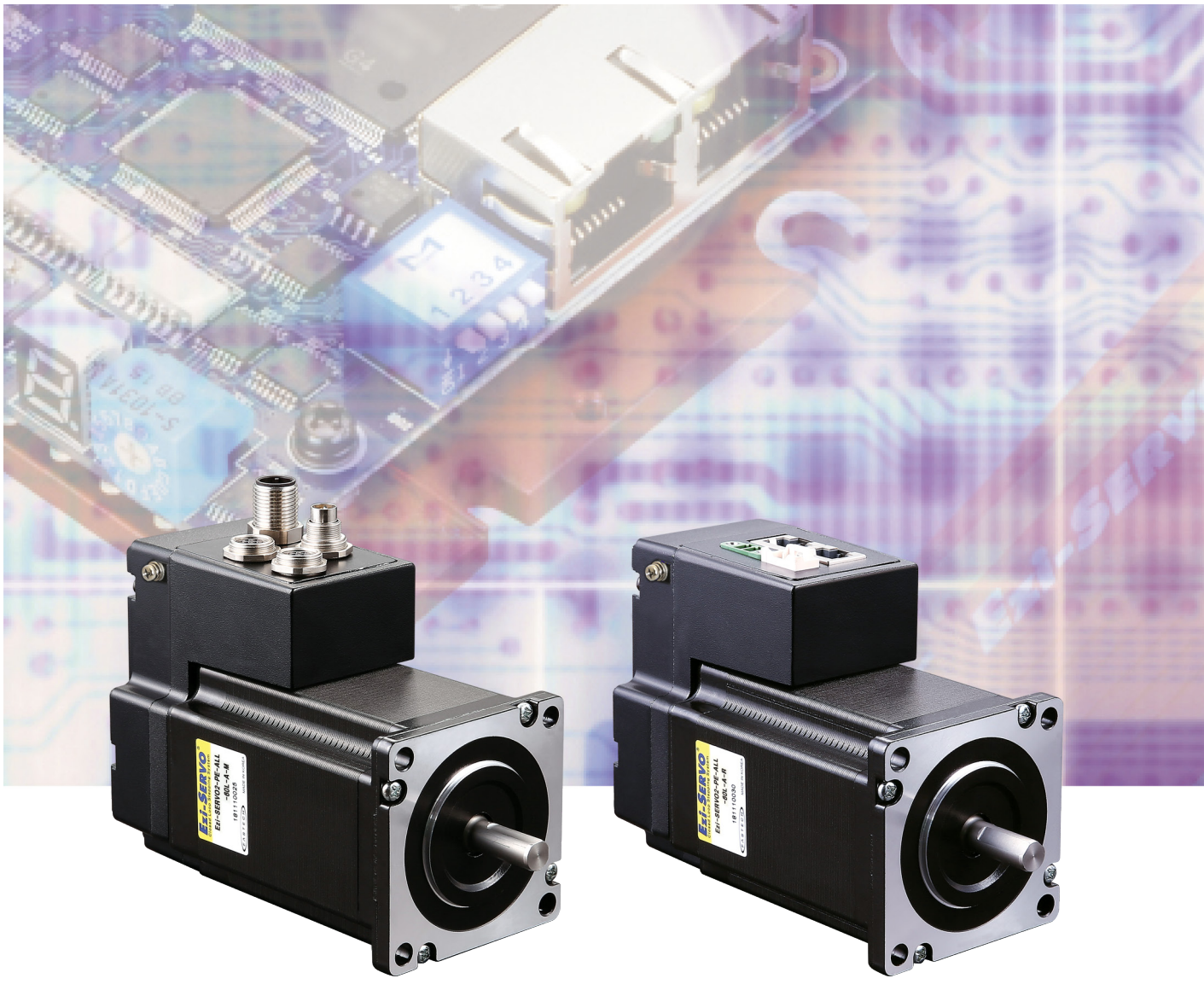

EzM2-60L
Ezi-SERVO II Plus-E

Ezi-SERVO® II Plus-E ALL

Closed Loop Stepping System

- Motor + High Resolution Encoder + Drive + Motion Controller
- Space Saving / Reduced Wiring
- Ethernet Interface
- Closed-Loop Stepping System
- Tuning Not Required / No Hunting
- Low Heat Generation / High Torque

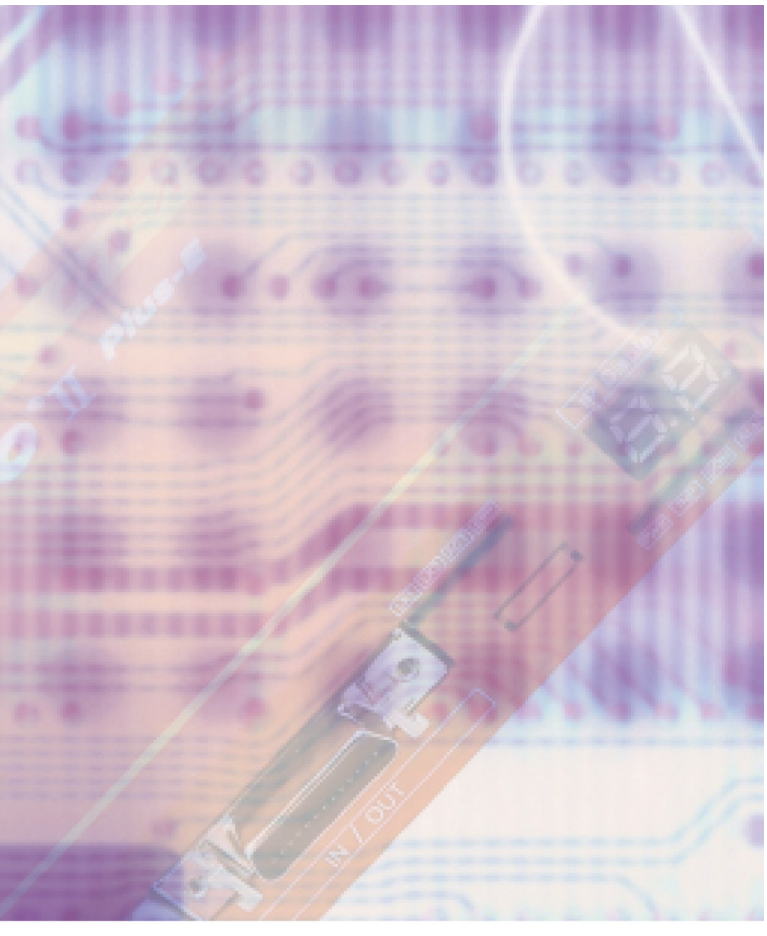


FASTECH

Fast, Accurate, Smooth Motion

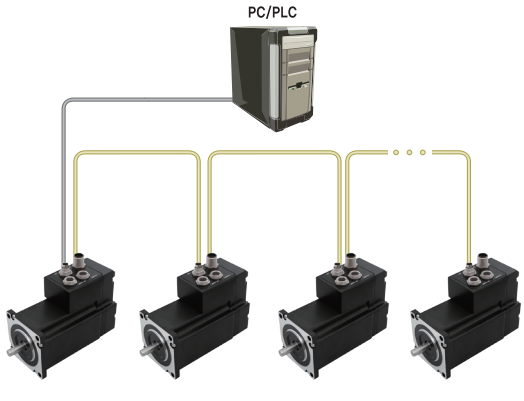
Ezi-SERVO® II Plus-E ALL

Closed Loop Stepping System



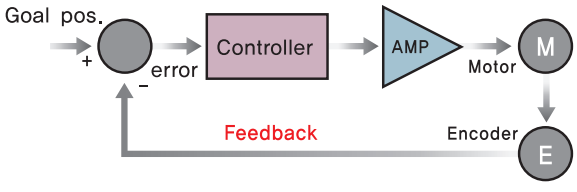
1 Network Based Motion Control

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



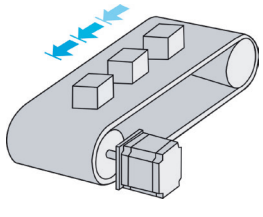
2 Closed-Loop System

Ezi-SERVO II is an innovative Closed-Loop System that utilizes a high-resolution motor mounted encoder constantly to monitor the current position. The encoder feedback allows the Ezi-SERVO II to update the cur-rent position every 50μs. It 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 stepping motor and drive could lose a step but Ezi-SERVO II automatically cor-rect the position by encoder feedback.



3 Tuning Not Required

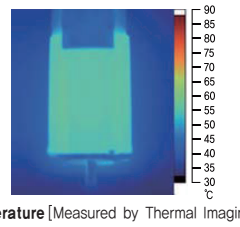
To ensure machine performance, conventional servo systems require the adjustment of its servo' s gains as an initial crucial step. Even systems that employ auto-tuning require manual tuning after the system is installed. Ezi-SERVO II employs the best characteristics of the stepping motor to eliminate the need of tedious gain tuning required for conventional closed-loop servo systems. Ezi-SERVO II is especially well suited for low-rigidity loads (e.g., a belt and pulley system) that sometimes require conventional servo systems to use the additional bulky and expensive gearbox.



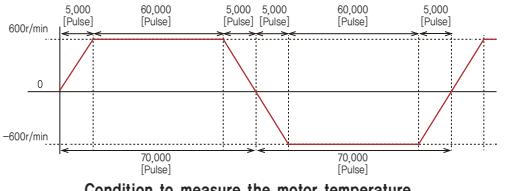
4 Low Heat Generation / Energy Savings

(Motor Current Control according to load)

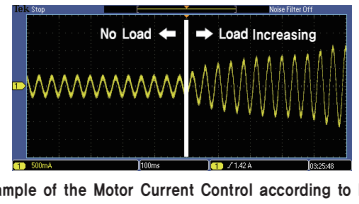
Ezi-SERVO II automatically controls motor current according to load.
Ezi-SERVO II reduces motor current when motor load is low and increases motor current when load is high. By optimizing the motor current, motor heat can be minimized and energy can be saved.



Motor temperature [Measured by Thermal Imaging Camera]



Condition to measure the motor temperature
[4hours operation, Motor surface temperature saturation]

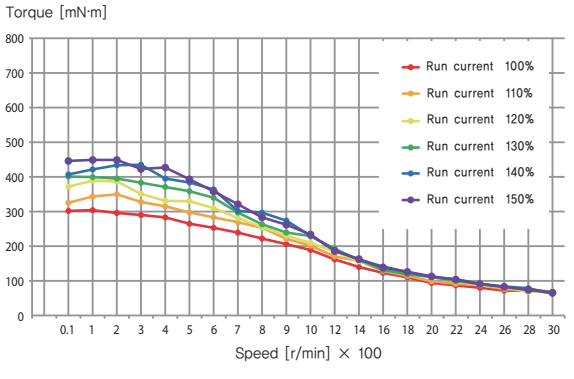


Example of the Motor Current Control according to load

5 High Torque

(Motor Current Setting)

Ezi-SERVO II can increase the motor current up to 150% by setting the Run Current by parameter. Therefore acceleration and deceleration characteristics and torque characteristics at low speed can be increased. Ezi-SERVO II can improve the torque in the low speed range by about 30%.

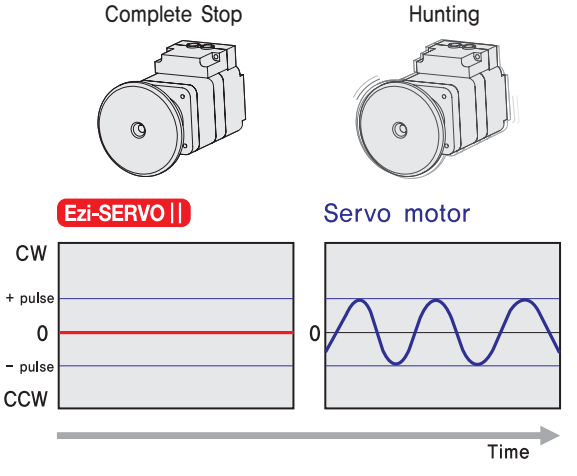


※ The torque at low speed is improved about 30%

Measured Condition : Drive = Ezi-SERVO II-PE-ALL-42L

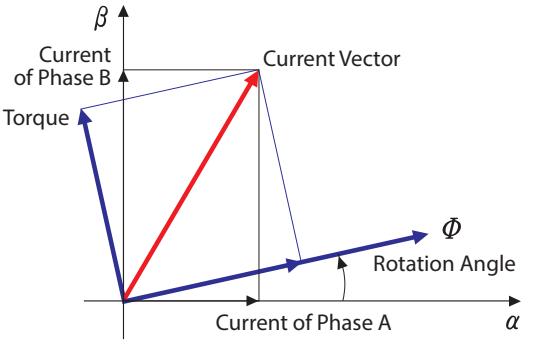
6 No Hunting

Ezi-SERVO II utilizes the unique characteristics of stepping motors and locks itself into the desired target position, preventing vibration and eliminating Null Hunt which happens to the conventional servo systems.
This feature is especially useful in applications such as vision systems in which system oscillation and vibration could be a problem.



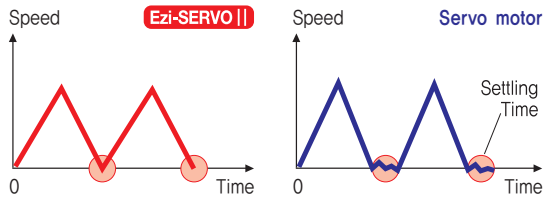
7 Smooth and Accurate Operation

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 MCU (Micro Controller Unit) performs vector control and filtering, producing a smooth rotational control with minimum ripples.



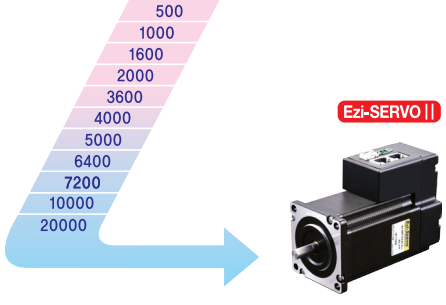
8 High Response

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



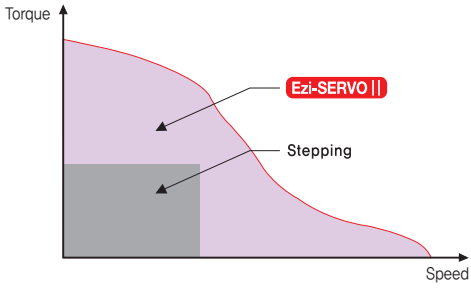
9 High Resolution

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



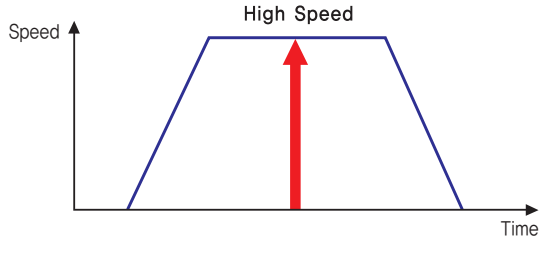
10 High Torque / Continuous Operation

Compared with common stepping 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.



11 High Speed

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



● Advantages over Open-Loop Stepping System Drive

1. Positioning is reliable without loss of synchronism.
2. It can hold stable position and automatically recover to the original position even after experiencing positioning error due to external forces, such as mechanical vibration or vertical positional holding.
3. Ezi-SERVO II utilizes 100% of rated motor torque, contrary to a conventional open-loop stepping driver that can use up to 50% of the rated motor torque due to the loss of synchronism.
4. Ezi-SERVO II can operate at high speed due to load-dependent current control, while open-loop stepping drives use a constant current control at all speed ranges without considering load variations. (Max Speed : 3,000r/min)

● Advantages over Servo Motor Controller

1. Tuning is not required. (Automatic gain adjustment in response to a load change)
2. It can maintain the stable holding position without oscillation after completion of positioning.
3. Positioning is fast due to the independent control by on-board MCU.
4. Operation is constant during rapid short-stroke movement due to instantaneous positioning.

Ezi-SERVO II Plus-E ALL Part Numbering

Ezi-SERVO II-PE-ALL-56L-A-BK-PN5-M

Series Name

Type Name

PE-ALL : Ethernet ALL

Motor Flange Size

42 : 42mm
56 : 56mm
60 : 60mm
86 : 86mm

Motor Length

S : Small
M : Medium
L : Large
XL : Extra Large

Encoder Resolution

A : 10,000P/R
B : 20,000P/R

Brake

Blank : Without Brake
BK : Brake

Gear Ratio

Blank : Without Gear
PN3 : 1:3
PN5 : 1:5
PN8 : 1:8
PN10 : 1:10
PN15 : 1:15
PN25 : 1:25
PN40 : 1:40
PN50 : 1:50

Connector Type

M : M Connector
R : RJ45 Connector

Standard Combination

Unit Part Number	Motor Model Number	Drive Model Number
Ezi-SERVO II-PE-ALL-42M-A-M		
Ezi-SERVO II-PE-ALL-42M-B-M		
Ezi-SERVO II-PE-ALL-42M-A-R		
Ezi-SERVO II-PE-ALL-42M-B-R		
Ezi-SERVO II-PE-ALL-42L-A-M		
Ezi-SERVO II-PE-ALL-42L-B-M		
Ezi-SERVO II-PE-ALL-42L-A-R		
Ezi-SERVO II-PE-ALL-42L-B-R		
Ezi-SERVO II-PE-ALL-42XL-A-M		
Ezi-SERVO II-PE-ALL-42XL-B-M		
Ezi-SERVO II-PE-ALL-42XL-A-R		
Ezi-SERVO II-PE-ALL-42XL-B-R		
Ezi-SERVO II-PE-ALL-56S-A-M		
Ezi-SERVO II-PE-ALL-56S-B-M		
Ezi-SERVO II-PE-ALL-56S-A-R		
Ezi-SERVO II-PE-ALL-56S-B-R		
Ezi-SERVO II-PE-ALL-56M-A-M		
Ezi-SERVO II-PE-ALL-56M-B-M		
Ezi-SERVO II-PE-ALL-56M-A-R		
Ezi-SERVO II-PE-ALL-56M-B-R		
Ezi-SERVO II-PE-ALL-56L-A-M		
Ezi-SERVO II-PE-ALL-56L-B-M		
Ezi-SERVO II-PE-ALL-56L-A-R		
Ezi-SERVO II-PE-ALL-56L-B-R	Motor & Drive Integrated	
Ezi-SERVO II-PE-ALL-60S-A-M		
Ezi-SERVO II-PE-ALL-60S-B-M		
Ezi-SERVO II-PE-ALL-60S-A-R		
Ezi-SERVO II-PE-ALL-60S-B-R		
Ezi-SERVO II-PE-ALL-60M-A-M		
Ezi-SERVO II-PE-ALL-60M-B-M		
Ezi-SERVO II-PE-ALL-60M-A-R		
Ezi-SERVO II-PE-ALL-60M-B-R		
Ezi-SERVO II-PE-ALL-60L-A-M		
Ezi-SERVO II-PE-ALL-60L-B-M		
Ezi-SERVO II-PE-ALL-60L-A-R		
Ezi-SERVO II-PE-ALL-60L-B-R		
Ezi-SERVO II-PE-ALL-86M-A-M		
Ezi-SERVO II-PE-ALL-86M-B-M		
Ezi-SERVO II-PE-ALL-86M-A-R		
Ezi-SERVO II-PE-ALL-86M-B-R		
Ezi-SERVO II-PE-ALL-86L-A-M		
Ezi-SERVO II-PE-ALL-86L-B-M		
Ezi-SERVO II-PE-ALL-86L-A-R		
Ezi-SERVO II-PE-ALL-86L-B-R		
Ezi-SERVO II-PE-ALL-86XL-A-M		
Ezi-SERVO II-PE-ALL-86XL-B-M		
Ezi-SERVO II-PE-ALL-86XL-A-R		
Ezi-SERVO II-PE-ALL-86XL-B-R		

Combination with Brake

Unit Part Number	Motor Model Number	Drive Model Number
Ezi-SERVO II-PE-ALL-42M-A-BK-M		
Ezi-SERVO II-PE-ALL-42M-B-BK-M		
Ezi-SERVO II-PE-ALL-42M-A-BK-R		
Ezi-SERVO II-PE-ALL-42M-B-BK-R		
Ezi-SERVO II-PE-ALL-42L-A-BK-M		
Ezi-SERVO II-PE-ALL-42L-B-BK-M		
Ezi-SERVO II-PE-ALL-42L-A-BK-R		
Ezi-SERVO II-PE-ALL-42L-B-BK-R		
Ezi-SERVO II-PE-ALL-42XL-A-BK-M		
Ezi-SERVO II-PE-ALL-42XL-B-BK-M		
Ezi-SERVO II-PE-ALL-42XL-A-BK-R		
Ezi-SERVO II-PE-ALL-42XL-B-BK-R		
Ezi-SERVO II-PE-ALL-56S-A-BK-M		
Ezi-SERVO II-PE-ALL-56S-B-BK-M		
Ezi-SERVO II-PE-ALL-56S-A-BK-R		
Ezi-SERVO II-PE-ALL-56S-B-BK-R		
Ezi-SERVO II-PE-ALL-56M-A-BK-M		
Ezi-SERVO II-PE-ALL-56M-B-BK-M		
Ezi-SERVO II-PE-ALL-56M-A-BK-R		
Ezi-SERVO II-PE-ALL-56M-B-BK-R		
Ezi-SERVO II-PE-ALL-56L-A-BK-M		
Ezi-SERVO II-PE-ALL-56L-B-BK-M		
Ezi-SERVO II-PE-ALL-56L-A-BK-R		
Ezi-SERVO II-PE-ALL-56L-B-BK-R	Motor & Drive Integrated	
Ezi-SERVO II-PE-ALL-60S-A-BK-M		
Ezi-SERVO II-PE-ALL-60S-B-BK-M		
Ezi-SERVO II-PE-ALL-60S-A-BK-R		
Ezi-SERVO II-PE-ALL-60S-B-BK-R		
Ezi-SERVO II-PE-ALL-60M-A-BK-M		
Ezi-SERVO II-PE-ALL-60M-B-BK-M		
Ezi-SERVO II-PE-ALL-60M-A-BK-R		
Ezi-SERVO II-PE-ALL-60M-B-BK-R		
Ezi-SERVO II-PE-ALL-60L-A-BK-M		
Ezi-SERVO II-PE-ALL-60L-B-BK-M		
Ezi-SERVO II-PE-ALL-60L-A-BK-R		
Ezi-SERVO II-PE-ALL-60L-B-BK-R		
Ezi-SERVO II-PE-ALL-86M-A-BK-M		
Ezi-SERVO II-PE-ALL-86M-B-BK-M		
Ezi-SERVO II-PE-ALL-86M-A-BK-R		
Ezi-SERVO II-PE-ALL-86M-B-BK-R		
Ezi-SERVO II-PE-ALL-86L-A-BK-M		
Ezi-SERVO II-PE-ALL-86L-B-BK-M		
Ezi-SERVO II-PE-ALL-86L-A-BK-R		
Ezi-SERVO II-PE-ALL-86L-B-BK-R		
Ezi-SERVO II-PE-ALL-86XL-A-BK-M		
Ezi-SERVO II-PE-ALL-86XL-B-BK-M		
Ezi-SERVO II-PE-ALL-86XL-A-BK-R		
Ezi-SERVO II-PE-ALL-86XL-B-BK-R		

Combination with Gearbox

Unit Part Number	Motor Model Number	Drive Model Number	Gear Ratio
Ezi-SERVO II-PE-ALL-42M-A-PN3-M			1:3
Ezi-SERVO II-PE-ALL-42M-B-PN3-M			
Ezi-SERVO II-PE-ALL-42M-A-PN3-R			
Ezi-SERVO II-PE-ALL-42M-B-PN3-R			
Ezi-SERVO II-PE-ALL-42M-A-PN5-M			1:5
Ezi-SERVO II-PE-ALL-42M-B-PN5-M			
Ezi-SERVO II-PE-ALL-42M-A-PN5-R			
Ezi-SERVO II-PE-ALL-42M-B-PN5-R			
Ezi-SERVO II-PE-ALL-42M-A-PN8-M			1:8
Ezi-SERVO II-PE-ALL-42M-B-PN8-M			
Ezi-SERVO II-PE-ALL-42M-A-PN8-R			
Ezi-SERVO II-PE-ALL-42M-B-PN8-R			
Ezi-SERVO II-PE-ALL-42M-A-PN10-M			1:10
Ezi-SERVO II-PE-ALL-42M-B-PN10-M			
Ezi-SERVO II-PE-ALL-42M-A-PN10-R			
Ezi-SERVO II-PE-ALL-42M-B-PN10-R			
Ezi-SERVO II-PE-ALL-42M-A-PN15-M			1:15
Ezi-SERVO II-PE-ALL-42M-B-PN15-M			
Ezi-SERVO II-PE-ALL-42M-A-PN15-R			
Ezi-SERVO II-PE-ALL-42M-B-PN15-R			
Ezi-SERVO II-PE-ALL-42M-A-PN25-M			1:25
Ezi-SERVO II-PE-ALL-42M-B-PN25-M			
Ezi-SERVO II-PE-ALL-42M-A-PN25-R			
Ezi-SERVO II-PE-ALL-42M-B-PN25-R			
Ezi-SERVO II-PE-ALL-42M-A-PN40-M			1:40
Ezi-SERVO II-PE-ALL-42M-B-PN40-M			
Ezi-SERVO II-PE-ALL-42M-A-PN40-R			
Ezi-SERVO II-PE-ALL-42M-B-PN40-R			
Ezi-SERVO II-PE-ALL-42M-A-PN50-M			1:50
Ezi-SERVO II-PE-ALL-42M-B-PN50-M			
Ezi-SERVO II-PE-ALL-42M-A-PN50-R			
Ezi-SERVO II-PE-ALL-42M-B-PN50-R	Motor & Drive Integrated		
Ezi-SERVO II-PE-ALL-42L-A-PN3-M			1:3
Ezi-SERVO II-PE-ALL-42L-B-PN3-M			
Ezi-SERVO II-PE-ALL-42L-A-PN3-R			
Ezi-SERVO II-PE-ALL-42L-B-PN3-R			
Ezi-SERVO II-PE-ALL-42L-A-PN5-M			1:5
Ezi-SERVO II-PE-ALL-42L-B-PN5-M			
Ezi-SERVO II-PE-ALL-42L-A-PN5-R			
Ezi-SERVO II-PE-ALL-42L-B-PN5-R			
Ezi-SERVO II-PE-ALL-42L-A-PN8-M			1:8
Ezi-SERVO II-PE-ALL-42L-B-PN8-M			
Ezi-SERVO II-PE-ALL-42L-A-PN8-R			
Ezi-SERVO II-PE-ALL-42L-B-PN8-R			
Ezi-SERVO II-PE-ALL-42L-A-PN10-M			1:10
Ezi-SERVO II-PE-ALL-42L-B-PN10-M			
Ezi-SERVO II-PE-ALL-42L-A-PN10-R			
Ezi-SERVO II-PE-ALL-42L-B-PN10-R			
Ezi-SERVO II-PE-ALL-42L-A-PN15-M			1:15
Ezi-SERVO II-PE-ALL-42L-B-PN15-M			
Ezi-SERVO II-PE-ALL-42L-A-PN15-R			
Ezi-SERVO II-PE-ALL-42L-B-PN15-R			
Ezi-SERVO II-PE-ALL-42L-A-PN25-M			1:25
Ezi-SERVO II-PE-ALL-42L-B-PN25-M			
Ezi-SERVO II-PE-ALL-42L-A-PN25-R			
Ezi-SERVO II-PE-ALL-42L-B-PN25-R			
Ezi-SERVO II-PE-ALL-42L-A-PN40-M			1:40
Ezi-SERVO II-PE-ALL-42L-B-PN40-M			
Ezi-SERVO II-PE-ALL-42L-A-PN40-R			
Ezi-SERVO II-PE-ALL-42L-B-PN40-R			
Ezi-SERVO II-PE-ALL-42L-A-PN50-M			1:50
Ezi-SERVO II-PE-ALL-42L-B-PN50-M			
Ezi-SERVO II-PE-ALL-42L-A-PN50-R			
Ezi-SERVO II-PE-ALL-42L-B-PN50-R			

Combination with Gearbox

Unit Part Number	Motor Model Number	Drive Model Number	Gear Ratio
Ezi-SERVO II-PE-ALL-42XL-A-PN3-M			1:3
Ezi-SERVO II-PE-ALL-42XL-B-PN3-M			
Ezi-SERVO II-PE-ALL-42XL-A-PN3-R			
Ezi-SERVO II-PE-ALL-42XL-B-PN3-R			
Ezi-SERVO II-PE-ALL-42XL-A-PN5-M			1:5
Ezi-SERVO II-PE-ALL-42XL-B-PN5-M			
Ezi-SERVO II-PE-ALL-42XL-A-PN5-R			
Ezi-SERVO II-PE-ALL-42XL-B-PN5-R			
Ezi-SERVO II-PE-ALL-42XL-A-PN8-M			1:8
Ezi-SERVO II-PE-ALL-42XL-B-PN8-M			
Ezi-SERVO II-PE-ALL-42XL-A-PN8-R			
Ezi-SERVO II-PE-ALL-42XL-B-PN8-R			
Ezi-SERVO II-PE-ALL-42XL-A-PN10-M			1:10
Ezi-SERVO II-PE-ALL-42XL-B-PN10-M			
Ezi-SERVO II-PE-ALL-42XL-A-PN10-R			
Ezi-SERVO II-PE-ALL-42XL-B-PN10-R			
Ezi-SERVO II-PE-ALL-42XL-A-PN15-M			1:15
Ezi-SERVO II-PE-ALL-42XL-B-PN15-M			
Ezi-SERVO II-PE-ALL-42XL-A-PN15-R			
Ezi-SERVO II-PE-ALL-42XL-B-PN15-R			
Ezi-SERVO II-PE-ALL-42XL-A-PN25-M			1:25
Ezi-SERVO II-PE-ALL-42XL-B-PN25-M			
Ezi-SERVO II-PE-ALL-42XL-A-PN25-R			
Ezi-SERVO II-PE-ALL-42XL-B-PN25-R			
Ezi-SERVO II-PE-ALL-42XL-A-PN40-M			1:40
Ezi-SERVO II-PE-ALL-42XL-B-PN40-M			
Ezi-SERVO II-PE-ALL-42XL-A-PN40-R			
Ezi-SERVO II-PE-ALL-42XL-B-PN40-R			
Ezi-SERVO II-PE-ALL-42XL-A-PN50-M			1:50
Ezi-SERVO II-PE-ALL-42XL-B-PN50-M			
Ezi-SERVO II-PE-ALL-42XL-A-PN50-R			
Ezi-SERVO II-PE-ALL-42XL-B-PN50-R	Motor & Drive Integrated		
Ezi-SERVO II-PE-ALL-56S-A-PN3-M			1:3
Ezi-SERVO II-PE-ALL-56S-B-PN3-M			
Ezi-SERVO II-PE-ALL-56S-A-PN3-R			
Ezi-SERVO II-PE-ALL-56S-B-PN3-R			
Ezi-SERVO II-PE-ALL-56S-A-PN5-M			1:5
Ezi-SERVO II-PE-ALL-56S-B-PN5-M			
Ezi-SERVO II-PE-ALL-56S-A-PN5-R			
Ezi-SERVO II-PE-ALL-56S-B-PN5-R			
Ezi-SERVO II-PE-ALL-56S-A-PN8-M			1:8
Ezi-SERVO II-PE-ALL-56S-B-PN8-M			
Ezi-SERVO II-PE-ALL-56S-A-PN8-R			
Ezi-SERVO II-PE-ALL-56S-B-PN8-R			
Ezi-SERVO II-PE-ALL-56S-A-PN10-M			1:10
Ezi-SERVO II-PE-ALL-56S-B-PN10-M			
Ezi-SERVO II-PE-ALL-56S-A-PN10-R			
Ezi-SERVO II-PE-ALL-56S-B-PN10-R			
Ezi-SERVO II-PE-ALL-56S-A-PN15-M			1:15
Ezi-SERVO II-PE-ALL-56S-B-PN15-M			
Ezi-SERVO II-PE-ALL-56S-A-PN15-R			
Ezi-SERVO II-PE-ALL-56S-B-PN15-R			
Ezi-SERVO II-PE-ALL-56S-A-PN25-M			1:25
Ezi-SERVO II-PE-ALL-56S-B-PN25-M			
Ezi-SERVO II-PE-ALL-56S-A-PN25-R			
Ezi-SERVO II-PE-ALL-56S-B-PN25-R			
Ezi-SERVO II-PE-ALL-56S-A-PN40-M			1:40
Ezi-SERVO II-PE-ALL-56S-B-PN40-M			
Ezi-SERVO II-PE-ALL-56S-A-PN40-R			
Ezi-SERVO II-PE-ALL-56S-B-PN40-R			
Ezi-SERVO II-PE-ALL-56S-A-PN50-M			1:50
Ezi-SERVO II-PE-ALL-56S-B-PN50-M			
Ezi-SERVO II-PE-ALL-56S-A-PN50-R			
Ezi-SERVO II-PE-ALL-56S-B-PN50-R			

Unit Part Number	Motor Model Number	Drive Model Number	Gear Ratio
Ezi-SERVO II-PE-ALL-56M-A-PN3-M			1:3
Ezi-SERVO II-PE-ALL-56M-B-PN3-M			
Ezi-SERVO II-PE-ALL-56M-A-PN3-R			
Ezi-SERVO II-PE-ALL-56M-B-PN3-R			
Ezi-SERVO II-PE-ALL-56M-A-PN5-M			1:5
Ezi-SERVO II-PE-ALL-56M-B-PN5-M			
Ezi-SERVO II-PE-ALL-56M-A-PN5-R			
Ezi-SERVO II-PE-ALL-56M-B-PN5-R			
Ezi-SERVO II-PE-ALL-56M-A-PN8-M			1:8
Ezi-SERVO II-PE-ALL-56M-B-PN8-M			
Ezi-SERVO II-PE-ALL-56M-A-PN8-R			
Ezi-SERVO II-PE-ALL-56M-B-PN8-R			
Ezi-SERVO II-PE-ALL-56M-A-PN10-M			1:10
Ezi-SERVO II-PE-ALL-56M-B-PN10-M			
Ezi-SERVO II-PE-ALL-56M-A-PN10-R			
Ezi-SERVO II-PE-ALL-56M-B-PN10-R			
Ezi-SERVO II-PE-ALL-56M-A-PN15-M			1:15
Ezi-SERVO II-PE-ALL-56M-B-PN15-M			
Ezi-SERVO II-PE-ALL-56M-A-PN15-R			
Ezi-SERVO II-PE-ALL-56M-B-PN15-R			
Ezi-SERVO II-PE-ALL-56M-A-PN25-M			1:25
Ezi-SERVO II-PE-ALL-56M-B-PN25-M			
Ezi-SERVO II-PE-ALL-56M-A-PN25-R			
Ezi-SERVO II-PE-ALL-56M-B-PN25-R			
Ezi-SERVO II-PE-ALL-56M-A-PN40-M			1:40
Ezi-SERVO II-PE-ALL-56M-B-PN40-M			
Ezi-SERVO II-PE-ALL-56M-A-PN40-R			
Ezi-SERVO II-PE-ALL-56M-B-PN40-R			
Ezi-SERVO II-PE-ALL-56M-A-PN50-M			1:50
Ezi-SERVO II-PE-ALL-56M-B-PN50-M			
Ezi-SERVO II-PE-ALL-56M-A-PN50-R			
Ezi-SERVO II-PE-ALL-56M-B-PN50-R	Motor & Drive Integrated		
Ezi-SERVO II-PE-ALL-56L-A-PN3-M			1:3
Ezi-SERVO II-PE-ALL-56L-B-PN3-M			
Ezi-SERVO II-PE-ALL-56L-A-PN3-R			
Ezi-SERVO II-PE-ALL-56L-B-PN3-R			
Ezi-SERVO II-PE-ALL-56L-A-PN5-M			1:5
Ezi-SERVO II-PE-ALL-56L-B-PN5-M			
Ezi-SERVO II-PE-ALL-56L-A-PN5-R			
Ezi-SERVO II-PE-ALL-56L-B-PN5-R			
Ezi-SERVO II-PE-ALL-56L-A-PN8-M			1:8
Ezi-SERVO II-PE-ALL-56L-B-PN8-M			
Ezi-SERVO II-PE-ALL-56L-A-PN8-R			
Ezi-SERVO II-PE-ALL-56L-B-PN8-R			
Ezi-SERVO II-PE-ALL-56L-A-PN10-M			1:10
Ezi-SERVO II-PE-ALL-56L-B-PN10-M			
Ezi-SERVO II-PE-ALL-56L-A-PN10-R			
Ezi-SERVO II-PE-ALL-56L-B-PN10-R			
Ezi-SERVO II-PE-ALL-56L-A-PN15-M			1:15
Ezi-SERVO II-PE-ALL-56L-B-PN15-M			
Ezi-SERVO II-PE-ALL-56L-A-PN15-R			
Ezi-SERVO II-PE-ALL-56L-B-PN15-R			
Ezi-SERVO II-PE-ALL-56L-A-PN25-M			1:25
Ezi-SERVO II-PE-ALL-56L-B-PN25-M			
Ezi-SERVO II-PE-ALL-56L-A-PN25-R			
Ezi-SERVO II-PE-ALL-56L-B-PN25-R			
Ezi-SERVO II-PE-ALL-56L-A-PN40-M			1:40
Ezi-SERVO II-PE-ALL-56L-B-PN40-M			
Ezi-SERVO II-PE-ALL-56L-A-PN40-R			
Ezi-SERVO II-PE-ALL-56L-B-PN40-R			
Ezi-SERVO II-PE-ALL-56L-A-PN50-M			1:50
Ezi-SERVO II-PE-ALL-56L-B-PN50-M			
Ezi-SERVO II-PE-ALL-56L-A-PN50-R			
Ezi-SERVO II-PE-ALL-56L-B-PN50-R			

Combination with Gearbox

Unit Part Number	Motor Model Number	Drive Model Number	Gear Ratio
Ezi-SERVO II-PE-ALL-60S-A-PN3-M	Motor & Drive Integrated		1:3
Ezi-SERVO II-PE-ALL-60S-B-PN3-M			
Ezi-SERVO II-PE-ALL-60S-A-PN3-R			
Ezi-SERVO II-PE-ALL-60S-B-PN3-R			
Ezi-SERVO II-PE-ALL-60S-A-PN5-M			1:5
Ezi-SERVO II-PE-ALL-60S-B-PN5-M			
Ezi-SERVO II-PE-ALL-60S-A-PN5-R			
Ezi-SERVO II-PE-ALL-60S-B-PN5-R			
Ezi-SERVO II-PE-ALL-60S-A-PN8-M			1:8
Ezi-SERVO II-PE-ALL-60S-B-PN8-M			
Ezi-SERVO II-PE-ALL-60S-A-PN8-R			
Ezi-SERVO II-PE-ALL-60S-B-PN8-R			
Ezi-SERVO II-PE-ALL-60S-A-PN10-M			1:10
Ezi-SERVO II-PE-ALL-60S-B-PN10-M			
Ezi-SERVO II-PE-ALL-60S-A-PN10-R			
Ezi-SERVO II-PE-ALL-60S-B-PN10-R			
Ezi-SERVO II-PE-ALL-60S-A-PN15-M			1:15
Ezi-SERVO II-PE-ALL-60S-B-PN15-M			
Ezi-SERVO II-PE-ALL-60S-A-PN15-R			
Ezi-SERVO II-PE-ALL-60S-B-PN15-R			
Ezi-SERVO II-PE-ALL-60S-A-PN25-M			1:25
Ezi-SERVO II-PE-ALL-60S-B-PN25-M			
Ezi-SERVO II-PE-ALL-60S-A-PN25-R			
Ezi-SERVO II-PE-ALL-60S-B-PN25-R			
Ezi-SERVO II-PE-ALL-60S-A-PN40-M			1:40
Ezi-SERVO II-PE-ALL-60S-B-PN40-M			
Ezi-SERVO II-PE-ALL-60S-A-PN40-R			
Ezi-SERVO II-PE-ALL-60S-B-PN40-R			
Ezi-SERVO II-PE-ALL-60S-A-PN50-M			1:50
Ezi-SERVO II-PE-ALL-60S-B-PN50-M			
Ezi-SERVO II-PE-ALL-60S-A-PN50-R			
Ezi-SERVO II-PE-ALL-60S-B-PN50-R			
Ezi-SERVO II-PE-ALL-60M-A-PN3-M			1:3
Ezi-SERVO II-PE-ALL-60M-B-PN3-M			
Ezi-SERVO II-PE-ALL-60M-A-PN3-R			
Ezi-SERVO II-PE-ALL-60M-B-PN3-R			
Ezi-SERVO II-PE-ALL-60M-A-PN5-M			1:5
Ezi-SERVO II-PE-ALL-60M-B-PN5-M			
Ezi-SERVO II-PE-ALL-60M-A-PN5-R			
Ezi-SERVO II-PE-ALL-60M-B-PN5-R			
Ezi-SERVO II-PE-ALL-60M-A-PN8-M			1:8
Ezi-SERVO II-PE-ALL-60M-B-PN8-M			
Ezi-SERVO II-PE-ALL-60M-A-PN8-R			
Ezi-SERVO II-PE-ALL-60M-B-PN8-R			
Ezi-SERVO II-PE-ALL-60M-A-PN10-M			1:10
Ezi-SERVO II-PE-ALL-60M-B-PN10-M			
Ezi-SERVO II-PE-ALL-60M-A-PN10-R			
Ezi-SERVO II-PE-ALL-60M-B-PN10-R			
Ezi-SERVO II-PE-ALL-60M-A-PN15-M			1:15
Ezi-SERVO II-PE-ALL-60M-B-PN15-M			
Ezi-SERVO II-PE-ALL-60M-A-PN15-R			
Ezi-SERVO II-PE-ALL-60M-B-PN15-R			
Ezi-SERVO II-PE-ALL-60M-A-PN25-M			1:25
Ezi-SERVO II-PE-ALL-60M-B-PN25-M			
Ezi-SERVO II-PE-ALL-60M-A-PN25-R			
Ezi-SERVO II-PE-ALL-60M-B-PN25-R			
Ezi-SERVO II-PE-ALL-60M-A-PN40-M			1:40
Ezi-SERVO II-PE-ALL-60M-B-PN40-M			
Ezi-SERVO II-PE-ALL-60M-A-PN40-R			
Ezi-SERVO II-PE-ALL-60M-B-PN40-R			
Ezi-SERVO II-PE-ALL-60M-A-PN50-M			1:50
Ezi-SERVO II-PE-ALL-60M-B-PN50-M			
Ezi-SERVO II-PE-ALL-60M-A-PN50-R			
Ezi-SERVO II-PE-ALL-60M-B-PN50-R			

Unit Part Number	Motor Model Number	Drive Model Number	Gear Ratio
Ezi-SERVO II-PE-ALL-60L-A-PN3-M	Motor & Drive Integrated		1:3
Ezi-SERVO II-PE-ALL-60L-B-PN3-M			
Ezi-SERVO II-PE-ALL-60L-A-PN3-R			
Ezi-SERVO II-PE-ALL-60L-B-PN3-R			
Ezi-SERVO II-PE-ALL-60L-A-PN5-M			1:5
Ezi-SERVO II-PE-ALL-60L-B-PN5-M			
Ezi-SERVO II-PE-ALL-60L-A-PN5-R			
Ezi-SERVO II-PE-ALL-60L-B-PN5-R			
Ezi-SERVO II-PE-ALL-60L-A-PN8-M			1:8
Ezi-SERVO II-PE-ALL-60L-B-PN8-M			
Ezi-SERVO II-PE-ALL-60L-A-PN8-R			
Ezi-SERVO II-PE-ALL-60L-B-PN8-R			
Ezi-SERVO II-PE-ALL-60L-A-PN10-M			1:10
Ezi-SERVO II-PE-ALL-60L-B-PN10-M			
Ezi-SERVO II-PE-ALL-60L-A-PN10-R			
Ezi-SERVO II-PE-ALL-60L-B-PN10-R			
Ezi-SERVO II-PE-ALL-60L-A-PN15-M			1:15
Ezi-SERVO II-PE-ALL-60L-B-PN15-M			
Ezi-SERVO II-PE-ALL-60L-A-PN15-R			
Ezi-SERVO II-PE-ALL-60L-B-PN15-R			
Ezi-SERVO II-PE-ALL-60L-A-PN25-M			1:25
Ezi-SERVO II-PE-ALL-60L-B-PN25-M			
Ezi-SERVO II-PE-ALL-60L-A-PN25-R			
Ezi-SERVO II-PE-ALL-60L-B-PN25-R			
Ezi-SERVO II-PE-ALL-60L-A-PN40-M			1:40
Ezi-SERVO II-PE-ALL-60L-B-PN40-M			
Ezi-SERVO II-PE-ALL-60L-A-PN40-R			
Ezi-SERVO II-PE-ALL-60L-B-PN40-R			
Ezi-SERVO II-PE-ALL-60L-A-PN50-M			1:50
Ezi-SERVO II-PE-ALL-60L-B-PN50-M			
Ezi-SERVO II-PE-ALL-60L-A-PN50-R			
Ezi-SERVO II-PE-ALL-60L-B-PN50-R			
Ezi-SERVO II-PE-ALL-86M-A-PN3-M			1:3
Ezi-SERVO II-PE-ALL-86M-B-PN3-M			
Ezi-SERVO II-PE-ALL-86M-A-PN3-R			
Ezi-SERVO II-PE-ALL-86M-B-PN3-R			
Ezi-SERVO II-PE-ALL-86M-A-PN5-M			1:5
Ezi-SERVO II-PE-ALL-86M-B-PN5-M			
Ezi-SERVO II-PE-ALL-86M-A-PN5-R			
Ezi-SERVO II-PE-ALL-86M-B-PN5-R			
Ezi-SERVO II-PE-ALL-86M-A-PN8-M			1:8
Ezi-SERVO II-PE-ALL-86M-B-PN8-M			
Ezi-SERVO II-PE-ALL-86M-A-PN8-R			
Ezi-SERVO II-PE-ALL-86M-B-PN8-R			
Ezi-SERVO II-PE-ALL-86M-A-PN10-M			1:10
Ezi-SERVO II-PE-ALL-86M-B-PN10-M			
Ezi-SERVO II-PE-ALL-86M-A-PN10-R			
Ezi-SERVO II-PE-ALL-86M-B-PN10-R			
Ezi-SERVO II-PE-ALL-86M-A-PN15-M			1:15
Ezi-SERVO II-PE-ALL-86M-B-PN15-M			
Ezi-SERVO II-PE-ALL-86M-A-PN15-R			
Ezi-SERVO II-PE-ALL-86M-B-PN15-R			
Ezi-SERVO II-PE-ALL-86M-A-PN25-M			1:25
Ezi-SERVO II-PE-ALL-86M-B-PN25-M			
Ezi-SERVO II-PE-ALL-86M-A-PN25-R			
Ezi-SERVO II-PE-ALL-86M-B-PN25-R			
Ezi-SERVO II-PE-ALL-86M-A-PN40-M			1:40
Ezi-SERVO II-PE-ALL-86M-B-PN40-M			
Ezi-SERVO II-PE-ALL-86M-A-PN40-R			
Ezi-SERVO II-PE-ALL-86M-B-PN40-R			
Ezi-SERVO II-PE-ALL-86M-A-PN50-M			1:50
Ezi-SERVO II-PE-ALL-86M-B-PN50-M			
Ezi-SERVO II-PE-ALL-86M-A-PN50-R			
Ezi-SERVO II-PE-ALL-86M-B-PN50-R			

Combination with Gearbox

Unit Part Number	Motor Model Number	Drive Model Number	Gear Ratio
Ezi-SERVO II-PE-ALL-86L-A-PN3-M			1:3
Ezi-SERVO II-PE-ALL-86L-B-PN3-M			
Ezi-SERVO II-PE-ALL-86L-A-PN3-R			
Ezi-SERVO II-PE-ALL-86L-B-PN3-R			
Ezi-SERVO II-PE-ALL-86L-A-PN5-M			1:5
Ezi-SERVO II-PE-ALL-86L-B-PN5-M			
Ezi-SERVO II-PE-ALL-86L-A-PN5-R			
Ezi-SERVO II-PE-ALL-86L-B-PN5-R			
Ezi-SERVO II-PE-ALL-86L-A-PN8-M			1:8
Ezi-SERVO II-PE-ALL-86L-B-PN8-M			
Ezi-SERVO II-PE-ALL-86L-A-PN8-R			
Ezi-SERVO II-PE-ALL-86L-B-PN8-R			
Ezi-SERVO II-PE-ALL-86L-A-PN10-M			1:10
Ezi-SERVO II-PE-ALL-86L-B-PN10-M			
Ezi-SERVO II-PE-ALL-86L-A-PN10-R			
Ezi-SERVO II-PE-ALL-86L-B-PN10-R			
Ezi-SERVO II-PE-ALL-86L-A-PN15-M			1:15
Ezi-SERVO II-PE-ALL-86L-B-PN15-M			
Ezi-SERVO II-PE-ALL-86L-A-PN15-R			
Ezi-SERVO II-PE-ALL-86L-B-PN15-R			
Ezi-SERVO II-PE-ALL-86L-A-PN25-M			1:25
Ezi-SERVO II-PE-ALL-86L-B-PN25-M			
Ezi-SERVO II-PE-ALL-86L-A-PN25-R			
Ezi-SERVO II-PE-ALL-86L-B-PN25-R			
Ezi-SERVO II-PE-ALL-86L-A-PN40-M			1:40
Ezi-SERVO II-PE-ALL-86L-B-PN40-M			
Ezi-SERVO II-PE-ALL-86L-A-PN40-R			
Ezi-SERVO II-PE-ALL-86L-B-PN40-R			
Ezi-SERVO II-PE-ALL-86L-A-PN50-M			1:50
Ezi-SERVO II-PE-ALL-86L-B-PN50-M			
Ezi-SERVO II-PE-ALL-86L-A-PN50-R			
Ezi-SERVO II-PE-ALL-86L-B-PN50-R	Motor & Drive Integrated		
Ezi-SERVO II-PE-ALL-86XL-A-PN3-M			1:3
Ezi-SERVO II-PE-ALL-86XL-B-PN3-M			
Ezi-SERVO II-PE-ALL-86XL-A-PN3-R			
Ezi-SERVO II-PE-ALL-86XL-B-PN3-R			
Ezi-SERVO II-PE-ALL-86XL-A-PN5-M			1:5
Ezi-SERVO II-PE-ALL-86XL-B-PN5-M			
Ezi-SERVO II-PE-ALL-86XL-A-PN5-R			
Ezi-SERVO II-PE-ALL-86XL-B-PN5-R			
Ezi-SERVO II-PE-ALL-86XL-A-PN8-M			1:8
Ezi-SERVO II-PE-ALL-86XL-B-PN8-M			
Ezi-SERVO II-PE-ALL-86XL-A-PN8-R			
Ezi-SERVO II-PE-ALL-86XL-B-PN8-R			
Ezi-SERVO II-PE-ALL-86XL-A-PN10-M			1:10
Ezi-SERVO II-PE-ALL-86XL-B-PN10-M			
Ezi-SERVO II-PE-ALL-86XL-A-PN10-R			
Ezi-SERVO II-PE-ALL-86XL-B-PN10-R			
Ezi-SERVO II-PE-ALL-86XL-A-PN15-M			1:15
Ezi-SERVO II-PE-ALL-86XL-B-PN15-M			
Ezi-SERVO II-PE-ALL-86XL-A-PN15-R			
Ezi-SERVO II-PE-ALL-86XL-B-PN15-R			
Ezi-SERVO II-PE-ALL-86XL-A-PN25-M			1:25
Ezi-SERVO II-PE-ALL-86XL-B-PN25-M			
Ezi-SERVO II-PE-ALL-86XL-A-PN25-R			
Ezi-SERVO II-PE-ALL-86XL-B-PN25-R			
Ezi-SERVO II-PE-ALL-86XL-A-PN40-M			1:40
Ezi-SERVO II-PE-ALL-86XL-B-PN40-M			
Ezi-SERVO II-PE-ALL-86XL-A-PN40-R			
Ezi-SERVO II-PE-ALL-86XL-B-PN40-R			
Ezi-SERVO II-PE-ALL-86XL-A-PN50-M			1:50
Ezi-SERVO II-PE-ALL-86XL-B-PN50-M			
Ezi-SERVO II-PE-ALL-86XL-A-PN50-R			
Ezi-SERVO II-PE-ALL-86XL-B-PN50-R			

Specifications of Drive

Model		Ezi-SERVO II-PE-ALL -42 series	Ezi-SERVO II-PE-ALL -56 series	Ezi-SERVO II-PE-ALL -60 series	Ezi-SERVO II-PE-ALL -86 series
Input Voltage		DC24V±10%			DC48V±10%
Control Method		Closed-loop control with 32 bit MCU			
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	0~3,000r/min *1			0~2,000r/min *1
	Resolution	Encoder Resolution [P/R] / Configurable Resolution [P/R] 10,000 / 500 1,000 1,600 2,000 3,600 5,000 6,400 7,200 10,000 20,000 / 500 1,000 1,600 2,000 3,600 5,000 6,400 7,200 10,000 20,000 (Selectable by parameter)			
	Error Types	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, In-Position Error, ROM Error, Position Overflow Error			
	In-Position Selection	0~63 (Set by parameter)			
	Position Gain Selection	0~63 (Set by parameter)			
	Rotational Direction	CW/CCW (Set by parameter)			
I/O Signal	Input Signals	3 dedicated inputs (LIMIT+, LIMIT-, ORIGIN), 3 programmable inputs (Photocoupler Input)			
	Output Signals	1 dedicated output (Compare Out), 1 programmable output (Photocoupler Output), 1 Brake output			
Communication Interface		· Ethernet standard: 10BASE-T, 100BASE-TX · Full-Duplex · Dual port Ethernet switch embedded			
Position Control		· Incremental mode / Absolute mode Data Range: -134,217,728 to +134,217,727 [pulse] · Operating speed: Max. 3,000 r/min			
Return to Origin		Origin Sensor, Z phase, ±Limit sensor, Torque			
GUI		User Interface Program within Windows			
Library		Motion Library (API) for windows 7/8/10			

*1 : Up to the resolution of 10,000P/R, maximum speed can be reached by 3,000r/min and with the resolution more than 10,000P/R, maximum speed shall be reduced accordingly.

*2 : Up to the resolution of 10,000P/R, maximum speed can be reached by 2,000r/min and with the resolution more than 10,000P/R, maximum speed shall be reduced accordingly.

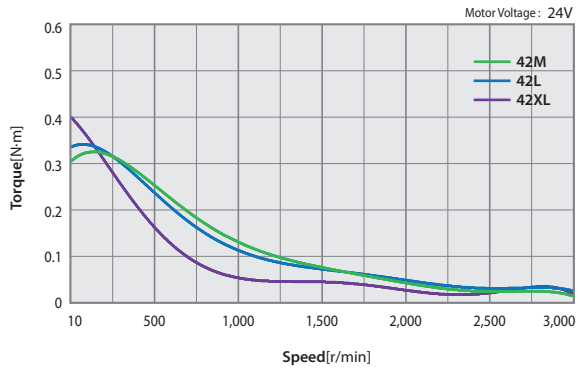
Specifications of Motor

MODEL			UNIT	Ezi-SERVOII-PE-ALL-42 series			Ezi-SERVOII-PE -ALL-56 series		
				42M	42L	42XL	56S	56M	56L
DRIVE METHOD			–	Bipolar					
NUMBER OF PHASES			–	2 Phase					
CURRENT per PHASE			A/Phase	1.2	1.2	1.2	3.0	3.0	3.0
MAXIMUM HOLDING TORQUE			N·m	0.44	0.5	0.65	0.64	1.0	1.5
ROTOR INERTIA			g·cm^2	54	77	114	180	280	520
WEIGHTS			kg	0.440	0.520	0.660	0.760	0.920	1.360
LENGTH(L)			mm	40	48	60	46	55	80
PERMISSIBLE RADIAL LOAD	DISTANCE FROM END OF SHAFT	3mm	N	22	22	22	52	52	52
		8mm		26	26	26	65	65	65
		13mm		33	33	33	85	85	85
		18mm		46	46	46	123	123	123
PERMISSIBLE AXIAL LOAD			N	Lower then Motor Unit' s Weight					
INSULATION RESISTANCE			MΩ	Min. 100(When measured with a DC500V insulation resistance meter)					
INSULATION CLASS			–	CLASS B(130℃)					
OPERATING TEMPERATURE			℃	0 ~ 55					

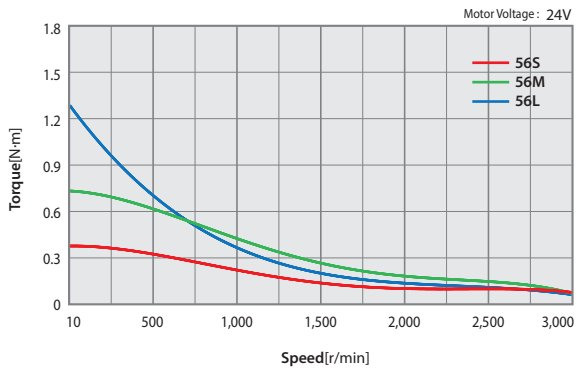
MODEL			UNIT	Ezi-SERVOII-PE-ALL-60 series			Ezi-SERVOII-PE-ALL-86 series		
				60S	60M	60L	86M	86L	86XL
DRIVE METHOD			–	Bipolar					
NUMBER OF PHASES			–	2 Phase					
CURRENT per PHASE			A/Phase	4.0	4.0	4.0	6.0	6.0	6.0
MAXIMUM HOLDING TORQUE			N·m	0.88	1.28	2.4	4.5	8.5	12
ROTOR INERTIA			g·cm^2	240	490	690	1800	3600	5400
WEIGHTS			kg	0.840	0.980	1.540	2.682	4.226	5.756
LENGTH(L)			mm	47	56	85	78	117	155
PERMISSIBLE RADIAL LOAD	DISTANCE FROM END OF SHAFT	3mm	N	70	70	70	270	270	270
		8mm		87	87	87	300	300	300
		13mm		114	114	114	350	350	350
		18mm		165	165	165	400	400	400
PERMISSIBLE AXIAL LOAD			N	Lower then Motor Unit' s Weight					
INSULATION RESISTANCE			MΩ	Min. 100(When measured with a DC500V insulation resistance meter)					
INSULATION CLASS			–	CLASS B(130℃)					
OPERATING TEMPERATURE			℃	0 ~ 55					

Torque Characteristics of Motor

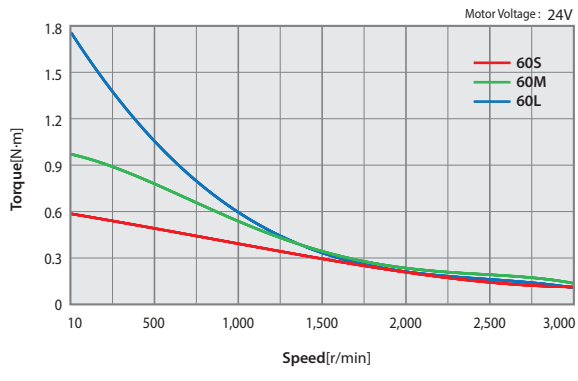
Ezi-SERVO II-PE-ALL-42 series



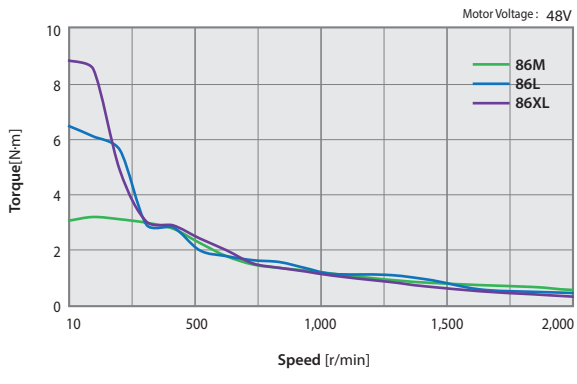
Ezi-SERVO II-PE-ALL-56 series



Ezi-SERVO II-PE-ALL-60 series

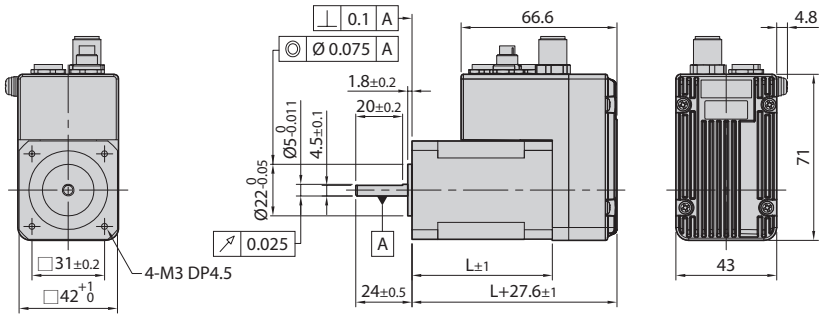


Ezi-SERVO II-PE-ALL-86 series

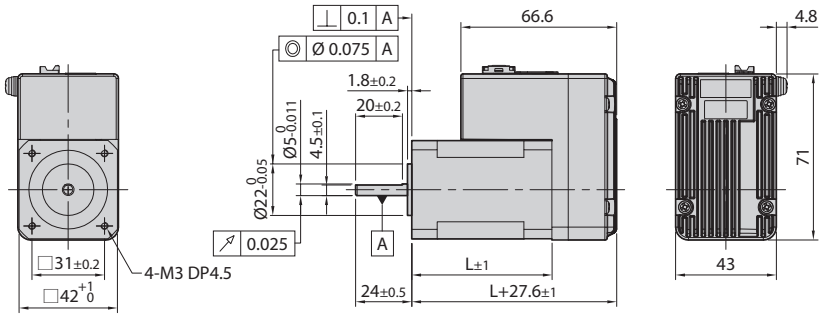


● Dimensions of Motor [mm]

◆ M Type



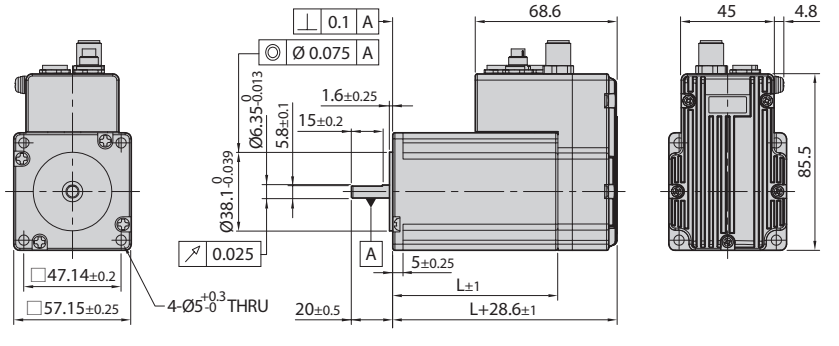
◆ R Type



42mm

Model name	Length(L)
42M	40
42L	48
42XL	60

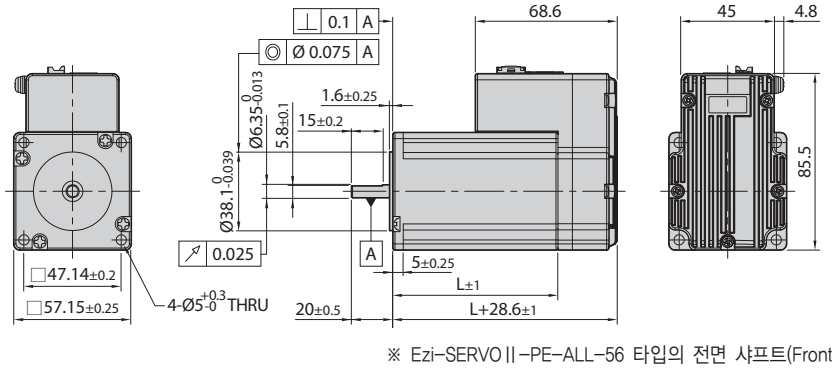
◆ M Type



56mm

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

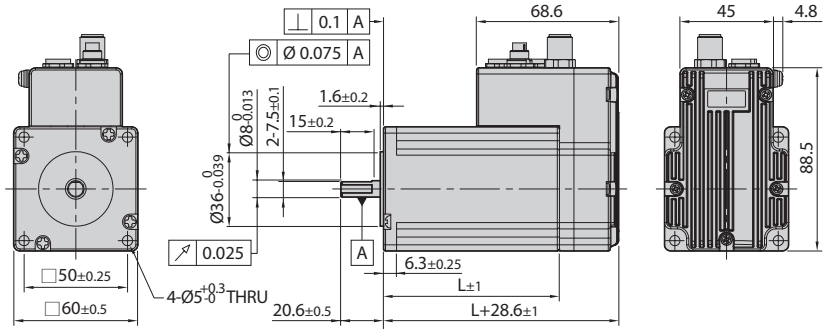
◆ R Type



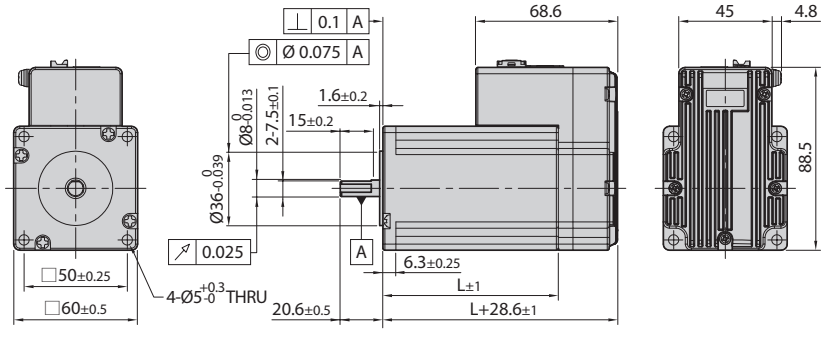
※ Ezi-SERVO II-PE-ALL-56 타입의 전면 샤프트(Front Shaft) 직경은 Ø6.35와 Ø8.0 두 종류입니다

● Dimensions of Motor [mm]

◆ M Type



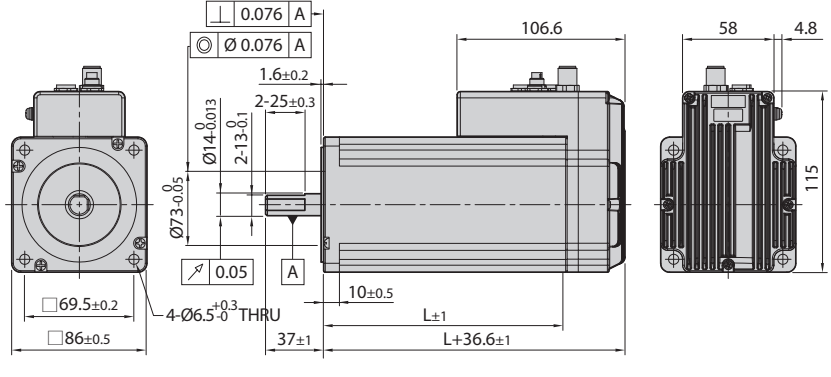
◆ R Type



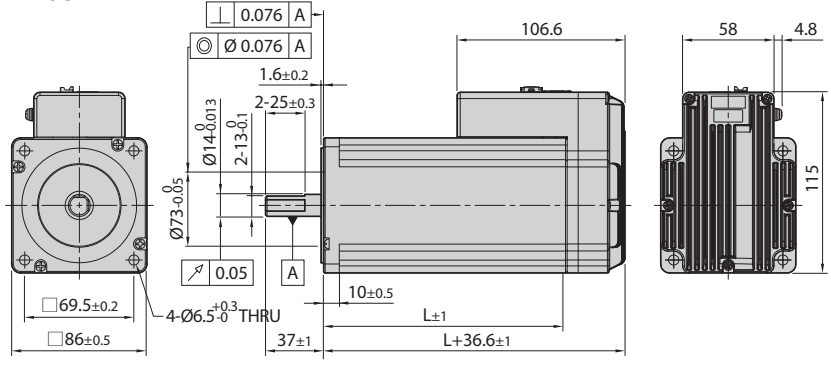
60mm

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

◆ M Type



◆ R Type

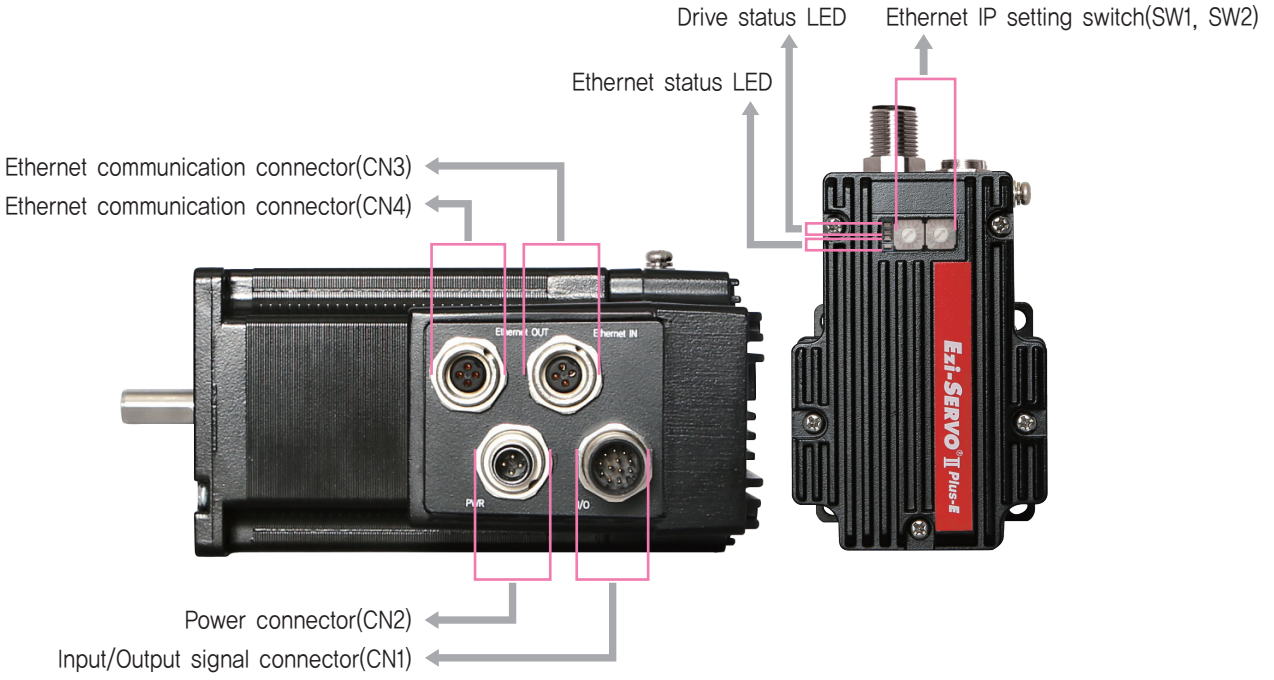


86mm

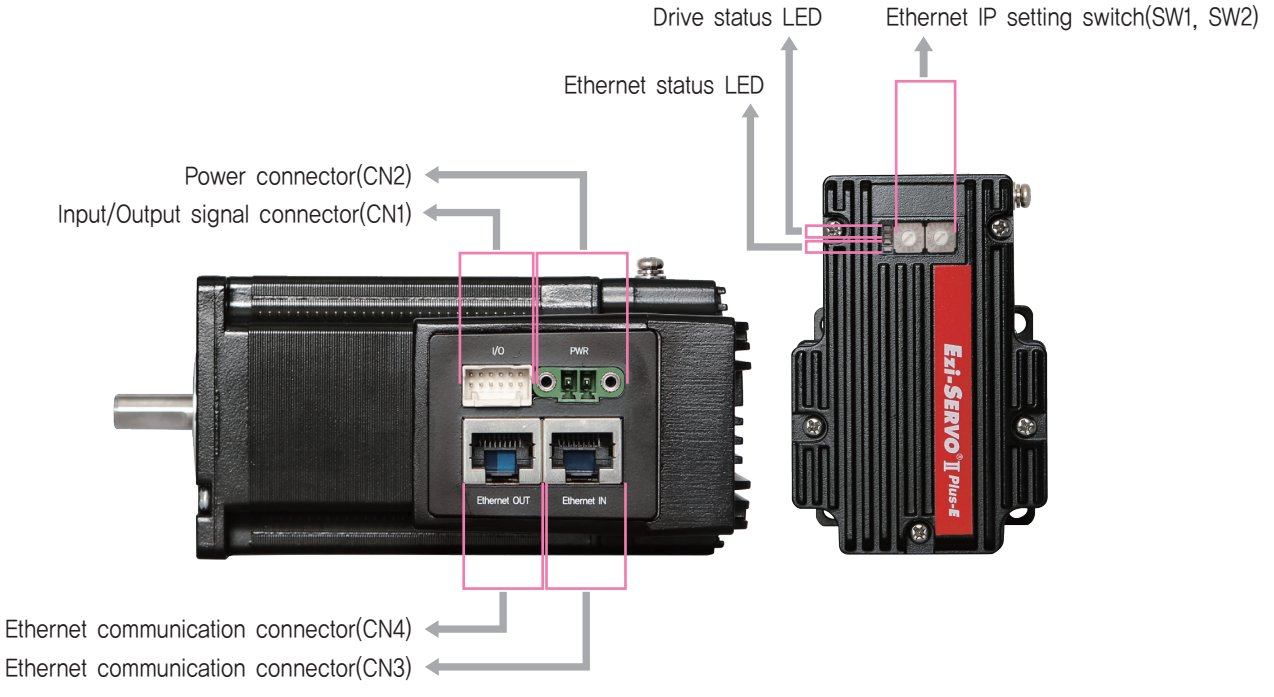
Model name	Length(L)
86M	78
86L	117
86XL	155

Settings and Operation

◆ M Type

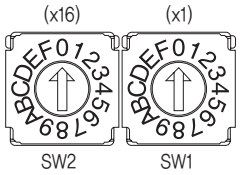


◆ R Type



1. Ethernet IP Setting Switch(SW1, SW2)

These switches set the 4th octet of Ethernet IP. The 1st octet, the 2nd octet, and the 3rd octet are set by GUI. If the switches are set to 255(FF), DHCP function is activated, and IP is automatically set, ignoring the set value. (Please refer to the manual for details.)

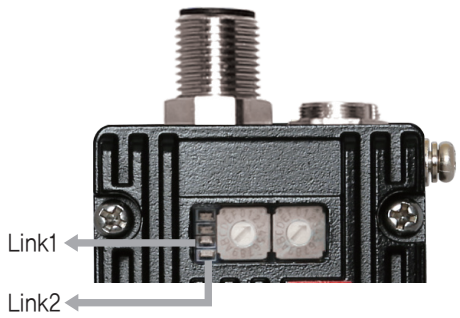


e.g.,) In case of SW2 : 5 and SW1 : 7
(5×16) + (7×1)= 87
IP is to be set as 192.168.0.87

2. Ethernet Status LED

LED indicates communication status of Ethernet.

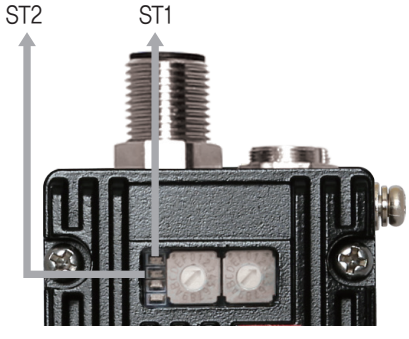
Name	Color	Status	Description
LK1/ LK2	Green	OFF	Link not Established
		ON	Link Established



3. Drive Status LED

LED informs operation status of the drive.

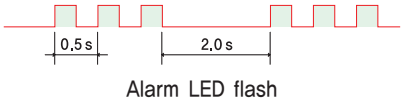
LED Indication	LED Status	Description
ST1 : ▬ ▬ ▬ ▬ ST2 :	ST1 blinks, ST2 is OFF.	Servo On
ST1 : ▬▬▬▬ ST2 :	ST1 is ON, ST2 is OFF.	Servo Off
ST1 : ▬▬▬▬ ST2 : ▬▬▬▬	ST1 and ST2 are ON.	A position error is greater than the set value (Inposition Value) while the motor is stopped.
ST1 : ● ● ● ● ● ● ST2 : ● ● ● ● ● ●	ST1 and ST2 blink alternately.	A position error is greater than the set value (Inposition Value) while the motor is stopped.
ST1 : ST2 : ▬ ▬ ▬ ▬	ST1 is OFF, ST2 blinks repeatedly for a set number of times depending on the type of error	Error



◆ List of error types by the number of ST2 LED blinking

No.	Error Type	Causes
1	Over Current Error	The current through power devices in drive exceeds the limit. *1
2	Over Speed Error	The motor speed exceeds 3,000r/min *2
3	Position Tracking Error	Position error value is greater than the reference value while the motor is running *3
4	Over Load Error	The motor is continuously operated more than 5 seconds under a load exceeding the max. torque.
5	Over Temperature Error	Internal temperature of the drive exceeds 85℃
6	Over Regenerative Voltage Error	Back-EMF is higher than limit value *4
7	Motor Connect Error	There is a problem with the connection between the drive and the motor
8	Encoder Connect Error	There is a problem with the connection between the drive and the encoder
10	In-Position Error	After operation is finished, position error larger than 1 pulse is continued for more than 3 seconds
12	ROM Error	Error occurs in parameter storage device(ROM)
14	Input Voltage Error	Input voltage exceeds the limit value *5
15	Position Overflow Error	Position error value is greater than the reference value while the motor is stopped *3

*1 : Limit value depends on motor model. (Refer to the Manual)
*2 : The speed limit of Ezi-SERVOII-PE-ALL 86 model is 2,000r/min.
*3 : The default setting value is 180˚, and it can be changed by parameter. (Refer to the Manual)
*4 : Voltage limit of Back-EMF depends on motor model. (Refer to the Manual)
*5 : Applied model : Ezi-SERVOII-PE-ALL-86, limit value = DC53V
※ Please refer to user Manual for the details of protection functions.

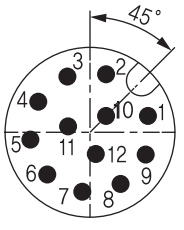


Alarm LED flash
(e.g., Position tracking error)

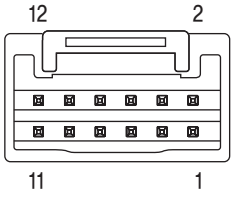
4. Input/Output Signal Connector(CN1)

No.	Function	I/O
1	EXT_DC24V	Input
2	EXT_GND	Input
3	BRAKE+	Output
4	BRAKE–	Output
5	LIMIT+	Input
6	LIMIT–	Input
7	ORIGIN	Input
8	Digital In1	Input
9	Digital In2	Input
10	Digital In3	Input
11	Compare Out	Output
12	Digital Out1	Output

◆ M Type



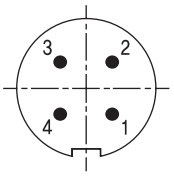
◆ R Type



5. Power Connector(CN2)

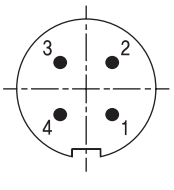
◆ M Type

No.	Function	I/O
1	DC24V	Input
2	DC24V	Input
3	GND	Input
4	GND	Input



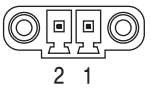
◆ M Type(86mm)

No.	Function	I/O
1	DC48V	Input
2	DC48V	Input
3	GND	Input
4	GND	Input



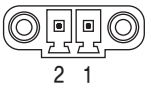
◆ R Type

No.	Function	I/O
1	DC24V	Input
2	GND	Input



◆ R Type(86mm)

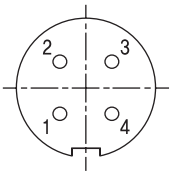
No.	Function	I/O
1	DC48V	Input
2	GND	Input



6. EtherCAT Communication Connector(CN3, CN4)

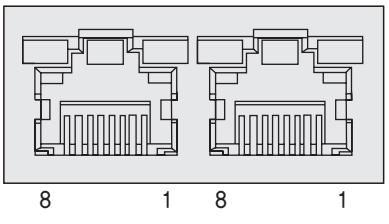
◆ M Type

No.	Function
1	TD+
2	TD–
3	RD+
4	RD–
Connector hood	F.GND

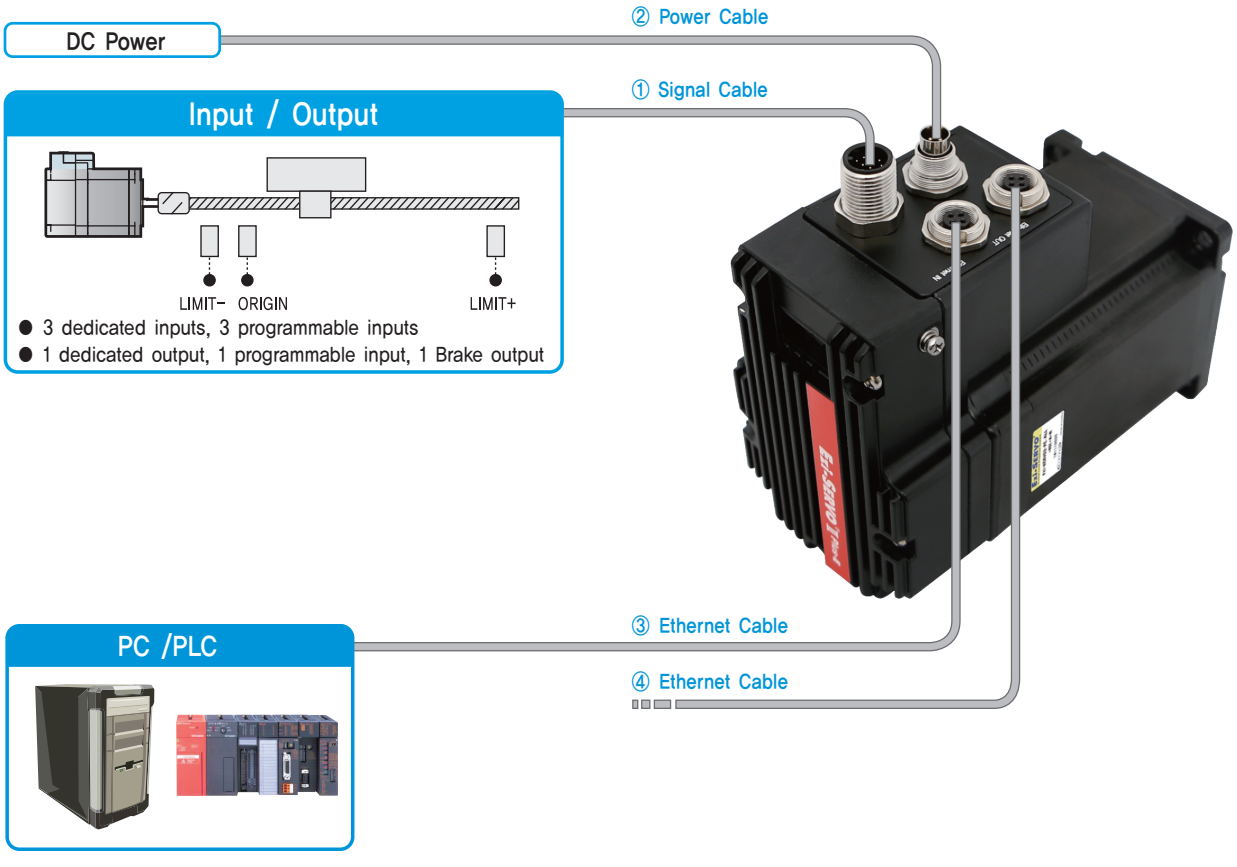


◆ R Type

No.	Function	No.	Function
1	TD+	6	RD–
2	TD–	7	-----
3	RD+	8	-----
4	-----	Connector hood	F.GND
5	-----		



● System Configuration [M Type]



Cable Type	Max. Length	Remarks
① Signal Cable	20m	Options (Sold separately)
② Power Cable	2m	
③/④ Ethernet Cable	100m	

1. Accessories

Connectors

These are connector specifications for drive cabling.

Purpose	Item	Part Number	Manufacturer
Signal (CN1)	Connector	99 0492 52 12	BINDER
Power (CN2)	Connector	99 0410 75 04	BINDER
Ethernet (CN3, CN4)	Connector	99 0409 75 04	BINDER

※ The connectors above are supplied with the product. If you are using other parts, please make sure they meet the specifications.

2. Options

① Signal Cable

These are the cables to connect Ezi-SERVO II Plus-E ALL [M Type] drive and other input/output devices.

Purpose	Part Number	Length [m]	Cable Type	Remarks
Drive – I/O Device Connection	CSEM-S-001F	1	Normal Cable	Maximum Length: 20m
	CSEM-S-002F	2		
	CSEM-S-003F	3		
	CSEM-S-005F	5		
	CSEM-S-001M	1	Robot Cable	
	CSEM-S-002M	2		
	CSEM-S-003M	3		
	CSEM-S-005M	5		

* If you need cables with length(in units of 1m) not listed on the table, please contact FASTECH for more information.

② Signal Cable

These are the cables to connect Ezi-SERVO II Plus-E ALL [M Type] drive and the power.

Purpose	Part Number	Length [m]	Cable Type	Remarks
Drive – Power Connection	CWPA-P-001F	1	Normal Cable	Maximum Length: 2m
	CWPA-P-002F	2		
	CWPA-P-001M	1	Robot Cable	
	CWPA-P-002M	2		

③ Ethernet Cable (M Type Connector – RJ45)

These are the cables to connect Ezi-SERVO II Plus-E ALL M Type and Ethernet Master, Ezi-SERVO II Plus-E, Ezi-SERVO II Plus-E ALL R Type with Ethernet network.

Purpose	Part Number	Length [m]	Cable Type	Remarks
Ethernet Connection	CGNM-EC-001F	1	Normal Cable	· STP(Shielded Twisted Pair) Cable · Category 5e or higher · Maximum Length: 100m
	CGNM-EC-002F	2		
	CGNM-EC-003F	3		
	CGNM-EC-005F	5		
	CGNM-EC-001M	1	Robot Cable	
	CGNM-EC-002M	2		
	CGNM-EC-003M	3		
	CGNM-EC-005M	5		

* If you need cables with length(in units of 1m) not listed on the table, please contact FASTECH for more information.

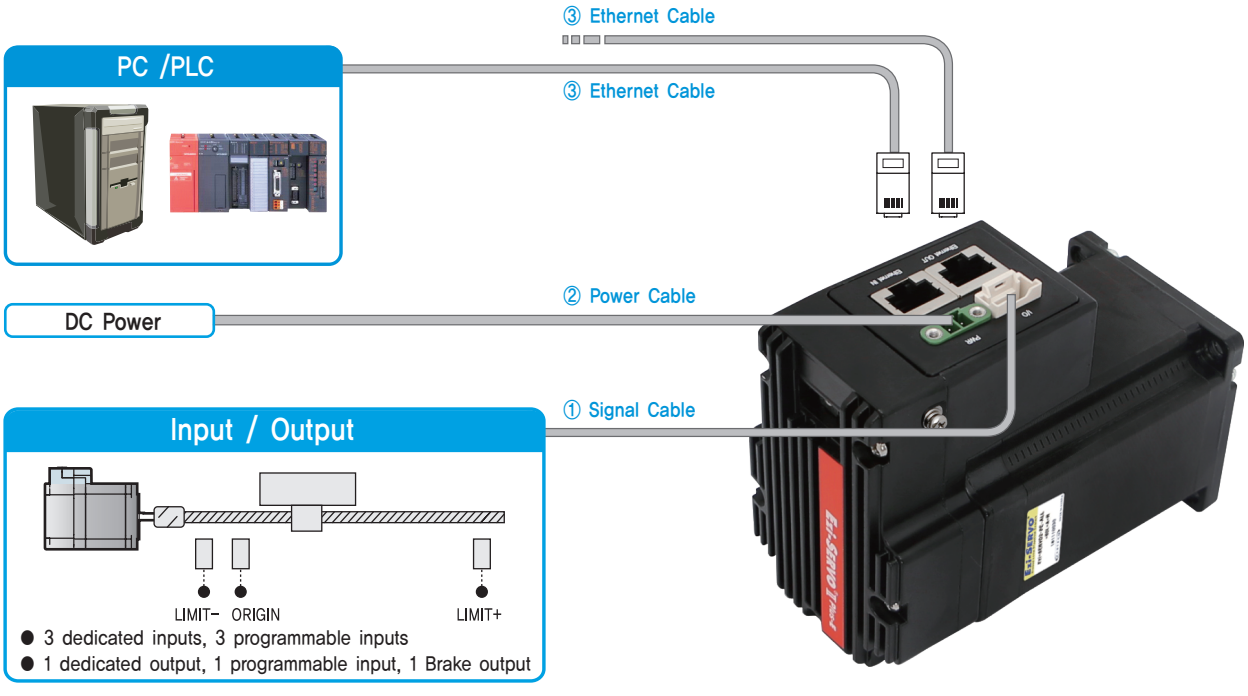
④ Ethernet Cable (M Type Connector – M Type Connector)

These are the cables to connect between Ezi-SERVO II Plus-E ALL M Type products with Ethernet network.

Purpose	Part Number	Length [m]	Cable Type	Remarks
Ethernet Connection	CWMD-EC-001F	1	Normal Cable	· STP(Shielded Twisted Pair) Cable · Category 5e or higher · Maximum Length: 100m
	CWMD-EC-002F	2		
	CWMD-EC-003F	3		
	CWMD-EC-005F	5		
	CWMD-EC-001M	1	Robot Cable	
	CWMD-EC-002M	2		
	CWMD-EC-003M	3		
	CWMD-EC-005M	5		

* If you need cables with length(in units of 1m) not listed on the table, please contact FASTECH for more information.

● System Configuration [R Type]



Cable Type	Max. Length	Remarks
① Signal Cable	20m	Options (Sold separately)
② Power Cable	2m	
③ EtherCAT Cable	100m	

1. Accessories

Connectors

These are connector specifications for drive cabling.

Purpose	Item	Part Number	Manufacturer
Signal (CN1)	Housing	501646-1200	MOLEX
	Terminal	501648-1000 (AWG 26~28)	
Power (CN2)	Terminal Block	AKZ1550/2F-3.81	PTR

※ The connectors above are supplied with the product. If you are using other parts, please make sure they meet the specifications.

2. Options

① Signal Cable

These are the cables to connect Ezi-SERVO II Plus-E ALL [R Type] drive and other input/output devices.

Purpose	Part Number	Length [m]	Cable Type	Remarks
Drive – I/O Device Connection	CSER-S-001F	1	Normal Cable	Maximum Length: 20m
	CSER-S-002F	2		
	CSER-S-003F	3		
	CSER-S-005F	5		
	CSER-S-001M	1	Robot Cable	
	CSER-S-002M	2		
	CSER-S-003M	3		
	CSER-S-005M	5		

* If you need cables with length(in units of 1m) not listed on the table, please contact FASTECH for more information.

② Drive Power Cable

These are the cables to connect Ezi-SERVO II Plus-E ALL [R Type] drive and the power.

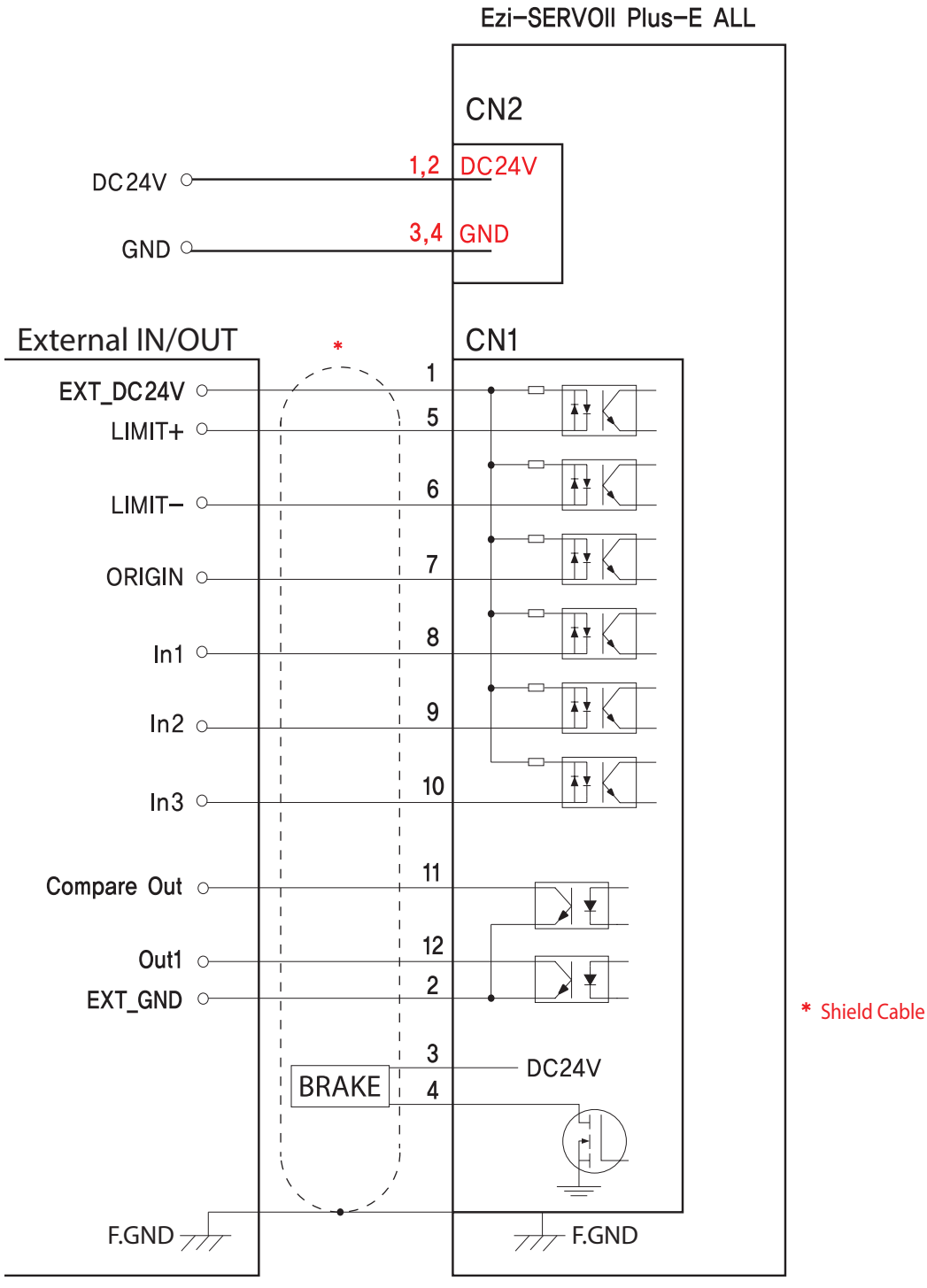
Purpose	Part Number	Length [m]	Cable Type	Remarks
Drive – Power Connection	CSVA-P-001F	1	Normal Cable	Maximum Length: 2m
	CSVA-P-002F	2		
	CSVA-P-001M	1	Robot Cable	
	CSVA-P-002M	2		
R Type 86mm products Drive – Power Connection	CSPA-P-001F	1	Normal Cable	
	CSPA-P-002F	2		
	CSPA-P-001M	1	Robot Cable	
	CSPA-P-002M	2		

③ Ethernet Cable

Purpose	Part Number	Length [m]	Cable Type	Remarks
Ethernet Connection	CGNR-EC-001F	1	Normal Cable	· STP(Shielded Twisted Pair) Cable · Category 5e or higher · Maximum Length: 100m
	CGNR-EC-002F	2		
	CGNR-EC-003F	3		
	CGNR-EC-005F	5		
	CGNR-EC-001M	1	Robot Cable	
	CGNR-EC-002M	2		
	CGNR-EC-003M	3		
	CGNR-EC-005M	5		

* If you need cables with length(in units of 1m) not listed on the table, please contact FASTECH for more information.

External Wiring Diagram [M Type]



* Shield Cable

CAUTION

In order to use the products listed in this catalog safely and correctly, be sure to read the instruction manual before using the product.

※ When connects I/O cable between controller and drive, please turn off the power of both controller and drive to prevent electric shock or to protect the drive from any damage.