

0.72°/0.36° Stepper Motors PKP Series/PK Series

<Additional Information>
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● For detailed information about regulations and standards, please see the Oriental Motor website.



This is a high torque and low vibration stepper motor with a basic step angle of 0.72° (resolution of 500 steps per revolution).

High positioning accuracy is possible through low vibration and reduced noise.

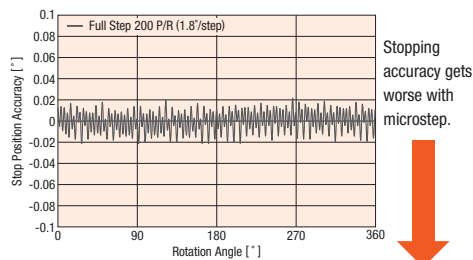
(A separate dedicated driver is required to operate each motor.)

Features

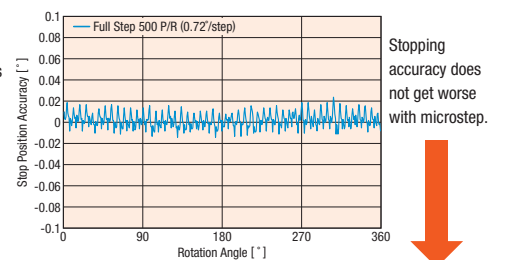
High Accuracy

Since the step angle of 0.72°/0.36° Stepper Motor in the **PKP** Series is at 0.72° (high-resolution type at 0.36°) and the stopping accuracy is at ±0.05°, highly accurate positioning is possible. In addition, the stop position accuracy controlled by a microstep driver has almost the same high accuracy as that controlled by a full-step driver.

● General 1.8° Stepper Motor



● 0.72°/0.36° Stepper Motor **PKP** Series (Driver: **CVD** driver for 0.72°/0.36° Stepper Motor)

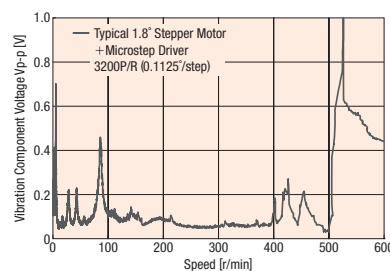


PKP Series
 Highly accurate positioning for 0.72°/0.36° Stepper Motor is possible.

Low Vibration and Reduced Noise

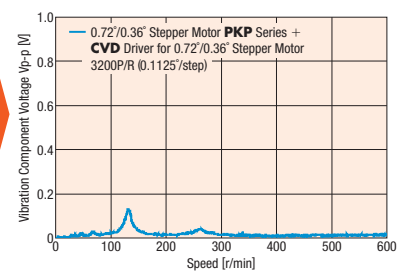
Because the basic step angle is small at 0.72° (0.36° for high-resolution type), the vibrations and noise are lower than the 1.8° stepper motor with a basic step angle of 1.8°. Also, vibrations and noise can be further reduced through control with the driver of the microstep drive.

● Example of 1.8° Stepper Motor Vibration Characteristics















PKP Series
 Vibration characteristics for 0.72°/0.36° Stepper Motor have been further improved.

● Example of 0.72°/0.36° Stepper Motor Vibration Characteristics



Product Line

–: Not Offered in This Product Line

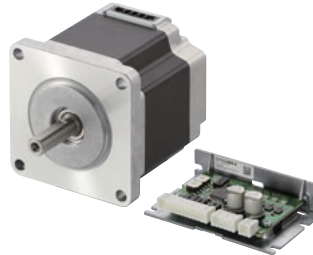
Type	Basic Step Angle	Frame Size					
		20 mm	28 mm	42 mm	56.4 mm	60 mm	85 mm
Standard Type	0.72°						
High-Resolution Type	0.36°	–	–		–		–
Standard Type with Encoder	0.72°		–				–

● 0.72°/0.36° Stepper Motor and Driver Package **CVK** Series

These packages consists of a motor and DC power supply input driver, enabling the performance of the 0.72°/0.36° stepper motor **PKP** Series motor to be maximized.

High-performance 0.72°/0.36° stepper motor and driver packages reduce vibrations and noise by utilizing a digitally-controlled full-time microstep driver.

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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

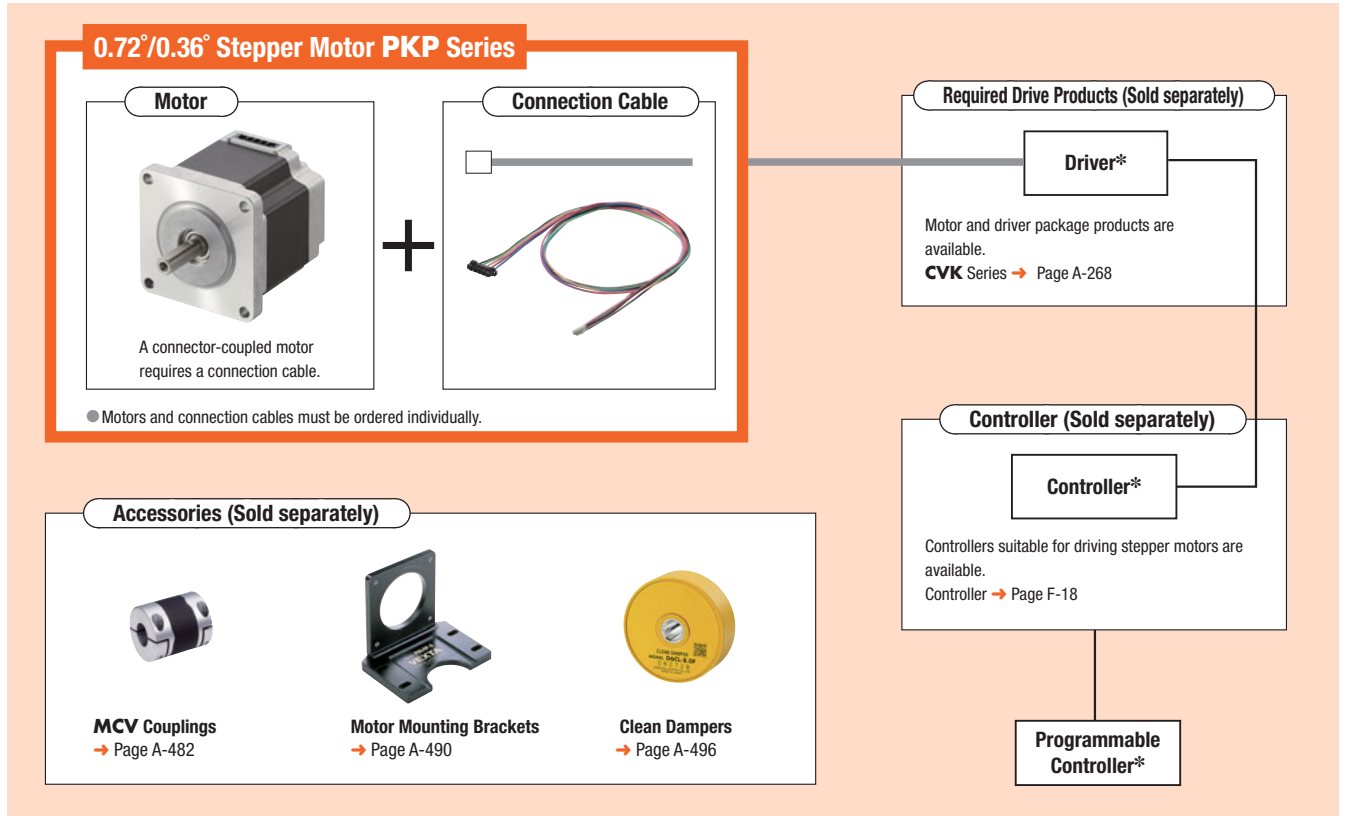
Driver

Accessories

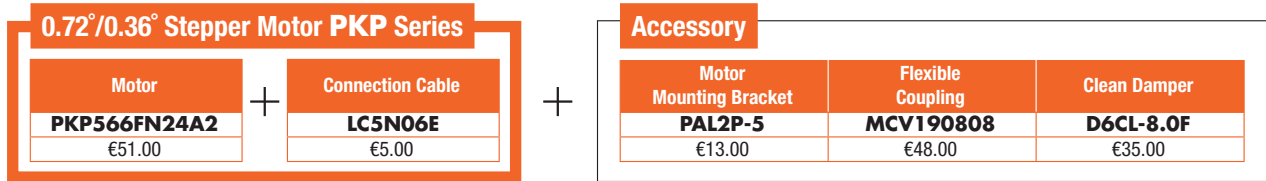
System Configuration

These accessories allow 0.72°/0.36° stepper motor in the **PKP** Series to be used for various operations.

* Not supplied.



● **Example of System Configuration**



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

Product Number

Motor

◇ Frame Size 20 mm, 85 mm

Standard type

PK 5 1 3 P A

① ② ③ ④ ⑤ ⑧

PK 5 9 6 H N A W

① ② ③ ④ ⑥ ⑦ ⑧ ⑪

Standard Type with Encoder

PK 5 1 3 P A - R2G L

① ② ③ ④ ⑤ ⑧ ⑨ ⑩

◇ Frame Size 28 mm, 42 mm, 56.4 mm, 60 mm

Standard Type, High-Resolution Type

PKP 5 6 6 F N 24 A 2

① ② ③ ④ ⑤ ⑦ ⑧ ⑨ ⑩

PKP 5 4 4 M N 18 A

① ② ③ ④ ⑥ ⑦ ⑧ ⑨

Standard Type with Encoder

PKP 5 6 6 F N 24 A 2 - R2G L

① ② ③ ④ ⑤ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Connection Cable

◇ Connection Cable for Motor

LC 5 N 06 E

① ② ③ ④ ⑤

◇ Connection Cable for Encoder

LC E 08 A - 006

① ② ③ ④ ⑤

①	Series Name	PK: PK Series
②	5: 0.72°/0.36° Stepper Motor	
③	Motor Frame Size	1: 20 mm 9: 85 mm
④	Motor Case Length	
⑤	Motor Classification	
⑥	Motor Type	Blank: Standard Specifications H: High-Speed Specifications
⑦	Number of Lead Wires	N: 5 Leads
⑧	Configuration	A: Single Shaft B: Double Shaft
⑨	Encoder Resolution	R2G: 500 P/R
⑩	Encoder Output Circuit Type	L: Line Driver Output
⑪	Cable Identification	Blank: Connector Connection Method W: Lead Wire Type

①	Series Name	PKP: PKP Series
②	5: 0.72°/0.36° Stepper Motor	
③	Motor Frame Size	2: 28 mm 4: 42 mm 6: 56.4 mm (60 mm when the motor classification is "F")
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	N: 5 Leads
⑧	Motor Winding Specifications	
⑨	Configuration	A: Single Shaft B: Double Shaft
⑩	Reference Number	
⑪	Encoder Resolution	R2G: 500 P/R
⑫	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.

①	Cables	LC: Connector-Type Leads
②	5: 0.72°/0.36° Stepper Motor	
③	Cable Type	N: For 0.72°/0.36° Stepper Motor
④	Cable Length	06: 0.6 m 10: 1 m
⑤	Reference Number	

①	Cables	LC: Connector-Type 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

*A voltage output cable is available.
For details, please contact your nearest Oriental Motor sales office.

Overview,
Product
Series

AC Input
Motor &
Driver

0.36°/Geared
QSTEP
Absolute
AZ

0.36°/Geared
QSTEP
AR

0.72°/Geared
RKII

DC Input
Motor &
Driver

0.36°/Geared
QSTEP
Absolute
AZ

0.36°/Geared
QSTEP
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 Line

● Motor

◇ Standard Type

Product Name (Single Shaft)	List Price	Product Name (Double Shaft)	List Price
PK513PA	€93.00	PK513PB	€97.00
PKP523N12A	€35.00	PKP523N12B	€37.00
PKP525N12A	€41.00	PKP525N12B	€43.00
PKP543N18A2	€35.00	PKP543N18B2	€37.00
PKP544N18A2	€37.00	PKP544N18B2	€39.00
PKP545N18A2	€41.00	PKP545N18B2	€43.00
PKP546N18A2	€43.00	PKP546N18B2	€45.00
PKP564N28A2	€43.00	PKP564N28B2	€45.00
PKP566N28A2	€47.00	PKP566N28B2	€49.00
PKP568N28A2	€59.00	PKP568N28B2	€61.00
PKP564FN24A2	€47.00	PKP564FN24B2	€49.00
PKP564FN38A2	€47.00	PKP564FN38B2	€49.00
PKP566FN24A2	€51.00	PKP566FN24B2	€53.00
PKP566FN38A2	€51.00	PKP566FN38B2	€53.00
PKP569FN24A2	€63.00	PKP569FN24B2	€65.00
PKP569FN38A2	€63.00	PKP569FN38B2	€65.00
PK596HNAW	€107.00	PK596HNBW	€110.00
PK599HNAW	€142.00	PK599HNBW	€146.00
PK5913HNAW	€178.00	PK5913HNBW	€185.00

◇ High-Resolution Type

Product Name (Single Shaft)	List Price	Product Name (Double Shaft)	List Price
PKP544MN18A	€37.00	PKP544MN18B	€39.00
PKP546MN18A	€43.00	PKP546MN18B	€45.00
PKP564FMN24A	€47.00	PKP564FMN24B	€49.00
PKP566FMN24A	€51.00	PKP566FMN24B	€53.00
PKP569FMN24A	€63.00	PKP569FMN24B	€65.00

● Connection Cable for Motor

Product Name	Length L (m)	List Price
LC5N06A	0.6	€5.00
LC5N10A	1	€7.00
LC5N06B	0.6	€5.00
LC5N10B	1	€7.00
LC5N06C	0.6	€7.00
LC5N10C	1	€9.00
LC5N06E	0.6	€5.00

● Connection Cable for Encoder

◇ For Line Driver Output

Product Name	Length L (m)	List Price
LCE08A-006	0.6	€10.00

Included

Type	Operating Manual
Common to All Types	1 Set

Details Including Specifications

The motors specified by the above product names are the same as products in the **CVK** Series. Refer to 0.72°/0.36° stepper motor **CVK** Series (Page A-268) for details on specifications, speed – torque characteristics, dimensions, etc.

◇ Standard Type with Encoder

Product Name	List Price
PK513PA-R2GL	€147.00
PKP543N18A2-R2GL	€85.00
PKP544N18A2-R2GL	€87.00
PKP545N18A2-R2GL	€91.00
PKP546N18A2-R2GL	€93.00
PKP564N28A2-R2GL	€93.00
PKP566N28A2-R2GL	€97.00
PKP568N28A2-R2GL	€109.00
PKP564FN24A2-R2GL	€97.00
PKP564FN38A2-R2GL	€97.00
PKP566FN24A2-R2GL	€101.00
PKP566FN38A2-R2GL	€101.00
PKP569FN24A2-R2GL	€113.00
PKP569FN38A2-R2GL	€113.00

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Product
Series

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Absolute
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/Geared
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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