Ezi-SERVO® II

Closed Loop Stepping System

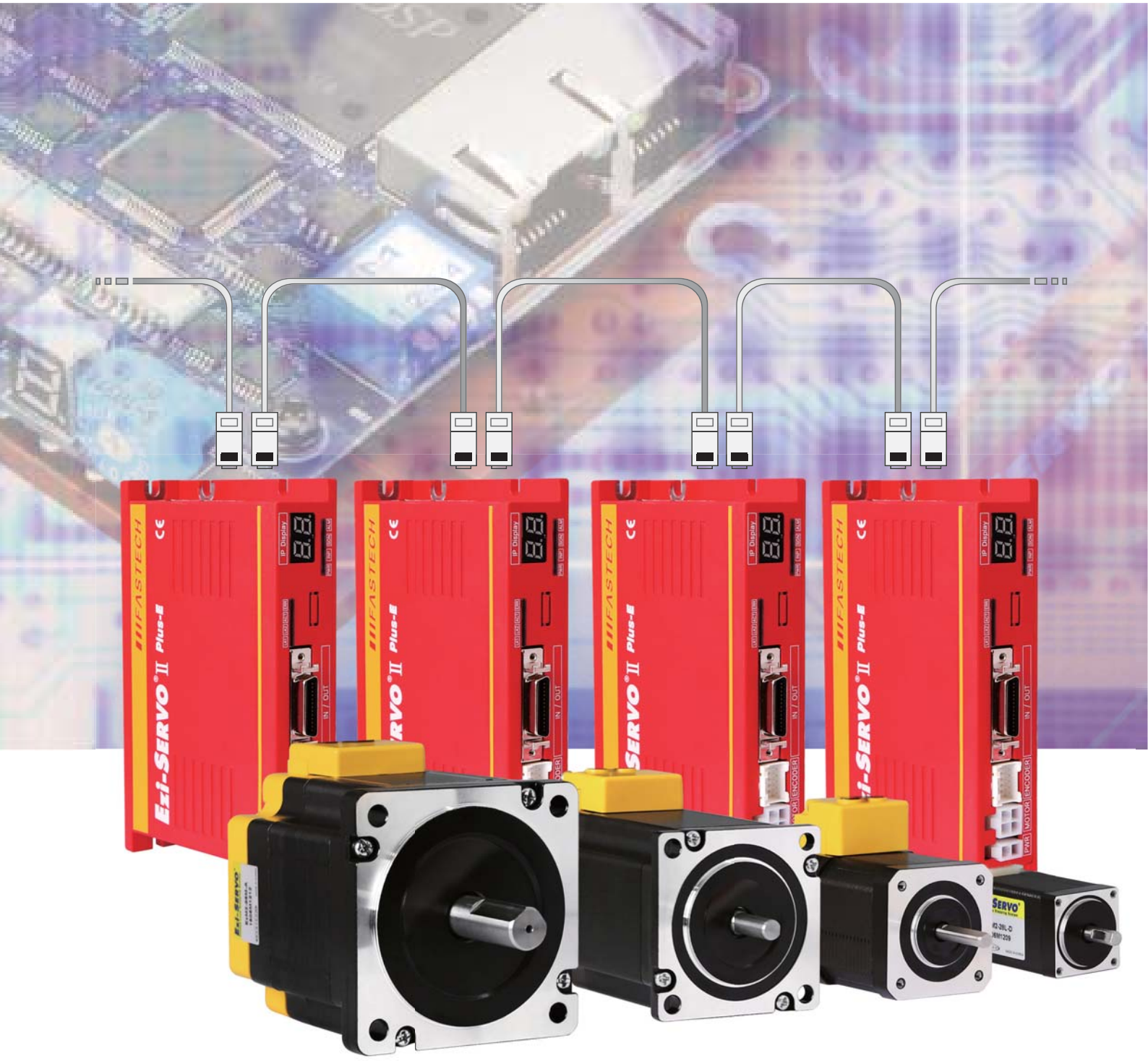
- Intergrated Controller
- Ethernet Interface
- Position Table Function
- Closed Loop Stepping System
- No Gain Tuning / No Hunting
- Fast Response

Plus-E

CE

FASTECH

Fast, Accurate, Smooth Motion

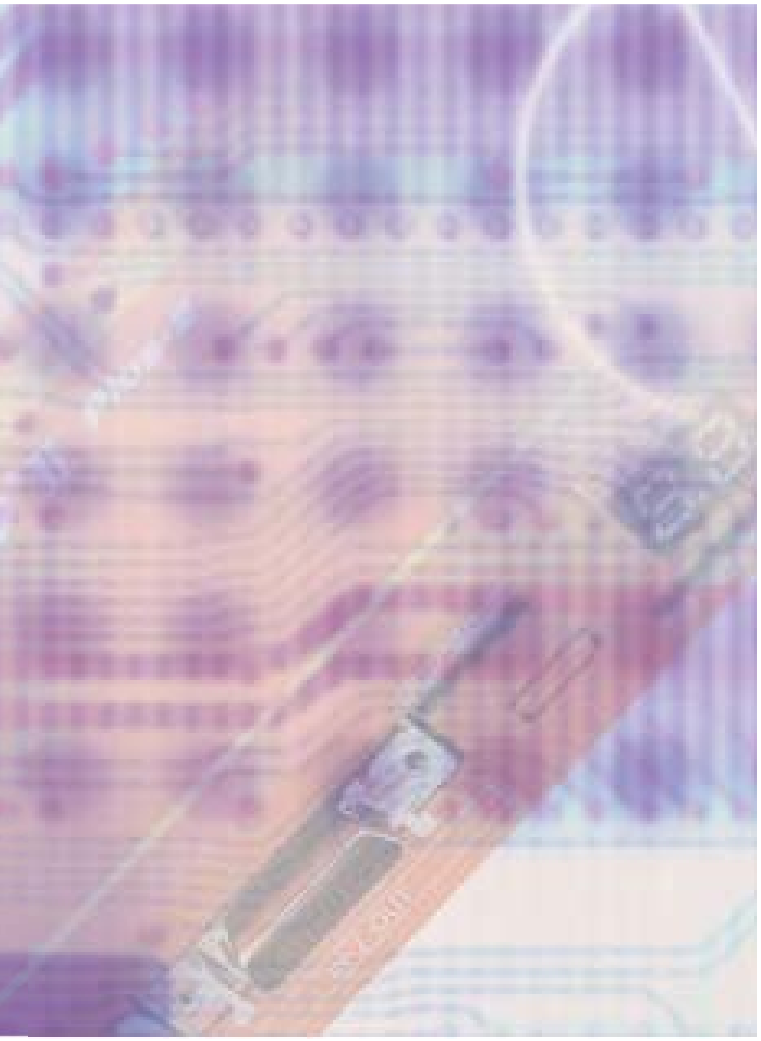


FASTECH

Fast, Accurate, Smooth Motion

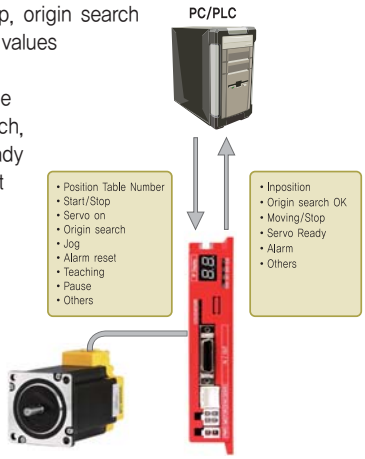
Ezi-SERVO® II Plus-E

Closed Loop Stepping System



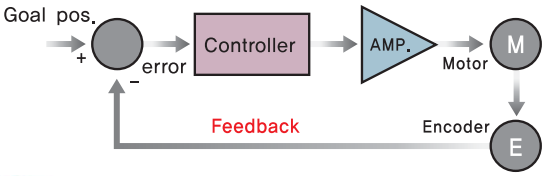
2 Position Table Function

Position Table can be used for motion control by digital input and output signals of host controller.
You can operate the motor directly by sending the position table number, start/stop, origin search and other digital input values from a PC.
The PC can monitor the In-Position, origin search, moving/stop, servo ready and other digital output signals from a drive.
A maximum of 256 positioning points can be set from PC.



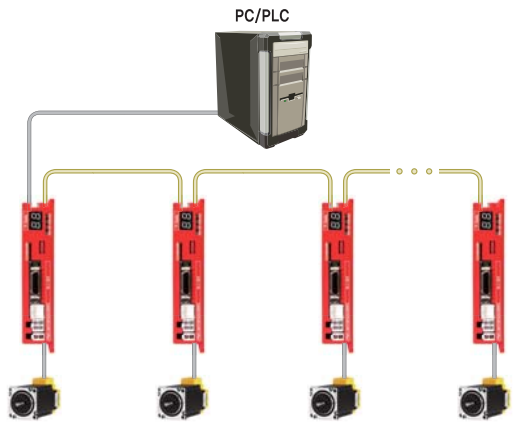
3 Closed Loop System

Ezi-SERVO Ⅱ is an innovative closed loop stepping motor and controller that utilizes a high-resolution motor mounted encoder to constantly monitor the motor shaft position. The encoder feedback feature allows the Ezi-SERVO Ⅱ to update the current motor shaft position information every 25 micro seconds. This allows the Ezi-SERVO Ⅱ drive to compensate for the loss of position, ensuring accurate positioning. For example, due to a sudden load change, a conventional step-per motor and drive could lose a step creating a positioning error and a great deal of cost to the end user!



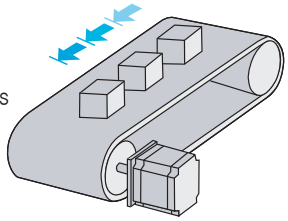
1 Network Based Motion Control

A maximum of 254 axes can be operated from a PC through Ethernet communications. And daisy-chain connection is available thru internally equipped Ethernet HUB.
All of the Motion conditions are set through the network and saved in Flash ROM as a parameter. Motion Library(DLL) is provided for programming under Windows 2000/XP/7/8/10.



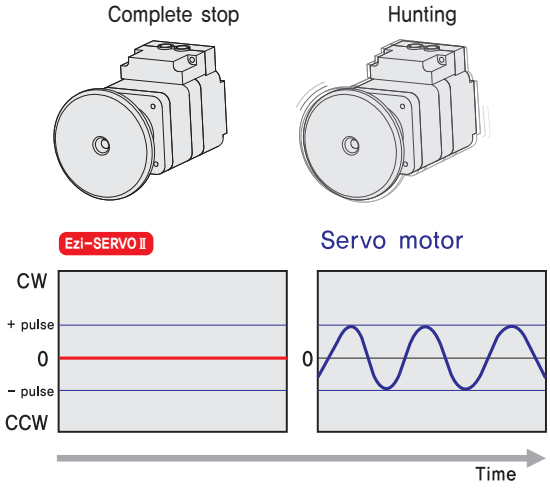
4 No Gain Tuning

Conventional servo systems, to ensure machine performance, smoothness, positional error and low servo noise, require the adjustment of its servo' s gains as an initial crucial step. Even systems that employ auto-tuning require manual tweaking after the system is installed, especially if more that one axis are interdependent. Ezi-SERVO Ⅱ employs the best characteristics of stepper and closed loop motion controls and algorithms to eliminate the need of tedious gain tuning required for conventional closed loop servo systems. This means that Ezi-SERVO Ⅱ is optimized for the application and ready to work right out of the box! The Ezi-SERVO Ⅱ system employs the unique characteristics of the closed loop step-ping motor control, eliminating these cumbersome steps and giving the engineer a high performance servo system without wasting setup time. Ezi-SERVO Ⅱ is especially well suited for low stiffness loads (for example, a belt and pulley system) that some-time require conventional servo systems to inertia match with the added expense and bulk of a gearbox. Ezi-SERVO Ⅱ also performs exceptionally, even under heavy loads and high speeds!



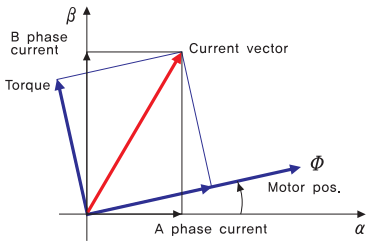
5 No Hunting

Traditional servo motor drives overshoot their position and try to correct by overshooting the opposite direction, especially in high gain applications. This is called null hunt and is especially prevalent in systems that the break away or static friction is significantly higher than the running friction. The cure is lowering the gain, which affects accuracy or using Ezi-SERVO Ⅱ Motion Control System! Ezi-SERVO Ⅱ utilizes the unique characteristics of stepping motors and locks itself into the desired target position, eliminating Null Hunt. This feature is especially useful in applications such as nanotech manufacturing, semiconductor fabrication, vision systems and ink jet printing in which system oscillation and vibration could be a problem.



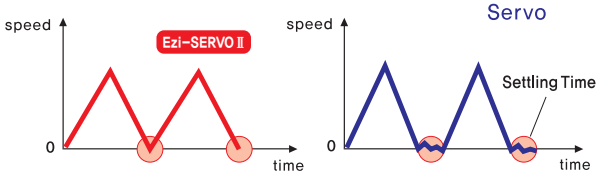
6 Smooth and Accurate

Ezi-SERVO Ⅱ is a high-precision servo drive, using a high-resolution encoder with 20,000 pulses/revolution.
Unlike a conventional Microstep drive, the on-board high performance DSP (Digital Signal Processor) performs vector control and filtering, producing a smooth rotational control with minimum ripples.



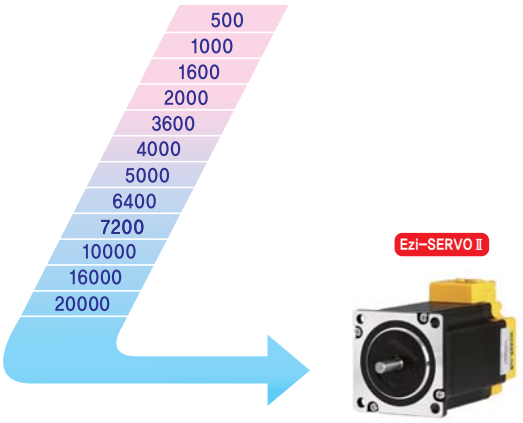
7 Fast Response

Similar to conventional stepping motors, Ezi-SERVO Ⅱ instantly synchronizes with command pulses providing fast positional response. Ezi-SERVO Ⅱ is the optimum choice when zero-speed stability and rapid motions within a short distance are required. Traditional servo motor systems have a natural delay between the commanding input signals and the resultant motion because of the constant monitoring of the current position, necessitating in a waiting time until it settles, called settling time.



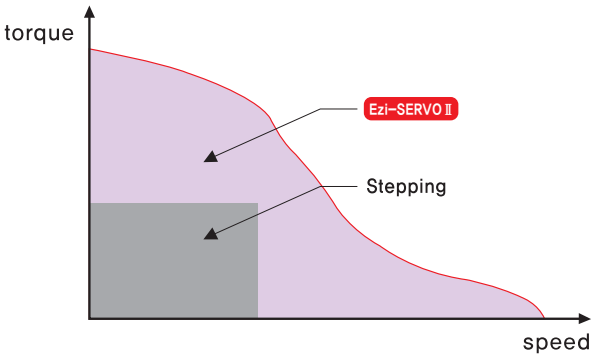
8 High Resolution

The unit of the position command can be divided precisely. (Max. 20,000 pulses/revolution)



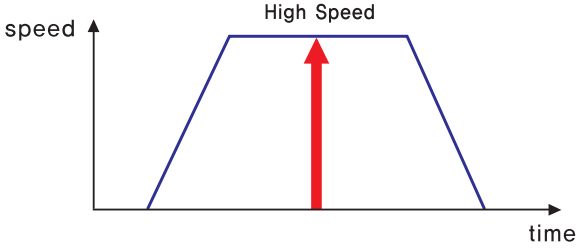
9 High Torque

Compared with common step motors and drives, Ezi-SERVO Ⅱ motion control systems can maintain a high torque state over relatively long period of time. This means that Ezi-SERVO Ⅱ continuously operates without loss of position under 100% of the load. Unlike conventional Microstep drives, Ezi-SERVO Ⅱ exploits continuous high-torque operation during high-speed motion due to its innovative optimum current phase control.



10 High Speed

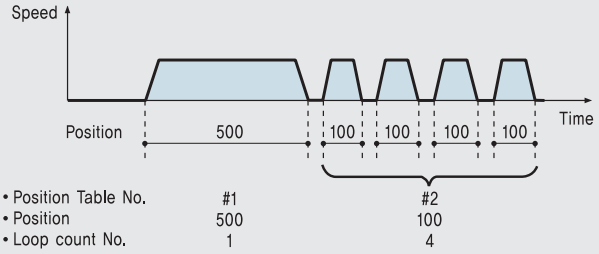
The Ezi-SERVO Ⅱ functions well at high speed without the loss of Synchronism or positioning error. Ezi-SERVO Ⅱ's ability of continuous monitoring of current position enables the stepping motor to generate high-torque, even under a 100% load condition.



● Features of Motion Controller

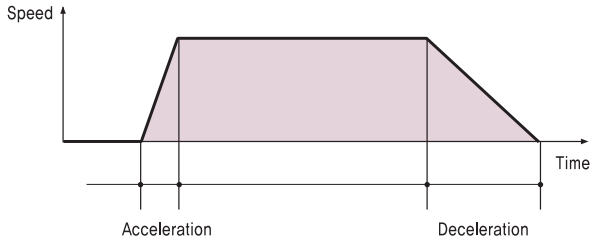
1. Loop Count

This function allows positioning repeatedly according to the Loop Count Number.



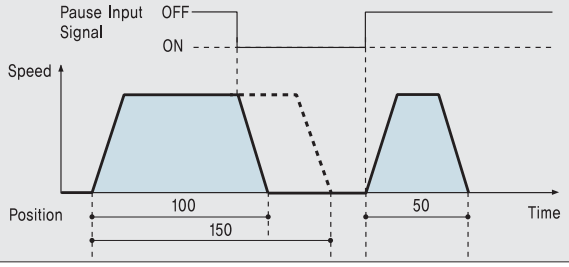
2. Acceleration/Deceleration

For quick acceleration and gradual deceleration, you can set each acceleration and deceleration time separately.



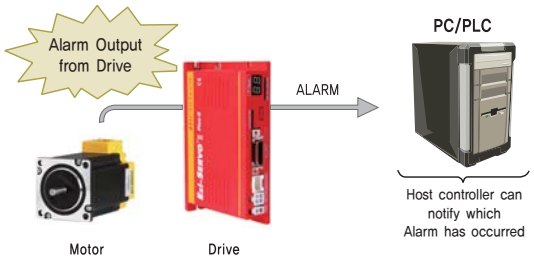
3. Pause

You can pause the motion upon the input of an external signal. When Pause signal change to OFF, the motor will restart to original target position.



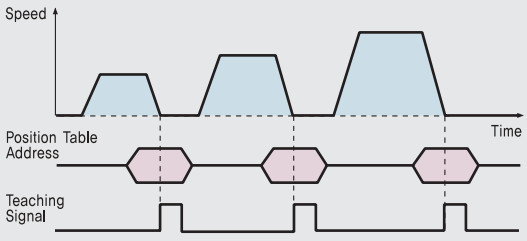
4. Alarm

The number of LED flashing time indicates which Alarm has occurred.



5. Teaching

Teaching signal is used to memorize current Position data into the selected Position Table item.

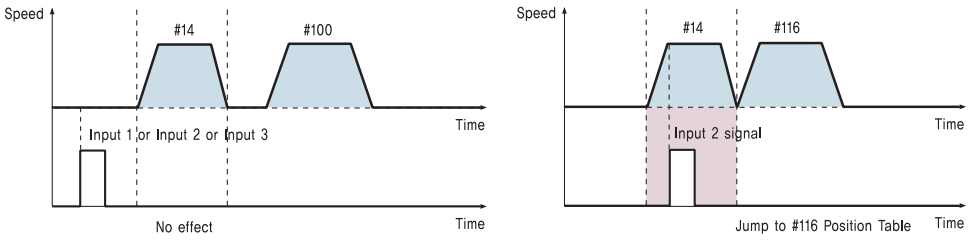


6. Jump

Within one Position Table, you can select various Position Table numbers that you want to jump.
With three external input signal during movement, the next jump Position Table number can be select.

◆ Position Table #14

Position	– – –	Next	– – –	Input 1	Input 2	Input 3	– – –
10000		100		115	116	117	



● Ezi-SERVO Ⅱ Plus-E Part Numbering

Ezi-SERVO Ⅱ -PE-56L-A-BK-PN10-□

Drive Series

Motor Size

20 : 20mm
28 : 28mm
35 : 35mm
42 : 42mm
56 : 56mm
60 : 60mm

Motor Length

S : Single
M : Middle
L : Large
XL : Extra Large

Encoder Resolution

A – 10,000[ppr]
B – 20,000[ppr]
D – 16,000[ppr]
F – 4,000[ppr]

Brake

No indication : Standard
BK : Brake

Reduction Gear Ratio

No Indication : No
PN03 – 1:3
PN05 – 1:5
PN08 – 1:8
PN10 – 1:10
PN15 – 1:15
PN25 – 1:25
PN40 – 1:40
PN50 – 1:50

User Code

● Standard Motor, Drive Combination

◆ Ezi-SERVO Ⅱ Plus-E Drive Products

Package Part Number	Motor Part Number	Drive Part Number
Ezi-SERVO Ⅱ-PE-20M-F	EzM2-20M-F	EzS2-PE-20M-F
Ezi-SERVO Ⅱ-PE-20L-F	EzM2-20L-F	EzS2-PE-20L-F
Ezi-SERVO Ⅱ-PE-28S-D	EzM2-28S-D	EzS2-PE-28S-D
Ezi-SERVO Ⅱ-PE-28M-D	EzM2-28M-D	EzS2-PE-28M-D
Ezi-SERVO Ⅱ-PE-28L-D	EzM2-28L-D	EzS2-PE-28L-D
Ezi-SERVO Ⅱ-PE-35M-D	EzM2-35M-D	EzS2-PE-35M-D
Ezi-SERVO Ⅱ-PE-35L-D	EzM2-35L-D	EzS2-PE-35L-D
Ezi-SERVO Ⅱ-PE-42S-A	EzM2-42S-A	EzS2-PE-42S-A
Ezi-SERVO Ⅱ-PE-42S-B	EzM2-42S-B	EzS2-PE-42S-B
Ezi-SERVO Ⅱ-PE-42M-A	EzM2-42M-A	EzS2-PE-42M-A
Ezi-SERVO Ⅱ-PE-42M-B	EzM2-42M-B	EzS2-PE-42M-B
Ezi-SERVO Ⅱ-PE-42L-A	EzM2-42L-A	EzS2-PE-42L-A
Ezi-SERVO Ⅱ-PE-42L-B	EzM2-42L-B	EzS2-PE-42L-B
Ezi-SERVO Ⅱ-PE-42XL-A	EzM2-42XL-A	EzS2-PE-42XL-A
Ezi-SERVO Ⅱ-PE-42XL-B	EzM2-42XL-B	EzS2-PE-42XL-B
Ezi-SERVO Ⅱ-PE-56S-A	EzM2-56S-A	EzS2-PE-56S-A
Ezi-SERVO Ⅱ-PE-56S-B	EzM2-56S-B	EzS2-PE-56S-B
Ezi-SERVO Ⅱ-PE-56M-A	EzM2-56M-A	EzS2-PE-56M-A
Ezi-SERVO Ⅱ-PE-56M-B	EzM2-56M-B	EzS2-PE-56M-B
Ezi-SERVO Ⅱ-PE-56L-A	EzM2-56L-A	EzS2-PE-56L-A
Ezi-SERVO Ⅱ-PE-56L-B	EzM2-56L-B	EzS2-PE-56L-B
Ezi-SERVO Ⅱ-PE-60S-A	EzM2-60S-A	EzS2-PE-60S-A
Ezi-SERVO Ⅱ-PE-60S-B	EzM2-60S-B	EzS2-PE-60S-B
Ezi-SERVO Ⅱ-PE-60M-A	EzM2-60M-A	EzS2-PE-60M-A
Ezi-SERVO Ⅱ-PE-60M-B	EzM2-60M-B	EzS2-PE-60M-B
Ezi-SERVO Ⅱ-PE-60L-A	EzM2-60L-A	EzS2-PE-60L-A
Ezi-SERVO Ⅱ-PE-60L-B	EzM2-60L-B	EzS2-PE-60L-B

● Brake Integrated Motor, Drive Combination

◆ Ezi-SERVO Ⅱ Plus-E Drive Products

Package Part Number	Motor Part Number	Drive Part Number
Ezi-SERVO Ⅱ-PE-42S-A-BK	EzM2-42S-A-BK	EzS2-PE-42S-A
Ezi-SERVO Ⅱ-PE-42M-A-BK	EzM2-42M-A-BK	EzS2-PE-42M-A
Ezi-SERVO Ⅱ-PE-42L-A-BK	EzM2-42L-A-BK	EzS2-PE-42L-A
Ezi-SERVO Ⅱ-PE-42XL-A-BK	EzM2-42XL-A-BK	EzS2-PE-42XL-A
Ezi-SERVO Ⅱ-PE-56S-A-BK	EzM2-56S-A-BK	EzS2-PE-56S-A
Ezi-SERVO Ⅱ-PE-56M-A-BK	EzM2-56M-A-BK	EzS2-PE-56M-A
Ezi-SERVO Ⅱ-PE-56L-A-BK	EzM2-56L-A-BK	EzS2-PE-56L-A
Ezi-SERVO Ⅱ-PE-60S-A-BK	EzM2-60S-A-BK	EzS2-PE-60S-A
Ezi-SERVO Ⅱ-PE-60M-A-BK	EzM2-60M-A-BK	EzS2-PE-60M-A
Ezi-SERVO Ⅱ-PE-60L-A-BK	EzM2-60L-A-BK	EzS2-PE-60L-A

● Gearbox Integrated Motor, Drive Combination

◆ Ezi-SERVO Ⅱ Plus-E Drive Products

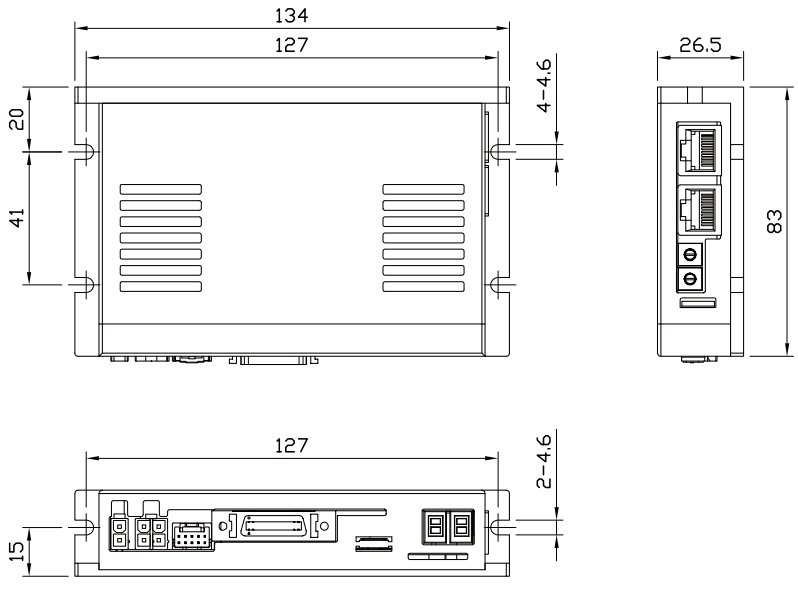
Package Part Number	Motor Part Number	Drive Part Number	Reduc-tion gear ratio
Ezi-SERVO Ⅱ-PE-42S-A-PN3	EzM2-42S-A-PN3	EzS2-PE-42S-A	1:3
Ezi-SERVO Ⅱ-PE-42S-A-PN5	EzM2-42S-A-PN5		1:5
Ezi-SERVO Ⅱ-PE-42S-A-PN8	EzM2-42S-A-PN8		1:8
Ezi-SERVO Ⅱ-PE-42S-A-PN10	EzM2-42S-A-PN10		1:10
Ezi-SERVO Ⅱ-PE-42S-A-PN15	EzM2-42S-A-PN15		1:15
Ezi-SERVO Ⅱ-PE-42S-A-PN25	EzM2-42S-A-PN25		1:25
Ezi-SERVO Ⅱ-PE-42S-A-PN40	EzM2-42S-A-PN40		1:40
Ezi-SERVO Ⅱ-PE-42S-A-PN50	EzM2-42S-A-PN50		1:50
Ezi-SERVO Ⅱ-PE-42M-A-PN3	EzM2-42M-A-PN3	EzS2-PE-42M-A	1:3
Ezi-SERVO Ⅱ-PE-42M-A-PN5	EzM2-42M-A-PN5		1:5
Ezi-SERVO Ⅱ-PE-42M-A-PN8	EzM2-42M-A-PN8		1:8
Ezi-SERVO Ⅱ-PE-42M-A-PN10	EzM2-42M-A-PN10		1:10
Ezi-SERVO Ⅱ-PE-42M-A-PN15	EzM2-42M-A-PN15		1:15
Ezi-SERVO Ⅱ-PE-42M-A-PN25	EzM2-42M-A-PN25		1:25
Ezi-SERVO Ⅱ-PE-42M-A-PN40	EzM2-42M-A-PN40		1:40
Ezi-SERVO Ⅱ-PE-42M-A-PN50	EzM2-42M-A-PN50		1:50
Ezi-SERVO Ⅱ-PE-42L-A-PN3	EzM2-42L-A-PN3	EzS2-PE-42L-A	1:3
Ezi-SERVO Ⅱ-PE-42L-A-PN5	EzM2-42L-A-PN5		1:5
Ezi-SERVO Ⅱ-PE-42L-A-PN8	EzM2-42L-A-PN8		1:8
Ezi-SERVO Ⅱ-PE-42L-A-PN10	EzM2-42L-A-PN10		1:10
Ezi-SERVO Ⅱ-PE-42L-A-PN15	EzM2-42L-A-PN15		1:15
Ezi-SERVO Ⅱ-PE-42L-A-PN25	EzM2-42L-A-PN25		1:25
Ezi-SERVO Ⅱ-PE-42L-A-PN40	EzM2-42L-A-PN40		1:40
Ezi-SERVO Ⅱ-PE-42L-A-PN50	EzM2-42L-A-PN50		1:50
Ezi-SERVO Ⅱ-PE-42XL-A-PN3	EzM2-42XL-A-PN3	EzS2-PE-42XL-A	1:3
Ezi-SERVO Ⅱ-PE-42XL-A-PN5	EzM2-42XL-A-PN5		1:5
Ezi-SERVO Ⅱ-PE-42XL-A-PN8	EzM2-42XL-A-PN8		1:8
Ezi-SERVO Ⅱ-PE-42XL-A-PN10	EzM2-42XL-A-PN10		1:10
Ezi-SERVO Ⅱ-PE-42XL-A-PN15	EzM2-42XL-A-PN15		1:15
Ezi-SERVO Ⅱ-PE-42XL-A-PN25	EzM2-42XL-A-PN25		1:25
Ezi-SERVO Ⅱ-PE-42XL-A-PN40	EzM2-42XL-A-PN40		1:40
Ezi-SERVO Ⅱ-PE-42XL-A-PN50	EzM2-42XL-A-PN50		1:50
Ezi-SERVO Ⅱ-PE-56S-A-PN3	EzM2-56S-A-PN3	EzS2-PE-56S-A	1:3
Ezi-SERVO Ⅱ-PE-56S-A-PN5	EzM2-56S-A-PN5		1:5
Ezi-SERVO Ⅱ-PE-56S-A-PN8	EzM2-56S-A-PN8		1:8
Ezi-SERVO Ⅱ-PE-56S-A-PN10	EzM2-56S-A-PN10		1:10
Ezi-SERVO Ⅱ-PE-56S-A-PN15	EzM2-56S-A-PN15		1:15
Ezi-SERVO Ⅱ-PE-56S-A-PN25	EzM2-56S-A-PN25		1:25
Ezi-SERVO Ⅱ-PE-56S-A-PN40	EzM2-56S-A-PN40		1:40
Ezi-SERVO Ⅱ-PE-56S-A-PN50	EzM2-56S-A-PN50		1:50
Ezi-SERVO Ⅱ-PE-56M-A-PN3	EzM2-56M-A-PN3	EzS2-PE-56M-A	1:3
Ezi-SERVO Ⅱ-PE-56M-A-PN5	EzM2-56M-A-PN5		1:5
Ezi-SERVO Ⅱ-PE-56M-A-PN8	EzM2-56M-A-PN8		1:8
Ezi-SERVO Ⅱ-PE-56M-A-PN10	EzM2-56M-A-PN10		1:10
Ezi-SERVO Ⅱ-PE-56M-A-PN15	EzM2-56M-A-PN15		1:15
Ezi-SERVO Ⅱ-PE-56M-A-PN25	EzM2-56M-A-PN25		1:25
Ezi-SERVO Ⅱ-PE-56M-A-PN40	EzM2-56M-A-PN40		1:40
Ezi-SERVO Ⅱ-PE-56M-A-PN50	EzM2-56M-A-PN50		1:50
Ezi-SERVO Ⅱ-PE-56L-A-PN3	EzM2-56L-A-PN3	EzS2-PE-56L-A	1:3
Ezi-SERVO Ⅱ-PE-56L-A-PN5	EzM2-56L-A-PN5		1:5
Ezi-SERVO Ⅱ-PE-56L-A-PN8	EzM2-56L-A-PN8		1:8
Ezi-SERVO Ⅱ-PE-56L-A-PN10	EzM2-56L-A-PN10		1:10
Ezi-SERVO Ⅱ-PE-56L-A-PN15	EzM2-56L-A-PN15		1:15
Ezi-SERVO Ⅱ-PE-56L-A-PN25	EzM2-56L-A-PN25		1:25
Ezi-SERVO Ⅱ-PE-56L-A-PN40	EzM2-56L-A-PN40		1:40
Ezi-SERVO Ⅱ-PE-56L-A-PN50	EzM2-56L-A-PN50		1:50

Package Part Number	Motor Part Number	Drive Part Number	Reduc-tion gear ratio
Ezi-SERVO Ⅱ-PE-60S-A-PN3	EzM2-60S-A-PN3	EzS2-PE-60S-A	1:3
Ezi-SERVO Ⅱ-PE-60S-A-PN5	EzM2-60S-A-PN5		1:5
Ezi-SERVO Ⅱ-PE-60S-A-PN8	EzM2-60S-A-PN8		1:8
Ezi-SERVO Ⅱ-PE-60S-A-PN10	EzM2-60S-A-PN10		1:10
Ezi-SERVO Ⅱ-PE-60S-A-PN15	EzM2-60S-A-PN15		1:15
Ezi-SERVO Ⅱ-PE-60S-A-PN25	EzM2-60S-A-PN25		1:25
Ezi-SERVO Ⅱ-PE-60S-A-PN40	EzM2-60S-A-PN40		1:40
Ezi-SERVO Ⅱ-PE-60S-A-PN50	EzM2-60S-A-PN50		1:50
Ezi-SERVO Ⅱ-PE-60M-A-PN3	EzM2-60M-A-PN3	EzS2-PE-60M-A	1:3
Ezi-SERVO Ⅱ-PE-60M-A-PN5	EzM2-60M-A-PN5		1:5
Ezi-SERVO Ⅱ-PE-60M-A-PN8	EzM2-60M-A-PN8		1:8
Ezi-SERVO Ⅱ-PE-60M-A-PN10	EzM2-60M-A-PN10		1:10
Ezi-SERVO Ⅱ-PE-60M-A-PN15	EzM2-60M-A-PN15		1:15
Ezi-SERVO Ⅱ-PE-60M-A-PN25	EzM2-60M-A-PN25		1:25
Ezi-SERVO Ⅱ-PE-60M-A-PN40	EzM2-60M-A-PN40		1:40
Ezi-SERVO Ⅱ-PE-60M-A-PN50	EzM2-60M-A-PN50		1:50
Ezi-SERVO Ⅱ-PE-60L-A-PN3	EzM2-60L-A-PN3	EzS2-PE-60L-A	1:3
Ezi-SERVO Ⅱ-PE-60L-A-PN5	EzM2-60L-A-PN5		1:5
Ezi-SERVO Ⅱ-PE-60L-A-PN8	EzM2-60L-A-PN8		1:8
Ezi-SERVO Ⅱ-PE-60L-A-PN10	EzM2-60L-A-PN10		1:10
Ezi-SERVO Ⅱ-PE-60L-A-PN15	EzM2-60L-A-PN15		1:15
Ezi-SERVO Ⅱ-PE-60L-A-PN25	EzM2-60L-A-PN25		1:25
Ezi-SERVO Ⅱ-PE-60L-A-PN40	EzM2-60L-A-PN40		1:40
Ezi-SERVO Ⅱ-PE-60L-A-PN50	EzM2-60L-A-PN50		1:50

Drive Specifications

Motor		EzM2-20 series	EzM2-28 series	EzM2-35 series	EzM2-42 series	EzM2-56 series	EzM2-60 series
Drive		EzS2-PE-20 series	EzS2-PE-28 series	EzS2-PE-35 series	EzS2-PE-42 series	EzS2-PE-56 series	EzS2-PE-60 series
Input Voltage		24VDC ± 10%					
Control Method		Closed loop control with 32bit ARM					
Multi Axes Drive		Maximum 254 axis operating (Selectable IP : 1~254)					
Position Table		256 motion command steps (Speed, External start, Jump, Loop, Wait and PT finish etc.)					
Current Consumption		Max 500mA (Except motor current)					
Operating Condition	Ambient Temperature	In Use : 0~50℃ In Storage : -20~70℃					
	Humidity	In Use : 35~85%RH (Non-condensing) In Storage : 10~90%RH (Non-condensing)					
	Vib. Resist.	0.5G					
Function	Rotation Speed	0~3,000rpm					
	Resolutionp[P/R]	4,000/Rev. Encoder model : 500 1,000 1,600 2,000 3,600 5,000 6,400 7,200 10,000 4,000 10,000/Rev. Encoder model : 500 1,000 1,600 2,000 3,600 5,000 6,400 7,200 10,000 16,000/Rev. Encoder model : 500 1,000 1,600 2,000 3,600 5,000 6,400 7,200 10,000 16,000 20,000/Rev. Encoder model : 500 1,000 1,600 2,000 3,600 5,000 6,400 7,200 10,000 20,000 (Resolution can be selected by parameter)					
	Protection Functions	Over Current Error, Over Speed Error, Position Tracking Error, Over Load Error, Over Temperature Error, Over Regenerated Voltage Error, Motor Connect Error, Encoder Connect Error, Motor Voltage Error, In-Position Error, System Error, ROM Error, Input Voltage Error, Position Overflow Error					
	LED Display	Power status, Alarm status, In-Position status, Servo On status					
	In-Position Selection	0~63 (Selectable by parameter)					
	Position Gain Selection	0~63 (Selectable by parameter)					
	Rotational Direction	CW / CCW (Selectable by parameter)					
I/O Signal	Input Signal	3 dedicated input (LIMIT+, LIMIT-, ORIGIN), 7 programmable input (Photocoupler)					
	Output Signal	1 dedicated output (Compare Out), 9 programmable output (Photocoupler)					
Communication Interface		Ethernet communication with PC, Dual port Ethernet switch embeded, Comunicatio speed : 10/100bps - T/TX Full Duplex					
Position Control		Incremental mode / Absolute mode Data Range : -134,217,728 to +134,217,727pulse, Operating speed : Max. 3,000rpm					
Return to Origin		Origin Sensor, Z phase, ±Limit sensor, Torque					
GUI		User Interface Program within Windows					
Library		Motion Library (DLL) for windows 2000/XP/7/8/10					

Drive Size[mm]



● Standard Moator Specification and Size

1. Motor Specification

20 28 35

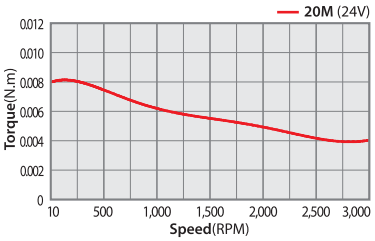
Motor	Unit	EzM2-20M	EzM2-20L	EzM2-28S	EzM2-28M	EzM2-28L	EzM2-35M	EzM2-35L
Current per Phase	A	0.5	0.5	0.95	0.95	0.95	0.6	0.85
Holding Torque	N · m	0.016	0.025	0.069	0.10	0.12	0.050	0.176
Rotor Inertia	g · ㎠	2.5	3.3	9	13	18	8	11
Weight	g	50	80	110	140	200	180	260
Length(L)	mm	28	38	32	45	50	26	38

42 56 60

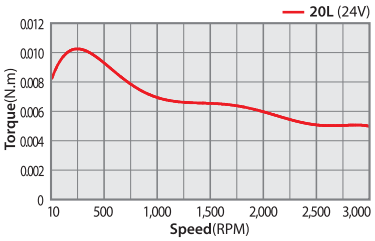
Motor	Unit	EzM2-42S	EzM2-42M	EzM2-42L	EzM2-42XL	EzM2-56S	EzM2-56M	EzM2-56L	EzM2-60S	EzM2-60M	EzM2-60L
Current per Phase	A	1.2	1.2	1.2	1.2	3.0	3.0	3.0	4.0	4.0	4.0
Holding Torque	N · m	0.32	0.44	0.5	0.65	0.64	1.0	1.5	0.88	1.28	2.4
Rotor Inertia	g · ㎠	35	54	77	114	180	280	520	240	490	690
Weight	g	250	280	350	500	500	720	1150	600	1000	1300
Length(L)	mm	34	40	48	60	46	55	80	47	56	85

2. Torque Characteristic

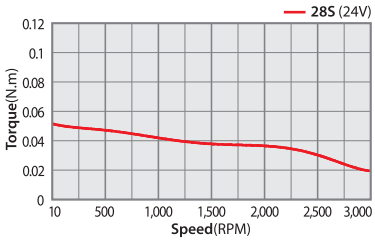
Ezi-SERVO II Plus-E_ 20M Series



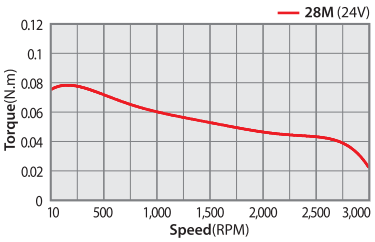
Ezi-SERVO II Plus-E_ 20L Series



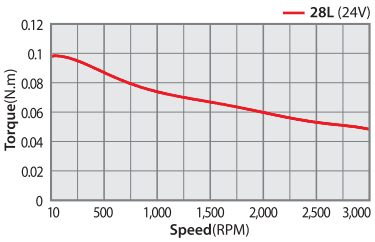
Ezi-SERVO II Plus-E_ 28S Series



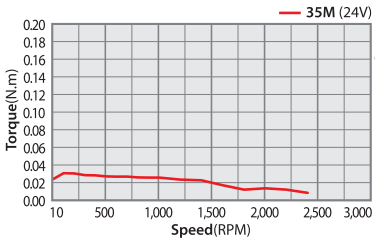
Ezi-SERVO II Plus-E_ 28M Series



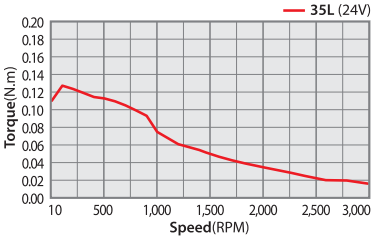
Ezi-SERVO II Plus-E_ 28L Series



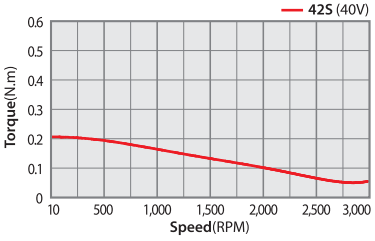
Ezi-SERVO II Plus-E_ 35M Series



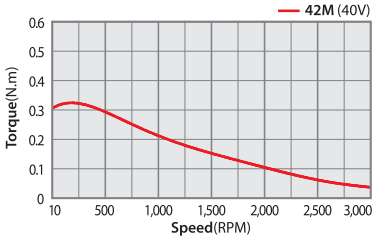
Ezi-SERVO II Plus-E_ 35L Series



Ezi-SERVO II Plus-E_ 42S Series

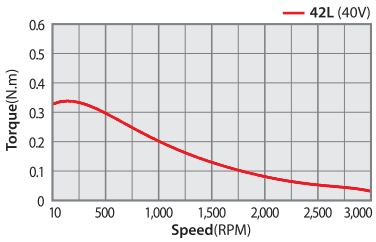


Ezi-SERVO II Plus-E_ 42M Series

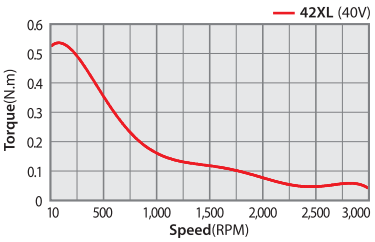


Standard Moator Specification and Size

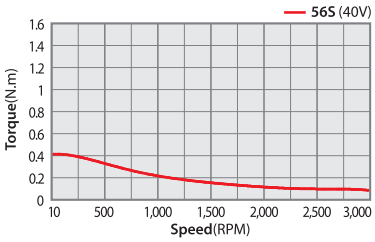
Ezi-SERVO II Plus-E_ 42L Series



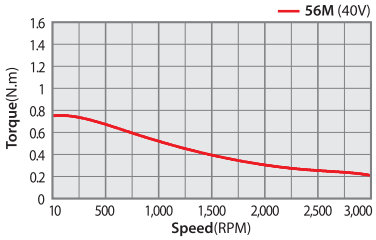
Ezi-SERVO II Plus-E_ 42XL Series



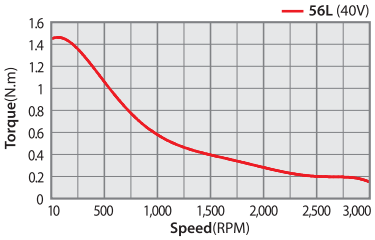
Ezi-SERVO II Plus-E_ 56S Series



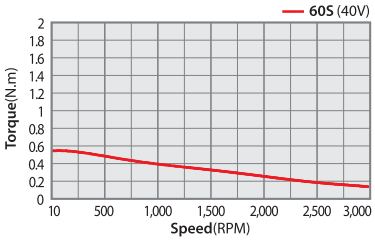
Ezi-SERVO II Plus-E_ 56M Series



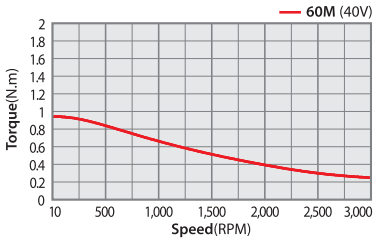
Ezi-SERVO II Plus-E_ 56L Series



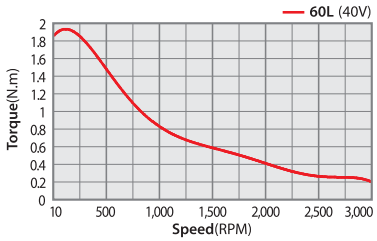
Ezi-SERVO II Plus-E_ 60S Series



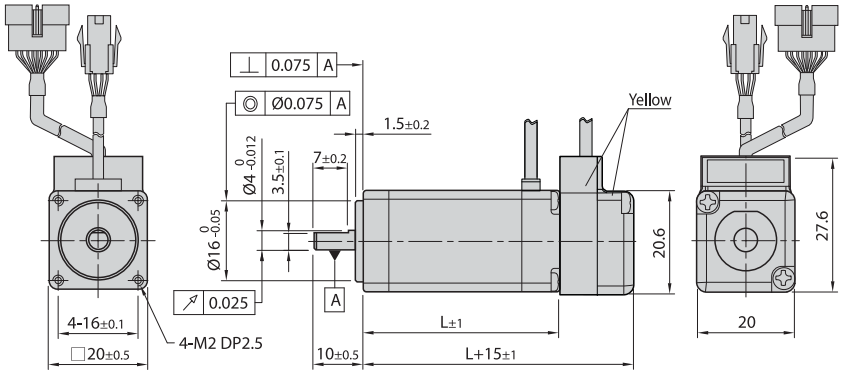
Ezi-SERVO II Plus-E_ 60M Series



Ezi-SERVO II Plus-E_ 60L Series

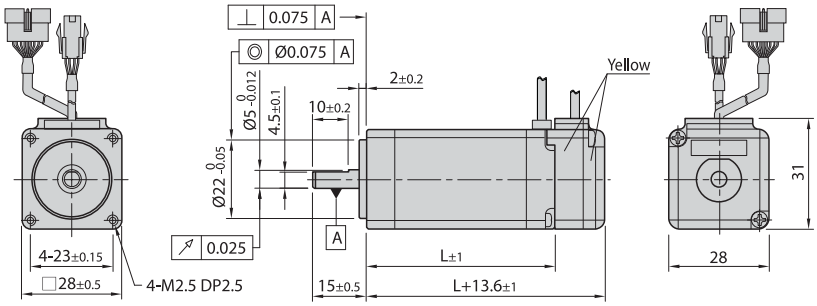


3. Motor Size(mm)



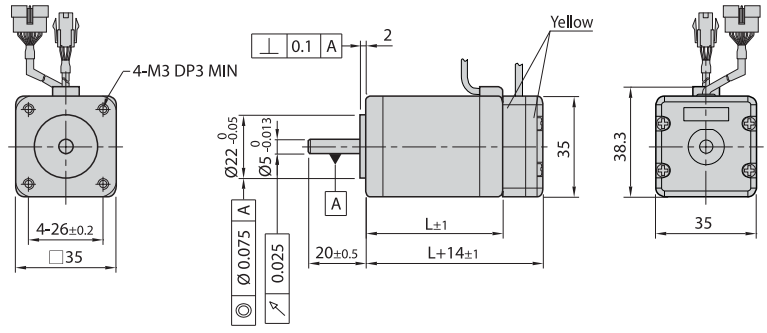
20mm

Model name	Length(L)
EzM2-20M	28
EzM2-20L	38



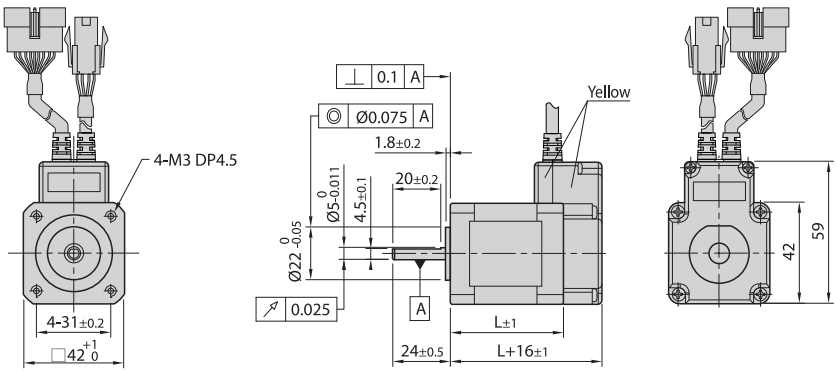
28mm

Model name	Length(L)
EzM2-28S	32
EzM2-28M	45
EzM2-28L	50



35mm

Model name	Length(L)
EzM2-35M	26
EzM2-35L	38

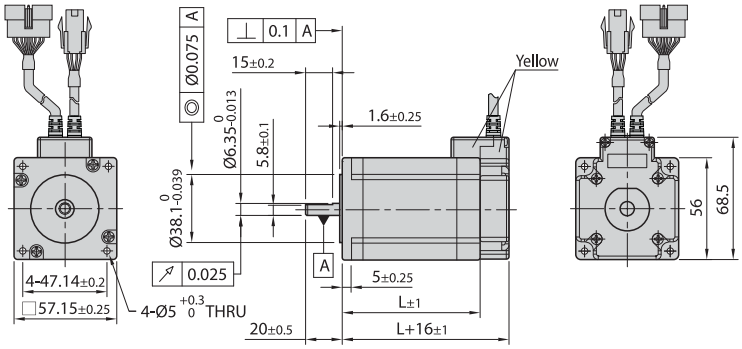


42mm

Model name	Length(L)
EzM2-42S	34
EzM2-42M	40
EzM2-42L	48
EzM2-42XL	60

● Standard Moator Specification and Size

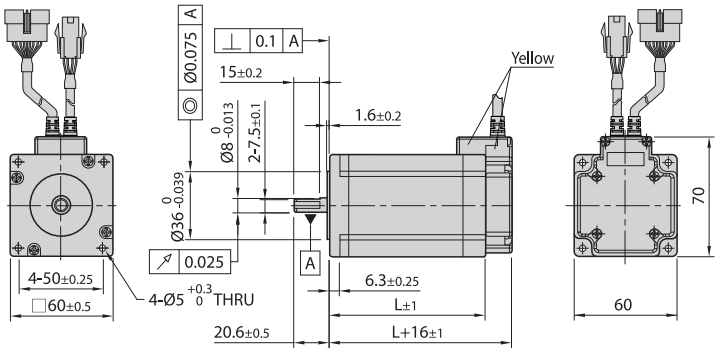
3. Motor Size(mm)



※ There are 2 kinds size of front shaft diameter for EzM2-56 series as Φ6.35 and Φ8.0.

56mm

Model name	Length(L)
EzM2-56S	46
EzM2-56M	55
EzM2-56L	80



60mm

Model name	Length(L)
EzM2-60S	47
EzM2-60M	56
EzM2-60L	85

● Brake Installed Motor Specification and Size

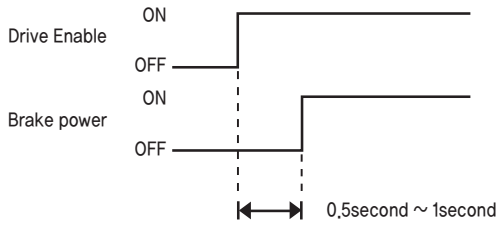
1. Motor Specification

Package	Motor	Electronic Brake					Motor Unit Weight (g)	Permitted Overhung Load (N) Length from Motor Point (mm)				Permitted Thrust Load (N)
		Type	Voltage Input (V)	Rated Current (A)	Power Consumption	Statical Friction Torque (N · m)		3	8	13	18	
Ezi-SERVO Ⅱ-PE-42S-A-BK	EzM2-42S-A-BK	Non-excitation run Type	24VDC ±10%	0.2	5	0.2	510	22	26	33	46	Must be Lower than Unit's Weight
Ezi-SERVO Ⅱ-PE-42M-A-BK	EzM2-42M-A-BK						570					
Ezi-SERVO Ⅱ-PE-42L-A-BK	EzM2-42L-A-BK						640					
Ezi-SERVO Ⅱ-PE-42XL-A-BK	EzM2-42XL-A-BK						770					
Ezi-SERVO Ⅱ-PE-56S-A-BK	EzM2-56S-A-BK			0.27	6.6	0.7	870	52	65	85	123	
Ezi-SERVO Ⅱ-PE-56M-A-BK	EzM2-56M-A-BK						1190					
Ezi-SERVO Ⅱ-PE-56L-A-BK	EzM2-56L-A-BK						1380					
Ezi-SERVO Ⅱ-PE-60S-A-BK	EzM2-60S-A-BK			0.27	6.6	0.7	1150	70	87	114	165	
Ezi-SERVO Ⅱ-PE-60M-A-BK	EzM2-60M-A-BK						1350					
Ezi-SERVO Ⅱ-PE-60L-A-BK	EzM2-60L-A-BK						1960					

* Electronic Brake cannot be used for braking. Position hold purpose only when power OFF.
* The weight means Motor Unit Weight including Motor and Electronic Brake.
* Motor Model Name is combined model name of Motor and Brake.
* Motor specification and torque characteristic are same as Standard Motor.

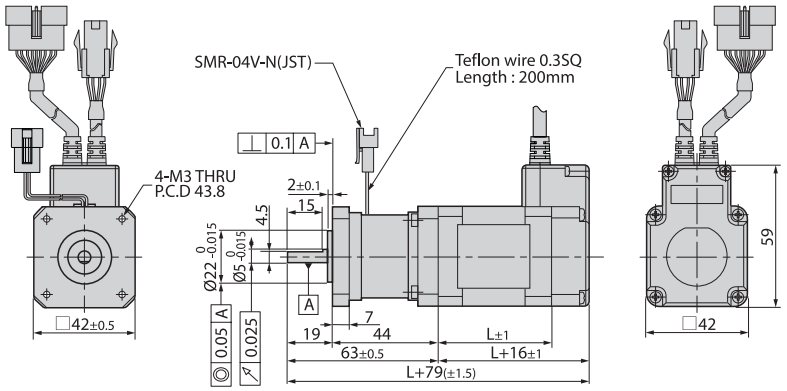
* Brake Operation Timing Chart

Ezi-SERVO Ⅱ Plus-E control Brake by Drive automatically.
Please refer to below Timing Chart when control Brake from upper controller other than using Ezi-SERVO Ⅱ Plus-E Brake control.
Otherwise, Drive malfunctioning and loads can be fall down.
Also, please do not operate Brake while motor operation to prevent damage.



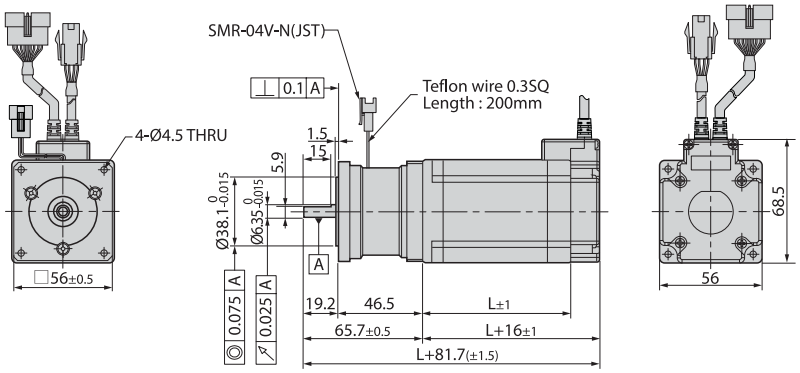
● Brake Installed Motor Specification and Size

2. Motor Size(mm)



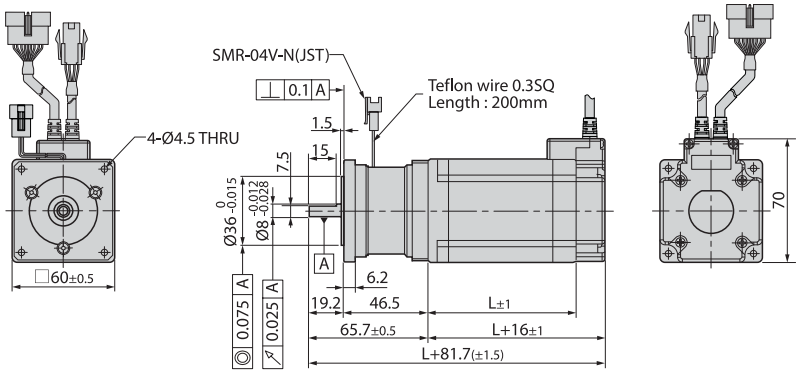
42mm

Model name	Length(L)	Weight(Kg)
EzM2-42S-BK	34	0.51
EzM2-42M-BK	40	0.57
EzM2-42L-BK	48	0.64
EzM2-42XL-BK	60	0.77



56mm

Model name	Length(L)	Weight(Kg)
EzM2-56S-BK	46	0.87
EzM2-56M-BK	55	1.19
EzM2-56L-BK	80	1.38



60mm

Model name	Length(L)	Weight(Kg)
EzM2-60S-BK	47	1.15
EzM2-60M-BK	56	1.35
EzM2-60L-BK	85	1.96

● Gearbox Installed Motor Specification and Size

1. Gearbox for 42mm Motor Specification

Package	Maximum Holding Torque (N · m)	Rotor Inertia Moment (Kg · m²)	Backlash (min)	Angle Transmis-sion Error (min)	Reduction Gear Ratio	Resolution (10,000ppr Standard)	Permit-ted Torque (N · m)	Maxi-mum Torque (N · m)	Permit-ted Speed Range (rpm)	Unit Weight (Kg)	Permitted Overhung Load (N) Axis Center Standard	Per-mitted Thrust Load (N)
Ezi-SERVO Ⅱ-PE-42S-A-PN3	0.8	$35x10^{-7}$	3	5	3	0.012°	6	18	0~1000	0.89	240	270
Ezi-SERVO Ⅱ-PE-42S-A-PN5	1.4				5	0.0072°	9	18	0~600		290	330
Ezi-SERVO Ⅱ-PE-42S-A-PN8					8	0.0045°	9	18	0~375		340	410
Ezi-SERVO Ⅱ-PE-42S-A-PN10	2.7				10	0.0036°	6	12	0~333		360	450
Ezi-SERVO Ⅱ-PE-42S-A-PN15	4.0		5	7	15	0.0024°	6	12	0~300	0.99	410	540
Ezi-SERVO Ⅱ-PE-42S-A-PN25	6.6				25	0.00144°	9	18	0~120		490	640
Ezi-SERVO Ⅱ-PE-42S-A-PN40	9.0				40	0.0009°	9	18	0~75		570	640
Ezi-SERVO Ⅱ-PE-42S-A-PN50					50	0.00072°	9	18	0~60		620	640
Ezi-SERVO Ⅱ-PE-42M-A-PN3	1.1	$54x10^{-7}$	3	5	3	0.012°	6	18	0~1000	0.96	240	270
Ezi-SERVO Ⅱ-PE-42M-A-PN5	1.9				5	0.0072°	9	18	0~600		290	330
Ezi-SERVO Ⅱ-PE-42M-A-PN8					8	0.0045°	9	18	0~375		340	410
Ezi-SERVO Ⅱ-PE-42M-A-PN10	3.7				10	0.0036°	6	12	0~333		360	450
Ezi-SERVO Ⅱ-PE-42M-A-PN15	5.4		5	7	15	0.0024°	6	12	0~300	1.06	410	540
Ezi-SERVO Ⅱ-PE-42M-A-PN25	9.0				25	0.00144°	9	18	0~120		490	640
Ezi-SERVO Ⅱ-PE-42M-A-PN40					40	0.0009°	9	18	0~75		570	640
Ezi-SERVO Ⅱ-PE-42M-A-PN50					50	0.00072°	9	18	0~60		620	640
Ezi-SERVO Ⅱ-PE-42L-A-PN3	1.4	$77x10^{-7}$	3	5	3	0.012°	6	18	0~1000	1.02	240	270
Ezi-SERVO Ⅱ-PE-42L-A-PN5	2.4				5	0.0072°	9	18	0~600		290	330
Ezi-SERVO Ⅱ-PE-42L-A-PN8	3.8				8	0.0045°	9	18	0~375		340	410
Ezi-SERVO Ⅱ-PE-42L-A-PN10	4.7				10	0.0036°	6	12	0~333		360	450
Ezi-SERVO Ⅱ-PE-42L-A-PN15	6.0		5	7	15	0.0024°	6	12	0~300	1.12	410	540
Ezi-SERVO Ⅱ-PE-42L-A-PN25	9.0				25	0.00144°	9	18	0~120		490	640
Ezi-SERVO Ⅱ-PE-42L-A-PN40					40	0.0009°	9	18	0~75		570	640
Ezi-SERVO Ⅱ-PE-42L-A-PN50					50	0.00072°	9	18	0~60		620	640
Ezi-SERVO Ⅱ-PE-42XL-A-PN3	1.8	$114x10^{-7}$	3	5	3	0.012°	6	18	0~1000	1.15	240	270
Ezi-SERVO Ⅱ-PE-42XL-A-PN5	3.0				5	0.0072°	9	18	0~600		290	330
Ezi-SERVO Ⅱ-PE-42XL-A-PN8	4.8				8	0.0045°	9	18	0~375		340	410
Ezi-SERVO Ⅱ-PE-42XL-A-PN10	6.0				10	0.0036°	6	12	0~333		360	450
Ezi-SERVO Ⅱ-PE-42XL-A-PN15			5	7	15	0.0024°	6	12	0~300	1.25	410	540
Ezi-SERVO Ⅱ-PE-42XL-A-PN25	9.0				25	0.00144°	9	18	0~120		490	640
Ezi-SERVO Ⅱ-PE-42XL-A-PN40					40	0.0009°	9	18	0~75		570	640
Ezi-SERVO Ⅱ-PE-42XL-A-PN50					50	0.00072°	9	18	0~60		620	640

● Gearbox Installed Motor Specification and Size

2. Gearbox for 56mm Motor Specification

Package	Maximum Holding Torque (N · m)	Rotor Inertia Moment (Kg · m²)	Backlash (min)	Angle Transmis-sion Error (min)	Reduction Gear Ratio	Resolution (10,000ppr Standard)	Permitted Torque (N · m)	Maximum Torque (N · m)	Permitted Speed Range (rpm)	Unit Weight (Kg)	Permitted Overhung Load (N) Axis Center Standard	Per-mitted Thrust Load (N)
Ezi-SERVO Ⅱ-PE-56S-A-PN3	1.6	$120x10^{-7}$	3	5	3	0.012°	27	50	0~1000	1.34	430	310
Ezi-SERVO Ⅱ-PE-56S-A-PN5	2.7				5	0.0072°	27	50	0~600	1.88	510	390
Ezi-SERVO Ⅱ-PE-56S-A-PN8	4.3				8	0.0045°	27	50	0~375		600	480
Ezi-SERVO Ⅱ-PE-56S-A-PN10	5.3				10	0.0036°	18	35	0~333		640	530
Ezi-SERVO Ⅱ-PE-56S-A-PN15	7.7				15	0.0024°	18	35	0~300	2.08	740	630
Ezi-SERVO Ⅱ-PE-56S-A-PN25	12.9				25	0.00144°	27	50	0~120		870	790
Ezi-SERVO Ⅱ-PE-56S-A-PN40	20.6				40	0.0009°	27	50	0~75		1000	970
Ezi-SERVO Ⅱ-PE-56S-A-PN50	25.8				50	0.00072°	27	50	0~60		1100	1000
Ezi-SERVO Ⅱ-PE-56M-A-PN3	2.6	$200x10^{-7}$	3	5	3	0.0012°	18	35	0~1000	1.4	430	310
Ezi-SERVO Ⅱ-PE-56M-A-PN5	4.4				5	0.0072°	27	50	0~600	2.15	510	390
Ezi-SERVO Ⅱ-PE-56M-A-PN8	7.0				8	0.0045°	27	50	0~375		600	480
Ezi-SERVO Ⅱ-PE-56M-A-PN10	8.7				10	0.0036°	18	35	0~333		640	530
Ezi-SERVO Ⅱ-PE-56M-A-PN15	12.7				15	0.0024°	18	35	0~300	2.35	740	630
Ezi-SERVO Ⅱ-PE-56M-A-PN25	21.1				25	0.00144°	27	50	0~120		870	790
Ezi-SERVO Ⅱ-PE-56M-A-PN40	27.0				40	0.0009°	27	50	0~75		1000	970
Ezi-SERVO Ⅱ-PE-56M-A-PN50					50	0.00072°	27	50	0~60		1100	1000
Ezi-SERVO Ⅱ-PE-56L-A-PN3	4.3	$480x10^{-7}$	3	5	3	0.012°	18	35	0~1000	1.1	430	310
Ezi-SERVO Ⅱ-PE-56L-A-PN5	7.2				5	0.0072°	27	50	0~600	2.22	510	390
Ezi-SERVO Ⅱ-PE-56L-A-PN8	11.4				8	0.0045°	27	50	0~375		600	480
Ezi-SERVO Ⅱ-PE-56L-A-PN10	14.3				10	0.0036°	18	35	0~333		640	530
Ezi-SERVO Ⅱ-PE-56L-A-PN15	18.0				15	0.0024°	18	35	0~300	2.42	740	630
Ezi-SERVO Ⅱ-PE-56L-A-PN25	27.0				25	0.00144°	27	50	0~120		870	790
Ezi-SERVO Ⅱ-PE-56L-A-PN40					40	0.0009°	27	50	0~75		1000	970
Ezi-SERVO Ⅱ-PE-56L-A-PN50					50	0.00072°	27	50	0~60		1100	1000

● Gearbox Installed Motor Specification and Size

3. Gearbox for 60mm Motor Specification

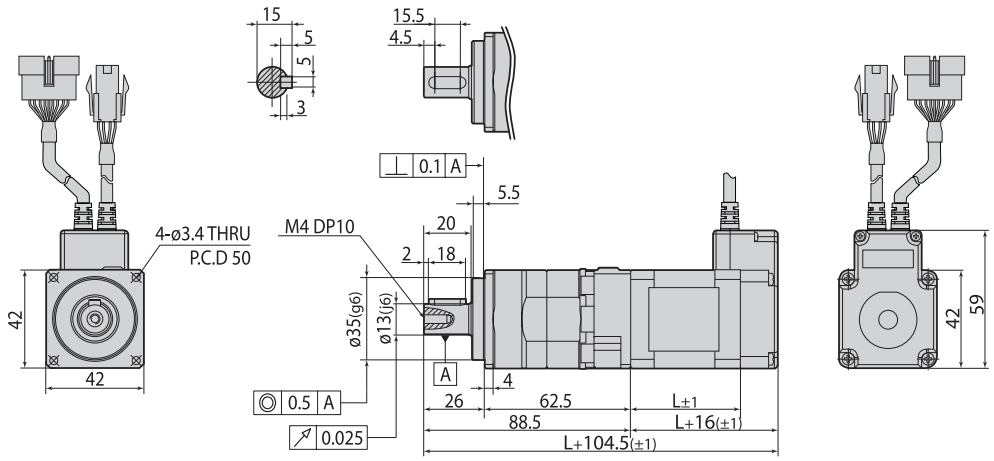
Package	Maximum Holding Torque (N · m)	Rotor Inertia Moment ($Kg \cdot m^2$)	Backlash (min)	Angle Transmission Error (min)	Reduction Gear Ratio	Resolution (10,000ppr Standard)	Permitted Torque (N · m)	Maximum Torque (N · m)	Permitted Speed Range (rpm)	Unit Weight (Kg)	Permitted Overhung Load (N) Axis Center Standard	Permitted Thrust Load (N)
Ezi-SERVO Ⅱ-PE-60S-A-PN3	2.6	$140x10^{-7}$	3	5	3	0.012°	18	35	0~1000	1.4	430	310
Ezi-SERVO Ⅱ-PE-60S-A-PN5	4.4				5	0.0072°	27	50	0~600	2.0	510	390
Ezi-SERVO Ⅱ-PE-60S-A-PN8	7.0				8	0.0045°	27	50	0~375		600	480
Ezi-SERVO Ⅱ-PE-60S-A-PN10	8.8				10	0.0036°	18	35	0~333		640	530
Ezi-SERVO Ⅱ-PE-60S-A-PN15	12.7				15	0.0024°	18	35	0~300	2.2	740	630
Ezi-SERVO Ⅱ-PE-60S-A-PN25	21.2				25	0.00144°	27	50	0~120		870	790
Ezi-SERVO Ⅱ-PE-60S-A-PN40	27.0				40	0.0009°	27	50	0~75		1000	970
Ezi-SERVO Ⅱ-PE-60S-A-PN50					50	0.00072°	27	50	0~60		1100	1000
Ezi-SERVO Ⅱ-PE-60M-A-PN3	3.6	$320x10^{-7}$	3	5	3	0.012°	18	35	0~1000	1.4	430	310
Ezi-SERVO Ⅱ-PE-60M-A-PN5	6.0				5	0.0072°	27	50	0~600	2.3	510	390
Ezi-SERVO Ⅱ-PE-60M-A-PN8	9.6				8	0.0045°	27	50	0~375		600	480
Ezi-SERVO Ⅱ-PE-60M-A-PN10	12.0				10	0.0036°	18	35	0~333		640	530
Ezi-SERVO Ⅱ-PE-60M-A-PN15	17.4				15	0.0024°	18	35	0~300	2.5	740	630
Ezi-SERVO Ⅱ-PE-60M-A-PN25	27.0				25	0.00144°	27	50	0~120		870	790
Ezi-SERVO Ⅱ-PE-60M-A-PN40					40	0.0009°	27	50	0~75		1000	970
Ezi-SERVO Ⅱ-PE-60M-A-PN50					50	0.00072°	27	50	0~60		1100	1000
Ezi-SERVO Ⅱ-PE-60L-A-PN3	7.1	$800x10^{-7}$	3	5	3	0.012°	18	35	0~1000	1.4	430	310
Ezi-SERVO Ⅱ-PE-60L-A-PN5	11.9				5	0.0072°	27	50	0~600	3.0	510	390
Ezi-SERVO Ⅱ-PE-60L-A-PN8	19.0				8	0.0045°	27	50	0~375		600	480
Ezi-SERVO Ⅱ-PE-60L-A-PN10	18.0				10	0.0036°	18	35	0~333		640	530
Ezi-SERVO Ⅱ-PE-60L-A-PN15					15	0.0024°	18	35	0~300	3.2	740	630
Ezi-SERVO Ⅱ-PE-60L-A-PN25	27.0				25	0.00144°	27	50	0~120		870	790
Ezi-SERVO Ⅱ-PE-60L-A-PN40					40	0.0009°	27	50	0~75		1000	970
Ezi-SERVO Ⅱ-PE-60L-A-PN50					50	0.00072°	27	50	0~60		1100	1000

● Gearbox Installed Motor Specification and Size

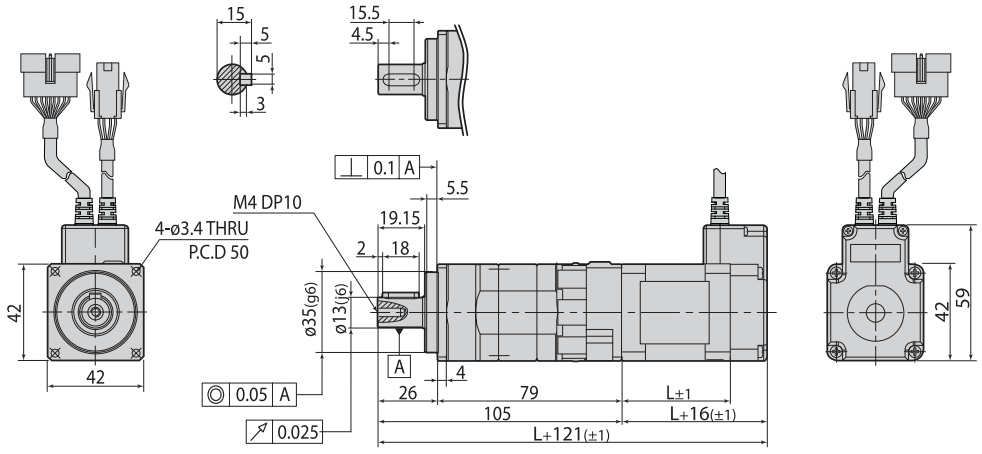
4. Motor Size(mm)

42

Package	Motor	Stage	□Second Stage	L Length (mm)
Ezi-SERVO Ⅱ-PE-42S-A-PN□	EzM2-42S-A-PN□	Single Stage	3, 5, 8, 10	34
Ezi-SERVO Ⅱ-PE-42M-A-PN□	EzM2-42M-A-PN□		3, 5, 8, 10	40
Ezi-SERVO Ⅱ-PE-42L-A-PN□	EzM2-42L-A-PN□		3, 5, 8, 10	48
Ezi-SERVO Ⅱ-PE-42XL-A-PN□	EzM2-42XL-A-PN□		3, 5, 8, 10	60



Package	Motor	Stage	□Second Stage	L Length (mm)
Ezi-SERVO Ⅱ-PE-42S-A-PN□	EzM2-42S-A-PN□	Second Stage	15, 25, 40, 50	34
Ezi-SERVO Ⅱ-PE-42M-A-PN□	EzM2-42M-A-PN□		15, 25, 40, 50	40
Ezi-SERVO Ⅱ-PE-42L-A-PN□	EzM2-42L-A-PN□		15, 25, 40, 50	48
Ezi-SERVO Ⅱ-PE-42XL-A-PN□	EzM2-42XL-A-PN□		15, 25, 40, 50	60

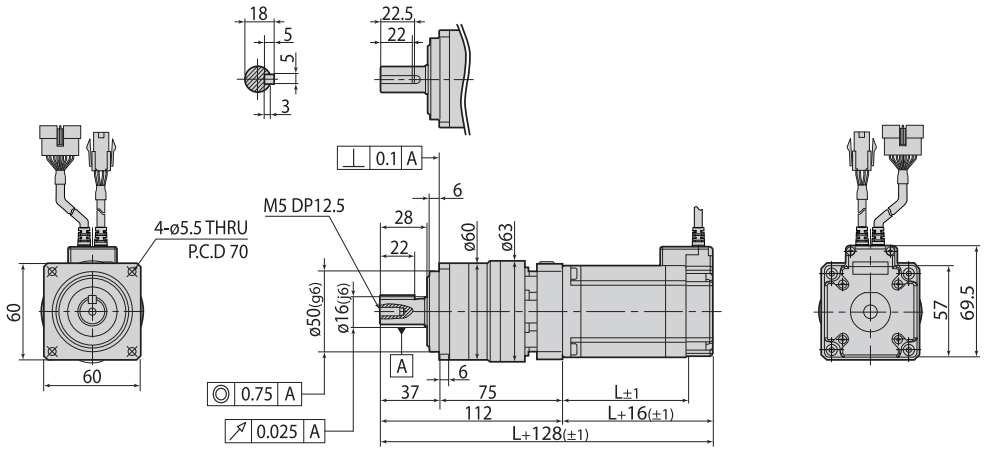


● Gearbox Installed Motor Specification and Size

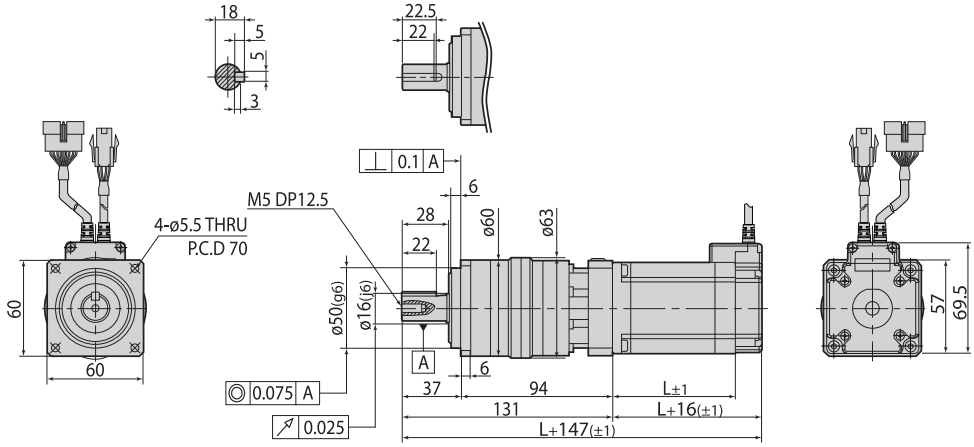
5. Motor Size(mm)

56

Package	Motor	Stage	□Second Stage	L Length (mm)
Ezi-SERVO Ⅱ-PE-56S-A-PN□	EzM2-56S-A-PN□	Single Stage	3, 5, 8, 10	46
Ezi-SERVO Ⅱ-PE-56M-A-PN□	EzM2-56M-A-PN□		3, 5, 8, 10	55
Ezi-SERVO Ⅱ-PE-56L-A-PN□	EzM2-56L-A-PN□		3, 5, 8, 10	80



Package	Motor	Stage	□Second Stage	L Length (mm)
Ezi-SERVO Ⅱ-PE-56S-A-PN□	EzM2-56S-A-PN□	Second Stage	15, 25, 40, 50	46
Ezi-SERVO Ⅱ-PE-56M-A-PN□	EzM2-56M-A-PN□		15, 25, 40, 50	55
Ezi-SERVO Ⅱ-PE-56L-A-PN□	EzM2-56L-A-PN□		15, 25, 40, 50	80

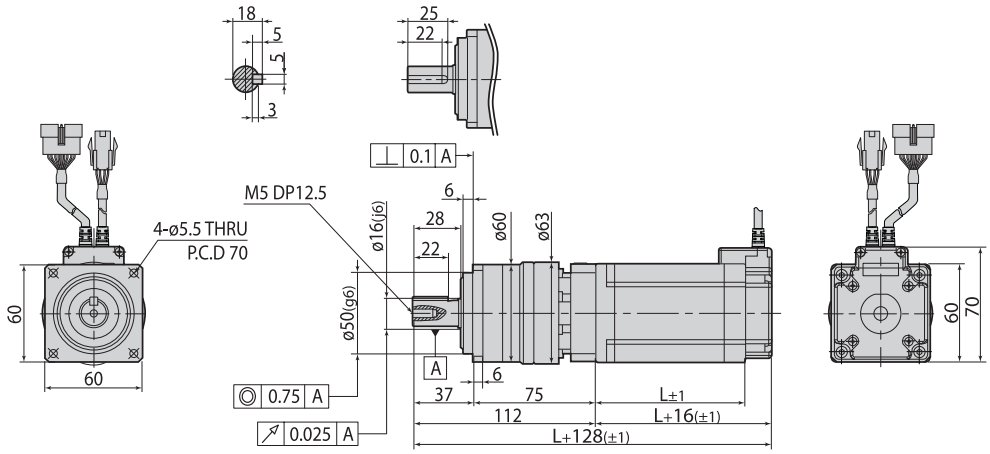


● Gearbox Installed Motor Specification and Size

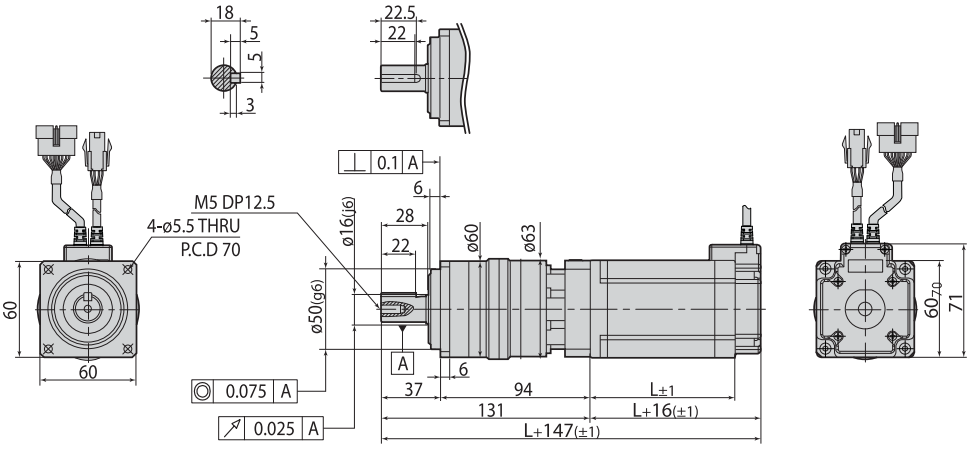
6. Motor Size(mm)

60

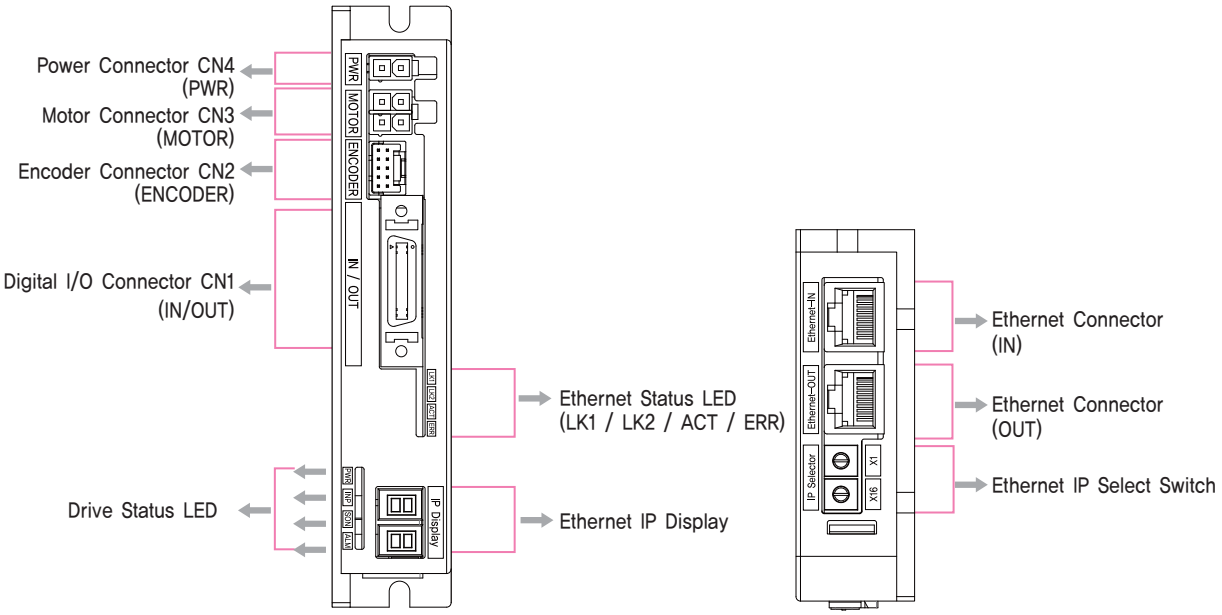
Package	Motor	Stage	□Second Stage	L Length (mm)
Ezi-SERVO Ⅱ-PE-60S-A-PN□	EzM2-60S-A-PN□	Single Stage	3, 5, 8, 10	47
Ezi-SERVO Ⅱ-PE-60M-A-PN□	EzM2-60M-A-PN□		3, 5, 8, 10	56
Ezi-SERVO Ⅱ-PE-60L-A-PN□	EzM2-60L-A-PN□		3, 5, 8, 10	85



Package	Motor	Stage	□Second Stage	L Length (mm)
Ezi-SERVO Ⅱ-PE-60S-A-PN□	EzM2-60S-A-PN□	Second Stage	15, 25, 40, 50	47
Ezi-SERVO Ⅱ-PE-60M-A-PN□	EzM2-60M-A-PN□		15, 25, 40, 50	56
Ezi-SERVO Ⅱ-PE-60L-A-PN□	EzM2-60L-A-PN□		15, 25, 40, 50	85

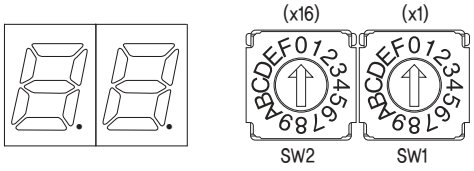


● Setting and Operation



1. Ethernet IP Display and Select Switch

It is to be set from 1 to 254. Please set the IP not to overap each other.
(Basic set up is "192.168.xxx and xxx is to be set by switch)



Ex) In case of SW1 : 7, and SW2:5
5X16 +7X1 =87
IP is to be set as 192.168.0.87

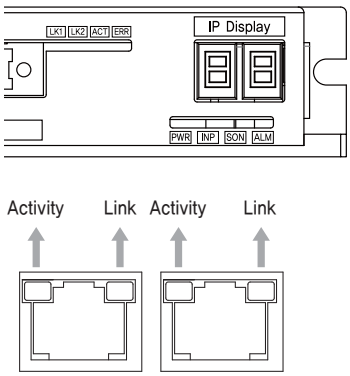
2. EtherCAT Status LED

LED indicates communication status of Ethernet. Link/Activity LED exists on each port of Ethernet.

Name	Color	Status	Explanation
Error	Red	OFF	No Error status or Power off
		Single Flash	Local Error

Name	Color	Status	Explanation
LK1 / LK2	Green	OFF	Link deactivated
		ON	Link activated

Name	Color	Status	Explanation
Activity	Yellow	OFF	No operating
		Flickering	Operting

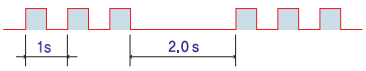


3. Drive Status LED

Indication	Color	Function	ON/OFF Condition
PWR	Green	Power Input Indication	LED is turned ON when power is applied
INP	Yellow	Complete Positioning Motion	Lights On when Positioning error reaches within the preset pulse selected by rotary switch
SON	Orange	Servo On / Off Indication	Servo On : Lights On, Servo Off : Lights Off
ALM	Red	Alarm indication	Flash when protection function is activated

◆ Drive Protection Functions

Error Code*3	Protection	Conditions
E-001	Over current Error	The current through power devices in inverter exceeds the limit value
E-002	Over speed Error	Motor speed exceed 3,000rpm
E-003	Position tracking Error	Position error value is higher than 90 ° in motor run state
E-004	Over load Error	The motor is continuously operated more than 5 second under a load exceeding the max. torque
E-005	Over temperature Error	Temperature of inside of drive exceed 85℃
E-006	Over regenerativted voltage Error	Back EMF of motor exceeds limit value*1
E-007	Motor connect Error	The power is ON without connection of the motor cable to drive
E-008	Encoder connect Error	There is connection error between drive and encoder
E-009	Motor voltage Error	Motor voltage is out of limited value*2
E-010	In-Position Error	After operation is finished, a position error occurs
E-015	Position overflow Error	Position error value is higher than 90° in motor stop state

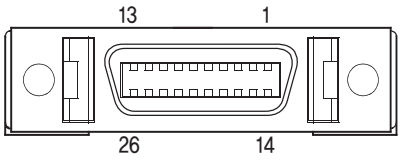


Alarm LED flushing (Ex: Position Tracking Error)

*1 : Voltage limit of Back-EMF depends on motor model (Please refer to the manual)
*2 : Limit voltage value of Motor is depends on motor model (Please refer to the manual)
*3 : The Alarm code is displying on the 7-Segment, instead of alarm No. when alarm occurd.
* Please refer to User Manual for the other protection Functions.

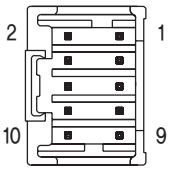
4. Input/Output Signal CN1 (IN / OUT)

NO.	Function	I/O
1	LIMIT+	Input
2	LIMIT−	Input
3	ORIGIN	Input
4	Digital In1	Input
5	Digital In6	Input
6	Digital In7	Input
7	Compare Out1	Output
8	Digital Out1	Output
9	Digital Out2	Output
10	Digital Out3	Output
11	Digital Out4	Output
12	Digital Out5	Output
13	Digital Out6	Output
14	Digital In2	Input
15	Digital In3	Input
16	Digital In4	Input
17	Digital In5	Input
18	Digital In8	Input
19	Digital In9	Input
20	Digital Out7	Output
21	Digital Out8	Output
22	Digital Out9	Output
23	BRAKE+	Output
24	BRAKE−	Output
25	24VDC GND	Input
26	24VDC	Input



5. Encoder Connector CN2 (ENCODER)

NO.	Function	I/O
1	A+	Input
2	A−	Input
3	B+	Input
4	B−	Input
5	Z+	Input
6	Z−	Input
7	5VDC	Output
8	5VDC GND	Output
9	Frame GND	----
10	Frame GND	----



6. Motor Connector CN3 (MOTOR)

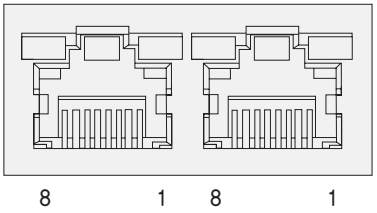
NO.	Function
1	A Phase
2	B Phase
3	/A Phase
4	/B Phase

7. Power Connector CN4 (PWR)

NO.	Function
1	24VDC ±10%
2	GND

8. Ethernet Communication Connector

NO.	Function	NO.	Function
1	TD+	6	RD−
2	TD−	7	----
3	RD+	8	----
4	----	Connector hood	FG
5	----		



◆ Connector for Cabling

These connectors are serviced together with Ezi-SERVO Ⅱ Plus-E.

CN1 : Input/Output Connector(IN / OUT)

Item	Specification	Maker
Connector	10126-3000PE	3M
Shell	10326-52F0-008	3M

CN3 : Motor Connector(MOTOR)

Item	Specification	Maker
Housing	5557-04R	MOLEX
Terminal	5556T	MOLEX

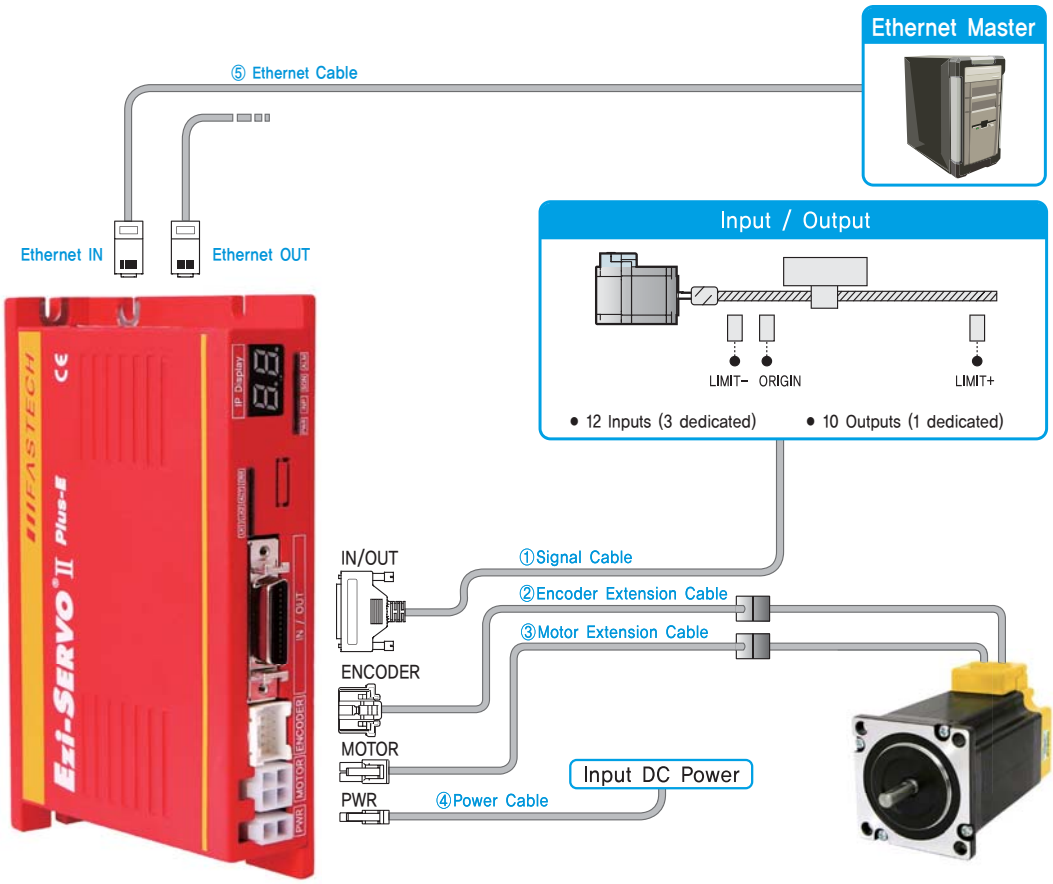
CN2 : Encoder Connector(ENCODER)

Item	Specification	Maker
Housing	51353-1000	MOLEX
Terminal	56134-9000	MOLEX

CN4 : Power Connector(PWR)

Item	Specification	Maker
Housing	5557-02R	MOLEX
Terminal	5556T	MOLEX

System Configuration



Type	Signal Cable	Encoder Cable	Motor Cable	Power Cable	Ethernet Cable
Standard Length	–	30cm	30cm	–	–
Max. Length	20m	20m	20m	2m	100m

1. Cable Option

① Signal Cable

Available to connect between Ezi-SERVO Ⅱ Plus-E and Input/Output signals.

Item	Length[m]	Remark
CSVR-S-□□□F	□□□	Normal Cable
CSVR-S-□□□M	□□□	Robot Cable

□ is for Cable Length. The unit is 1m and Max. 20m length.

② Encoder Extension Cable

Available to extended connection between Encoder and Ezi-SERVO Ⅱ Plus-E.

Item	Length[m]	Remark
CSVO-E-□□□F	□□□	Normal Cable
CSVO-E-□□□M	□□□	Robot Cable

□ is for Cable Length. The unit is 1m and Max. 20m length.

③ Motor Extension Cable

Available to extended connection between motor and Ezi-SERVO Ⅱ Plus-E.

Item	Length[m]	Remark
CSVO-M-□□□F	□□□	Normal Cable
CSVO-M-□□□M	□□□	Robot Cable

□ is for Cable Length. The unit is 1m and Max. 20m length.

④ Power Cable

Available to connect between Power and Ezi-SERVO Ⅱ Plus-E.

Item	Length[m]	Remark
CSVO-P-□□□F	□□□	Normal Cable
CSVO-P-□□□M	□□□	Robot Cable

□ is for Cable Length. The unit is 1m and Max. 2m length.

⑤ Ethernet Cable

Shielded twisted pair(STP) cable of category 5 or higher.

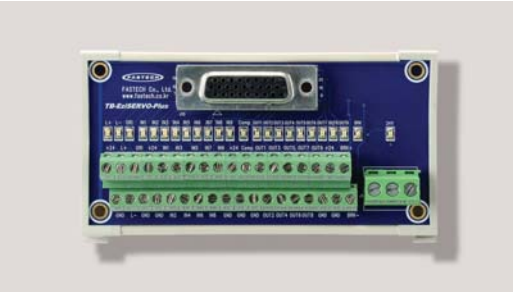
Item	Length[m]	Remark
CGNR-EC-□□□F	□□□	Normal Cable

□ is for Cable Length. The unit is 1m and Max. 100m length.

2. Option

① TB-Plus(Interface Board)

Available to connect more conveniently between Input/Output signal and Ezi-SERVO Ⅱ Plus-E.



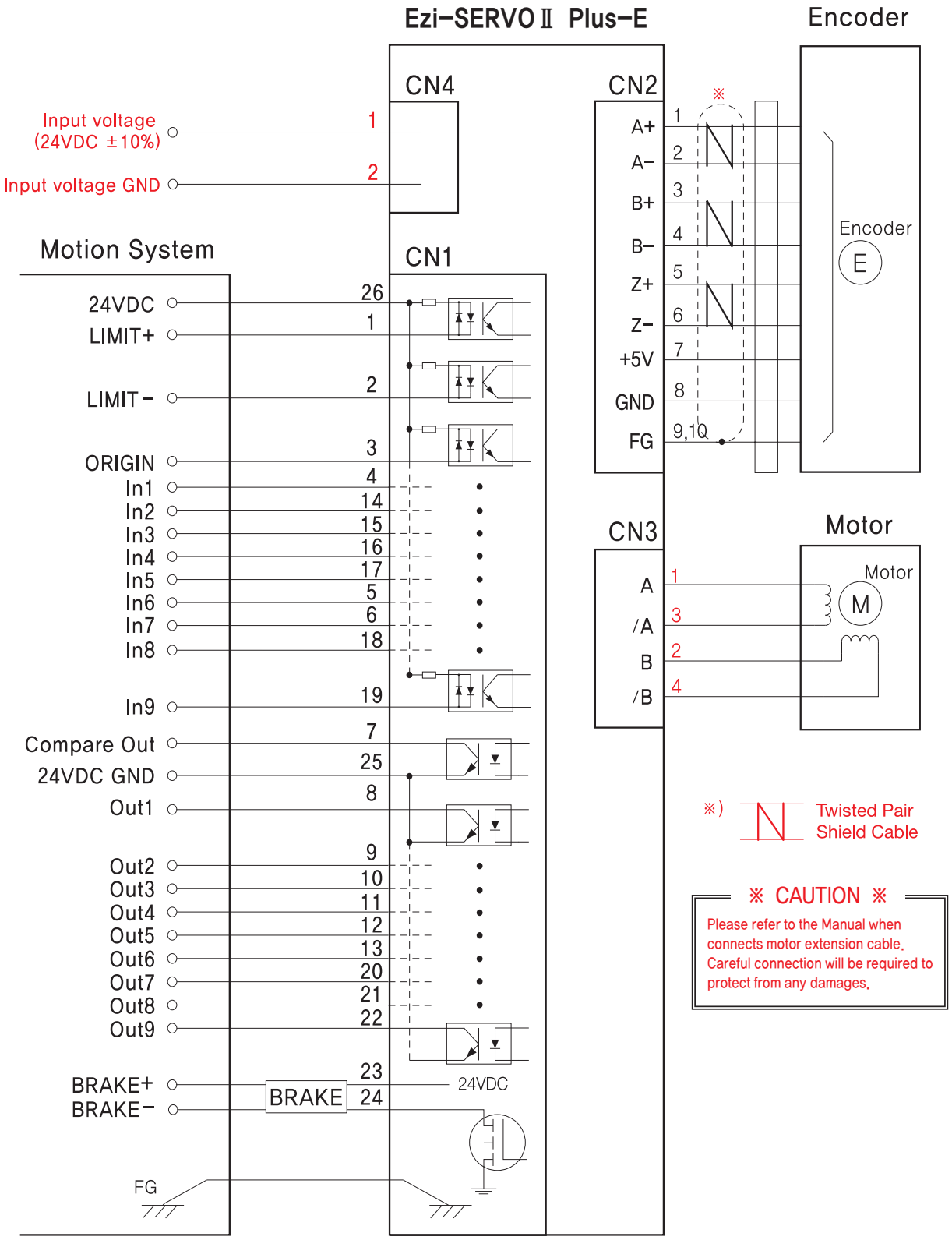
② Interface Cable

Available to Connect between TB-Plus Interface Board and Ezi-SERVO Ⅱ Plus-E.

Item	Length[m]	Remark
CIFD-S-□□□F	□□□	Normal Cable
CIFD-S-□□□M	□□□	Robot Cable

□ is for Cable Length. The unit is 1m and Max. 2m length.

● External Wiring Diagram



※ CAUTION ※

Please refer to the Manual when connects motor extension cable. Careful connection will be required to protect from any damages.

MEMO

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FASTECH Ezi-SERVO II Plus-E

FASTECH

Fast, Accurate, Smooth Motion

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