PKP246D23A2-R2EL		
PKP246D23A2-R2FL		

● Applicable Connector

	Motor (HIROSE ELECTRIC CO., LTD.)	Encoder (Molex)
Connector Housing	MDF97-5S-3.5C	51021-0800
Contact	MDF97-22SC	50079-8100
Crimp Tool	HT801/MDF97-22S	57067-3000

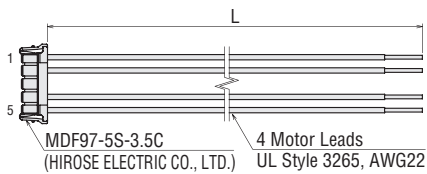


*With connection cable

● Connection Cable (Sold separately)

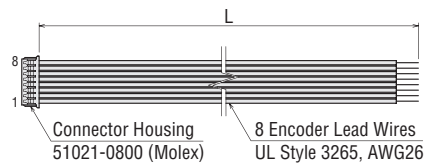
◇ For Motor

Product Name	Length L (m)
LC2B06E	0.6



◇ For Encoder

Product Name	Length L (m)
LCE08A-006	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ①

● Refer to page A-431 for inner wiring diagram of motor.

Standard Type with Encoder Frame Size 42 mm (Unipolar 5 lead wires)

Specifications

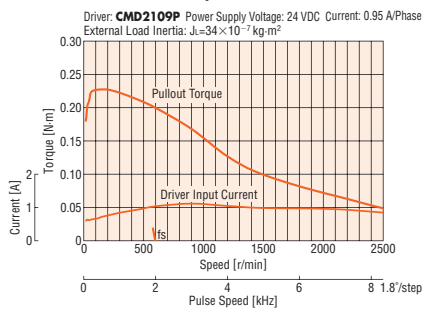
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP243U09A2-R2EL PKP243U09A2-R2FL	0.26	36×10 ⁻⁷	0.95	4.5	4.7	3.7	1.8°	CMD2109P
PKP244U12A2-R2EL PKP244U12A2-R2FL	0.39	54×10 ⁻⁷	1.2	4.8	4	3.7		
PKP245U12A2-R2EL PKP245U12A2-R2FL	0.49	73×10 ⁻⁷	1.2	3.8	3.2	3.7		CMD2112P
PKP246U12A2-R2EL PKP246U12A2-R2FL	0.75	110×10 ⁻⁷	1.2	6.1	5.1	6		

● Refer to page A-430 for encoder specifications.

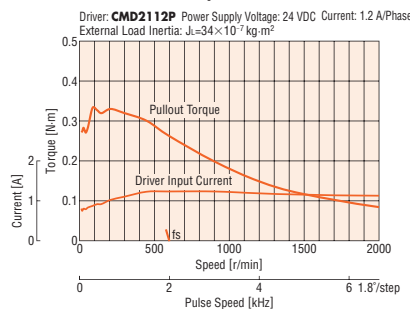
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

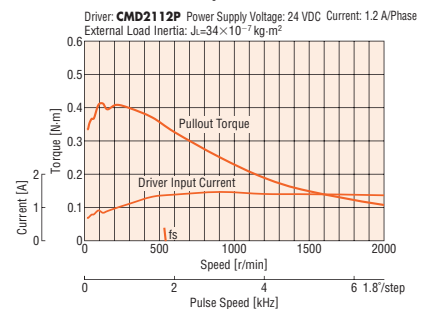
PKP243U09A2-R2EL/ PKP243U09A2-R2FL



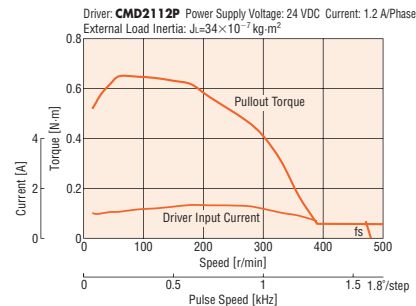
PKP244U12A2-R2EL/ PKP244U12A2-R2FL



PKP245U12A2-R2EL/ PKP245U12A2-R2FL



PKP246U12A2-R2EL/ PKP246U12A2-R2FL



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- The data in the speed – torque characteristics represents the use of an external load inertia.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. To protect the encoder, be sure to keep the motor case temperature at 85°C max.

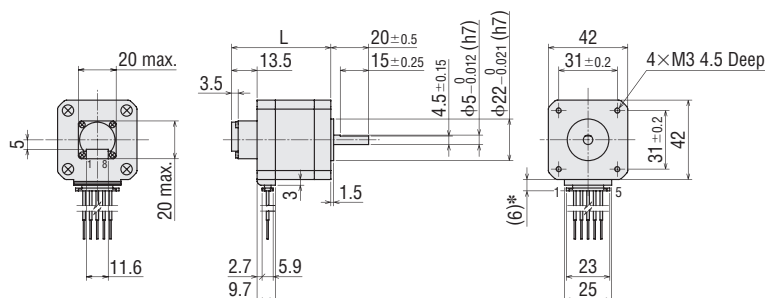
Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP243U09A2-R2EL, PKP243U09A2-R2FL	46.5	0.24
PKP244U12A2-R2EL, PKP244U12A2-R2FL	52.5	0.31
PKP245U12A2-R2EL, PKP245U12A2-R2FL	60.5	0.38
PKP246U12A2-R2EL, PKP246U12A2-R2FL	72.5	0.51

● Applicable Connector

	Motor (HIROSE ELECTRIC CO., LTD.)	Encoder (Molex)
Connector Housing	MDF97-5S-3.5C	51021-0800
Contact	MDF97-22SC	50079-8100
Crimp Tool	HT801/MDF97-22S	57067-3000

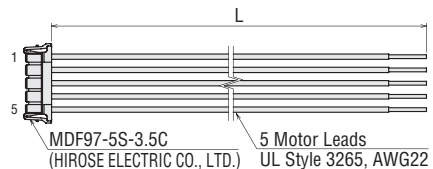


*With connection cable

● Connection Cable (Sold separately)

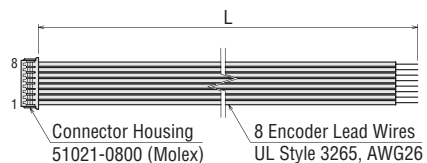
◇ For Motor

Product Name	Length L (m)
LC2U06E	0.6



◇ For Encoder

Product Name	Length L (m)
LCE08A-006	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ④

● Refer to page A-431 for inner wiring diagram of motor.

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type with Electromagnetic Brake

Frame Size 42 mm (Bipolar 4 lead wires)

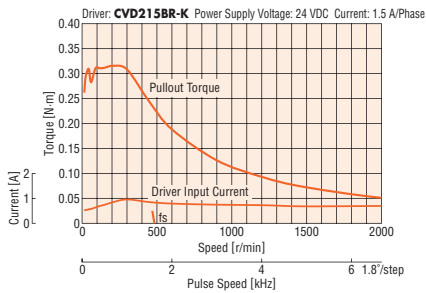
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Electromagnetic Brake Static Friction Torque N·m
PKP243D15M	0.35	48×10^{-7}	1.5	2.85	1.9	5	1.8°	0.3
PKP244D15M	0.48	69×10^{-7}		3.9	2.6	4.9		
PKP245D15M	0.58	95×10^{-7}		3.6	2.4	6.6		
PKP246D15M	0.93	126×10^{-7}		5.8	3.87	8		

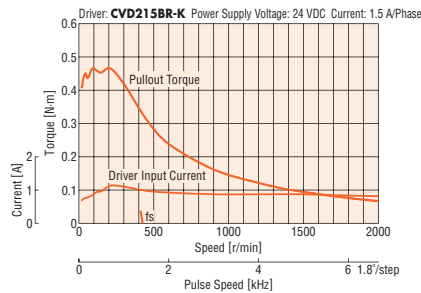
● Refer to page A-430 for electromagnetic brake specifications.

Speed – Torque Characteristics (Reference values)

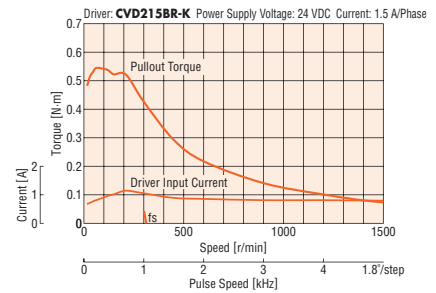
PKP243D15M



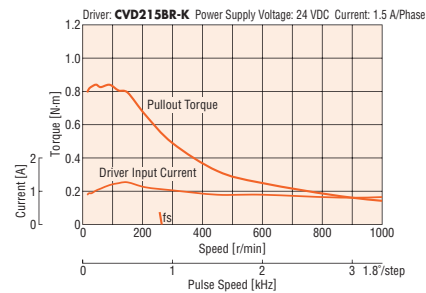
PKP244D15M



PKP245D15M



PKP246D15M



Note

- Data for the speed – torque characteristics is based on Oriental Motor’s internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

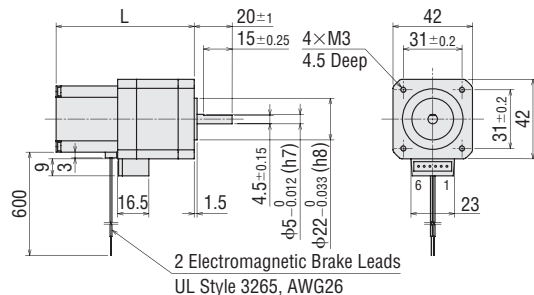
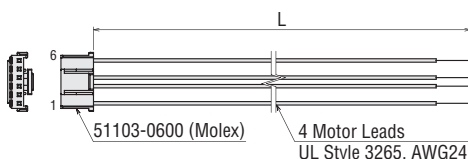
Product Name	L	Mass kg
PKP243D15M	67	0.36
PKP244D15M	73	0.41
PKP245D15M	81	0.5
PKP246D15M	93	0.61

- Applicable Connector (Molex)
Connector Housing: 51103-0600
Contact: 50351-8100
Crimp Tool: 57295-5000

Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2B06B	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ②

- Refer to page A-431 for inner wiring diagram of motor.

Standard Type with Electromagnetic Brake

Frame Size 42 mm (Unipolar 6 lead wires)

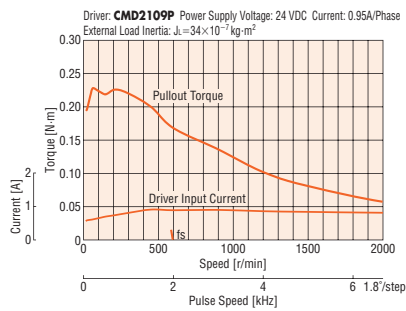
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Electromagnetic Brake Static Friction Torque N·m
PKP243U09M	0.25	48 × 10 ⁻⁷	0.95	4.47	4.7	5	1.8°	0.3
PKP244U12M	0.39	69 × 10 ⁻⁷	1.2	4.8	4	3.9		
PKP245U12M	0.45	95 × 10 ⁻⁷		4.56	3.8	5		
PKP246U12M	0.75	126 × 10 ⁻⁷		7.2	6	6.5		

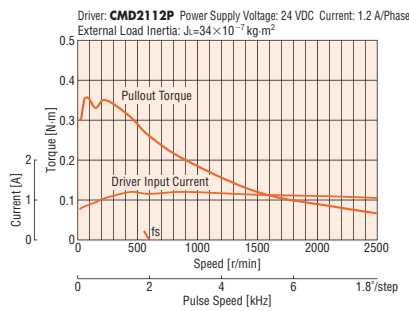
● Refer to page A-430 for electromagnetic brake specifications.

Speed – Torque Characteristics (Reference values)

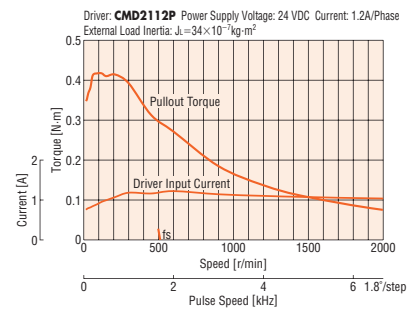
PKP243U09M



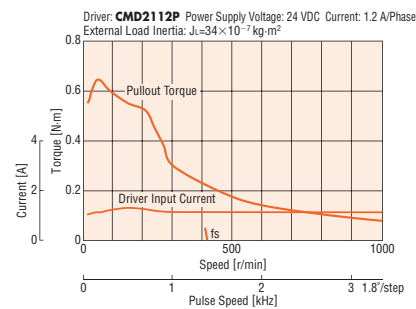
PKP244U12M



PKP245U12M



PKP246U12M



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- The data in the speed – torque characteristics represents the use of an external load inertia.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

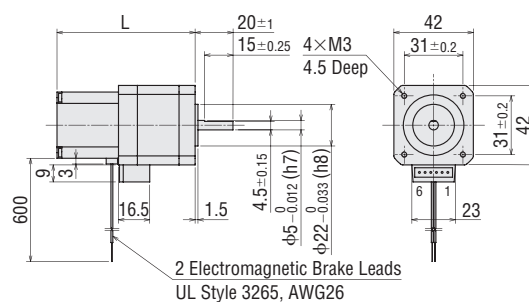
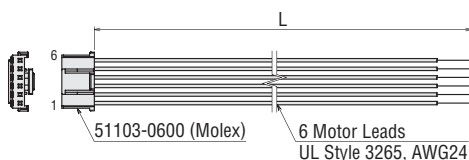
Product Name	L	Mass kg
PKP243U09M	67	0.36
PKP244U12M	73	0.41
PKP245U12M	81	0.5
PKP246U12M	93	0.61

- Applicable Connector (Molex)
- Connector Housing: 51103-0600
- Contact: 50351-8100
- Crimp Tool: 57295-5000

Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2U06B	0.6
LC2U10B	1



Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑥

● Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type Frame Size 50 mm (Unipolar 6 lead wires)

Specifications

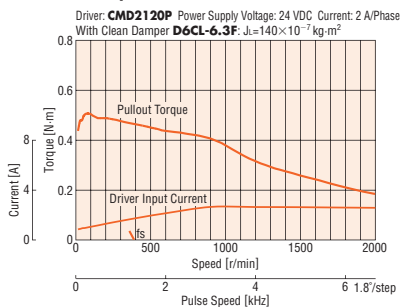
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PK256-02□	0.6	230 × 10 ⁻⁷	2	3	1.5	1.4	1.8°	CMD2120P
PK258-02□	1.2	420 × 10 ⁻⁷		4.8	2.4	2.87		

● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.

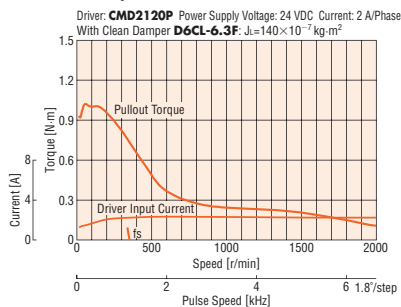
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PK256-02A/PK256-02B



PK258-02A/PK258-02B



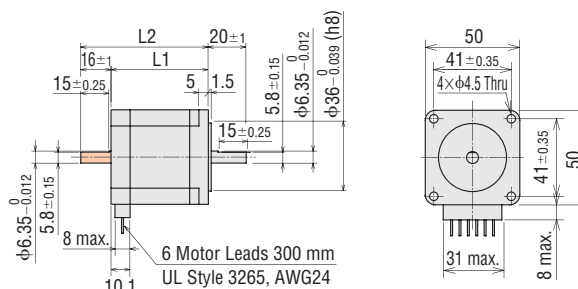
Note

- Data for the speed – torque characteristics is based on Oriental Motor’s internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a "clean damper" entry in the speed – torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

Product Name	L1	L2	Mass kg
PK256-02A	51.5	—	0.53
PK256-02B		67.5	
PK258-02A	81	—	0.89
PK258-02B		97	



- These dimensions are for double shaft motors. For single shaft motors, ignore the shaded areas.

Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑦

- Refer to page A-431 for inner wiring diagram of motor.

Standard Type Frame Size 56.4 mm (Bipolar 4 lead wires)

Specifications

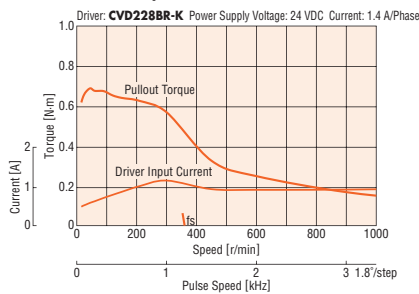
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*	
PKP264D14□2	0.74	140×10 ⁻⁷	1.4	2.9	2.1	6	1.8°	CVD228BR-K	
PKP264D28□2			2.8	1.6	0.57	1.5			CVD242BR-K
PKP264D42□2			4.2	1	0.24	0.65			
PKP266D14□2	1.4	270×10 ⁻⁷	1.4	4.6	3.3	12		CVD228BR-K	
PKP266D28□2			2.8	2.4	0.86	2.9		CVD242BR-K	
PKP266D42□2			4.2	1.6	0.38	1.3			
PKP268D14□2	2.5	500×10 ⁻⁷	1.4	6.6	4.7	18		CVD228BR-K	
PKP268D28□2			2.8	3.4	1.2	4.6		CVD242BR-K	
PKP268D42□2			4.2	2.2	0.53	2			

● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.

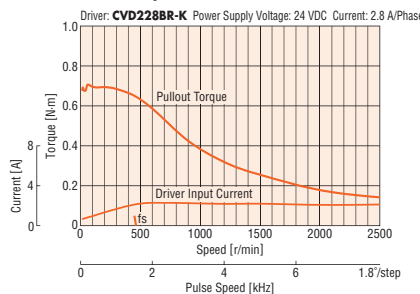
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

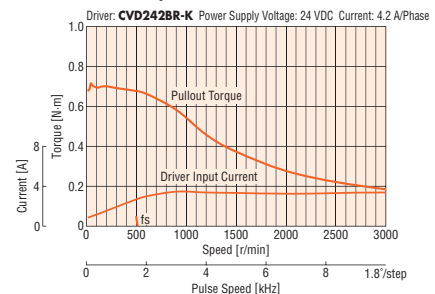
PKP264D14A2/PKP264D14B2



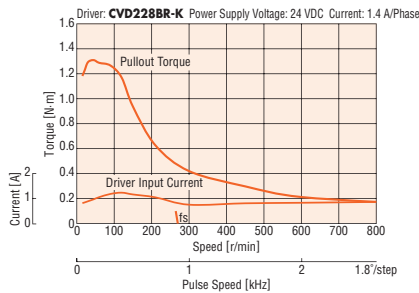
PKP264D28A2/PKP264D28B2



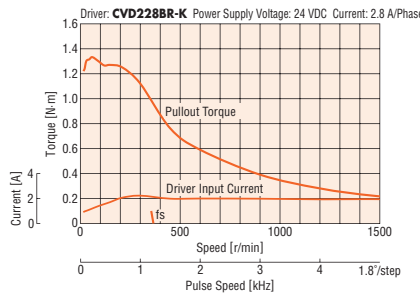
PKP264D42A2/PKP264D42B2



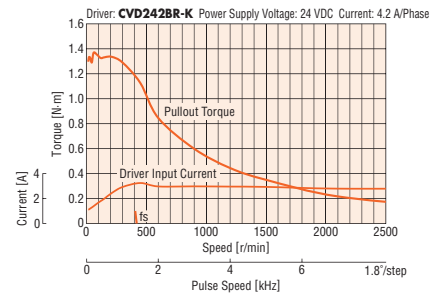
PKP266D14A2/PKP266D14B2



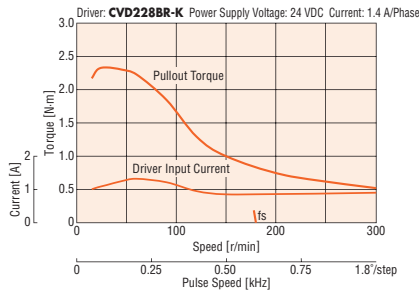
PKP266D28A2/PKP266D28B2



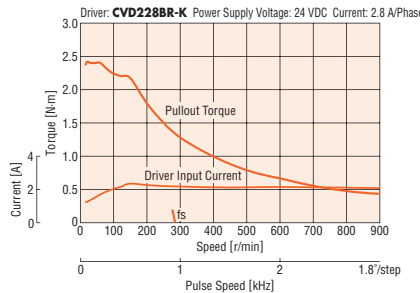
PKP266D42A2/PKP266D42B2



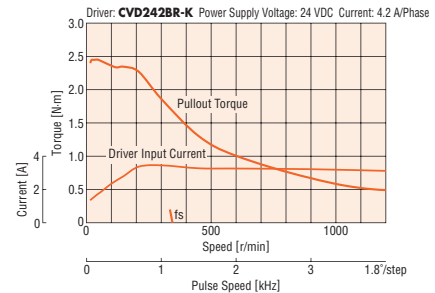
PKP268D14A2/PKP268D14B2



PKP268D28A2/PKP268D28B2



PKP268D42A2/PKP268D42B2



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
α_{STEP} Absolute
AZ

0.36°/Geared
α_{STEP} AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
α_{STEP} Absolute
AZ

0.36°/Geared
α_{STEP} AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Dimensions (Unit = mm)

● Motor

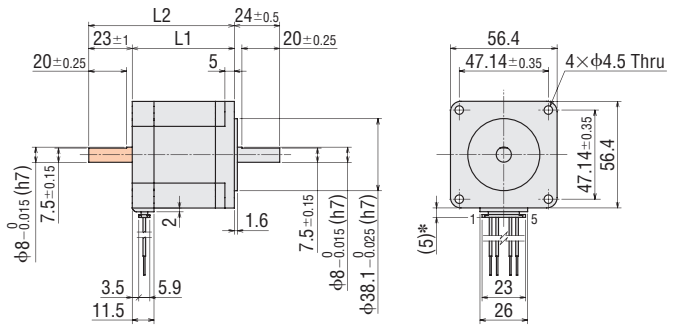
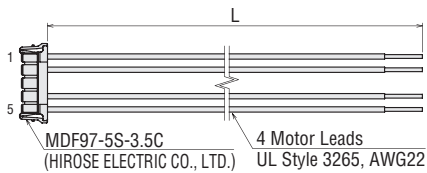
Product Name	L1	L2	Mass kg
PKP264D14A2	39	-	0.45
PKP264D14B2		62	
PKP264D28A2		-	
PKP264D28B2		62	
PKP264D42A2		-	
PKP264D42B2	62		
PKP266D14A2	54	-	0.7
PKP266D14B2		77	
PKP266D28A2		-	
PKP266D28B2		77	
PKP266D42A2		-	
PKP266D42B2	77		
PKP268D14A2	76	-	1.1
PKP268D14B2		99	
PKP268D28A2		-	
PKP268D28B2		99	
PKP268D42A2		-	
PKP268D42B2	99		

- Applicable Connector
Connector Housing: MDF97-5S-3.5C (HIROSE ELECTRIC CO., LTD.)
Contact: MDF97-22SC (HIROSE ELECTRIC CO., LTD.)
Crimp Tool: HT801/MDF97-22S (HIROSE ELECTRIC CO., LTD.)

● Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2B06E	0.6



- *With connection cable
- These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

Inner Wiring Diagram of Motor

Wiring Diagram No.: ①

- Refer to page A-431 for inner wiring diagram of motor.

Standard Type Frame Size 56.4 mm (Unipolar 5 lead wires)

Specifications

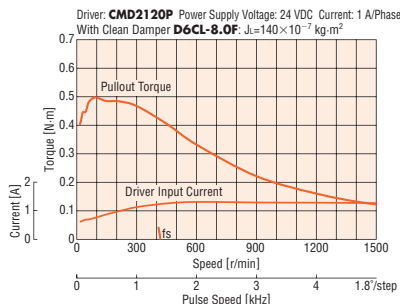
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP264U10□2	0.58	140×10 ⁻⁷	1	4.4	4.4	6	1.8°	CMD2120P
PKP264U20□2			2	2.2	1.1	1.5		
PKP266U10□2	1.1	270×10 ⁻⁷	1	6.9	6.9	11.6		
PKP266U20□2			2	3.4	1.7	2.9		
PKP268U10□2	2	500×10 ⁻⁷	1	9.9	9.9	18.4		
PKP268U20□2			2	4.8	2.4	4.6		

● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.

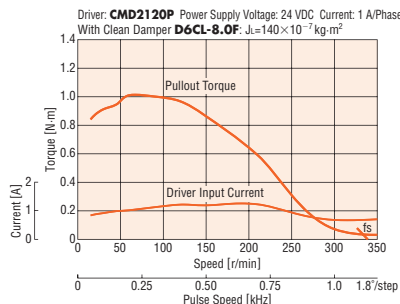
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

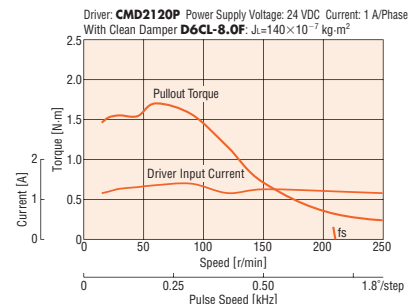
PKP264U10A2/PKP264U10B2



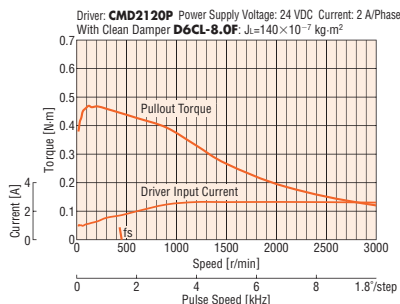
PKP266U10A2/PKP266U10B2



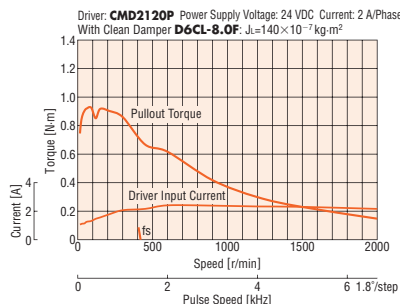
PKP268U10A2/PKP268U10B2



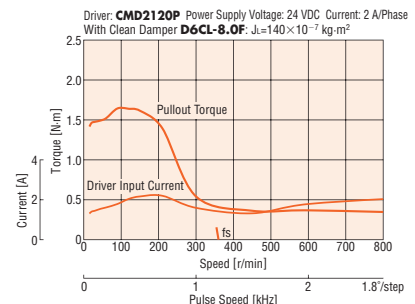
PKP264U20A2/PKP264U20B2



PKP266U20A2/PKP266U20B2



PKP268U20A2/PKP268U20B2



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a "clean damper" entry in the speed – torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

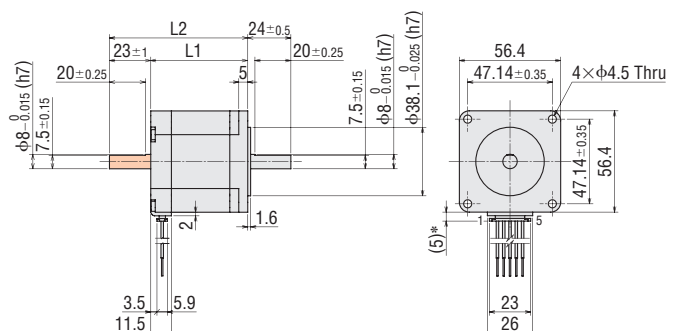
Product Name	L1	L2	Mass kg
PKP264U10A2	39	-	0.45
PKP264U10B2		62	
PKP264U20A2	54	-	0.7
PKP264U20B2		62	
PKP266U10A2	54	-	0.7
PKP266U10B2		77	
PKP266U20A2	76	-	1.1
PKP266U20B2		77	
PKP268U10A2	76	-	1.1
PKP268U10B2		99	
PKP268U20A2	99	-	1.1
PKP268U20B2		99	

● Applicable Connector

Connector Housing: MDF97-5S-3.5C (HIROSE ELECTRIC CO., LTD.)

Contact: MDF97-22SC (HIROSE ELECTRIC CO., LTD.)

Crimp Tool: HT801/MDF97-22S (HIROSE ELECTRIC CO., LTD.)



*With connection cable

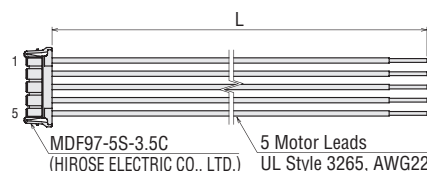
● These dimensions are for double shaft motors.

For single shaft motors, ignore the shaded areas.

Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2U06E	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ④

● Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type with Encoder Frame Size 56.4mm (Bipolar 4 lead wires)

Specifications

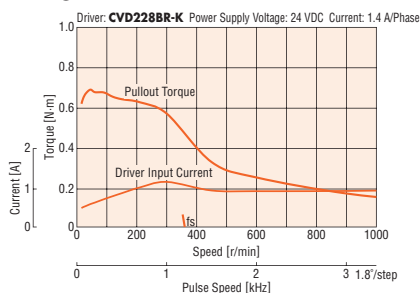
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*	
PKP264D14A2-R2EL PKP264D14A2-R2FL	0.74	140×10 ⁻⁷	1.4	2.9	2.1	6	1.8°	CVD228BR-K	
PKP264D28A2-R2EL PKP264D28A2-R2FL			2.8	1.6	0.57	1.5			
PKP264D42A2-R2EL PKP264D42A2-R2FL	4.2	1	0.24	0.65	CVD242BR-K				
PKP266D14A2-R2EL PKP266D14A2-R2FL	1.4	270×10 ⁻⁷	1.4	4.6		3.3			12
PKP266D28A2-R2EL PKP266D28A2-R2FL			2.8	2.4		0.86		2.9	
PKP266D42A2-R2EL PKP266D42A2-R2FL	4.2	1.6	0.38	1.3		CVD242BR-K			
PKP268D14A2-R2EL PKP268D14A2-R2FL	2.5	500×10 ⁻⁷	1.4	6.6	4.7			18	CVD228BR-K
PKP268D28A2-R2EL PKP268D28A2-R2FL			2.8	3.4	1.2			4.6	
PKP268D42A2-R2EL PKP268D42A2-R2FL	4.2	2.2	0.53	2	CVD242BR-K				

● Refer to page A-430 for encoder specifications.

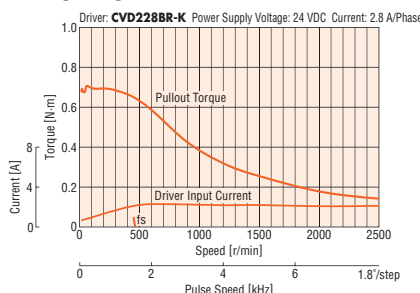
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

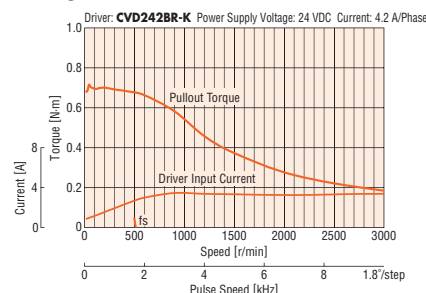
PKP264D14A2-R2EL
PKP264D14A2-R2FL



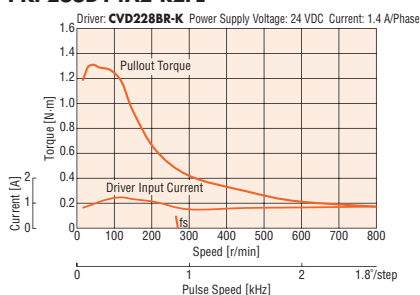
PKP264D28A2-R2EL
PKP264D28A2-R2FL



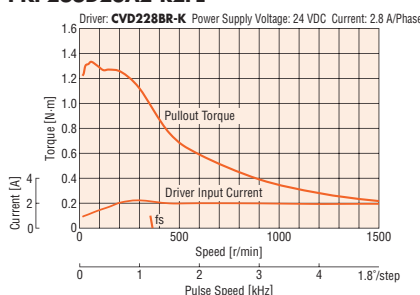
PKP264D42A2-R2EL
PKP264D42A2-R2FL



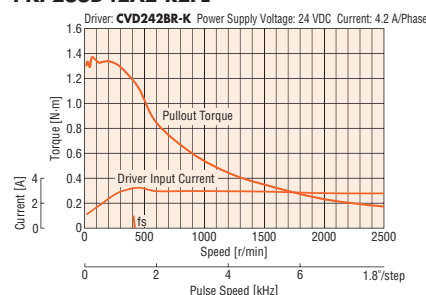
PKP266D14A2-R2EL
PKP266D14A2-R2FL



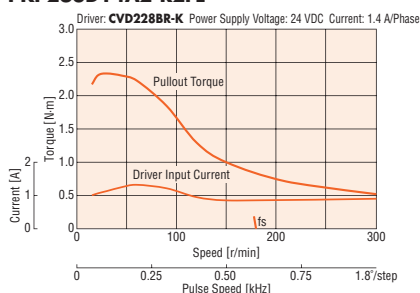
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PKP266D28A2-R2FL



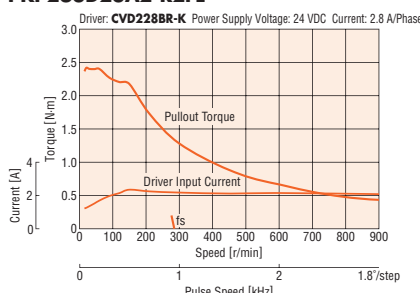
PKP266D42A2-R2EL
PKP266D42A2-R2FL



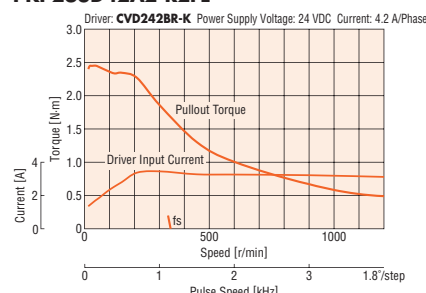
PKP268D14A2-R2EL
PKP268D14A2-R2FL



PKP268D28A2-R2EL
PKP268D28A2-R2FL



PKP268D42A2-R2EL
PKP268D42A2-R2FL



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. To protect the encoder, be sure to keep the motor case temperature at 85°C max.

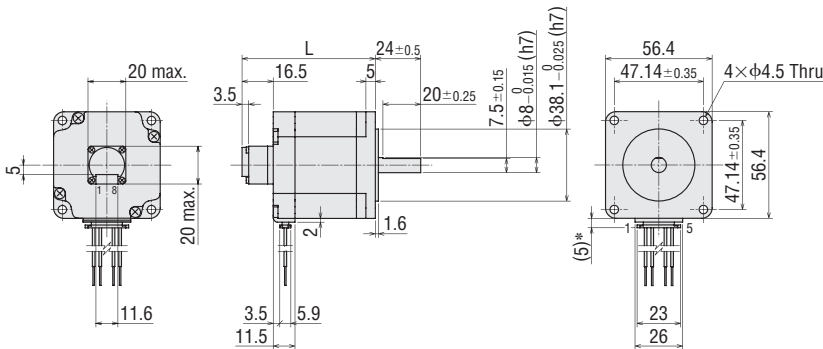
Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP264D14A2-R2EL	55.5	0.45
PKP264D14A2-R2FL		
PKP264D28A2-R2EL		
PKP264D28A2-R2FL		
PKP264D42A2-R2EL		
PKP264D42A2-R2FL	70.5	0.7
PKP266D14A2-R2EL		
PKP266D14A2-R2FL		
PKP266D28A2-R2EL		
PKP266D28A2-R2FL		
PKP266D42A2-R2EL	92.5	1.1
PKP266D42A2-R2FL		
PKP268D14A2-R2EL		
PKP268D14A2-R2FL		
PKP268D28A2-R2EL		
PKP268D28A2-R2FL		
PKP268D42A2-R2EL		
PKP268D42A2-R2FL		

● Applicable Connector

	Motor (HIROSE ELECTRIC CO., LTD.)	Encoder (Molex)
Connector Housing	MDF97-5S-3.5C	51021-0800
Contact	MDF97-22SC	50079-8100
Crimp Tool	HT801/MDF97-22S	57067-3000

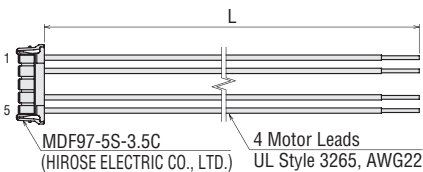


*With connection cable

● Connection Cable (Sold separately)

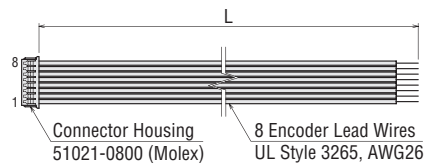
◇ For Motor

Product Name	Length L (m)
LC2B06E	0.6



◇ For Encoder

Product Name	Length L (m)
LCE08A-006	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ①

● Refer to page A-431 for inner wiring diagram of motor.

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
*α*STEP
Absolute
AZ

0.36°/Geared
*α*STEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
*α*STEP
Absolute
AZ

0.36°/Geared
*α*STEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type with Encoder Frame Size 56.4 mm (Unipolar 5 lead wires)

Specifications

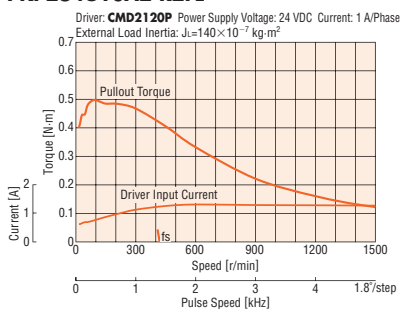
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP264U10A2-R2EL	0.58	140×10 ⁻⁷	1	4.4	4.4	6	1.8°	CMD2120P
PKP264U10A2-R2FL			2	2.2	1.1	1.5		
PKP264U20A2-R2EL			1	6.9	6.9	11.6		
PKP264U20A2-R2FL			2	3.4	1.7	2.9		
PKP266U10A2-R2EL	1.1	270×10 ⁻⁷	1	9.9	9.9	18.4		
PKP266U10A2-R2FL			2	4.8	2.4	4.6		
PKP266U20A2-R2EL			1	9.9	9.9	18.4		
PKP266U20A2-R2FL			2	4.8	2.4	4.6		
PKP268U10A2-R2EL	2	500×10 ⁻⁷	1	9.9	9.9	18.4		
PKP268U10A2-R2FL			2	4.8	2.4	4.6		
PKP268U20A2-R2EL			1	9.9	9.9	18.4		
PKP268U20A2-R2FL			2	4.8	2.4	4.6		

● Refer to page A-430 for encoder specifications.

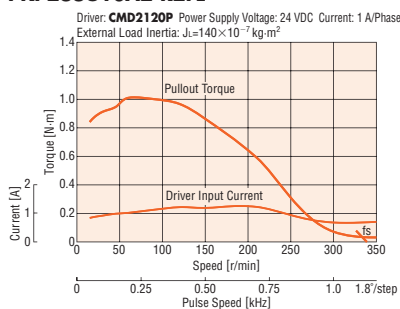
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

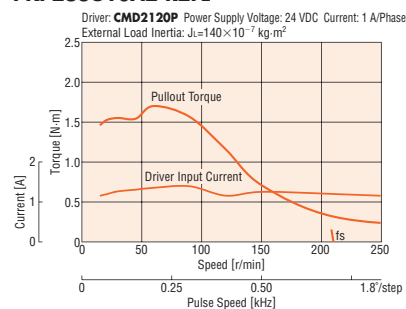
PKP264U10A2-R2EL
PKP264U10A2-R2FL



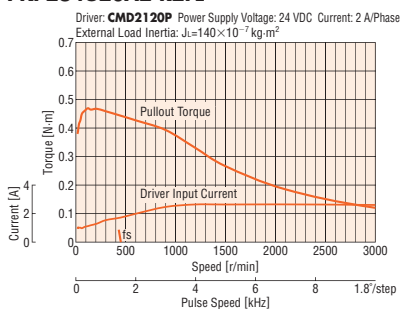
PKP266U10A2-R2EL
PKP266U10A2-R2FL



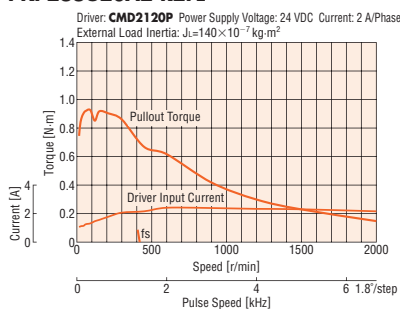
PKP268U10A2-R2EL
PKP268U10A2-R2FL



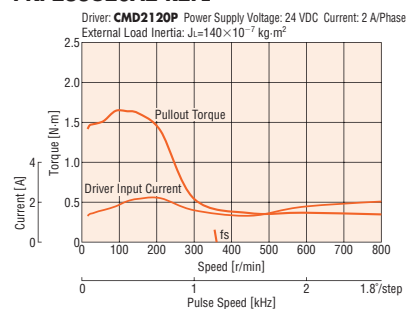
PKP264U20A2-R2EL
PKP264U20A2-R2FL



PKP266U20A2-R2EL
PKP266U20A2-R2FL



PKP268U20A2-R2EL
PKP268U20A2-R2FL



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- The data in the speed – torque characteristics represents the use of an external load inertia.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. To protect the encoder, be sure to keep the motor case temperature at 85°C max.

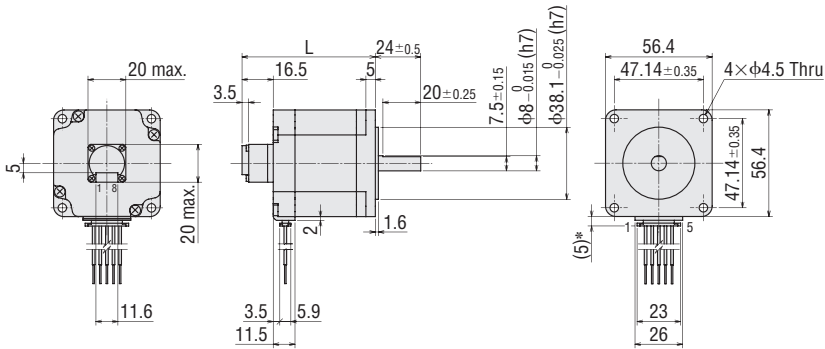
Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP264U10A2-R2EL	55.5	0.45
PKP264U10A2-R2FL		
PKP264U20A2-R2EL		
PKP264U20A2-R2FL	70.5	0.7
PKP266U10A2-R2EL		
PKP266U10A2-R2FL		
PKP266U20A2-R2EL	92.5	1.1
PKP266U20A2-R2FL		
PKP268U10A2-R2EL		
PKP268U10A2-R2FL		
PKP268U20A2-R2EL		
PKP268U20A2-R2FL		

● Applicable Connector

	Motor (HIROSE ELECTRIC CO., LTD.)	Encoder (Molex)
Connector Housing	MDF97-5S-3.5C	51021-0800
Contact	MDF97-22SC	50079-8100
Crimp Tool	HT801/MDF97-22S	57067-3000

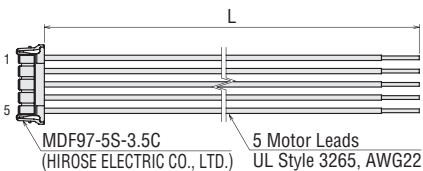


*With Connection Cable

● Connection Cable (Sold separately)

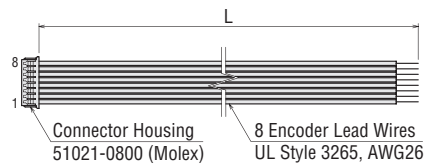
◇ For Motor

Product Name	Length L (m)
LC2U06E	0.6



◇ For Encoder

Product Name	Length L (m)
LCE08A-006	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ④

● Refer to page A-431 for inner wiring diagram of motor.

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
*α*STEP
Absolute
AZ

0.36°/Geared
*α*STEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
*α*STEP
Absolute
AZ

0.36°/Geared
*α*STEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type with Electromagnetic Brake

Frame Size 56.4 mm (Bipolar 4 lead wires)

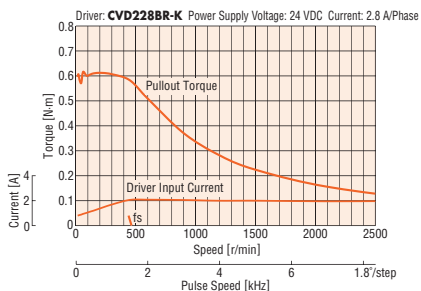
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Electromagnetic Brake Static Friction Torque N·m
PKP264D28M	0.6	270×10 ⁻⁷	2.8	2	0.73	1.8	1.8°	1.5
PKP266D28M	1.4	440×10 ⁻⁷		2.8	1	2.9		
PKP268D28M	2.3	640×10 ⁻⁷		3.4	1.23	4.4		

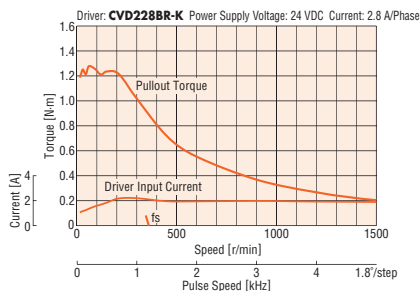
● Refer to page A-430 for electromagnetic brake specifications.

Speed – Torque Characteristics (Reference values)

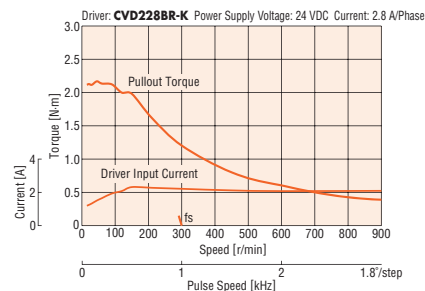
PKP264D28M



PKP266D28M



PKP268D28M



Note

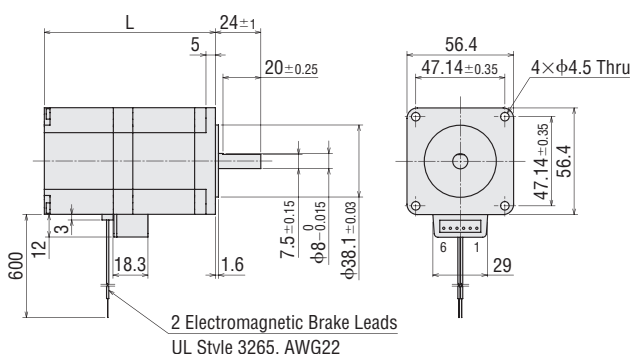
- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP264D28M	75.5	0.76
PKP266D28M	90.5	1.03
PKP268D28M	112.5	1.4

- Applicable Connector (Molex)
Connector Housing: 51067-0600
Contact: 50217-9101
Crimp Tool: 57189-5000
57190-5000



Inner Wiring Diagram of Motor

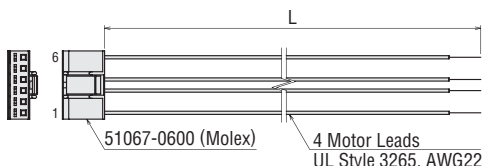
Wiring Diagram No.: ②

- Refer to page A-431 for inner wiring diagram of motor.

● Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2B06C	0.6



Standard Type with Electromagnetic Brake

Frame Size 56.4 mm (Unipolar 6 lead wires)

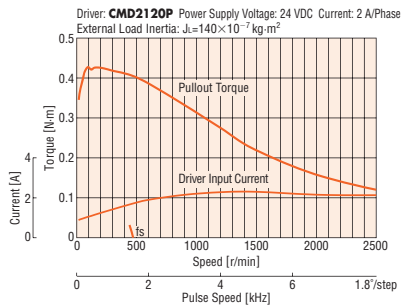
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Electromagnetic Brake Static Friction Torque N·m
PKP264U20M	0.51	270×10^{-7}	2	2.9	1.45	1.8	1.8°	1.5
PKP266U20M	1.1	440×10^{-7}		4	2	2.9		
PKP268U20M	1.75	640×10^{-7}		4.9	2.45	4.4		

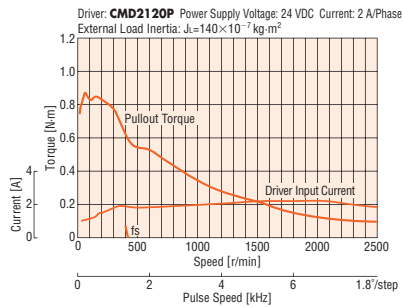
● Refer to page A-430 for electromagnetic brake specifications.

Speed – Torque Characteristics (Reference values)

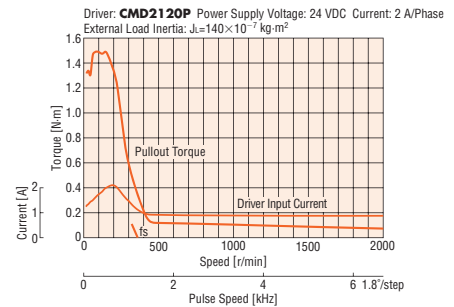
PKP264U20M



PKP266U20M



PKP268U20M



Note

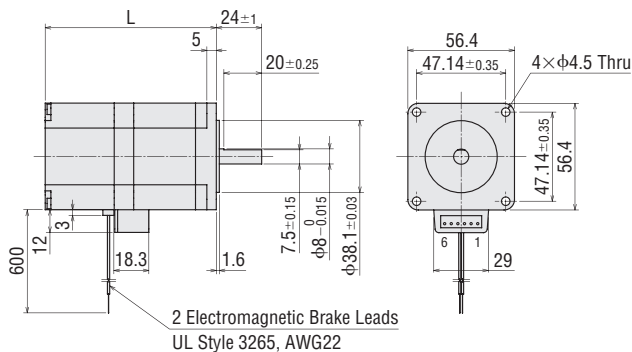
- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- The data in the speed – torque characteristics represents the use of an external load inertia.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP264U20M	75.5	0.76
PKP266U20M	90.5	1.03
PKP268U20M	112.5	1.4

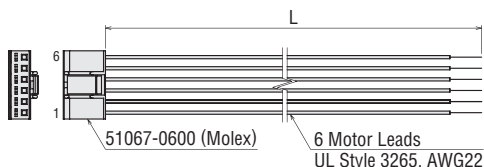
- Applicable Connector (Molex)
Connector Housing: 51067-0600
Contact: 50217-9101
Crimp Tool: 57189-5000
57190-5000



● Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2U06C	0.6
LC2U10C	1



Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑥

- Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RRKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type Frame Size 60 mm (Bipolar 4 lead wires)

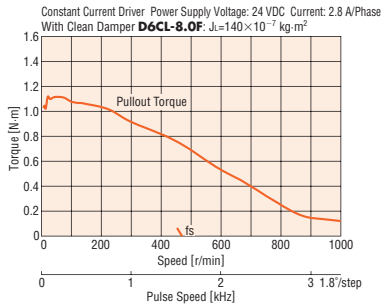
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle
PK264JD□	1.06	280×10^{-7}	2.8	2.1	0.73	1.8	1.8°
PK266JD□	1.75	450×10^{-7}		2.8	1	3.05	
PK267JD□	2.2	570×10^{-7}		3.4	1.2	3.54	
PK269JD□	3.1	900×10^{-7}		4.2	1.49	5.7	

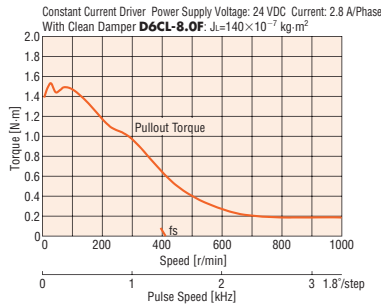
● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.

Speed – Torque Characteristics (Reference values)

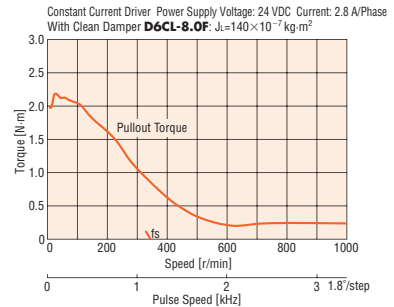
PK264JDA/PK264JDB



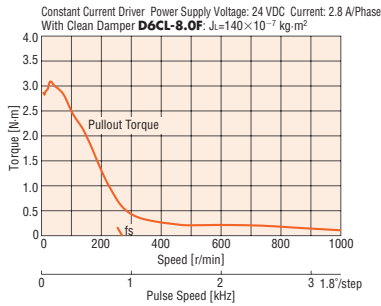
PK266JDA/PK266JDB



PK267JDA/PK267JDB



PK269JDA/PK269JDB



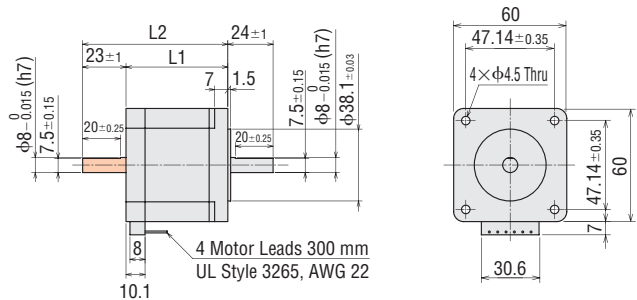
Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a "clean damper" entry in the speed – torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

● Motor

Product Name	L1	L2	Mass kg
PK264JDA	43.5	–	0.6
PK264JDB		66.5	
PK266JDA	54	–	0.83
PK266JDB		77	
PK267JDA	65	–	1.02
PK267JDB		88	
PK269JDA	85	–	1.43
PK269JDB		108	



● These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

Inner Wiring Diagram of Motor

Wiring Diagram No.: ③

● Refer to page A-431 for inner wiring diagram of motor.

Standard Type Frame Size 60 mm (Unipolar 6 lead wires)

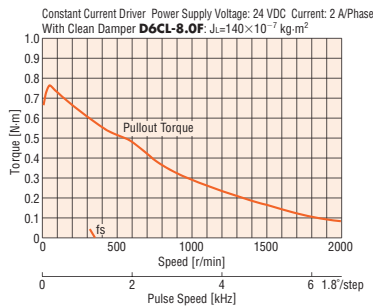
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle
PK264J□	0.75	280×10^{-7}	2	2.9	1.46	1.8	1.8°
PK266J□	1.35	450×10^{-7}		4	2	3.05	
PK267J□	1.7	570×10^{-7}		4.8	2.4	3.54	
PK269J□	2.2	900×10^{-7}		6	2.98	5.7	

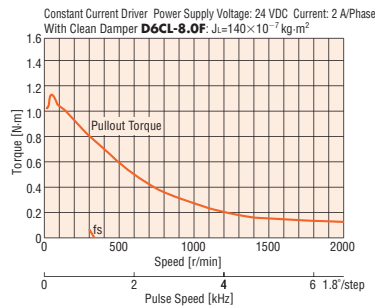
● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.

Speed – Torque Characteristics (Reference values)

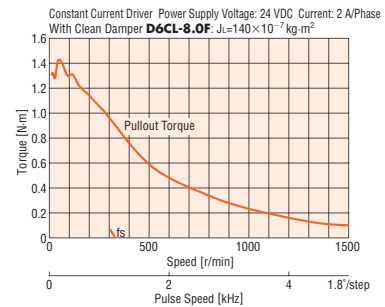
PK264JA/PK264JB



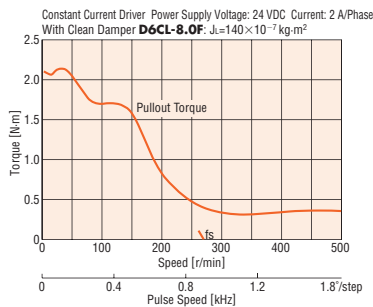
PK266JA/PK266JB



PK267JA/PK267JB



PK269JA/PK269JB



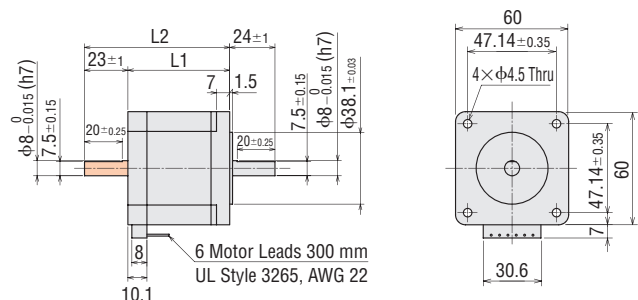
Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a "clean damper" entry in the speed – torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

Product Name	L1	L2	Mass kg
PK264JA	43.5	–	0.6
PK264JB		66.5	
PK266JA	54	–	0.83
PK266JB		77	
PK267JA	65	–	1.02
PK267JB		88	
PK269JA	85	–	1.43
PK269JB		108	



- These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑦

- Refer to page A-431 for inner wiring diagram of motor.

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type Frame Size 85 mm (Bipolar 4 lead wires)

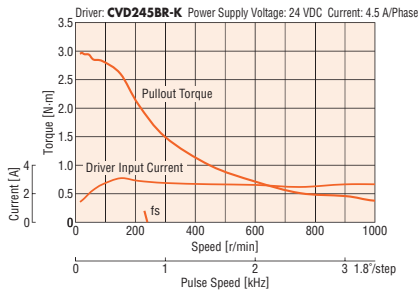
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP296D45□	3.3	1100×10 ⁻⁷	4.5	1.9	0.42	3.1	1.8°	CVD245BR-K
PKP296D63□			6.3	1.4	0.23	1.6		-
PKP299D45□	6.4	2200×10 ⁻⁷	4.5	2.7	0.6	5.4		CVD245BR-K
PKP299D63□			6.3	2	0.32	2.6		-
PKP2913D45□	9.5	3400×10 ⁻⁷	4.5	3.5	0.78	6.9		CVD245BR-K
PKP2913D56□			5.6	2.6	0.47	4.4		-

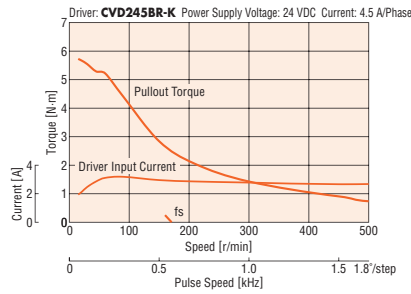
● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

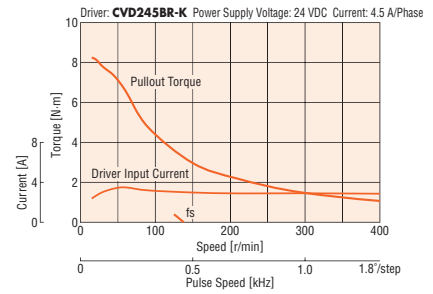
PKP296D45A/PKP296D45B



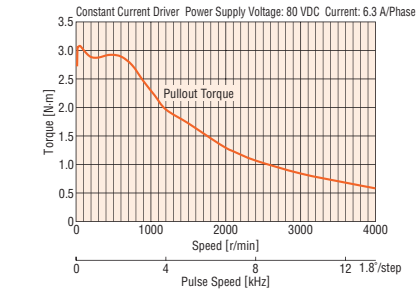
PKP299D45A/PKP299D45B



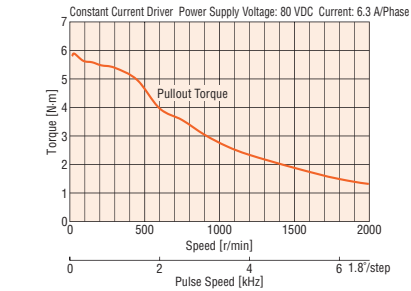
PKP2913D45A/PKP2913D45B



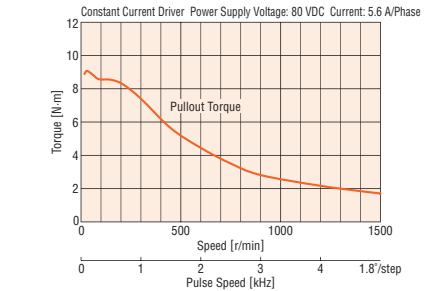
PKP296D63A/PKP296D63B



PKP299D63A/PKP299D63B



PKP2913D56A/PKP2913D56B



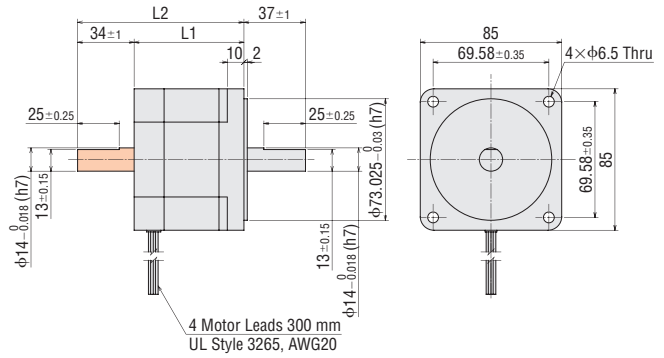
Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

Product Name	L1	L2	Mass kg
PKP296D45A	66	-	1.8
PKP296D45B		100	
PKP296D63A		-	
PKP296D63B	96	100	2.9
PKP299D45A		-	
PKP299D45B		130	
PKP299D63A	126	-	4
PKP299D63B		130	
PKP2913D45A		-	
PKP2913D45B	126	160	4
PKP2913D56A		-	
PKP2913D56B		160	



● These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

Inner Wiring Diagram of Motor

Wiring Diagram No.: ③

● Refer to page A-431 for inner wiring diagram of motor.

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Standard Type Frame Size 85 mm (Unipolar 6 lead wires)

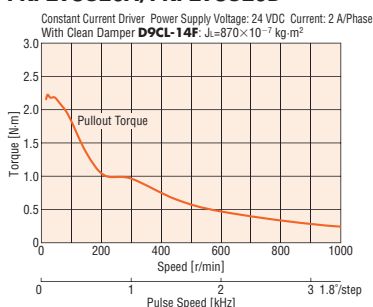
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle
PKP296U20□	2.6	1100×10 ⁻⁷	2	4.4	2.2	7.8	1.8°
PKP296U30□			3	3	1.0	3.5	
PKP296U45□			4.5	2	0.45	1.6	
PKP299U20□	5.0	2200×10 ⁻⁷	2	6.4	3.2	13.2	
PKP299U30□			3	4.5	1.5	6	
PKP299U45□			4.5	2.8	0.63	2.6	
PKP2913U20□	7.3	3400×10 ⁻⁷	2	7.6	3.8	18	
PKP2913U40□			4	3.8	0.94	4.4	

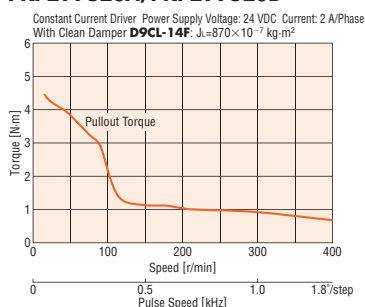
● Either **A** (Single Shaft) or **B** (Double Shaft) indicating the configuration is specified where the box □ is located in the product name.

Speed – Torque Characteristics (Reference values)

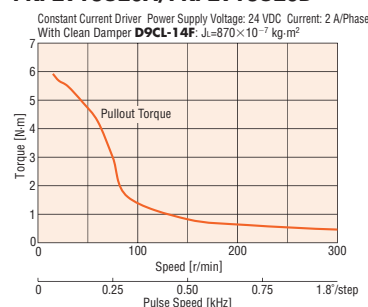
PKP296U20A/PKP296U20B



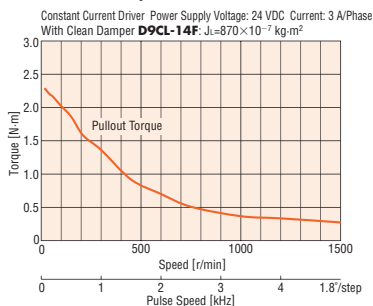
PKP299U20A/PKP299U20B



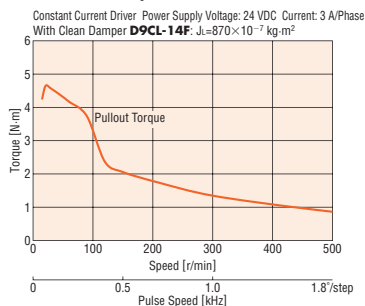
PKP2913U20A/PKP2913U20B



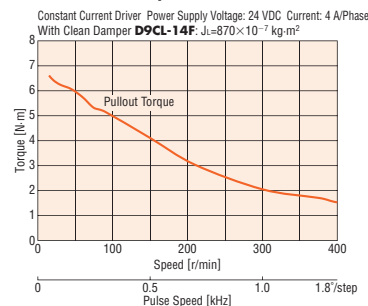
PKP296U30A/PKP296U30B



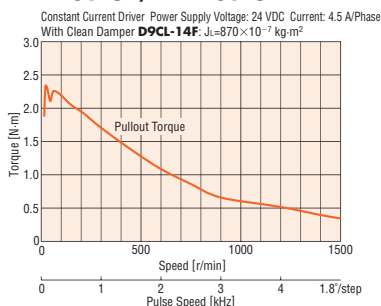
PKP299U30A/PKP299U30B



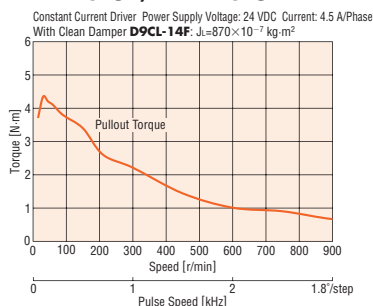
PKP2913U40A/PKP2913U40B



PKP296U45A/PKP296U45B



PKP299U45A/PKP299U45B



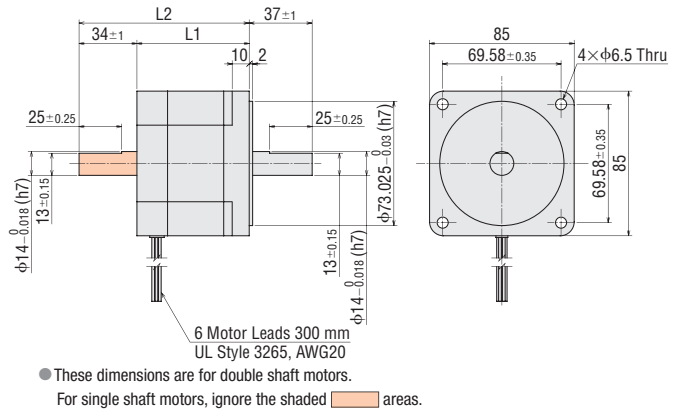
Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a "clean damper" entry in the speed – torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

Product Name	L1	L2	Mass kg
PKP296U20A	66	-	1.8
PKP296U20B		100	
PKP296U30A		-	
PKP296U30B		100	
PKP296U45A		-	
PKP296U45B	100		
PKP299U20A	96	-	2.9
PKP299U20B		130	
PKP299U30A		-	
PKP299U30B		130	
PKP299U45A		-	
PKP299U45B	130		
PKP2913U20A	126	-	4
PKP2913U20B		160	
PKP2913U40A		-	
PKP2913U40B		160	



Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑦

● Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

High-Resolution Type Frame Size 42 mm (Bipolar 4 lead wires)

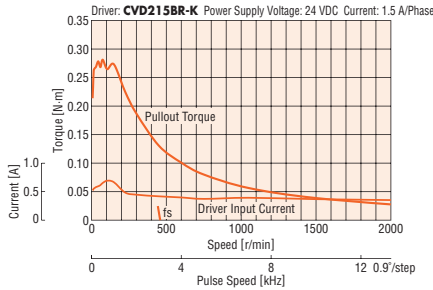
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP243MD15□	0.30	36×10^{-7}	1.5	2.85	1.9	6.6	0.9°	CVD215BR-K
PKP244MD15□	0.42	57×10^{-7}		3.9	2.6	7.6		

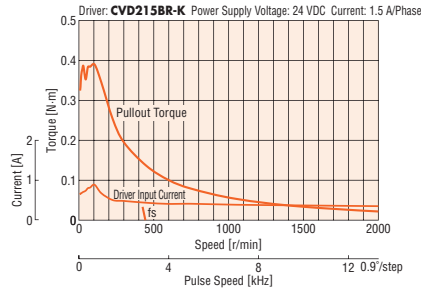
● Either **A** (single shaft) or **B** (double shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP243MD15A/PKP243MD15B



PKP244MD15A/PKP244MD15B



Note

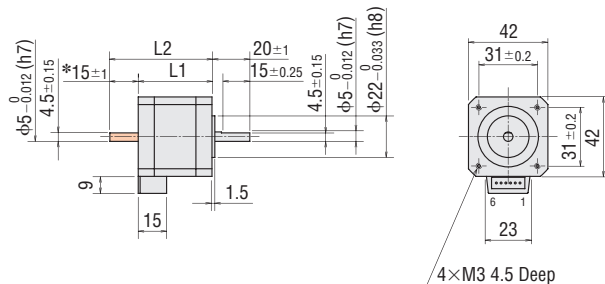
- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

Product Name	L1	L2	Mass kg
PKP243MD15A	33	–	0.25
PKP243MD15B		48	
PKP244MD15A	39	–	0.3
PKP244MD15B		54	

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

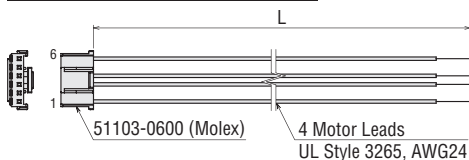


- *The length of the shaft flat on the double shaft model is 15 ± 0.25.
- These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2B06B	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ②

- Refer to page A-431 for inner wiring diagram of motor.

High-Resolution Type Frame Size 42 mm (Unipolar 6 lead wires)

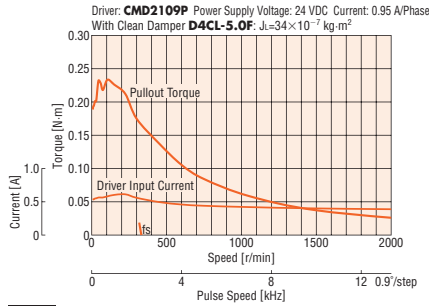
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP243MU09□	0.25	36×10^{-7}	0.95	4.47	4.7	6.6	0.9°	CMD2109P
PKP244MU12□	0.35	57×10^{-7}	1.2	4.8	4	6		CMD2112P

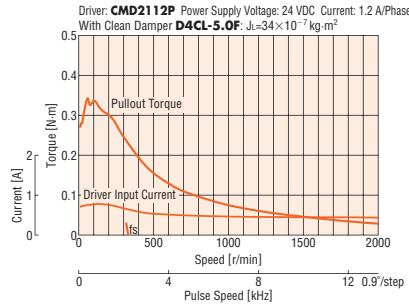
● Either **A** (single shaft) or **B** (double shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP243MU09A/PKP243MU09B



PKP244MU12A/PKP244MU12B



Note

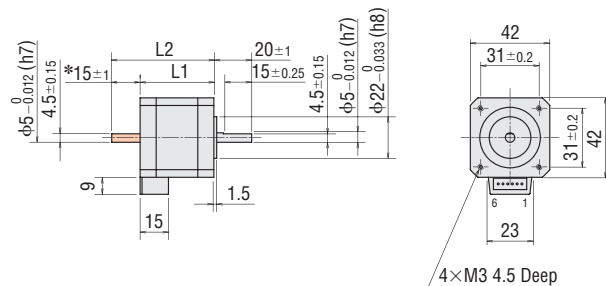
- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a "clean damper" entry in the speed – torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

Product Name	L1	L2	Mass kg
PKP243MU09A	33	—	0.25
PKP243MU09B		48	
PKP244MU12A	39	—	0.3
PKP244MU12B		54	

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

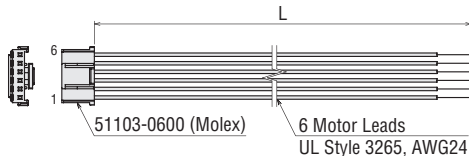


- *The length of the shaft flat on the double shaft model is 15 ± 0.25.
- These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

Connection Cable (Sold separately)

For Motor

Product name	Length L (m)
LC2U06B	0.6
LC2U10B	1



Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑥

- Refer to page A-431 for inner wiring diagram of motor.

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
αSTEP
Absolute
AZ

0.36°/Geared
αSTEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

High-Resolution Type with Encoder

Frame Size 42 mm (Bipolar 4 lead wires)

Specifications

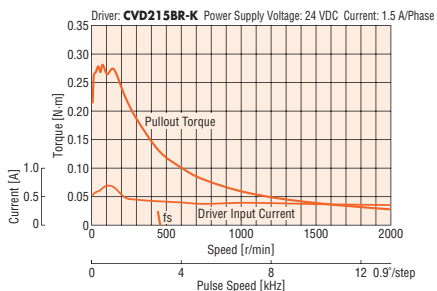
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP243MD15A-R2FL	0.30	36 × 10 ⁻⁷	1.5	2.85	1.9	6.6	0.9°	CVD215BR-K
PKP244MD15A-R2FL	0.42	57 × 10 ⁻⁷		3.9	2.6	7.6		

● Refer to page A-430 for encoder specifications.

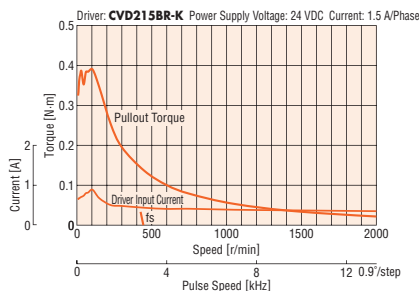
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP243MD15A-R2FL



PKP244MD15A-R2FL



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. To protect the encoder, be sure to keep the motor case temperature at 85°C max.

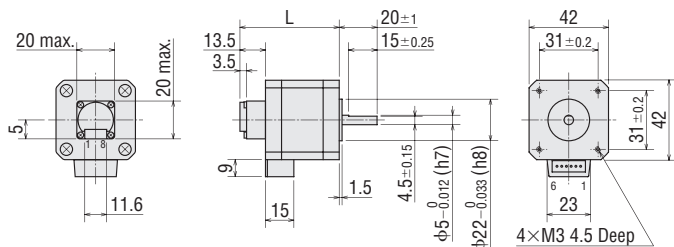
Dimensions (Unit = mm)

Motor

Product Name	L	Mass kg
PKP243MD15A-R2FL	46.5	0.26
PKP244MD15A-R2FL	52.5	0.31

Applicable Connector (Molex)

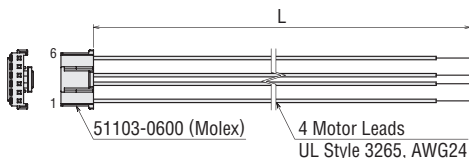
	Motor	Encoder
Connector Housing	51103-0600	51021-0800
Contact	50351-8100	50079-8100
Crimp Tool	57295-5000	57067-3000



Connection Cable (Sold separately)

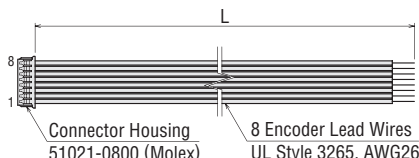
For Motor

Product Name	Length L (m)
LC2B06B	0.6



For Encoder

Product Name	Length L (m)
LCE08A-006	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ②

● Refer to page A-431 for inner wiring diagram of motor.

High-Resolution Type with Encoder

Frame Size 42 mm (Unipolar 6 lead wires)

Specifications

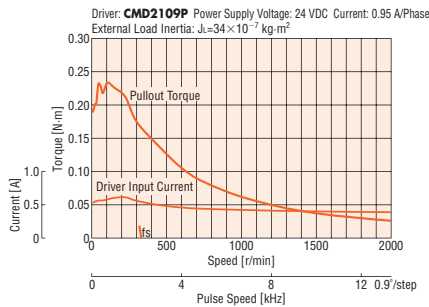
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP243MU09A-R2FL	0.25	36×10^{-7}	0.95	4.47	4.7	6.6	0.9°	CMD2109P
PKP244MU12A-R2FL	0.35	57×10^{-7}	1.2	4.8	4	6		CMD2112P

● Refer to page A-430 for encoder specifications.

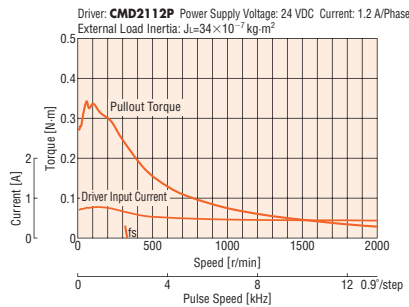
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP243MU09A-R2FL



PKP244MU12A-R2FL



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- The data in the speed – torque characteristics represents the use of an external load inertia.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. To protect the encoder, be sure to keep the motor case temperature at 85°C max.

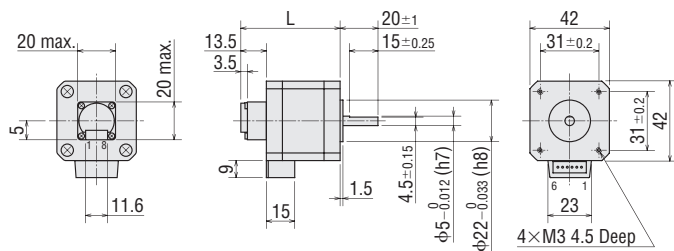
Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP243MU09A-R2FL	46.5	0.26
PKP244MU12A-R2FL	52.5	0.31

● Applicable Connector (Molex)

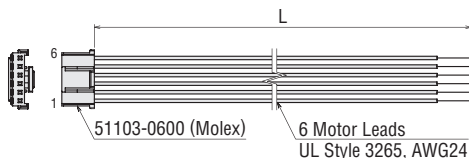
	Motor	Encoder
Connector Housing	51103-0600	51021-0800
Contact	50351-8100	50079-8100
Crimp Tool	57295-5000	57067-3000



● Connection Cable (Sold separately)

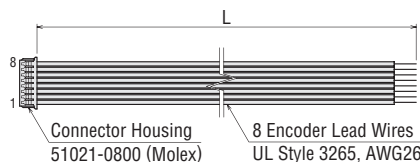
◇ For Motor

Product Name	Length L (m)
LC2U06B	0.6
LC2U10B	1



◇ For Encoder

Product Name	Length L (m)
LCE08A-006	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑥

● Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

High-Resolution Type with Electromagnetic Brake

Frame Size 42 mm (Bipolar 4 lead wires)

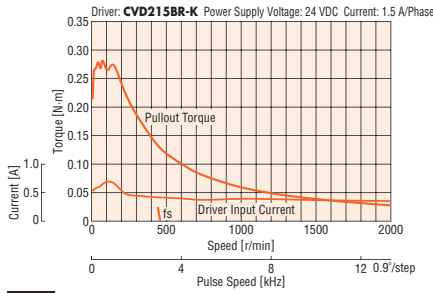
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Electromagnetic Brake Static Friction Torque N·m
PKP243MD15M	0.30	48×10^{-7}	1.5	2.85	1.9	6.6	0.9°	0.3
PKP244MD15M	0.42	69×10^{-7}		3.9	2.6	7.6		

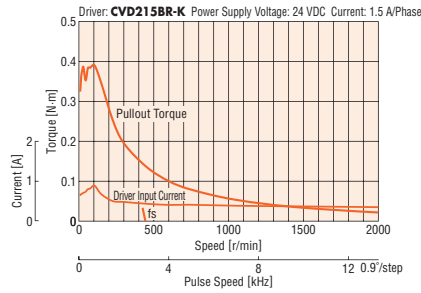
● Refer to page A-430 for electromagnetic brake specifications.

Speed – Torque Characteristics (Reference values)

PKP243MD15M



PKP244MD15M



Note

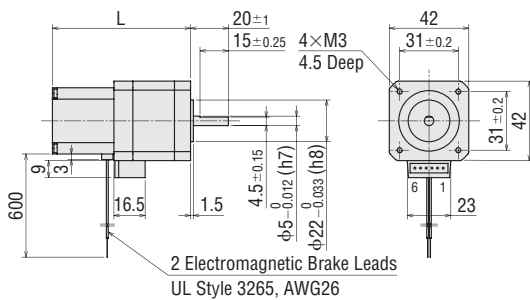
- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

● Motor

Product name	L	Mass kg
PKP243MD15M	67	0.36
PKP244MD15M	73	0.41

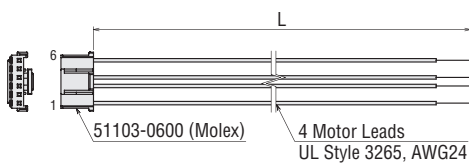
- Applicable Connector (Molex)
Connector housing: 51103-0600
Contact: 50351-8100
Crimp tool: 57295-5000



● Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2B06B	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ②

- Refer to page A-431 for inner wiring diagram of motor.

High-Resolution Type with Electromagnetic Brake Frame Size 42 mm (Unipolar 6 lead wires)

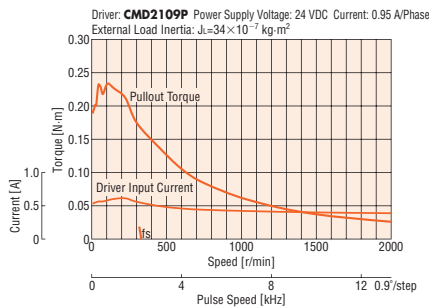
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Electromagnetic Brake Static Friction Torque N·m
PKP243MU09M	0.25	48×10^{-7}	0.95	4.47	4.7	6.6	0.9°	0.3
PKP244MU12M	0.35	69×10^{-7}	1.2	4.8	4	6		

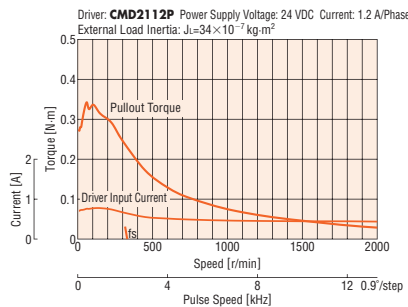
● Refer to page A-430 for electromagnetic brake specifications.

Speed – Torque Characteristics (Reference values)

PKP243MU09M



PKP244MU12M



Note

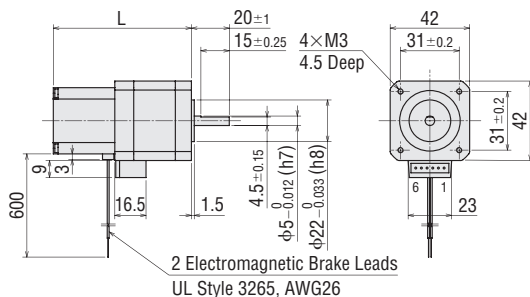
- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- The data in the speed – torque characteristics represents the use of an external load inertia.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP243MU09M	67	0.36
PKP244MU12M	73	0.41

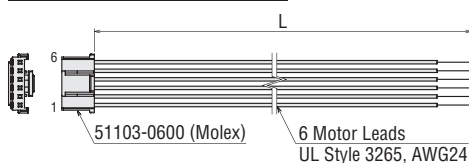
- Applicable Connector (Molex)
Connector housing: 51103-0600
Contact: 50351-8100
Crimp tool: 57295-5000



● Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2U06B	0.6
LC2U10B	1



Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑥

- Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

High-Resolution Type Frame Size 56.4 mm (Bipolar 4 lead wires)

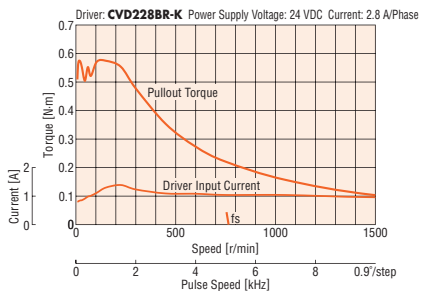
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP264MD28□	0.6	120×10 ⁻⁷	2.8	2	0.73	2.1	0.9°	CVD228BR-K
PKP266MD28□	1.32	290×10 ⁻⁷		2.8	1	3.9		
PKP268MD28□	2.23	490×10 ⁻⁷		3.4	1.23	5.6		

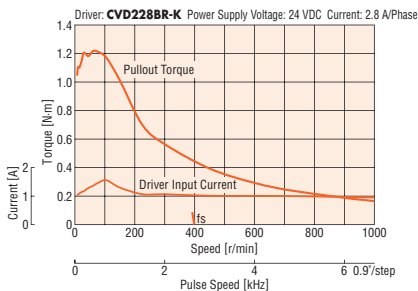
● Either **A** (single shaft) or **B** (double shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

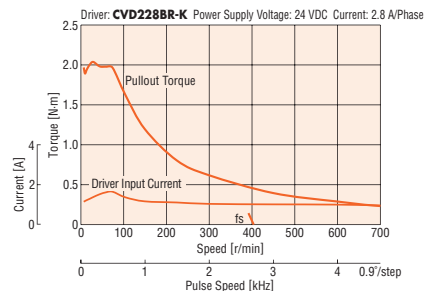
PKP264MD28A/PKP264MD28B



PKP266MD28A/PKP266MD28B



PKP268MD28A/PKP268MD28B



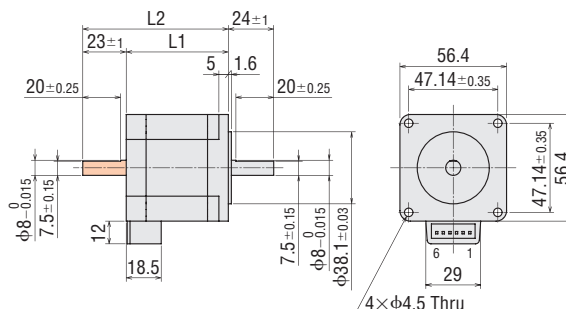
Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

Product Name	L1	L2	Mass kg
PKP264MD28A	39	–	0.46
PKP264MD28B		62	
PKP266MD28A	54	–	0.73
PKP266MD28B		77	
PKP268MD28A	76	–	1.1
PKP268MD28B		99	



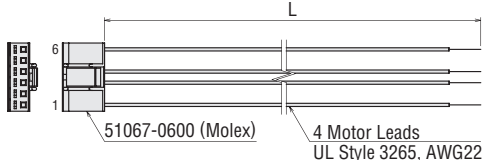
- Applicable Connector
Connector housing: 51067-0600 (Molex)
Contact: 50217-9101 (Molex)
Crimp tool: 57189-5000 (Molex)
57190-5000 (Molex)

● These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

Connection Cable (Sold separately)

For Motor

Product Name	Length L (m)
LC2B06C	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ②

- Refer to page A-431 for inner wiring diagram of motor.

High-Resolution Type Frame Size 56.4 mm (Unipolar 6 lead wires)

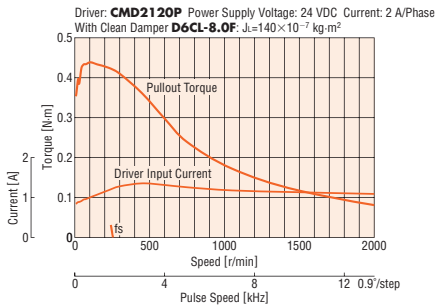
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP264MU20□	0.51	120×10 ⁻⁷	2	2.9	1.45	2.1	0.9°	CMD2120P
PKP266MU20□	1.1	290×10 ⁻⁷		4	2	3.9		
PKP268MU20□	1.75	490×10 ⁻⁷		4.9	2.45	5.6		

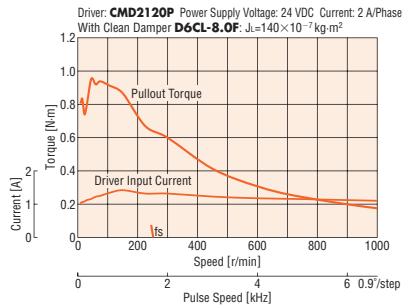
● Either **A** (single shaft) or **B** (double shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

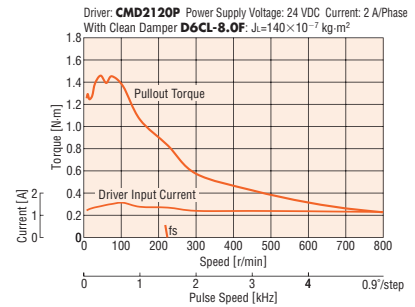
PKP264MU20A/PKP264MU20B



PKP266MU20A/PKP266MU20B



PKP268MU20A/PKP268MU20B



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a "clean damper" entry in the speed – torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

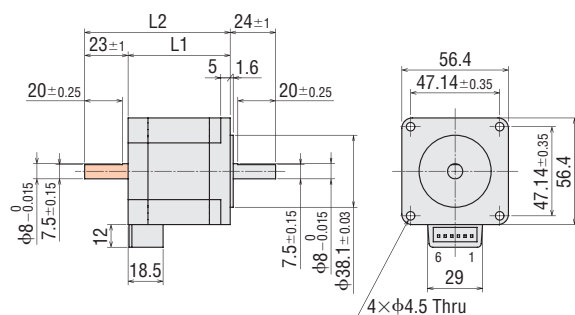
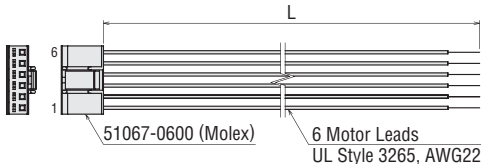
Product Name	L1	L2	Mass kg
PKP264MU20A	—	—	0.46
PKP264MU20B	39	62	0.46
PKP266MU20A	—	—	0.73
PKP266MU20B	54	77	0.73
PKP268MU20A	—	—	1.1
PKP268MU20B	76	99	1.1

- Applicable Connector
Connector housing: 51067-0600 (Molex)
Contact: 50217-9101 (Molex)
Crimp tool: 57189-5000 (Molex)
57190-5000 (Molex)

Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2U06C	0.6
LC2U10C	1



- These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑥

- Refer to page A-431 for inner wiring diagram of motor.

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
AZSTEP
Absolute
AZ

0.36°/Geared
AZSTEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
AZSTEP
Absolute
AZ

0.36°/Geared
AZSTEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

High-Resolution Type with Encoder

Frame Size 56.4 mm (Bipolar 4 lead wires)

Specifications

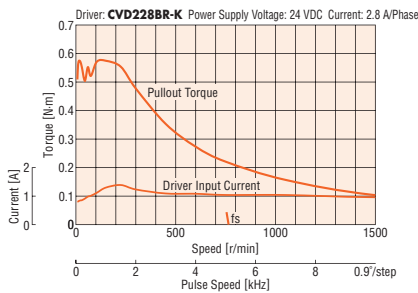
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP264MD28A-R2FL	0.6	120×10 ⁻⁷	2.8	2	0.73	2.1	0.9°	CVD228BR-K
PKP266MD28A-R2FL	1.32	290×10 ⁻⁷		2.8	1	3.9		
PKP268MD28A-R2FL	2.23	490×10 ⁻⁷		3.4	1.23	5.6		

● Refer to page A-430 for encoder specifications.

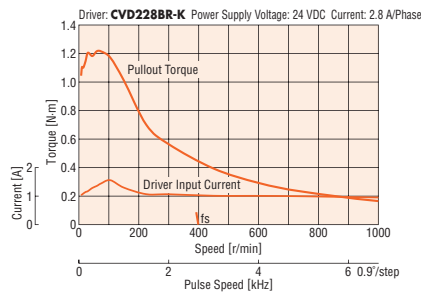
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

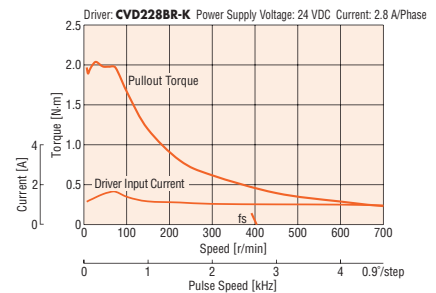
PKP264MD28A-R2FL



PKP266MD28A-R2FL



PKP268MD28A-R2FL



Note

- Data for the speed – torque characteristics is based on Oriental Motor’s internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. To protect the encoder, be sure to keep the motor case temperature at 85°C max.

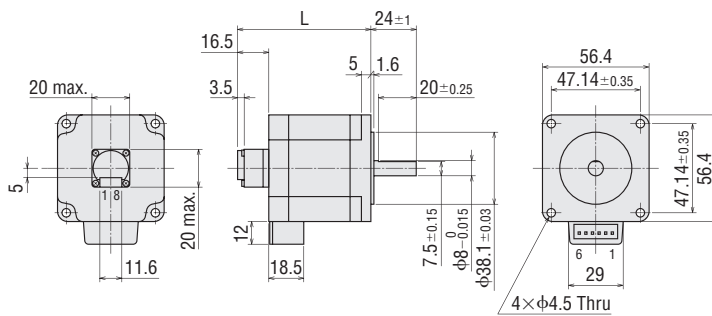
Dimensions (Unit = mm)

Motor

Product Name	L	Mass kg
PKP264MD28A-R2FL	55.5	0.47
PKP266MD28A-R2FL	70.5	0.74
PKP268MD28A-R2FL	92.5	1.11

Applicable Connector (Molex)

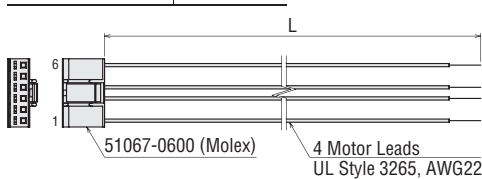
	Motor	Encoder
Connector Housing	51067-0600	51021-0800
Contact	50217-9101	50079-8100
Crimp Tool	57189-5000 57190-5000	57067-3000



Connection Cable (Sold separately)

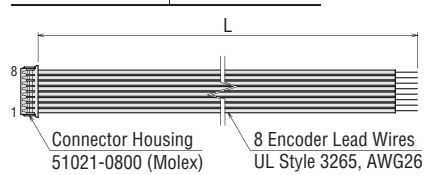
For Motor

Product Name	Length L (m)
LC2B06C	0.6



For Encoder

Product Name	Length L (m)
LCE08A-006	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ②

● Refer to page A-431 for inner wiring diagram of motor.

High-Resolution Type with Encoder

Frame Size 56.4 mm (Unipolar 6 lead wires)

Specifications

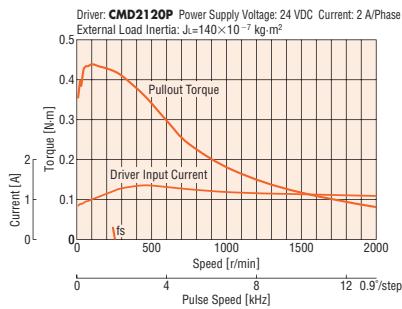
Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP264MU20A-R2FL	0.51	120×10 ⁻⁷	2	2.9	1.45	2.1	0.9°	CMD2120P
PKP266MU20A-R2FL	1.1	290×10 ⁻⁷		4	2	3.9		
PKP268MU20A-R2FL	1.75	490×10 ⁻⁷		4.9	2.45	5.6		

● Refer to page A-430 for encoder specifications.

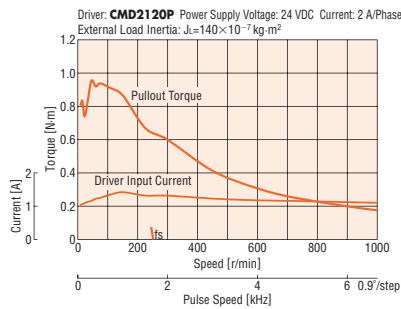
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

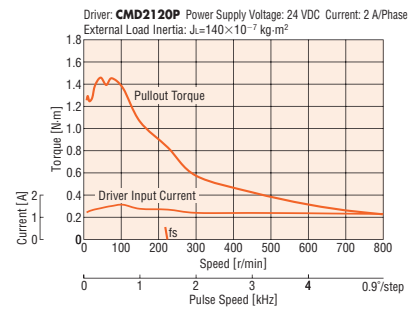
PKP264MU20A-R2FL



PKP266MU20A-R2FL



PKP268MU20A-R2FL



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- The data in the speed – torque characteristics represents the use of an external load inertia.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. To protect the encoder, be sure to keep the motor case temperature at 85°C max.

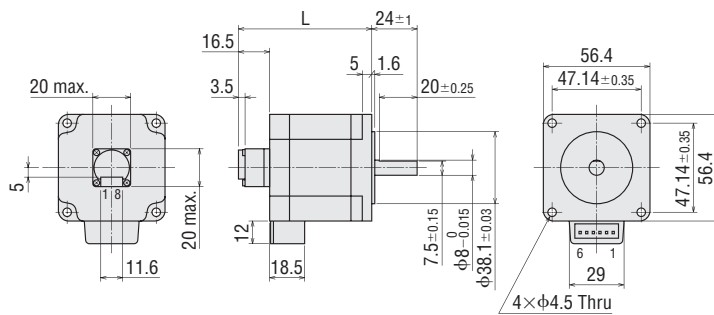
Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP264MU20A-R2FL	55.5	0.47
PKP266MU20A-R2FL	70.5	0.74
PKP268MU20A-R2FL	92.5	1.11

● Applicable Connector (Molex)

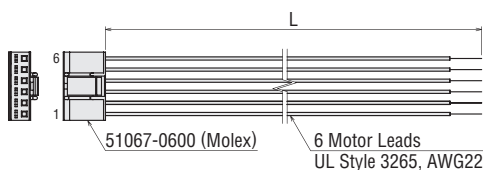
	Motor	Encoder
Connector Housing	51067-0600	51021-0800
Contact	50217-9101	50079-8100
Crimp Tool	57189-5000 57190-5000	57067-3000



● Connection Cable (Sold separately)

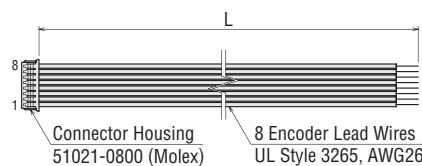
◇ For Motor

Product Name	Length L (m)
LC2U06C	0.6
LC2U10C	1



◇ For Encoder

Product Name	Length L (m)
LCE08A-006	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑥

● Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

High-Resolution Type with Electromagnetic Brake

Frame Size 56.4 mm (Bipolar 4 lead wires)

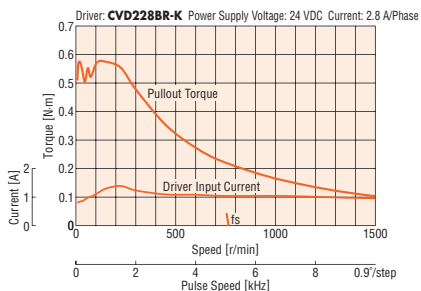
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Electromagnetic brake Static friction torque N·m
PKP264MD28M	0.6	270×10^{-7}	2.8	2	0.73	2.1	0.9°	1.5
PKP266MD28M	1.32	440×10^{-7}		2.8	1	3.9		
PKP268MD28M	2.23	640×10^{-7}		3.4	1.23	5.6		

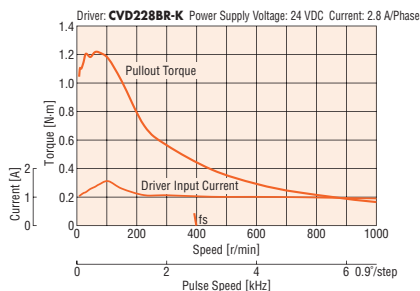
● Refer to page A-430 for electromagnetic brake specifications.

Speed – Torque Characteristics (Reference values)

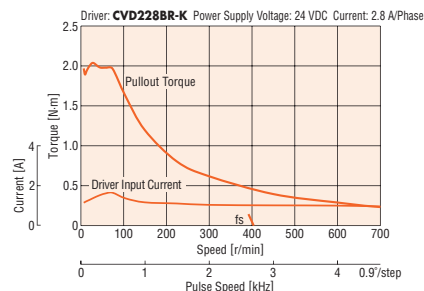
PKP264MD28M



PKP266MD28M



PKP268MD28M



Note

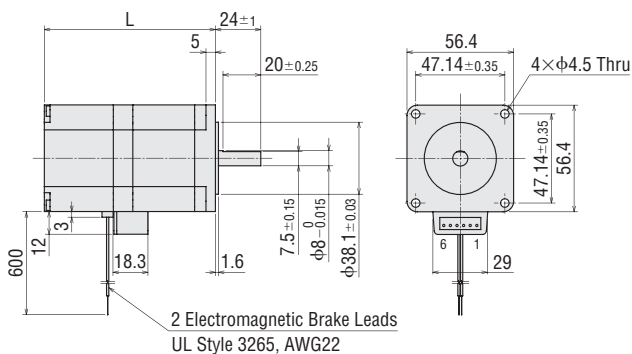
- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP264MD28M	75.5	0.76
PKP266MD28M	90.5	1.03
PKP268MD28M	112.5	1.4

- Applicable Connector (Molex)
Connector housing: 51067-0600
Contact: 50217-9101
Crimp tool: 57189-5000
57190-5000



Inner Wiring Diagram of Motor

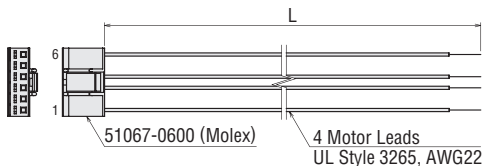
Wiring Diagram No.: ②

- Refer to page A-431 for inner wiring diagram of motor.

● Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2B06C	0.6



High-Resolution Type with Electromagnetic Brake

Frame Size 56.4 mm (Unipolar 6 lead wires)

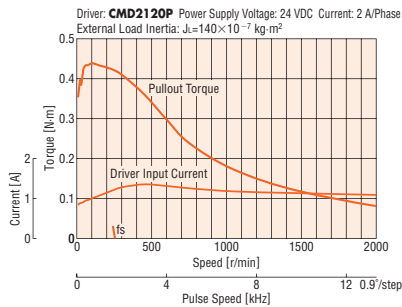
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Electromagnetic brake Static friction torque N·m
PKP264MU20M	0.51	270×10^{-7}	2	2.9	1.45	2.1	0.9°	1.5
PKP266MU20M	1.1	440×10^{-7}		4	2	3.9		
PKP268MU20M	1.75	640×10^{-7}		4.9	2.45	5.6		

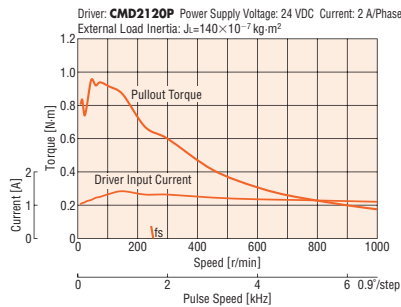
● Refer to page A-430 for electromagnetic brake specifications.

Speed – Torque Characteristics (Reference values)

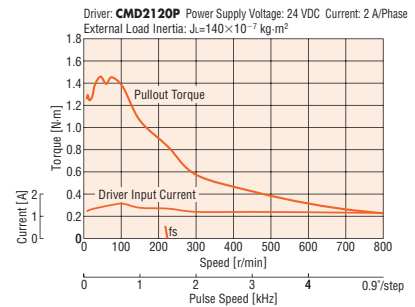
PKP264MU20M



PKP266MU20M



PKP268MU20M



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- The data in the speed – torque characteristics represents the use of an external load inertia.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

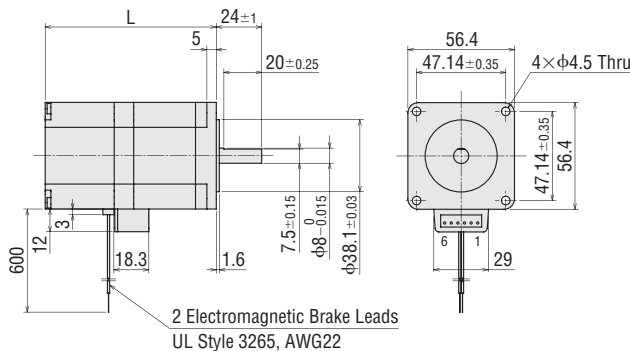
Dimensions (Unit = mm)

● Motor

Product Name	L	Mass kg
PKP264MU20M	75.5	0.76
PKP266MU20M	90.5	1.03
PKP268MU20M	112.5	1.4

● Applicable Connector (Molex)

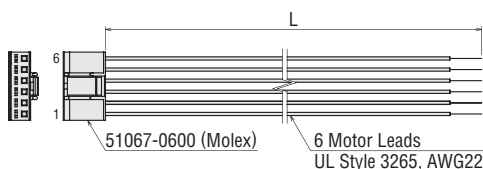
Connector housing: 51067-0600
Contact: 50217-9101
Crimp tool: 57189-5000
57190-5000



● Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2U06C	0.6
LC2U10C	1



Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑥

● Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RRKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

Flat Type Frame Size 60 mm (Bipolar 4 lead wires)

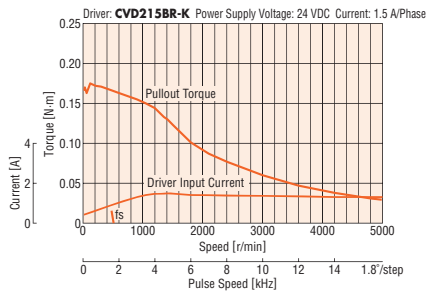
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Recommended Driver Product Name*
PKP262FD15AW	0.18	68×10^{-7}	1.5	2.25	1.5	1.4	1.8°	CVD215BR-K

*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP262FD15AW



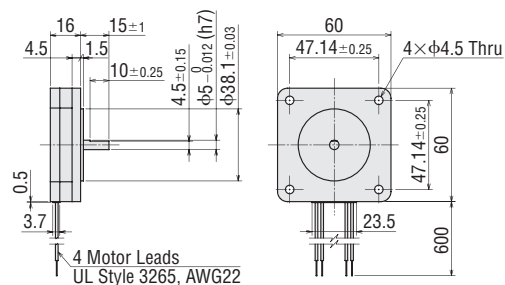
Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

Product Name	Mass kg
PKP262FD15AW	0.2



Inner Wiring Diagram of Motor

Wiring Diagram No.: ③

- Refer to page A-431 for inner wiring diagram of motor.

Flat Type with Harmonic Gear

Frame Size $\phi 72$ mm (Bipolar 4 lead wires)

Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω /Phase	Inductance mH/Phase	Basic Step Angle	Gear Ratio	Permissible Torque N·m	Maximum Instantaneous Torque N·m	Lost Motion (Load Torque) arcmin	Speed Range r/min	Recommended Driver Product Name*
PKP262FD15AW-H50S	3.5	83×10^{-7}	1.5	1.65	1.1	0.8	0.036°	50	3.5	**	1.5 max. (± 0.17 N·m)	0~70	CVD215BR-K
PKP262FD15AW-H100S	5						0.018°	100	5	**	1.5 max. (± 0.25 N·m)	0~35	

*Refer to page A-439 for details on the recommended driver.

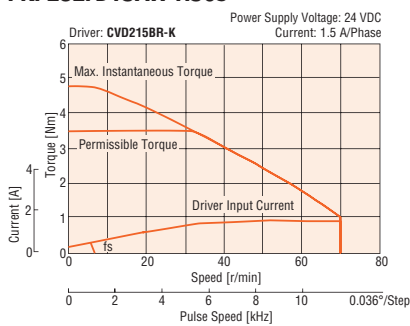
** Please refer to the Speed-Torque-Characteristics.

Note

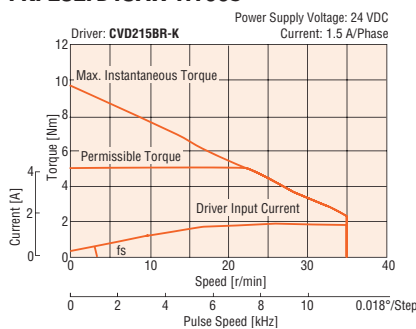
● The rotor inertia represents a sum of the inertia of the harmonic gear converted to motor shaft values.

Speed – Torque Characteristics (Reference values)

PKP262FD15AW-H50S



PKP262FD15AW-H100S



Note

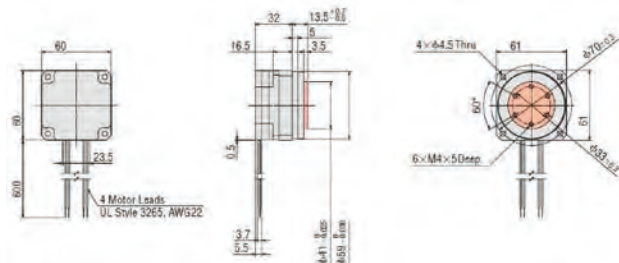
● Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.

● Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

● Motor

Product Name	Mass kg
PKP262FD15AW-H50S	0.6
PKP262FD15AW-H100S	



● shaded areas are rotating parts.

Inner Wiring Diagram of Motor

Wiring Diagram No.: ③

● Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/G geared **Q_{STEP} Absolute AZ**

0.36°/G geared **Q_{STEP} AR**

0.72°/G geared **RKII**

DC Input Motor & Driver

0.36°/G geared **Q_{STEP} Absolute AZ**

0.36°/G geared **Q_{STEP} AR**

1.8°/0.72°/0.36° **CVK**

0.72°/0.36°/G geared **CRK**

1.8°/G geared **RBK**

Motor Only /Driver Only

1.8°/0.9° **PKP/PK**

G geared **PKP/PK**

0.72°/0.36° **PKP/PK**

Driver

Accessories

SH Geared Type Frame Size 28 mm (Bipolar 4 lead wires)

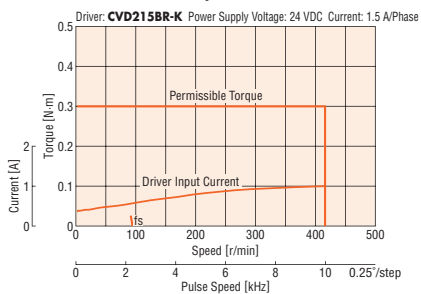
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Gear Ratio	Permissible Torque N·m	Speed Range r/min	Backlash arcmin	Recommended Driver Product Name*
PKP223D15□-SG7.2	0.3	9×10 ⁻⁷	1.5	1.8	1.2	0.74	0.25°	7.2	0.3	0~416	90 (1.5°)	CVD215BR-K
0.2°							9	0~333				
0.18°							10	0~300				
PKP223D15□-SG9	0.4	9×10 ⁻⁷	1.5	1.8	1.2	0.74	0.1°	18	0.4	0~166	90 (1.5°)	CVD215BR-K
0.05°							36	0~83				
0.18°							10	0~300				

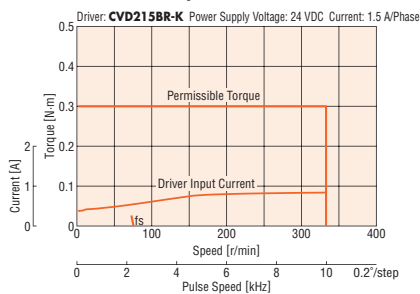
● Either **A** (single shaft) or **B** (double shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-430 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

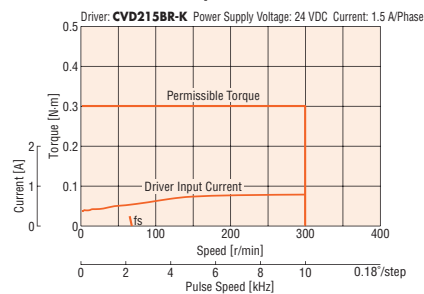
PKP223D15A-SG7.2/PKP223D15B-SG7.2



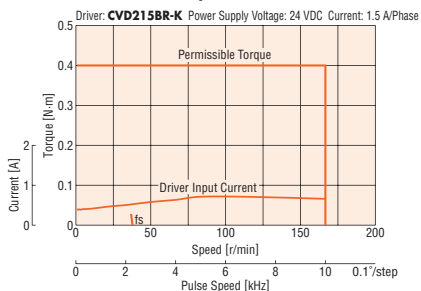
PKP223D15A-SG9/PKP223D15B-SG9



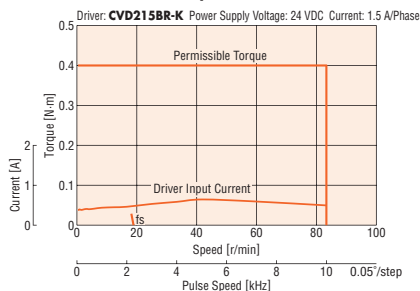
PKP223D15A-SG10/PKP223D15B-SG10



PKP223D15A-SG18/PKP223D15B-SG18



PKP223D15A-SG36/PKP223D15B-SG36



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

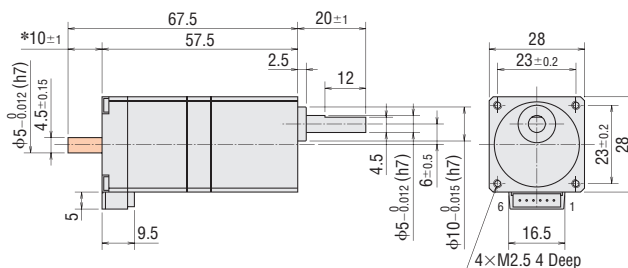
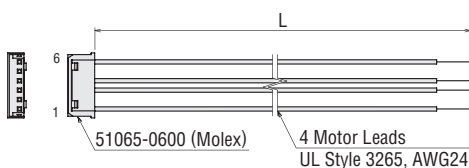
Product Name	Gear Ratio	Mass kg
PKP223D15A-SG□	7.2, 9, 10, 18, 36	0.16
PKP223D15B-SG□		

- A number indicating the gear ratio is specified in the box □ in the product name.
- Applicable Connector
Connector housing: 51065-0600 (Molex)
Contact: 50212-8100 (Molex)
Crimp tool: 57176-5000 (Molex)

Connection Cable (Sold separately)

For Motor

Product Name	Length L (m)
LC2B06A	0.6



- *The length of the shaft flat on the double shaft model is 10±0.25.
- These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

Inner Wiring Diagram of Motor

Wiring Diagram No.: ②

- Refer to page A-431 for inner wiring diagram of motor.

SH Geared Type Frame Size 28 mm (Unipolar 6 lead wires)

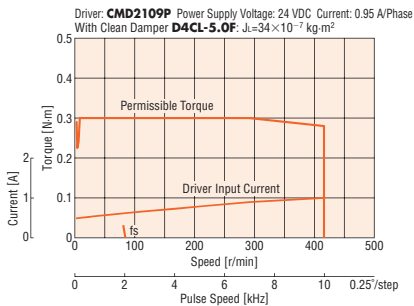
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Gear Ratio	Permissible Torque N·m	Speed Range r/min	Backlash arcmin	Recommended Driver Product Name*
PKP223U09□-SG7.2	0.3	9×10 ⁻⁷	0.95	2.66	2.8	1	0.25°	7.2	0.3	0~416	90 (1.5°)	CMD2109P
0.2°							9	0~333				
0.18°							10	0~300				
PKP223U09□-SG10	0.4	9×10 ⁻⁷	0.95	2.66	2.8	1	0.1°	18	0.4	0~166	90 (1.5°)	CMD2109P
0.05°							36	0~83				
0.05°							36	0~83				

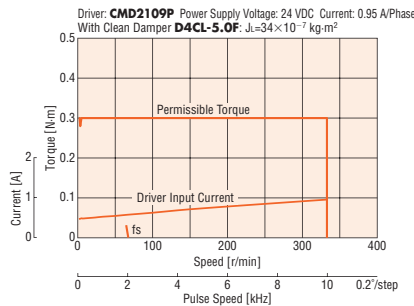
● Either **A** (single shaft) or **B** (double shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

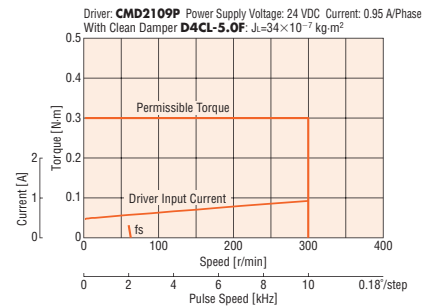
PKP223U09A-SG7.2/PKP223U09B-SG7.2



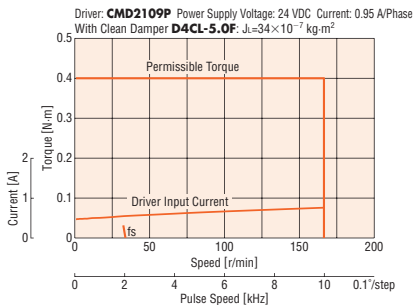
PKP223U09A-SG9/PKP223U09B-SG9



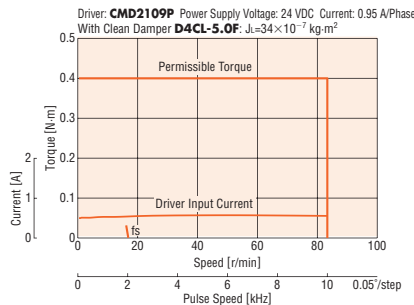
PKP223U09A-SG10/PKP223U09B-SG10



PKP223U09A-SG18/PKP223U09B-SG18



PKP223U09A-SG36/PKP223U09B-SG36



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a "clean damper" entry in the speed – torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

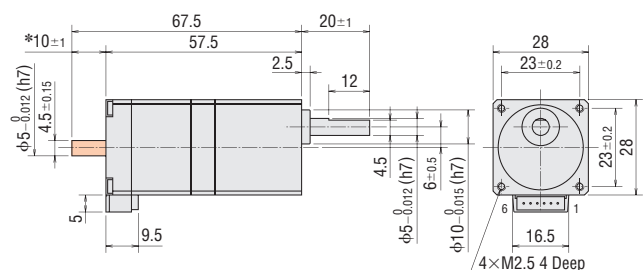
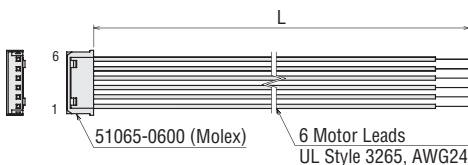
Product Name	Gear Ratio	Mass kg
PKP223U09A-SG□	7.2, 9, 10, 18, 36	0.16
PKP223U09B-SG□		

- A number indicating the gear ratio is specified in the box □ in the product name.
- Applicable Connector
Connector housing: 51065-0600 (Molex)
Contact: 50212-8100 (Molex)
Crimp tool: 57176-5000 (Molex)

Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2U06A	0.6
LC2U10A	1



- *The length of the shaft flat on the double shaft model is 10±0.25.
- These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

Inner Wiring Diagram of Motor

Wiring Diagram No.: ⑥

- Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
Q_{STEP}
Absolute
AZ

0.36°/Geared
Q_{STEP}
AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
Q_{STEP}
Absolute
AZ

0.36°/Geared
Q_{STEP}
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

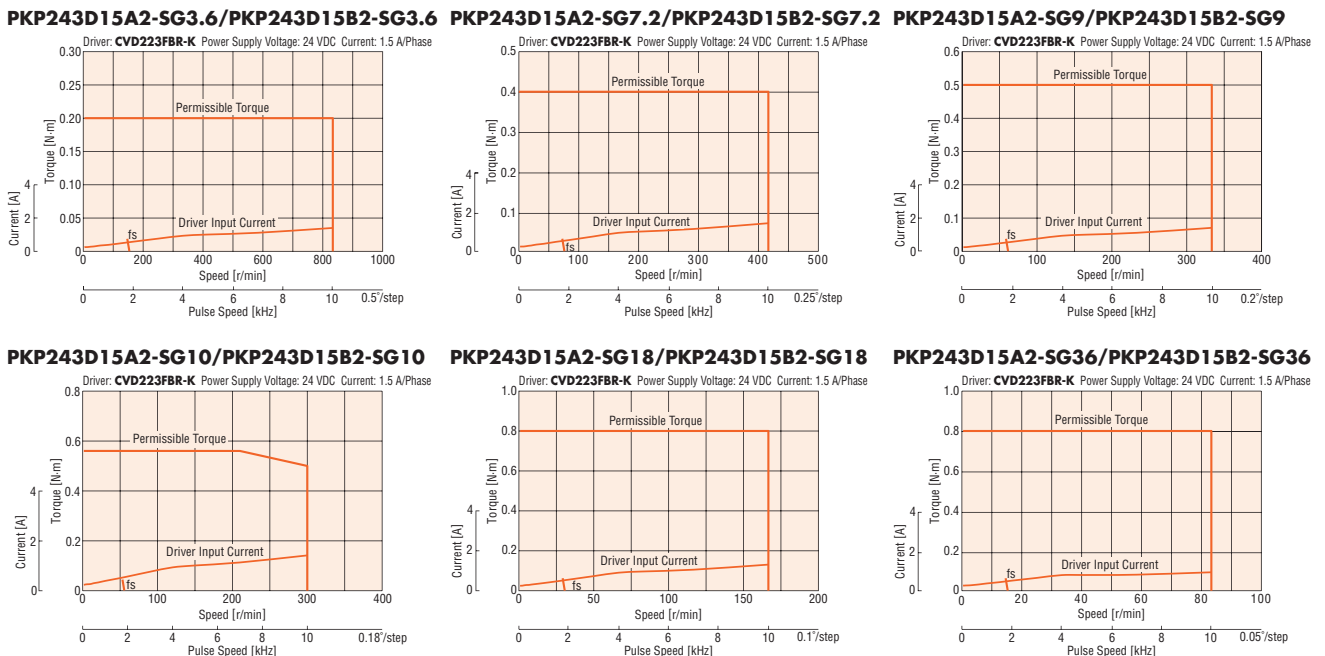
SH Geared Type Frame Size 42 mm (Bipolar 4 lead wires)

Specifications

Product Name	Maximum Holding Torque N-m	Rotor Inertia J: kg·m ²	Rated Current A/ phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Gear Ratio	Permissible Torque N-m	Speed Range r/min	Backlash arcmin	Recommended Driver Product Name*
PKP243D15□2-SG3.6	0.2	36×10 ⁻⁷	1.5	0.83	0.55	0.77	0.5°	3.6	0.2	0~833	90 (1.5)	CVD223FBR-K
PKP243D23□2-SG3.6			2.3	0.87	0.38	0.41						
PKP243D15□2-SG7.2	0.4		1.5	0.83	0.55	0.77	0.25°	7.2	0.4	0~416		
PKP243D23□2-SG7.2			2.3	0.87	0.38	0.41						
PKP243D15□2-SG9	0.5		1.5	0.83	0.55	0.77	0.2°	9	0.5	0~333		
PKP243D23□2-SG9			2.3	0.87	0.38	0.41						
PKP243D15□2-SG10	0.56		1.5	0.83	0.55	0.77	0.18°	10	0.56	0~300		
PKP243D23□2-SG10			2.3	0.87	0.38	0.41						
PKP243D15□2-SG18	0.8		1.5	0.83	0.55	0.77	0.1°	18	0.8	0~166		
PKP243D23□2-SG18			2.3	0.87	0.38	0.41						
PKP243D15□2-SG36	0.8	1.5	0.83	0.55	0.77	0.05°	36	0.8	0~83			
PKP243D23□2-SG36		2.3	0.87	0.38	0.41							

● Either **A** (single shaft) or **B** (double shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

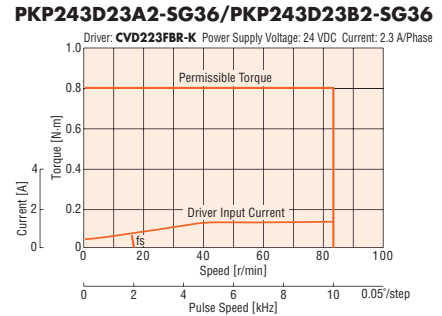
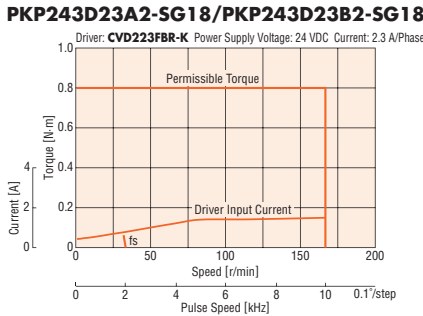
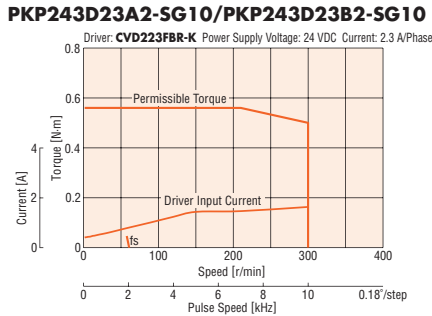
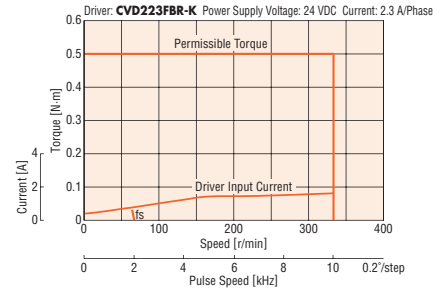
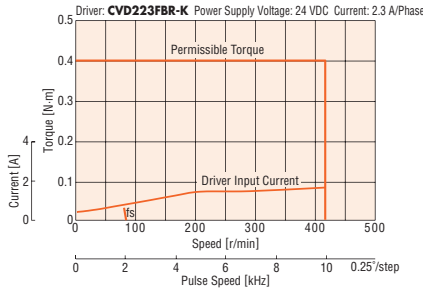
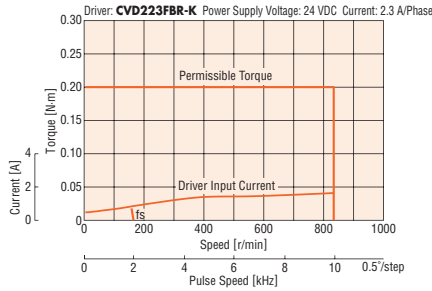


Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Speed – Torque Characteristics (Reference values)

PKP243D23A2-SG3.6/PKP243D23B2-SG3.6 PKP243D23A2-SG7.2/PKP243D23B2-SG7.2 PKP243D23A2-SG9/PKP243D23B2-SG9



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

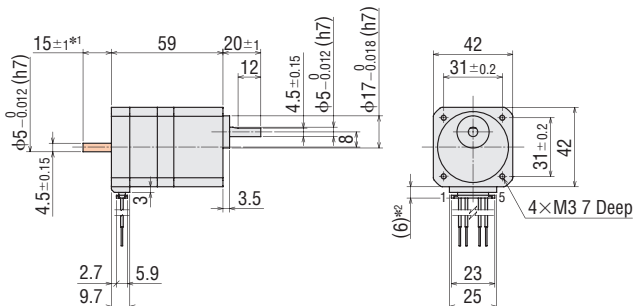
Motor

Product Name	Gear Ratio	Mass kg
PKP243D15A2-SG□	3.6, 7.2, 9, 10, 18, 36	0.33
PKP243D15B2-SG□		
PKP243D23A2-SG□		
PKP243D23B2-SG□		

- A number indicating the gear ratio is specified in the box □ in the product name.

Applicable Connector

Connector Housing: MDF97-5S-3.5C (HIROSE ELECTRIC CO., LTD.)
 Contact: MDF97-22SC (HIROSE ELECTRIC CO., LTD.)
 Crimp Tool: HT801/MDF97-22S (HIROSE ELECTRIC CO., LTD.)

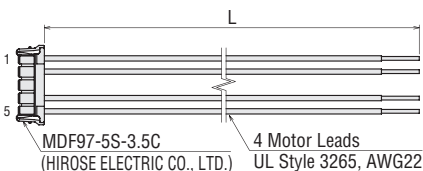


- *1 The length of the shaft flat on the double shaft model is 15±0.25.
- *2 With connection cable
- These dimensions are for double shaft motors.
For single shaft motors, ignore the shaded areas.

Connection Cable (Sold separately)

For Motor

Product Name	Length L (m)
LC2B06E	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ①

- Refer to page A-431 for inner wiring diagram of motor.

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
A₅STEP
Absolute
AZ

0.36°/Geared
A₅STEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
A₅STEP
Absolute
AZ

0.36°/Geared
A₅STEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

SH Geared Type Frame Size 42 mm (Unipolar 5 lead wires)

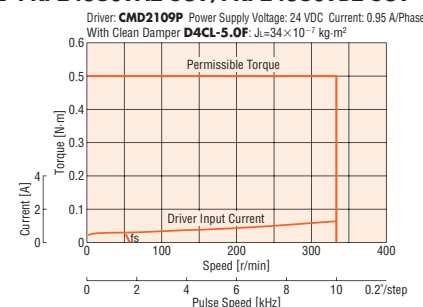
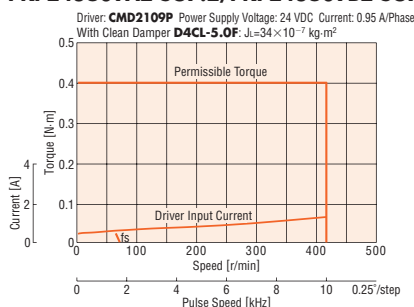
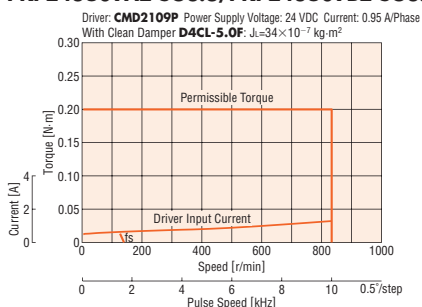
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Gear Ratio	Permissible Torque N·m	Speed Range r/min	Backlash arcmin	Recommended Driver Product Name*
PKP243U09□2-SG3.6	0.2	36×10 ⁻⁷	0.95	2	2.1	1.8	0.5°	3.6	0.2	0~833	90 (1.5)	CMD2109P
PKP243U09□2-SG7.2	0.4						0.25°	7.2	0.4	0~416		
PKP243U09□2-SG9	0.5						0.2°	9	0.5	0~333		
PKP243U09□2-SG10	0.56						0.18°	10	0.56	0~300		
PKP243U09□2-SG18	0.8						0.1°	18	0.8	0~166		
PKP243U09□2-SG36	0.8						0.05°	36	0.8	0~83		

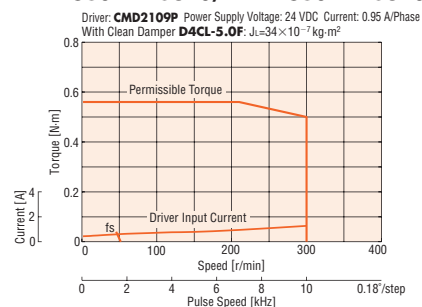
● Either **A** (single shaft) or **B** (double shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

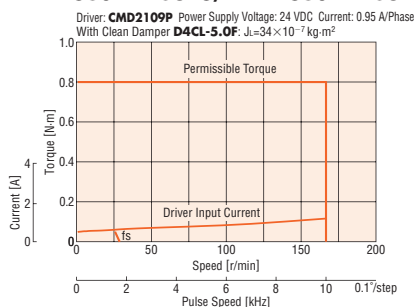
PKP243U09A2-SG3.6/PKP243U09B2-SG3.6 **PKP243U09A2-SG7.2/PKP243U09B2-SG7.2** **PKP243U09A2-SG9/PKP243U09B2-SG9**



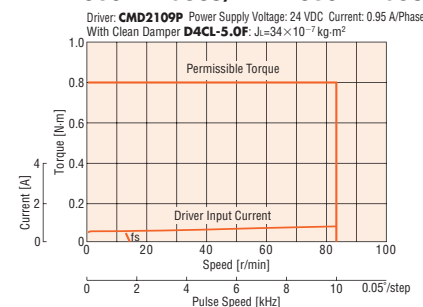
PKP243U09A2-SG10/PKP243U09B2-SG10



PKP243U09A2-SG18/PKP243U09B2-SG18



PKP243U09A2-SG36/PKP243U09B2-SG36



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a "clean damper" entry in the speed – torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

Product Name	Gear Ratio	Mass kg
PKP243U09A2-SG □	3.6, 7.2, 9, 10, 18, 36	0.33
PKP243U09B2-SG □		

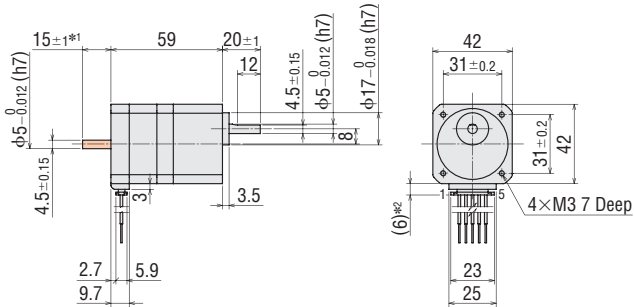
● A number indicating the gear ratio is specified in the box □ in the product name.

● Applicable Connector

Connector Housing: MDF97-5S-3.5C (HIROSE ELECTRIC CO., LTD.)

Contact: MDF97-22SC (HIROSE ELECTRIC CO., LTD.)

Crimp Tool: HT801/MDF97-22S (HIROSE ELECTRIC CO., LTD.)



*1 The length of the shaft flat on the double shaft model is 15±0.25.

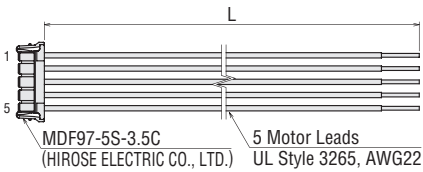
*2 With connection cable

● These dimensions are for double shaft motors. For single shaft motors, ignore the shaded areas.

● Connection Cable (Sold separately)

◇ For Motor

Product Name	Length L (m)
LC2U06E	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ④

● Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
αSTEP Absolute AZ

0.36°/Geared
αSTEP AR

1.8°/0.72°/0.36°
CVK

0.72°/0.36°/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

SH Geared Type Frame Size 60 mm (Bipolar 4 lead wires)

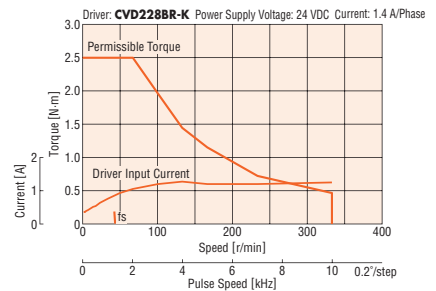
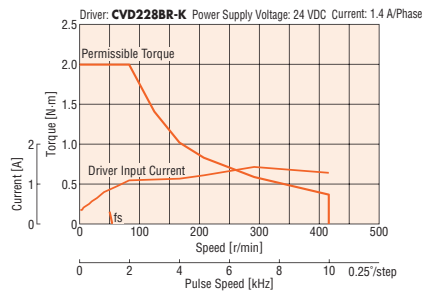
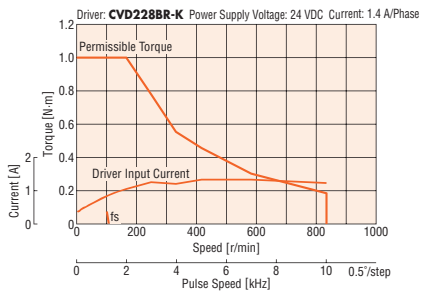
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Gear Ratio	Permissible Torque N·m	Speed Range r/min	Backlash arcmin	Recommended Driver Product Name*
PKP264D14□2-SG3.6	1	140×10 ⁻⁷	1.4	2	1.4	3.1	0.5°	3.6	1	0~833	70 (1.17)	CVD228BR-K
PKP264D28□2-SG3.6			2.8	0.92	0.33	0.81						
PKP264D14□2-SG7.2	2		1.4	2	1.4	3.1	0.25°	7.2	2	0~416		
PKP264D28□2-SG7.2			2.8	0.92	0.33	0.81						
PKP264D14□2-SG9	2.5		1.4	2	1.4	3.1	0.2°	9	2.5	0~333		
PKP264D28□2-SG9			2.8	0.92	0.33	0.81						
PKP264D14□2-SG10	2.7		1.4	2	1.4	3.1	0.18°	10	2.7	0~300		
PKP264D28□2-SG10			2.8	0.92	0.33	0.81						
PKP264D14□2-SG18	3		1.4	2	1.4	3.1	0.1°	18	3	0~166		
PKP264D28□2-SG18			2.8	0.92	0.33	0.81						
PKP264D14□2-SG36	4	1.4	2	1.4	3.1	0.05°	36	4	0~83			
PKP264D28□2-SG36		2.8	0.92	0.33	0.81							

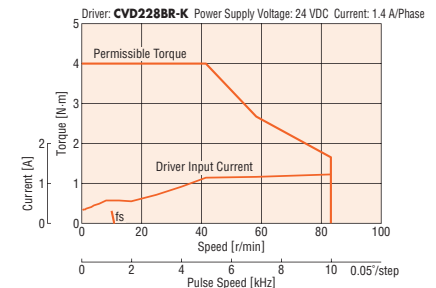
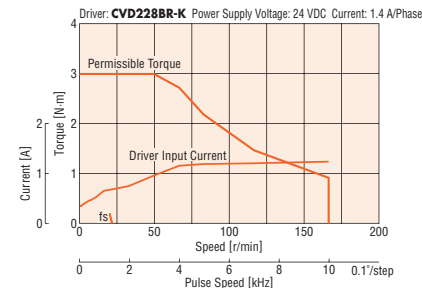
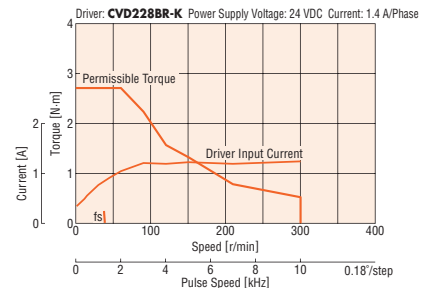
● Either **A** (single shaft) or **B** (double shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-439 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

PKP264D14A2-SG3.6/PKP264D14B2-SG3.6 PKP264D14A2-SG7.2/PKP264D14B2-SG7.2 PKP264D14A2-SG9/PKP264D14B2-SG9



PKP264D14A2-SG10/PKP264D14B2-SG10 PKP264D14A2-SG18/PKP264D14B2-SG18 PKP264D14A2-SG36/PKP264D14B2-SG36

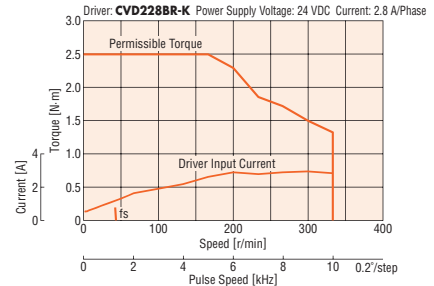
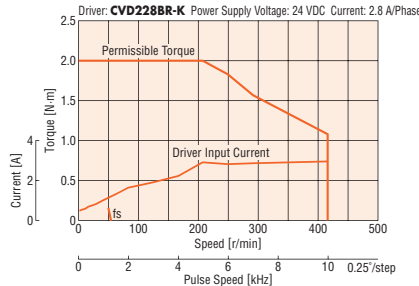
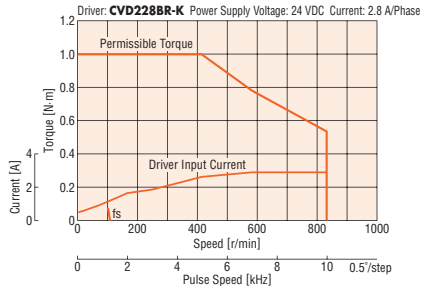


Note

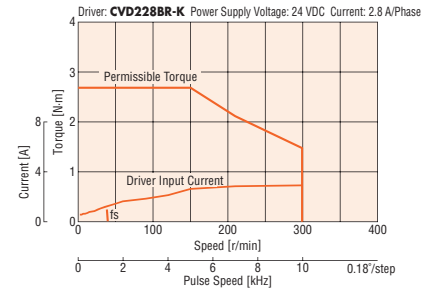
- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Speed – Torque Characteristics (Reference values)

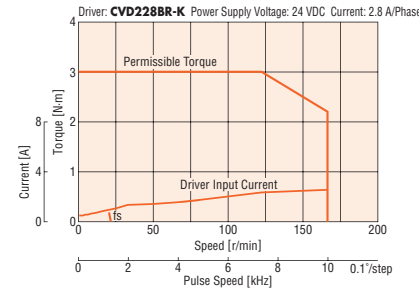
PKP264D28A2-SG3.6/PKP264D28B2-SG3.6 PKP264D28A2-SG7.2/PKP264D28B2-SG7.2 PKP264D28A2-SG9/PKP264D28B2-SG9



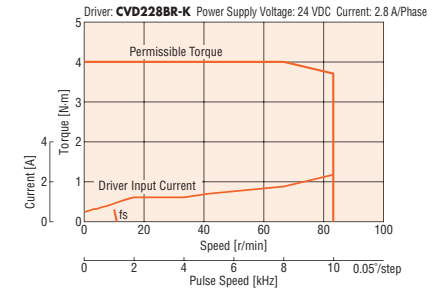
PKP264D28A2-SG10/PKP264D28B2-SG10



PKP264D28A2-SG18/PKP264D28B2-SG18



PKP264D28A2-SG36/PKP264D28B2-SG36



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

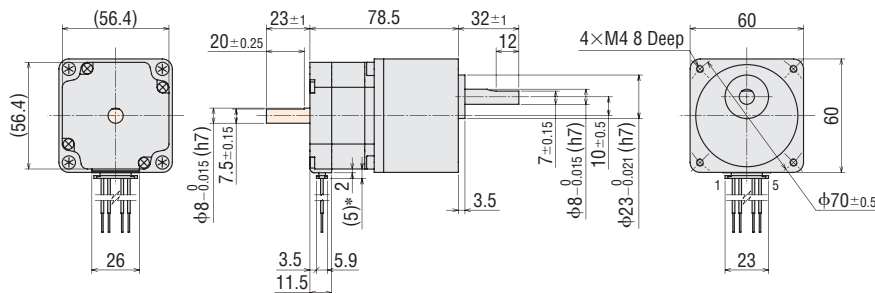
Motor

Product Name	Gear Ratio	Mass kg
PKP264D14A2-SG□	3.6, 7.2, 9, 10, 18, 36	0.76
PKP264D14B2-SG□		
PKP264D28A2-SG□		
PKP264D28B2-SG□		

● A number indicating the gear ratio is specified in the box □ in the product name.

Applicable Connector

Connector Housing: MDF97-5S-3.5C (HIROSE ELECTRIC CO., LTD.)
 Contact: MDF97-22SC (HIROSE ELECTRIC CO., LTD.)
 Crimp Tool: HT801/MDF97-22S (HIROSE ELECTRIC CO., LTD.)



*With connection cable

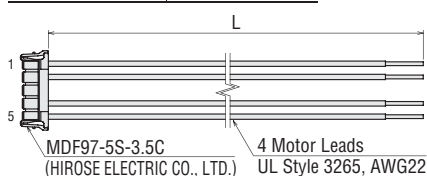
● These dimensions are for double shaft motors.

For single shaft motors, ignore the shaded areas.

Connection Cable (Sold separately)

For Motor

Product Name	Length L (m)
LC2B06E	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ①

● Refer to page A-431 for inner wiring diagram of motor.

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
A₅STEP
Absolute
AZ

0.36°/Geared
A₅STEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
A₅STEP
Absolute
AZ

0.36°/Geared
A₅STEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

SH Geared Type Frame Size 60 mm (Unipolar 5 lead wires)

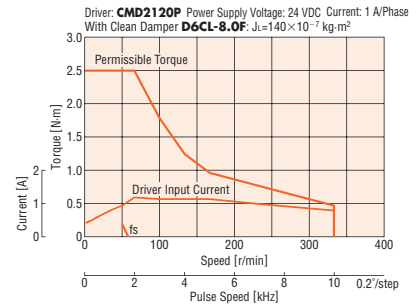
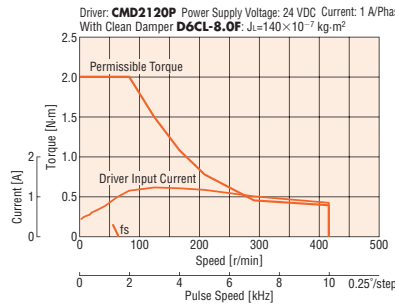
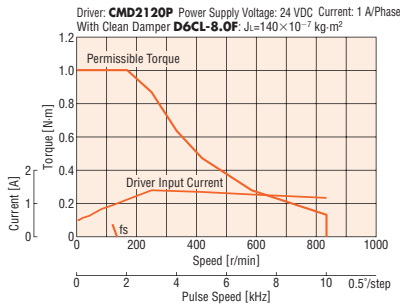
Specifications

Product Name	Maximum Holding Torque N·m	Rotor Inertia J: kg·m ²	Rated Current A/Phase	Voltage VDC	Winding Resistance Ω/Phase	Inductance mH/Phase	Basic Step Angle	Gear Ratio	Permissible Torque N·m	Speed Range r/min	Backlash arcmin	Recommended Driver Product Name*
PKP264U10□2-SG3.6	1	140×10 ⁻⁷	1	2.9	2.9	4.2	0.5°	3.6	1	0~833	70 (1.17)	CMD2120P
PKP264U20□2-SG3.6			2	1.5	0.76	1						
PKP264U10□2-SG7.2	2		1	2.9	2.9	4.2	0.25°	7.2	2	0~416		
PKP264U20□2-SG7.2			2	1.5	0.76	1						
PKP264U10□2-SG9	2.5		1	2.9	2.9	4.2	0.2°	9	2.5	0~333		
PKP264U20□2-SG9			2	1.5	0.76	1						
PKP264U10□2-SG10	2.7		1	2.9	2.9	4.2	0.18°	10	2.7	0~300		
PKP264U20□2-SG10			2	1.5	0.76	1						
PKP264U10□2-SG18	3		1	2.9	2.9	4.2	0.1°	18	3	0~166		
PKP264U20□2-SG18			2	1.5	0.76	1						
PKP264U10□2-SG36	4	1	2.9	2.9	4.2	0.05°	36	4	0~83			
PKP264U20□2-SG36		2	1.5	0.76	1							

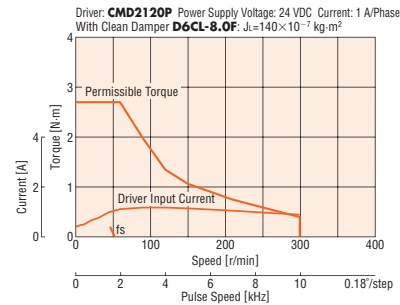
● Either **A** (single shaft) or **B** (double shaft) indicating the configuration is specified where the box □ is located in the product name.
*Refer to page A-445 for details on the recommended driver.

Speed – Torque Characteristics (Reference values)

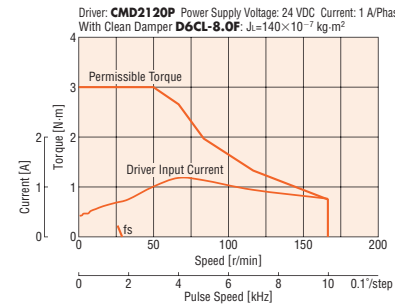
PKP264U10A2-SG3.6/PKP264U10B2-SG3.6 PKP264U10A2-SG7.2/PKP264U10B2-SG7.2 PKP264U10A2-SG9/PKP264U10B2-SG9



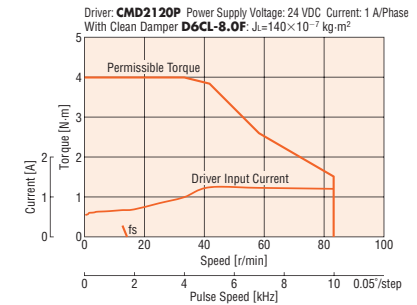
PKP264U10A2-SG10/PKP264U10B2-SG10



PKP264U10A2-SG18/PKP264U10B2-SG18



PKP264U10A2-SG36/PKP264U10B2-SG36

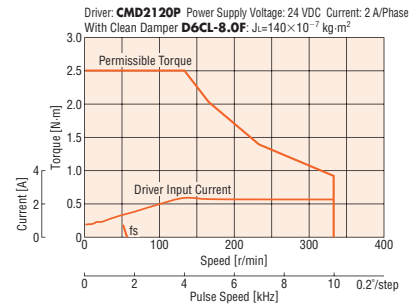
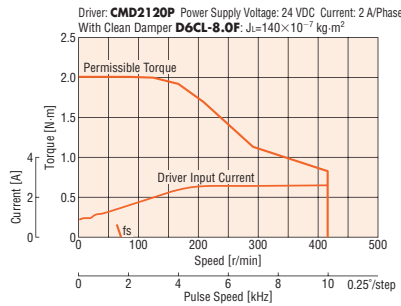
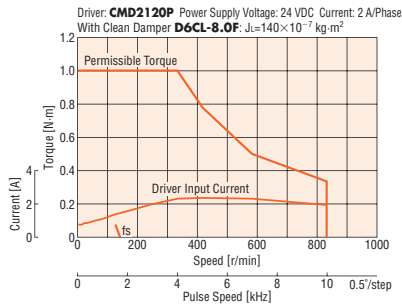


Note

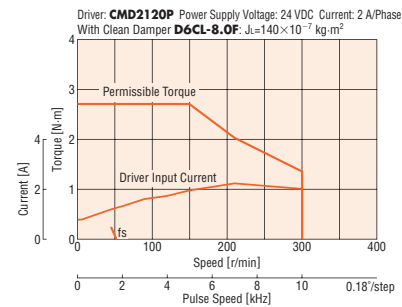
- Data for the speed – torque characteristics is based on Oriental Motor’s internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a “clean damper” entry in the speed – torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Speed – Torque Characteristics (Reference values)

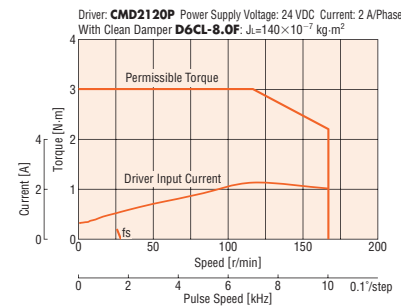
PKP264U20A2-SG3.6/PKP264U20B2-SG3.6 PKP264U20A2-SG7.2/PKP264U20B2-SG7.2 PKP264U20A2-SG9/PKP264U20B2-SG9



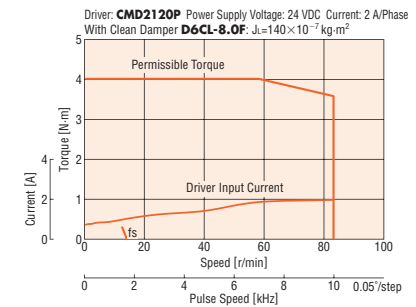
PKP264U20A2-SG10/PKP264U20B2-SG10



PKP264U20A2-SG18/PKP264U20B2-SG18



PKP264U20A2-SG36/PKP264U20B2-SG36



Note

- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a "clean damper" entry in the speed – torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

Motor

Product Name	Gear Ratio	Mass kg
PKP264U10A2-SG <input type="checkbox"/>	3.6, 7.2, 9, 10, 18, 36	0.76
PKP264U10B2-SG <input type="checkbox"/>		
PKP264U20A2-SG <input type="checkbox"/>		
PKP264U20B2-SG <input type="checkbox"/>		

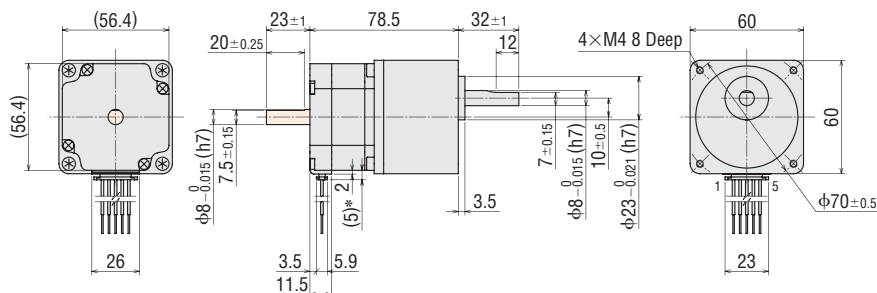
● A number indicating the gear ratio is specified in the box in the product name.

Applicable Connector

Connector Housing: MDF97-5S-3.5C (HIROSE ELECTRIC CO., LTD.)

Contact: MDF97-22SC (HIROSE ELECTRIC CO., LTD.)

Crimp Tool: HT801/MDF97-22S (HIROSE ELECTRIC CO., LTD.)



*With connection cable

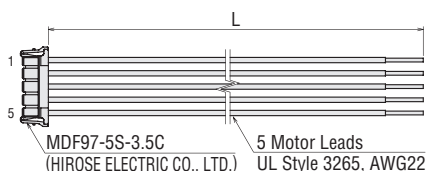
● These dimensions are for double shaft motors.

For single shaft motors, ignore the shaded areas.

Connection Cable (Sold separately)

For Motor

Product Name	Length L (m)
LC2U06E	0.6



Inner Wiring Diagram of Motor

Wiring Diagram No.: ④

● Refer to page A-431 for inner wiring diagram of motor.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
A5STEP
Absolute
AZ

0.36°/Geared
A5STEP
AR

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
A5STEP
Absolute
AZ

0.36°/Geared
A5STEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

SH Geared Type Frame Size 90 mm (8 lead wires)

Specifications

Motor Specifications

Product Name	Connection Type	Rotor Inertia	Rated Current	Voltage	Resistance per Phase	Inductance	Wirings and Connections
Single Shaft Double Shaft		J: kg·m ²	A/Phase	VDC	Ω/Phase	mH/Phase	(See Page A-431)
PK296AE-SG □ PK296BE-SG □	Bipolar (Parallel)	1400×10 ⁻⁷	4.2	1	0.24	1.5	⑧
	Bipolar (Series)		2.1	2	0.96	6	⑨
	Unipolar		3	1.4	0.48	1.5	⑩

- A number indicating the gear ratio is entered where the box □ is located within the product name.
- Backlash value is approximately 1 to 2°.

Gearmotor Specifications

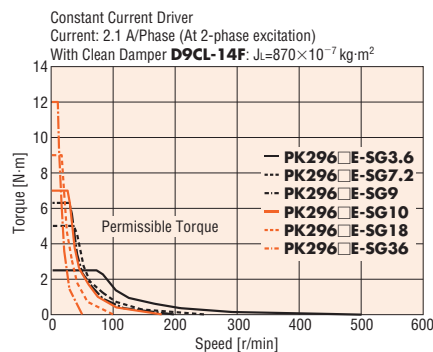
Product Name	Maximum Holding Torque	Basic Step Angle	Gear Ratio	Permissible Torque	Speed Range
Single Shaft Double Shaft	N·m			N·m	r/min
PK296AE-SG3.6 PK296BE-SG3.6	2.5	0.5°	3.6	2.5	0~500
PK296AE-SG7.2 PK296BE-SG7.2	5	0.25°	7.2	5	0~250
PK296AE-SG9 PK296BE-SG9	6.3	0.2°	9	6.3	0~200
PK296AE-SG10 PK296BE-SG10	7	0.18°	10	7	0~180
PK296AE-SG18 PK296BE-SG18	9	0.1°	18	9	0~100
PK296AE-SG36 PK296BE-SG36	12	0.05°	36	12	0~50

- Maximum holding torque is the same regardless of the connection type due to the permissible torque limit of the gearhead.

Speed – Torque Characteristics

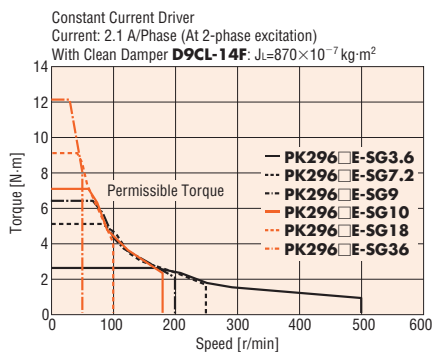
PK296AE-SG□/PK296BE-SG□

Bipolar (Series) 24 VDC



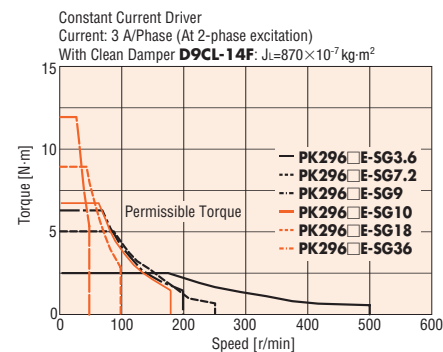
PK296AE-SG□/PK296BE-SG□

Bipolar (Series) 48 VDC



PK296AE-SG□/PK296BE-SG□

Unipolar 24 VDC



Note

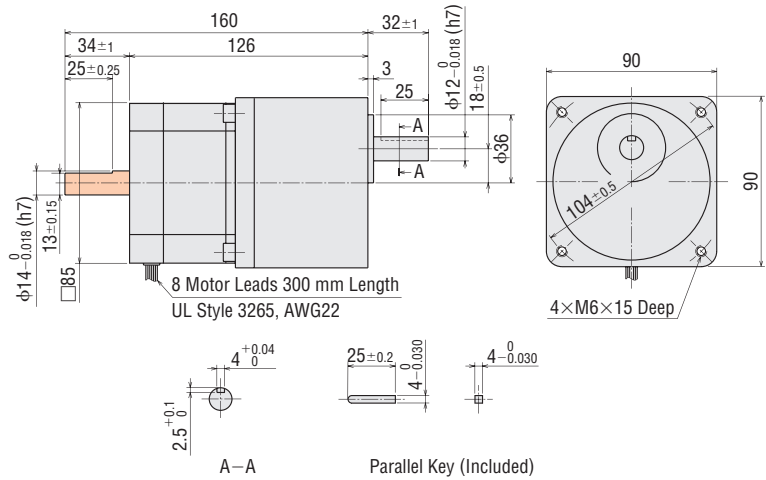
- Data for the speed – torque characteristics is based on Oriental Motor's internal measurement conditions. If the conditions are changed, the characteristics may also change as a result.
- If there is a "clean damper" entry in the speed - torque characteristics, the data is for a double shaft motor when a clean damper is equipped.
- Depending on the driving conditions, a considerable amount of heat may be generated by the motor. Be sure to keep the motor case temperature at 100°C or less.

Dimensions (Unit = mm)

● Motor

Product Name	Gear Ratio	Mass kg
PK296AE-SG <input type="checkbox"/>	3.6, 7.2, 9, 10, 18, 36	2.8
PK296BE-SG <input type="checkbox"/>		

● A number indicating the gear ratio is entered where the box is located within the product name.



● Included

Mounting Screws: M6 Length 18 mm \square 4

● These dimensions are for double shaft models. For single shaft models, ignore the shaft in the shaded areas.

Overview, Product Series

AC Input Motor & Driver

0.36°/Geared
***α*STEP Absolute AZ**

0.36°/Geared
***α*STEP AR**

0.72°/Geared
RKII

DC Input Motor & Driver

0.36°/Geared
***α*STEP Absolute AZ**

0.36°/Geared
***α*STEP AR**

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only /Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories

General Specifications

Specification	Motor	
Thermal Class	130(B)	
Insulation Resistance	The measured value is 100 MΩ or more when a 500 VDC megger is applied between the windings and the case under normal ambient temperature and humidity.	
Dielectric Voltage	No abnormalities are observed, even when applying voltage between the windings and the case for 1 minute under normal ambient temperature and humidity with the following conditions. • Frame size 42 mm max., PKP262 : 0.5 kVAC 50/60 Hz • Frame size 50 mm min.: 1.0 kVAC 50/60 Hz • PKP29□ , PK29□ : 1.5 kVAC 50/60 Hz	
Operating Environment (In Operation)	Ambient temperature	-10~+50°C (Non-freezing) [0~+40°C for Flat Type with Harmonic Gear]
	Ambient humidity	85% or less (Non-condensing)
	Atmosphere	No corrosive gases or dust. The product should not be exposed to water, oil or other liquids.
Temperature Rise	Winding temperature rise 80°C max. (Based on Oriental Motor's internal measurement conditions)	
Stop Position Accuracy*1	±3 arc minutes (±0.05°) [PKP21□ and PKP262 are ±5 arc minutes (±0.083°), PK26□J and PK26□JD are ±2 arc minutes (±0.034°)]	
Shaft Runout	0.05 T.I.R. (mm)*4	
Radial Play*2	0.025 mm Max. (load 5 N)	
Axial Play*3	0.075 mm max. (10 N load) [PKP21□ is 1 N load, PKP22□ and PKP262 are 2.5 N load]	
Concentricity of Installation Pilot to the Shaft	0.075 T.I.R. (mm)*4	
Perpendicularity of Installation Surface to the Shaft	0.075 T.I.R. (mm)*4	

*1 This value is for full step under no load. (The value changes with the size of the load.)

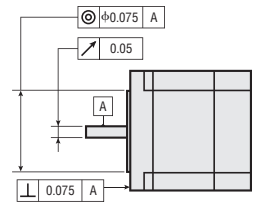
*2 Radial Play: Displacement in shaft position in the radial direction when a 5 N load is applied in the vertical direction to the tip of the motor shaft.

*3 Axial Play: Displacement in shaft position in the axial direction when a 10 N (**PKP21□** is 1 N, **PKP22□** and **PKP262** are 2.5 N) load is applied to the motor shaft in the axial direction.

*4 T. I. R. (Total Indicator Reading): The total dial gauge reading when the measurement section is rotated once around the reference axis center.

Note

- Do not measure insulation resistance or perform a dielectric strength test while the motor and driver are connected. Also, do not conduct these tests on the motor encoder section.

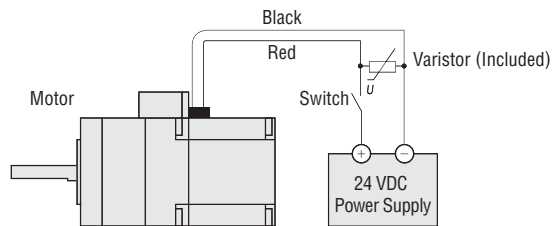


Electromagnetic Brake Specifications

Product Name	PKP22	PKP23 · PKP24	PKP26	
Type	Power off Activated Type			
Power Supply Voltage	24 VDC ± 5%			
Power Supply Current	A	0.05	0.07	0.23
Static Friction Torque	N·m	0.08	0.3	1.5
Brake Activation Time	ms	20		
Brake Release Time	ms	50		
Time Rating	Continuous			

The product names are listed such that the product names are distinguishable.

Connecting the Electromagnetic Brake



Encoder Specifications

Encoder Product Name	R2EL	R2FL
Resolution	200P/R	400P/R
Output Circuit Type	Line Driver	
Output Mode	Incremental	
Output Signal	A Phase, B Phase, Z Phase (3 ch)	
Power Supply Voltage	5 VDC ± 10%	
Current	30 mA max.	

- A voltage output type of encoder output circuit is also available. For details, please contact your nearest Oriental Motor sales office.

Permissible Radial Load and Permissible Axial Load

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Inner Wiring Diagram of Motor

Wiring Diagram No.	Connection Diagram
①	<p>Bipolar 4 Lead Wires (Products using a compact/flat connector) Connector-Coupled Type</p> <p>Lead Wire Color Connector Terminal Number</p>
②	<p>Bipolar 4 Lead Wires Connector-Coupled Type</p> <p>Lead Wire Color Connector Terminal Number</p>
③	<p>Bipolar 4 Lead Wires Lead Wire Type</p> <p>Lead Wire Color</p>
④	<p>Unipolar 5 Lead Wires Connector-Coupled Type</p> <p>Lead Wire Color Connector Terminal Number</p>
⑤	<p>Unipolar 5 Lead Wires Lead Wire Type</p> <p>Lead Wire Color</p>

Wiring Diagram No.	Connection Diagram
⑥	<p>Unipolar 6 Lead Wires Connector-Coupled Type</p> <p>Lead Wire Color Connector Terminal Number</p>
⑦	<p>Unipolar 6 Lead Wires Lead Wire Type</p> <p>Lead Wire Color</p>
⑧	<p>Parallel Bipolar 8 Lead Wires Lead Wire Type</p> <p>Lead Wire Color</p>
⑨	<p>Series Bipolar 8 Lead Wires Lead Wire Type</p> <p>Lead Wire Color</p>
⑩	<p>Unipolar 8 Lead Wires Lead Wire Type</p> <p>Lead Wire Color</p>

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
*α*STEP
Absolute
AZ

0.36°/Geared
*α*STEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
*α*STEP
Absolute
AZ

0.36°/Geared
*α*STEP
AR

1.8°/0.72°
/0.36°
CVK

0.72°/0.36°
/Geared
CRK

1.8°/Geared
RBK

Motor Only
/Driver Only

1.8°/0.9°
PKP/PK

Geared
PKP/PK

0.72°/0.36°
PKP/PK

Driver

Accessories