

Ezi-SERVO[®] II

Closed Loop Stepping System

- CiA402 Drive Profile Support
- Closed-Loop Stepping system
- Tuning Not Required / No Hunting
- Low Heat Generation / High Torque
- High Resolution / High Response
- Torque Off Function Supported

EtherCAT[®]

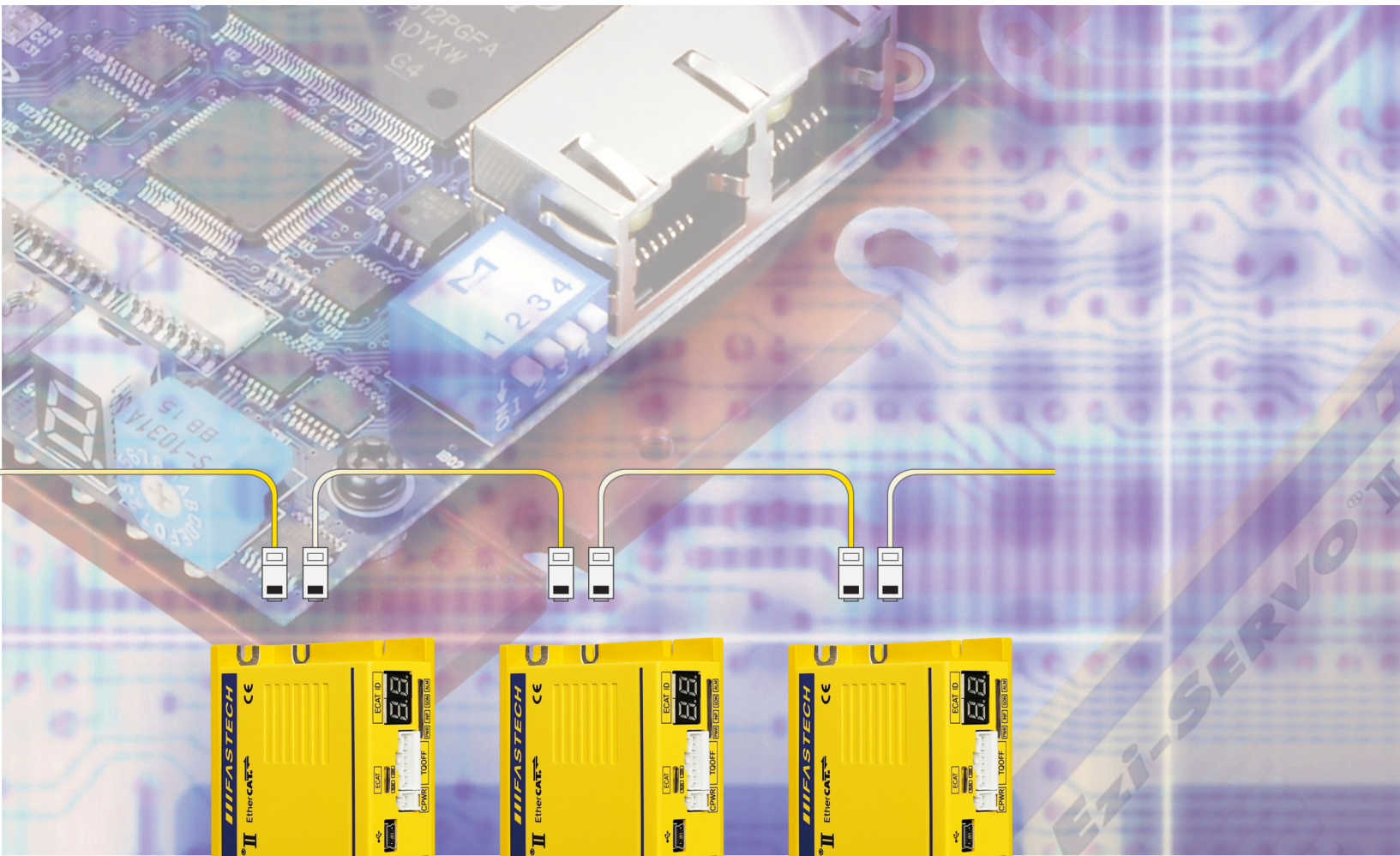
TO



CE RoHS COMPLIANT

FASTTECH

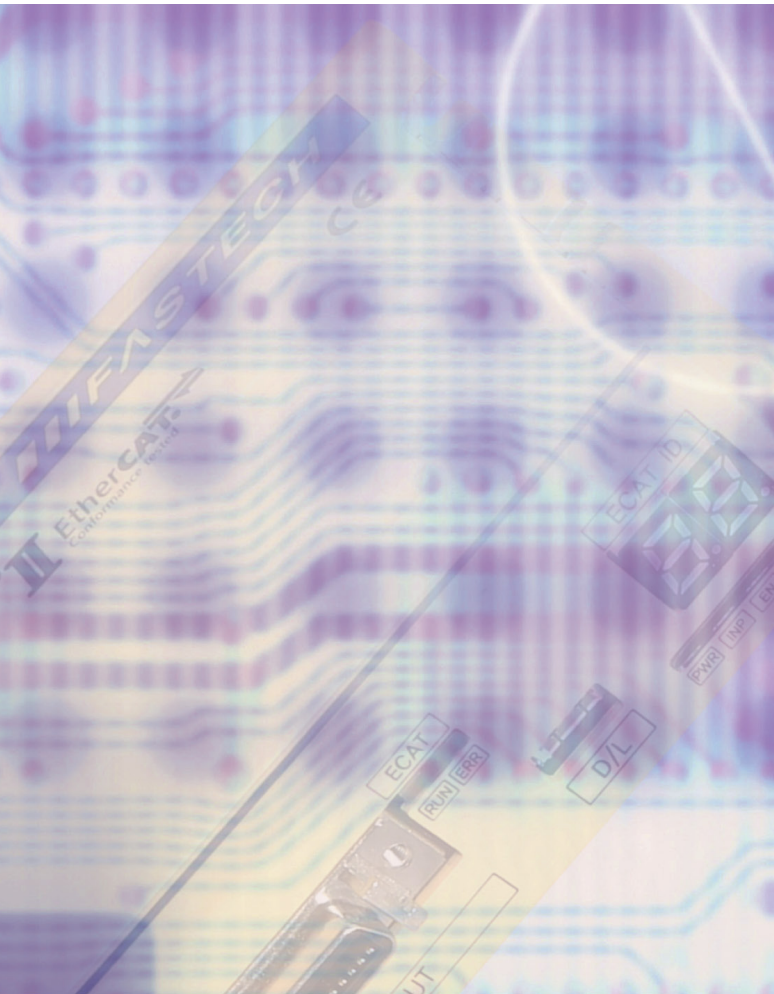
Fast, Accurate, Smooth Motion



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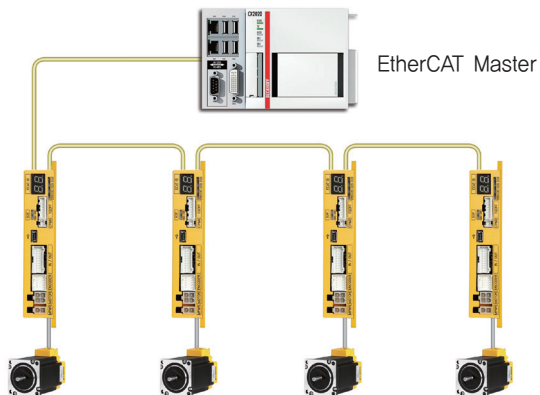
Ezi-SERVO[®] II
Closed Loop Stepping System

EtherCAT[®]
TO



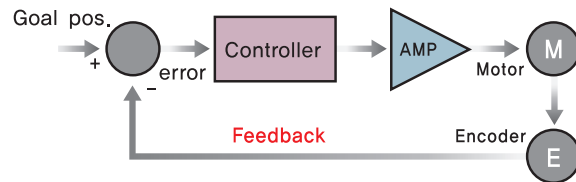
1 EtherCAT Based Motion Control

Ezi-SERVOII EtherCAT TO is stepping motor control system using EtherCAT, high speed ethernet (100Mbps Full-Duplex) based fieldbus. Ezi-SERVOII EtherCAT TO is EtherCAT slave module which supports CAN application layer over EtherCAT (CoE). It employs CiA 402 Drive Profile and supports Profile Position Mode, Homing Mode, Cyclic Synchronous Position Mode.



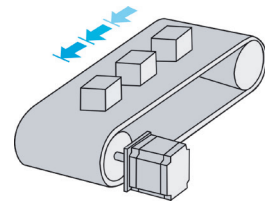
2 Closed-Loop System

Ezi-SERVOII 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-SERVOII to update the current position every 50µs. It allows the Ezi-SERVOII 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-SERVOII automatically correct 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-SERVOII employs the best characteristics of the stepping motor to eliminate the need of tedious gain tuning required for conventional closed-loop servo systems. Ezi-SERVOII 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.

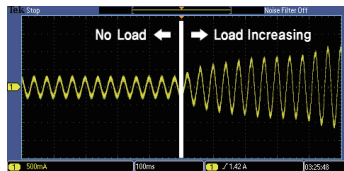
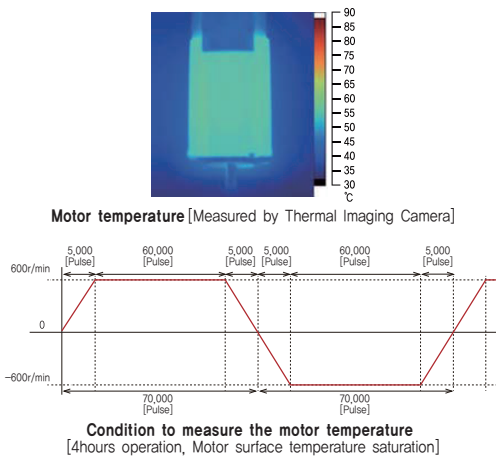


4 Low Heat Generation / Energy Savings

(Motor Current Control according to load)

Ezi-SERVOII automatically controls motor current according to load.

Ezi-SERVOII 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.



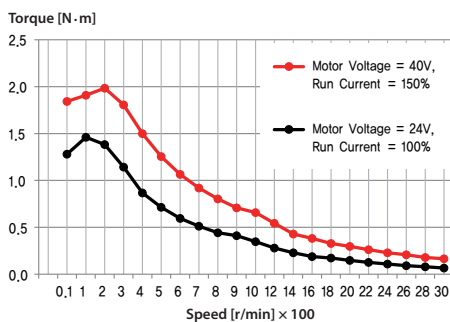
Example of the Motor Current Control according to load

5 High Torque

(Motor Voltage Increasing and Motor Current Setting)

Ezi-SERVOII boosts the voltage supplied to the motor by internal DC-DC Converter. The torque at the high speed is increased. In addition, it is possible to set the Run Current up to 150%, whereby the torque at low speed is increased.

Torque can be improved by about 30% over the entire speed range.



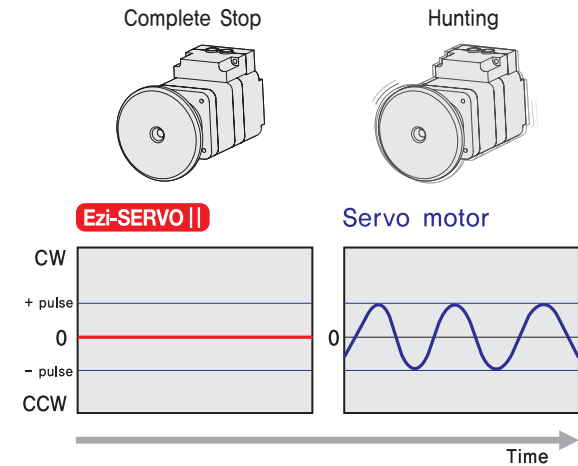
※ The torque at low speed and high speed is improved about 30%.

Measured Condition : Drive = Ezi-SERVOII-EC-TO-56L
Motor Voltage = DC40V
Input Voltage = DC24V

6 No Hunting

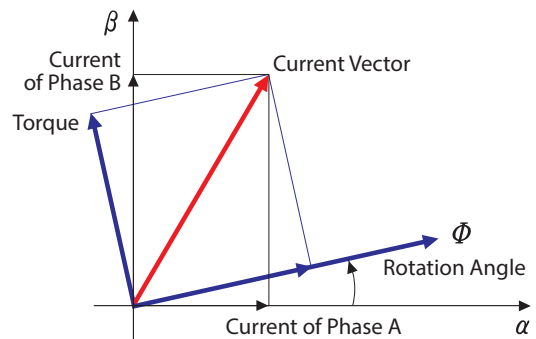
Ezi-SERVOII utilizes the unique characteristics of stepping motors and locks itself into the desired target position, preventing vibration and eliminating Null Hunt which happens to the conventional servo systems.

This feature is especially useful in applications such as vision systems in which system oscillation and vibration could be a problem.



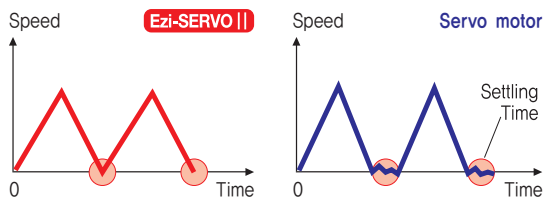
7 Smooth and Accurate Operation

Ezi-SERVOII 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.



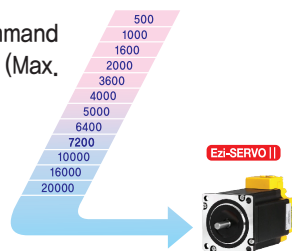
8 High Response

Similar to conventional stepping motors, Ezi-SERVO II instantly synchronizes with command pulses providing fast positional response. Ezi-SERVO II is the optimum 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.



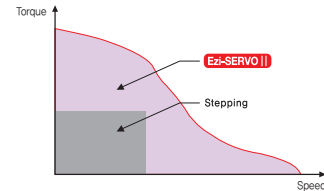
9 High Resolution

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



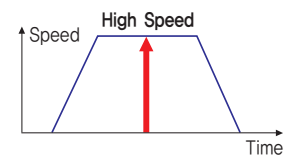
10 High Torque / Continuous Operation

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.



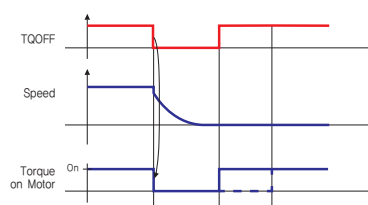
11 High Speed

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.



12 Torque Off Function

Ezi-SERVO II EtherCAT TO has an input connector (TQOFF) that can Servo OFF through an external signal, regardless of EtherCAT communication, to stop and protect the motor in an emergency. When the TQOFF signal is detected, the drive immediately turns off the servo, and the motor stops.



CAUTION
DO NOT use the Torque Off function to stop or decelerate motors.

Advantages over Open-Loop Stepping Systems

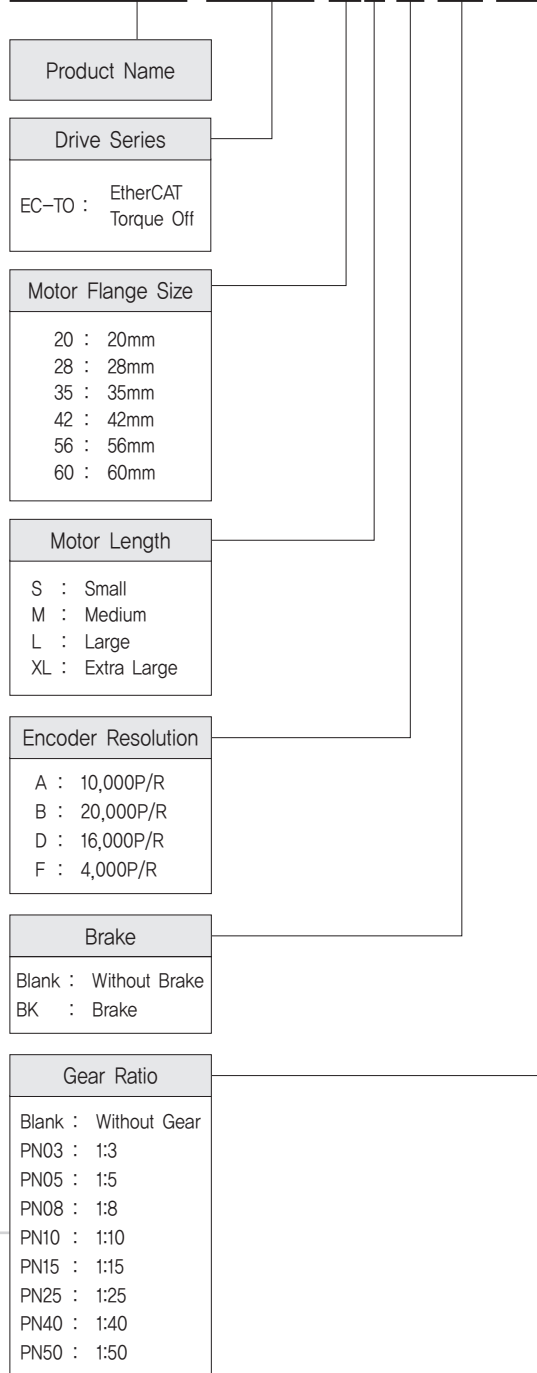
1. Reliable positioning without loss of synchronism.
2. Holding stable position and automatically recovering to the original position even after experiencing positioning error due to external forces, such as mechanical vibration or vertical positional holding.
3. Ezi-SERVO II utilizes 100% of the full range of rated motor torque, contrary to a conventional open-loop stepping drive that can use up to 50% of the rated motor torque due to the loss of synchronism.
4. Capability to operate at high speed due to load-dependent current control, open-loop stepping drives use a constant current control at all speed ranges without considering load variations.

Advantages over Servo Motor Controller

1. No gain tuning. (Automatic gain adjustment in response to a load change)
2. Maintains the stable holding position without oscillation after completion of positioning.
3. Fast positioning due to the independent control by on-board MCU.
4. Continuous operation during rapid short-stroke movement due to instantaneous positioning.

● Ezi-SERVOII EtherCAT TO Part Numbering

Ezi-SERVOII-EC-TO-56L-A-BK-PN05



● Standard Combination

| Unit Part Number | Motor Model Number | Drive Model Number |
|---------------------------|--------------------|--------------------|
| Ezi-SERVO II-EC-TO-20M-F | EzM2-20M-F | EzS2-EC-TO-20M-F |
| Ezi-SERVO II-EC-TO-20L-F | EzM2-20L-F | EzS2-EC-TO-20L-F |
| Ezi-SERVO II-EC-TO-28S-D | EzM2-28S-D | EzS2-EC-TO-28S-D |
| Ezi-SERVO II-EC-TO-28SM-D | EzM2-28SM-D | EzS2-EC-TO-28S-D |
| Ezi-SERVO II-EC-TO-28M-D | EzM2-28M-D | EzS2-EC-TO-28M-D |
| Ezi-SERVO II-EC-TO-28MM-D | EzM2-28MM-D | EzS2-EC-TO-28M-D |
| Ezi-SERVO II-EC-TO-28L-D | EzM2-28L-D | EzS2-EC-TO-28L-D |
| Ezi-SERVO II-EC-TO-28LM-D | EzM2-28LM-D | EzS2-EC-TO-28L-D |
| Ezi-SERVO II-EC-TO-35M-D | EzM2-35M-D | EzS2-EC-TO-35M-D |
| Ezi-SERVO II-EC-TO-35MM-D | EzM2-35MM-D | EzS2-EC-TO-35M-D |
| Ezi-SERVO II-EC-TO-35L-D | EzM2-35L-D | EzS2-EC-TO-35L-D |
| Ezi-SERVO II-EC-TO-35LM-D | EzM2-35LM-D | EzS2-EC-TO-35L-D |
| Ezi-SERVO II-EC-TO-42S-A | EzM2-42S-A | EzS2-EC-TO-42S-A |
| Ezi-SERVO II-EC-TO-42S-B | EzM2-42S-B | EzS2-EC-TO-42S-B |
| Ezi-SERVO II-EC-TO-42M-A | EzM2-42M-A | EzS2-EC-TO-42M-A |
| Ezi-SERVO II-EC-TO-42M-B | EzM2-42M-B | EzS2-EC-TO-42M-B |
| Ezi-SERVO II-EC-TO-42L-A | EzM2-42L-A | EzS2-EC-TO-42L-A |
| Ezi-SERVO II-EC-TO-42L-B | EzM2-42L-B | EzS2-EC-TO-42L-B |
| Ezi-SERVO II-EC-TO-42XL-A | EzM2-42XL-A | EzS2-EC-TO-42XL-A |
| Ezi-SERVO II-EC-TO-42XL-B | EzM2-42XL-B | EzS2-EC-TO-42XL-B |
| Ezi-SERVO II-EC-TO-56S-A | EzM2-56S-A | EzS2-EC-TO-56S-A |
| Ezi-SERVO II-EC-TO-56S-B | EzM2-56S-B | EzS2-EC-TO-56S-B |
| Ezi-SERVO II-EC-TO-56M-A | EzM2-56M-A | EzS2-EC-TO-56M-A |
| Ezi-SERVO II-EC-TO-56M-B | EzM2-56M-B | EzS2-EC-TO-56M-B |
| Ezi-SERVO II-EC-TO-56L-A | EzM2-56L-A | EzS2-EC-TO-56L-A |
| Ezi-SERVO II-EC-TO-56L-B | EzM2-56L-B | EzS2-EC-TO-56L-B |
| Ezi-SERVO II-EC-TO-60S-A | EzM2-60S-A | EzS2-EC-TO-60S-A |
| Ezi-SERVO II-EC-TO-60S-B | EzM2-60S-B | EzS2-EC-TO-60S-B |
| Ezi-SERVO II-EC-TO-60M-A | EzM2-60M-A | EzS2-EC-TO-60M-A |
| Ezi-SERVO II-EC-TO-60M-B | EzM2-60M-B | EzS2-EC-TO-60M-B |
| Ezi-SERVO II-EC-TO-60L-A | EzM2-60L-A | EzS2-EC-TO-60L-A |
| Ezi-SERVO II-EC-TO-60L-B | EzM2-60L-B | EzS2-EC-TO-60L-B |

* When places an order for Stopper type 28mm, 35mm motor, please write "M" additionally after motor length of unit product number, (e.g., Ezi-SERVO II-EC-TO-28LM-D, Ezi-SERVO II-EC-TO-35LM-D)

● Combination with Gearbox

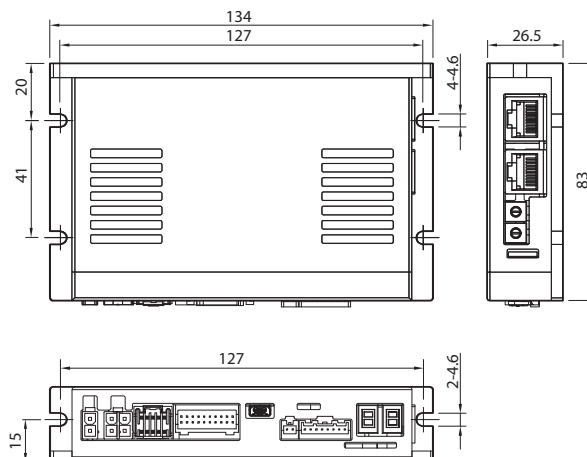
| Unit Part Number | Motor Model Number | Drive Model Number | Gear Ratio |
|-------------------------------|--------------------|--------------------|------------|
| Ezi-SERVO II-EC-TO-56L-A-PN3 | EzM2-56L-A-PN3 | EzS2-EC-TO-56L-A | 1:3 |
| Ezi-SERVO II-EC-TO-56L-B-PN3 | EzM2-56L-B-PN3 | EzS2-EC-TO-56L-B | |
| Ezi-SERVO II-EC-TO-56L-A-PN5 | EzM2-56L-A-PN5 | EzS2-EC-TO-56L-A | 1:5 |
| Ezi-SERVO II-EC-TO-56L-B-PN5 | EzM2-56L-B-PN5 | EzS2-EC-TO-56L-B | |
| Ezi-SERVO II-EC-TO-56L-A-PN8 | EzM2-56L-A-PN8 | EzS2-EC-TO-56L-A | 1:8 |
| Ezi-SERVO II-EC-TO-56L-B-PN8 | EzM2-56L-B-PN8 | EzS2-EC-TO-56L-B | |
| Ezi-SERVO II-EC-TO-56L-A-PN10 | EzM2-56L-A-PN10 | EzS2-EC-TO-56L-A | 1:10 |
| Ezi-SERVO II-EC-TO-56L-B-PN10 | EzM2-56L-B-PN10 | EzS2-EC-TO-56L-B | |
| Ezi-SERVO II-EC-TO-56L-A-PN15 | EzM2-56L-A-PN15 | EzS2-EC-TO-56L-A | 1:15 |
| Ezi-SERVO II-EC-TO-56L-B-PN15 | EzM2-56L-B-PN15 | EzS2-EC-TO-56L-B | |
| Ezi-SERVO II-EC-TO-56L-A-PN25 | EzM2-56L-A-PN25 | EzS2-EC-TO-56L-A | 1:25 |
| Ezi-SERVO II-EC-TO-56L-B-PN25 | EzM2-56L-B-PN25 | EzS2-EC-TO-56L-B | |
| Ezi-SERVO II-EC-TO-56L-A-PN40 | EzM2-56L-A-PN40 | EzS2-EC-TO-56L-A | 1:40 |
| Ezi-SERVO II-EC-TO-56L-B-PN40 | EzM2-56L-B-PN40 | EzS2-EC-TO-56L-B | |
| Ezi-SERVO II-EC-TO-56L-A-PN50 | EzM2-56L-A-PN50 | EzS2-EC-TO-56L-A | 1:50 |
| Ezi-SERVO II-EC-TO-56L-B-PN50 | EzM2-56L-B-PN50 | EzS2-EC-TO-56L-B | |
| Ezi-SERVO II-EC-TO-60S-A-PN3 | EzM2-60S-A-PN3 | EzS2-EC-TO-60S-A | 1:3 |
| Ezi-SERVO II-EC-TO-60S-B-PN3 | EzM2-60S-B-PN3 | EzS2-EC-TO-60S-B | |
| Ezi-SERVO II-EC-TO-60S-A-PN5 | EzM2-60S-A-PN5 | EzS2-EC-TO-60S-A | 1:5 |
| Ezi-SERVO II-EC-TO-60S-B-PN5 | EzM2-60S-B-PN5 | EzS2-EC-TO-60S-B | |
| Ezi-SERVO II-EC-TO-60S-A-PN8 | EzM2-60S-A-PN8 | EzS2-EC-TO-60S-A | 1:8 |
| Ezi-SERVO II-EC-TO-60S-B-PN8 | EzM2-60S-B-PN8 | EzS2-EC-TO-60S-B | |
| Ezi-SERVO II-EC-TO-60S-A-PN10 | EzM2-60S-A-PN10 | EzS2-EC-TO-60S-A | 1:10 |
| Ezi-SERVO II-EC-TO-60S-B-PN10 | EzM2-60S-B-PN10 | EzS2-EC-TO-60S-B | |
| Ezi-SERVO II-EC-TO-60S-A-PN15 | EzM2-60S-A-PN15 | EzS2-EC-TO-60S-A | 1:15 |
| Ezi-SERVO II-EC-TO-60S-B-PN15 | EzM2-60S-B-PN15 | EzS2-EC-TO-60S-B | |
| Ezi-SERVO II-EC-TO-60S-A-PN25 | EzM2-60S-A-PN25 | EzS2-EC-TO-60S-A | 1:25 |
| Ezi-SERVO II-EC-TO-60S-B-PN25 | EzM2-60S-B-PN25 | EzS2-EC-TO-60S-B | |
| Ezi-SERVO II-EC-TO-60S-A-PN40 | EzM2-60S-A-PN40 | EzS2-EC-TO-60S-A | 1:40 |
| Ezi-SERVO II-EC-TO-60S-B-PN40 | EzM2-60S-B-PN40 | EzS2-EC-TO-60S-B | |
| Ezi-SERVO II-EC-TO-60S-A-PN50 | EzM2-60S-A-PN50 | EzS2-EC-TO-60S-A | 1:50 |
| Ezi-SERVO II-EC-TO-60S-B-PN50 | EzM2-60S-B-PN50 | EzS2-EC-TO-60S-B | |
| Ezi-SERVO II-EC-TO-60M-A-PN3 | EzM2-60M-A-PN3 | EzS2-EC-TO-60M-A | 1:3 |
| Ezi-SERVO II-EC-TO-60M-B-PN3 | EzM2-60M-B-PN3 | EzS2-EC-TO-60M-B | |
| Ezi-SERVO II-EC-TO-60M-A-PN5 | EzM2-60M-A-PN5 | EzS2-EC-TO-60M-A | 1:5 |
| Ezi-SERVO II-EC-TO-60M-B-PN5 | EzM2-60M-B-PN5 | EzS2-EC-TO-60M-B | |
| Ezi-SERVO II-EC-TO-60M-A-PN8 | EzM2-60M-A-PN8 | EzS2-EC-TO-60M-A | 1:8 |
| Ezi-SERVO II-EC-TO-60M-B-PN8 | EzM2-60M-B-PN8 | EzS2-EC-TO-60M-B | |
| Ezi-SERVO II-EC-TO-60M-A-PN10 | EzM2-60M-A-PN10 | EzS2-EC-TO-60M-A | 1:10 |
| Ezi-SERVO II-EC-TO-60M-B-PN10 | EzM2-60M-B-PN10 | EzS2-EC-TO-60M-B | |
| Ezi-SERVO II-EC-TO-60M-A-PN15 | EzM2-60M-A-PN15 | EzS2-EC-TO-60M-A | 1:15 |
| Ezi-SERVO II-EC-TO-60M-B-PN15 | EzM2-60M-B-PN15 | EzS2-EC-TO-60M-B | |
| Ezi-SERVO II-EC-TO-60M-A-PN25 | EzM2-60M-A-PN25 | EzS2-EC-TO-60M-A | 1:25 |
| Ezi-SERVO II-EC-TO-60M-B-PN25 | EzM2-60M-B-PN25 | EzS2-EC-TO-60M-B | |
| Ezi-SERVO II-EC-TO-60M-A-PN40 | EzM2-60M-A-PN40 | EzS2-EC-TO-60M-A | 1:40 |
| Ezi-SERVO II-EC-TO-60M-B-PN40 | EzM2-60M-B-PN40 | EzS2-EC-TO-60M-B | |
| Ezi-SERVO II-EC-TO-60M-A-PN50 | EzM2-60M-A-PN50 | EzS2-EC-TO-60M-A | 1:50 |
| Ezi-SERVO II-EC-TO-60M-B-PN50 | EzM2-60M-B-PN50 | EzS2-EC-TO-60M-B | |
| Ezi-SERVO II-EC-TO-60L-A-PN3 | EzM2-60L-A-PN3 | EzS2-EC-TO-60L-A | 1:3 |
| Ezi-SERVO II-EC-TO-60L-B-PN3 | EzM2-60L-B-PN3 | EzS2-EC-TO-60L-B | |
| Ezi-SERVO II-EC-TO-60L-A-PN5 | EzM2-60L-A-PN5 | EzS2-EC-TO-60L-A | 1:5 |
| Ezi-SERVO II-EC-TO-60L-B-PN5 | EzM2-60L-B-PN5 | EzS2-EC-TO-60L-B | |
| Ezi-SERVO II-EC-TO-60L-A-PN8 | EzM2-60L-A-PN8 | EzS2-EC-TO-60L-A | 1:8 |
| Ezi-SERVO II-EC-TO-60L-B-PN8 | EzM2-60L-B-PN8 | EzS2-EC-TO-60L-B | |
| Ezi-SERVO II-EC-TO-60L-A-PN10 | EzM2-60L-A-PN10 | EzS2-EC-TO-60L-A | 1:10 |
| Ezi-SERVO II-EC-TO-60L-B-PN10 | EzM2-60L-B-PN10 | EzS2-EC-TO-60L-B | |
| Ezi-SERVO II-EC-TO-60L-A-PN15 | EzM2-60L-A-PN15 | EzS2-EC-TO-60L-A | 1:15 |
| Ezi-SERVO II-EC-TO-60L-B-PN15 | EzM2-60L-B-PN15 | EzS2-EC-TO-60L-B | |
| Ezi-SERVO II-EC-TO-60L-A-PN25 | EzM2-60L-A-PN25 | EzS2-EC-TO-60L-A | 1:25 |
| Ezi-SERVO II-EC-TO-60L-B-PN25 | EzM2-60L-B-PN25 | EzS2-EC-TO-60L-B | |
| Ezi-SERVO II-EC-TO-60L-A-PN40 | EzM2-60L-A-PN40 | EzS2-EC-TO-60L-A | 1:40 |
| Ezi-SERVO II-EC-TO-60L-B-PN40 | EzM2-60L-B-PN40 | EzS2-EC-TO-60L-B | |
| Ezi-SERVO II-EC-TO-60L-A-PN50 | EzM2-60L-A-PN50 | EzS2-EC-TO-60L-A | 1:50 |
| Ezi-SERVO II-EC-TO-60L-B-PN50 | EzM2-60L-B-PN50 | EzS2-EC-TO-60L-B | |

● Specifications of Drive

| Motor Model | EzM2-20 series | EzM2-28 series | EzM2-35 series | EzM2-42 series | EzM2-56 series | EzM2-60 series | | | | | | |
|---------------------|---|--|----------------------|-------------------------------|----------------------|----------------------|-------|-------|--------|--------|--------|--------|
| Drive Model | EzS2-EC-TO-20 series | EzS2-EC-TO-28 series | EzS2-EC-TO-35 series | EzS2-EC-TO-42 series | EzS2-EC-TO-56 series | EzS2-EC-TO-60 series | | | | | | |
| Input Voltage | DC24V±10% | | | | | | | | | | | |
| Control Method | Closed loop control with 32bit MCU | | | | | | | | | | | |
| Current Consumption | Max. 500mA (Except motor current) | | | | | | | | | | | |
| Operating Condition | Ambient Temperature | · In Use: 0~50°C · In Storage: -20~70°C | | | | | | | | | | |
| | 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 | | | | | | | | | | |
| | Resolution | Encoder Resolution [P/R] | | Configurable Resolution [P/R] | | | | | | | | |
| | | 4,000 | 500 | 1,000 | 1,600 | 2,000 | 3,600 | 4,000 | 5,000 | 6,400 | 7,200 | 10,000 |
| | | 10,000 | 500 | 1,000 | 1,600 | 2,000 | 3,600 | 5,000 | 6,400 | 7,200 | 10,000 | |
| | | 16,000 | 500 | 1,000 | 1,600 | 2,000 | 3,600 | 5,000 | 6,400 | 7,200 | 10,000 | 16,000 |
| 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 Type | 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, Main Power Voltage Error, In-Position Error, ROM Error, Position Overflow Error, Torque Off Circuit Error | | | | | | | | | | | |
| LED Display | Power status, In-Position status, Servo On status, Alarm status | | | | | | | | | | | |
| EtherCAT | Supported Protocol | CoE (CiA 402 Drive Profile), FoE (Firmware Download) | | | | | | | | | | |
| | Operation Mode | Cyclic Synchronous Position Mode, Profile Position Mode, Homing Mode | | | | | | | | | | |
| | Synchronization | Free Run, SM Event, DC SYNC Event | | | | | | | | | | |
| I/O Signal | Input Signals | 3 dedicated inputs (LIMIT+, LIMIT-, ORIGIN), 6 user inputs (photocoupler inputs), 2 Torque Off signal inputs (TQOFF) | | | | | | | | | | |
| | Output Signals | 5 user outputs (photocoupler outputs), 1 Brake signal output, 1 Torque Off status output (TQMON) | | | | | | | | | | |

*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.

● Dimensions of Drive [mm]



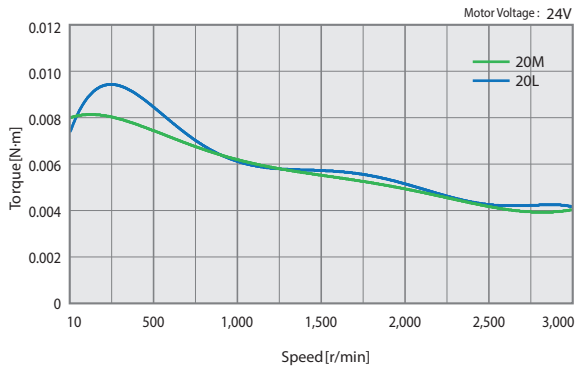
● Specifications of Motor

| MODEL | | | EzM2-20 series | | EzM2-28 series | | | EzM2-35 series | | EzM2-42 series | | | | |
|-------------------------|-----------------------------|------|-------------------|---|----------------|-------|-------|----------------|-------|----------------|-------|-------|-------|-------|
| | | | UNIT | 20M | 20L | 28S | 28M | 28L | 35M | 35L | 42S | 42M | 42L | 42XL |
| DRIVE METHOD | | | – | Bipolar | | | | | | | | | | |
| NUMBER OF PHASES | | | – | 2 Phase | | | | | | | | | | |
| CURRENT per PHASE | | | A/Phase | 0,5 | 0,5 | 0,95 | 0,95 | 0,95 | 1,5 | 1,5 | 1,2 | 1,2 | 1,2 | 1,2 |
| MAXIMUM HOLDING TORQUE | | | N·m | 0,016 | 0,025 | 0,069 | 0,098 | 0,118 | 0,13 | 0,23 | 0,32 | 0,44 | 0,5 | 0,65 |
| ROTOR INERTIA | | | g·cm ² | 2,5 | 3,3 | 9,0 | 13 | 18 | 15 | 20 | 35 | 54 | 77 | 114 |
| WEIGHTS | | | kg | 0,080 | 0,104 | 0,147 | 0,204 | 0,232 | 0,194 | 0,226 | 0,294 | 0,357 | 0,426 | 0,564 |
| LENGTH(L) | | | mm | 28 | 38 | 32 | 45 | 50 | 32 | 36 | 34 | 40 | 48 | 60 |
| PERMISSIBLE RADIAL LOAD | DIS-TANCE FROM END OF SHAFT | 3mm | N | 18 | 18 | 30 | 30 | 30 | 22 | 22 | 22 | 22 | 22 | 22 |
| | | 8mm | | 30 | 30 | 38 | 38 | 38 | 26 | 26 | 26 | 26 | 26 | 26 |
| | | 13mm | | – | – | 53 | 53 | 53 | 33 | 33 | 33 | 33 | 33 | 33 |
| | | 18mm | | – | – | – | – | – | 46 | 46 | 46 | 46 | 46 | 46 |
| PERMISSIBLE AXIAL LOAD | | | N | Lower than motor Unit's Weight | | | | | | | | | | |
| INSULATION RESISTANCE | | | MΩ | Min, 100(When measured with a DC500V insulation resistance meter) | | | | | | | | | | |
| INSULATION CLASS | | | – | CLASS B(130°C) | | | | | | | | | | |
| OPERATING TEMPERATURE | | | °C | 0 ~ 55 | | | | | | | | | | |

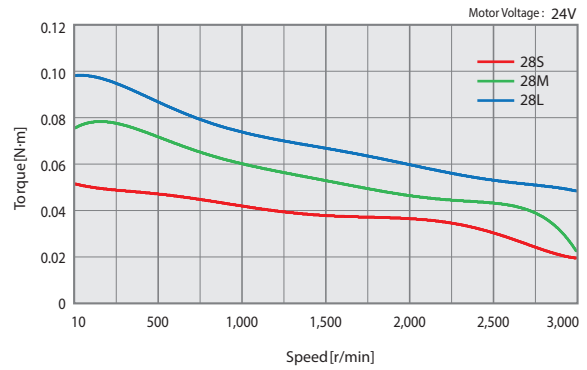
| MODEL | | | EzM2-56 series | | | EzM2-60 series | | | |
|-------------------------|-----------------------------|------|-------------------|---|-------|----------------|-------|-------|-------|
| | | | UNIT | 56S | 56M | 56L | 60S | 60M | 60L |
| DRIVE METHOD | | | – | Bipolar | | | | | |
| NUMBER OF PHASES | | | – | 2 Phase | | | | | |
| CURRENT per PHASE | | | A/Phase | 3,0 | 3,0 | 3,0 | 4,0 | 4,0 | 4,0 |
| MAXIMUM HOLDING TORQUE | | | N·m | 0,64 | 1,0 | 1,5 | 0,88 | 1,28 | 2,4 |
| ROTOR INERTIA | | | g·cm ² | 180 | 280 | 520 | 240 | 490 | 690 |
| WEIGHTS | | | kg | 0,608 | 0,784 | 1,230 | 0,693 | 0,856 | 1,419 |
| LENGTH(L) | | | mm | 46 | 55 | 80 | 47 | 56 | 85 |
| PERMISSIBLE RADIAL LOAD | DIS-TANCE FROM END OF SHAFT | 3mm | N | 52 | 52 | 52 | 70 | 70 | 70 |
| | | 8mm | | 65 | 65 | 65 | 87 | 87 | 87 |
| | | 13mm | | 85 | 85 | 85 | 114 | 114 | 114 |
| | | 18mm | | 123 | 123 | 123 | 165 | 165 | 165 |
| PERMISSIBLE AXIAL LOAD | | | N | Lower than motor Unit's Weight | | | | | |
| INSULATION RESISTANCE | | | MΩ | Min, 100(When measured with a DC500V insulation resistance meter) | | | | | |
| INSULATION CLASS | | | – | CLASS B(130°C) | | | | | |
| OPERATING TEMPERATURE | | | °C | 0 ~ 55 | | | | | |

Torque Characteristics of Motor

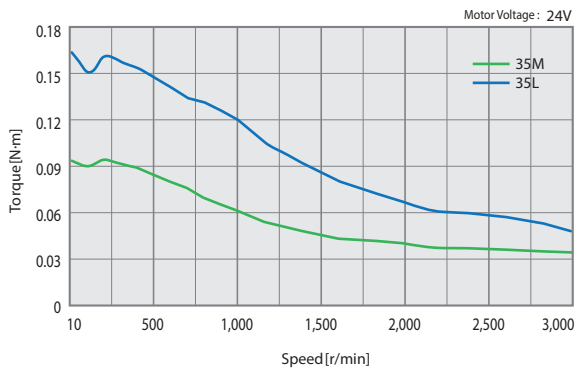
Ezi-SERVO II-EC-TO-20 series



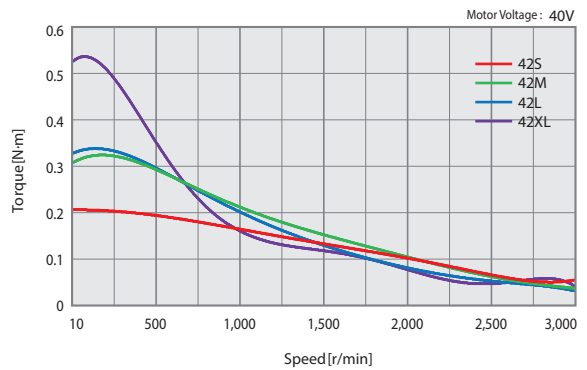
Ezi-SERVO II-EC-TO-28 series



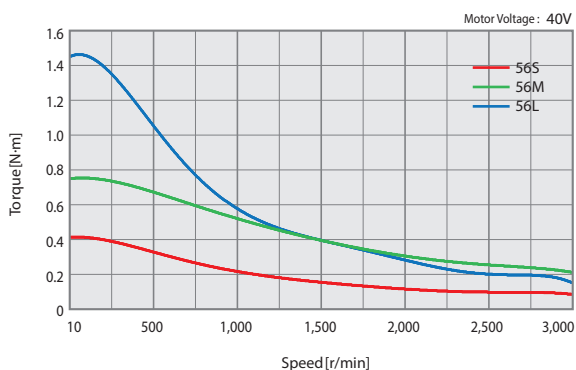
Ezi-SERVO II-EC-TO-35 series



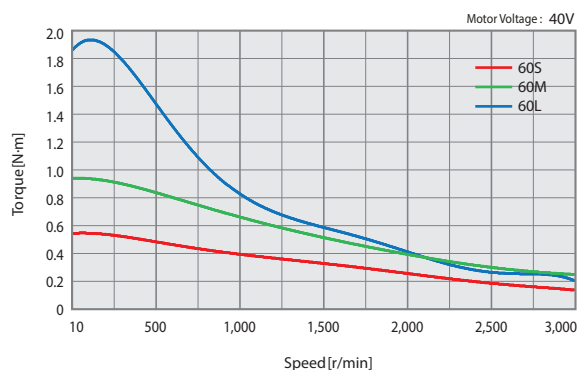
Ezi-SERVO II-EC-TO-42 series



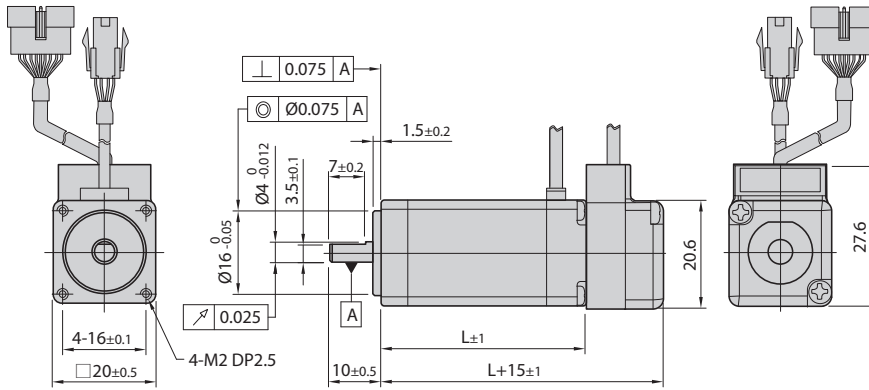
Ezi-SERVO II-EC-TO-56 series



Ezi-SERVO II-EC-TO-60 series

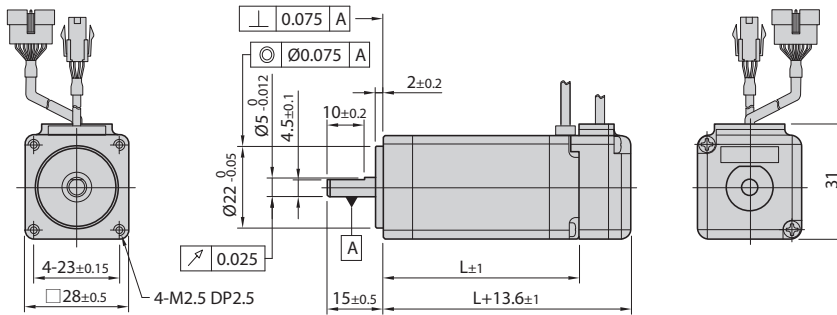


● Dimensions of Motor [mm]



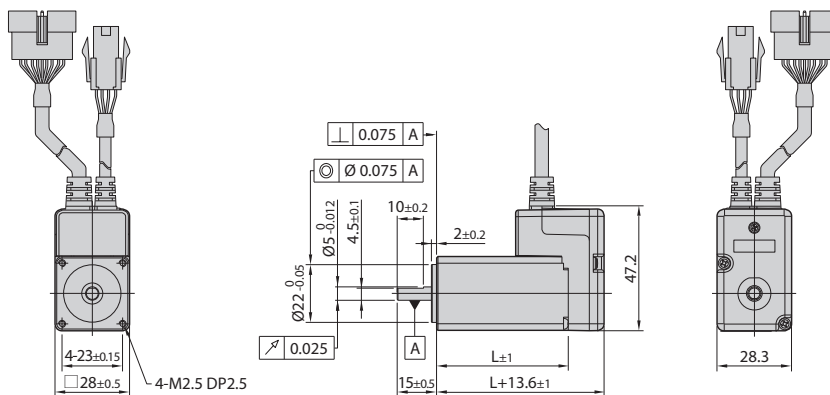
20mm

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



28mm

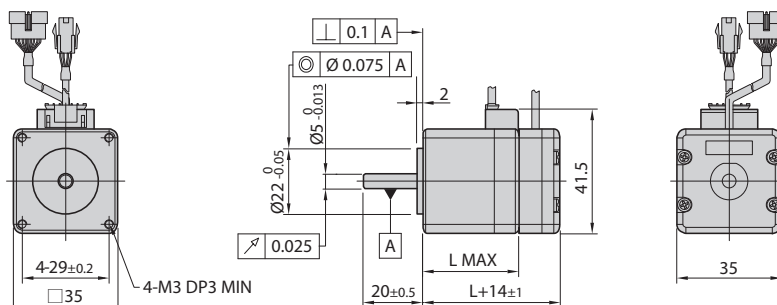
| Model name | Length(L) |
|------------|-----------|
| EzM2-28S | 32 |
| EzM2-28M | 45 |
| EzM2-28L | 50 |



28mm (Stopper type)

| Model name | Length(L) |
|------------|-----------|
| EzM2-28SM | 32 |
| EzM2-28MM | 45 |
| EzM2-28LM | 50 |

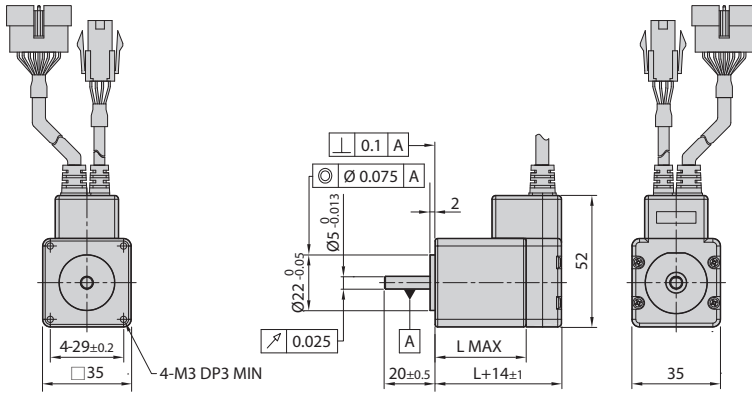
※ When ordering 28mm Stopper type of motor, please add "M" after standard motor model number.



35mm

| Model name | Length(L) |
|------------|-----------|
| EzM2-35M | 32 |
| EzM2-35L | 36 |

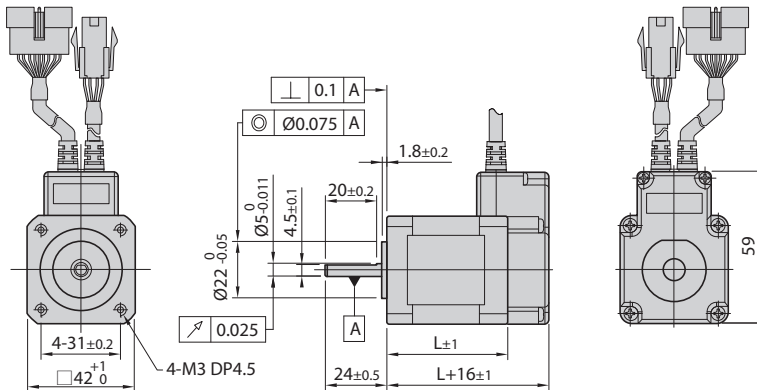
● Dimensions of Motor [mm]



35mm (Stopper type)

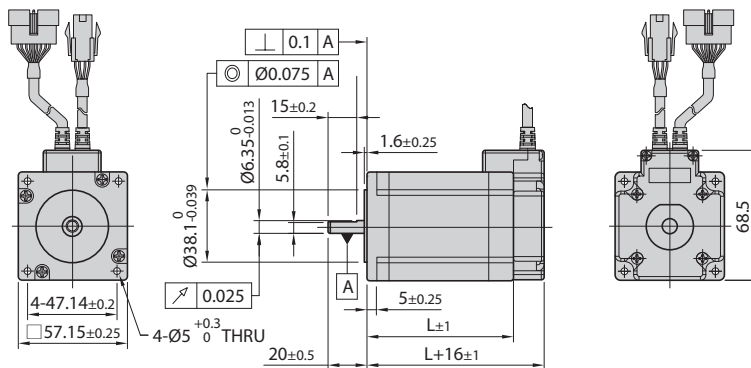
| Model name | Length(L) |
|------------|-----------|
| EzM2-35MM | 32 |
| EzM2-35LM | 36 |

※ When ordering 35mm Stopper type of motor, please add "M" after standard motor model number.



42mm

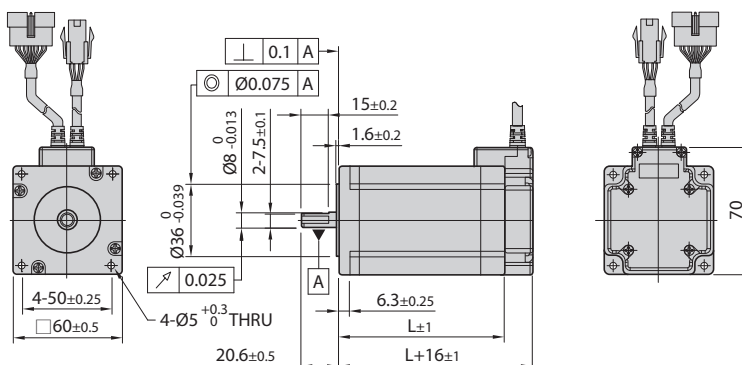
| Model name | Length(L) |
|------------|-----------|
| EzM2-42S | 34 |
| EzM2-42M | 40 |
| EzM2-42L | 48 |
| EzM2-42XL | 60 |



56mm

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

※ There are 2 kinds size of front shaft diameter for EzM2-56 series as Ø6.35 and Ø8.0.



60mm

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

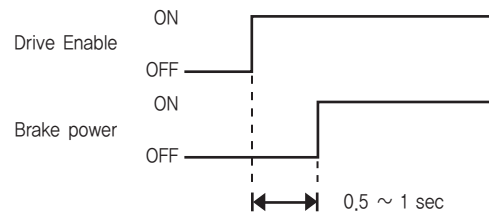
Specifications of Motor with Brake

| Unit Part Number | Motor Model Number | Electromagnetic Brake | | | | | Motor Unit Weight [kg] | Permissible Radial Load [N] | | | | Permissible Axial Load [N] |
|------------------------------|--------------------|-------------------------|-------------------|-------------------|-----------------------|------------------------------|------------------------|---------------------------------|----|----|-----|--------------------------------------|
| | | Type | Voltage Input [V] | Rated Current [A] | Power Consumption [W] | Static Friction Torque [N·m] | | Distance from End of Shaft [mm] | | | | |
| | | | | | | | | 3 | 8 | 13 | 18 | |
| Ezi-SERVO II-EC-TO-42S-■-BK | EzM2-42S-■-BK | Non-excitation run Type | DC24V ±10% | 0,2 | 5 | 0,2 | 0,55 | 22 | 26 | 33 | 46 | Must be Lower than Motor Unit Weight |
| Ezi-SERVO II-EC-TO-42M-■-BK | EzM2-42M-■-BK | | | | | | 0,62 | | | | | |
| Ezi-SERVO II-EC-TO-42L-■-BK | EzM2-42L-■-BK | | | | | | 0,69 | | | | | |
| Ezi-SERVO II-EC-TO-42XL-■-BK | EzM2-42XL-■-BK | | | | | | 0,82 | | | | | |
| Ezi-SERVO II-EC-TO-56S-■-BK | EzM2-56S-■-BK | | | 0,27 | 6,6 | 0,7 | 1,03 | 52 | 65 | 85 | 123 | |
| Ezi-SERVO II-EC-TO-56M-■-BK | EzM2-56M-■-BK | | | | | | 1,20 | | | | | |
| Ezi-SERVO II-EC-TO-56L-■-BK | EzM2-56L-■-BK | | | | | | 1,65 | | | | | |
| Ezi-SERVO II-EC-TO-60S-■-BK | EzM2-60S-■-BK | | | | | | 1,11 | | | | | |
| Ezi-SERVO II-EC-TO-60M-■-BK | EzM2-60M-■-BK | | | 70 | 87 | 114 | 165 | 1,30 | | | | |
| Ezi-SERVO II-EC-TO-60L-■-BK | EzM2-60L-■-BK | | | | | | | 1,86 | | | | |

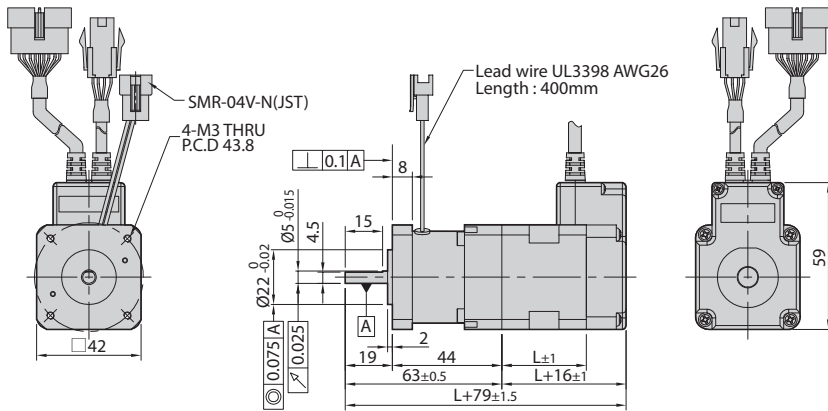
- * The code of encoder resolution is marked in "■".
- * Electromagnetic Brake cannot be used for braking. Position hold purpose only when power OFF.
- * The weight means Motor Unit Weight including Motor and Electromagnetic Brake.
- * Motor Model Number is combined model name of Motor and Brake.
- * Motor specification and torque characteristic are same as Standard Motor.

* Brake Operation Timing Chart

Ezi-SERVO II EtherCAT TO controls Brake by Drive automatically. Please refer to below Timing Chart when Brake is controlled by the upper controller other than using Ezi-SERVO II EtherCAT TO Brake control. Otherwise, Drive might malfunction and loads might fall down. Also, please do not operate Brake during motor operation to prevent damage.

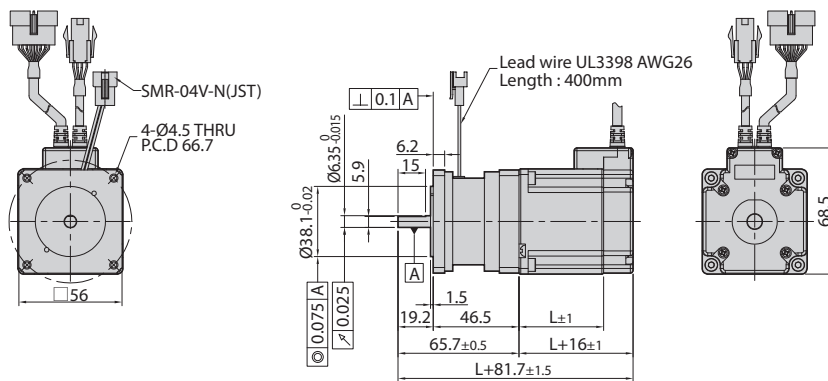


● Dimensions of Motor with Brake [mm]



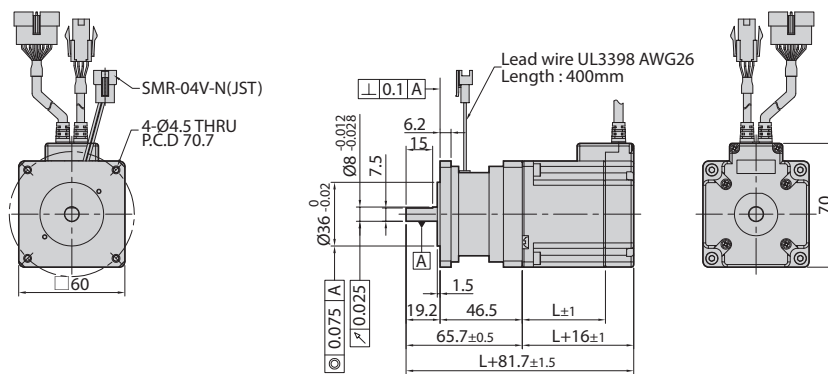
42mm

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



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 |

● How to Read Specifications

| Unit Part Number | ① Maximum Holding Torque [N·m] | ② Rotor Inertia Moment [kg·m ²] | ③ Backlash [arcmin] | ④ Angle Transmission Error [arcmin] | ⑤ Gear Ratio | ⑥ Resolution (10,000 P/R Standard) | ⑦ Permissible Torque [N·m] | ⑧ Instantaneous Maximum Torque [N·m] | ⑨ Permissible Speed Range [r/min] | ⑩ Unit Weight [kg] | ⑪ Permissible Radial Load (At Center of Axis) [N] | ⑫ Permissible Axial Load [N] |
|--------------------------------|-----------------------------------|--|------------------------|--|-----------------|---------------------------------------|-------------------------------|---|--------------------------------------|-----------------------|--|---------------------------------|
| Ezi-SERVO II -EC-TO-42S-■-PN3 | 0,57 | 35x10 ⁻⁷ | 3 | 5 | 3 | 0,012° | 6 | 12 | 0~1000 | 0,76 | 240 | 270 |
| Ezi-SERVO II -EC-TO-42S-■-PN5 | 0,95 | | | | 5 | 0,0072° | 9 | 18 | 0~600 | | 290 | 330 |
| Ezi-SERVO II -EC-TO-42S-■-PN8 | 1,52 | | | | 8 | 0,0045° | 9 | 18 | 0~375 | | 340 | 410 |
| Ezi-SERVO II -EC-TO-42S-■-PN10 | 1,90 | | | | 10 | 0,0036° | 6 | 12 | 0~300 | | 360 | 450 |
| Ezi-SERVO II -EC-TO-42S-■-PN15 | 2,76 | 35x10 ⁻⁷ | 5 | 7 | 15 | 0,0024° | 6 | 12 | 0~200 | 0,91 | 410 | 540 |
| Ezi-SERVO II -EC-TO-42S-■-PN25 | 4,60 | | | | 25 | 0,00144° | 9 | 18 | 0~120 | | 490 | 640 |
| Ezi-SERVO II -EC-TO-42S-■-PN40 | 7,36 | | | | 40 | 0,0009° | 9 | 18 | 0~75 | | 570 | 640 |
| Ezi-SERVO II -EC-TO-42S-■-PN50 | 9,00 | | | | 50 | 0,00072° | 9 | 18 | 0~60 | | 620 | 640 |

Description of Specification Items

| No. | Item | Description |
|-----|------------------------------|---|
| ① | Maximum Holding Torque | This is the maximum torque that can be exerted through the gearbox when the motor is stopped. (Based on 100% of stop current) Use the torque below the permissible torque of the gearbox. |
| ② | Rotor Inertia Moment | It is the value of the moment of inertia of the motor. |
| ③ | Backlash | It is the gap between the gear and the gear, and it is the angle at which the gearbox shaft moves without external force when stopped. |
| ④ | Angle Transmission Error | This is the transmission characteristic of the gearbox, which means the difference between the theoretical rotation angle and the actual rotation angle of the output shaft. |
| ⑤ | Gear Ratio | It is the value obtained by dividing the number of output rotation by the number of input rotation. |
| ⑥ | Resolution | This is the angle at which the gearbox output shaft moves when the motor is driven by 1 pulse. |
| ⑦ | Permissible Torque | It refers to the maximum value of the torque that can be continuously applied to the output shaft of the gearbox during constant speed operation. (When the input rotation speed is 3,000r/min and the lifetime of the motor becomes 20,000 hours) |
| ⑧ | Instantaneous Maximum Torque | This is the maximum torque allowed to the output shaft of the gearbox during acceleration/deceleration. |
| ⑨ | Permissible Speed Range | It is the range of rotation speed based on the output shaft of the gearbox. |
| ⑩ | Unit Weight | It is the sum of the weight of the gearbox and the motor. |
| ⑪ | Permissible Radial Load | It is the maximum value of the load applied in the direction perpendicular to the gearbox output shaft. |
| ⑫ | Permissible Axial Load | It is the maximum value of the load applied in the axial direction to the gearbox output shaft. |

● Specifications of Motor with Gearbox

42_{mm}

| Unit Part Number | Maximum Holding Torque [N·m] | Rotor Inertia Moment [kg·m ²] | Backlash [arcmin] | Angle Transmission Error [arcmin] | Gear Ratio | Resolution (10,000 P/R Standard) | Permissible Torque [N·m] | Instantaneous Maximum Torque [N·m] | Permissible Speed Range [r/min] | Unit Weight [kg] | Permissible Radial Load (At Center of Axis) [N] | Permissible Axial Load [N] |
|--------------------------------|------------------------------|---|-------------------|-----------------------------------|------------|----------------------------------|--------------------------|------------------------------------|---------------------------------|------------------|---|----------------------------|
| Ezi-SERVO II-EC-TO-42S-■-PN3 | 0,57 | 35x10 ⁻⁷ | 3 | 5 | 3 | 0,012° | 6 | 12 | 0~1000 | 0,76 | 240 | 270 |
| Ezi-SERVO II-EC-TO-42S-■-PN5 | 0,95 | | | | 5 | 0,0072° | 9 | 18 | 0~600 | | 290 | 330 |
| Ezi-SERVO II-EC-TO-42S-■-PN8 | 1,52 | | | | 8 | 0,0045° | 9 | 18 | 0~375 | | 340 | 410 |
| Ezi-SERVO II-EC-TO-42S-■-PN10 | 1,90 | | | | 10 | 0,0036° | 6 | 12 | 0~300 | | 360 | 450 |
| Ezi-SERVO II-EC-TO-42S-■-PN15 | 2,76 | | 5 | 7 | 15 | 0,0024° | 6 | 12 | 0~200 | 0,91 | 410 | 540 |
| Ezi-SERVO II-EC-TO-42S-■-PN25 | 4,60 | | | | 25 | 0,00144° | 9 | 18 | 0~120 | | 490 | 640 |
| Ezi-SERVO II-EC-TO-42S-■-PN40 | 7,36 | | | | 40 | 0,0009° | 9 | 18 | 0~75 | | 570 | 640 |
| Ezi-SERVO II-EC-TO-42S-■-PN50 | 9,00 | | | | 50 | 0,00072° | 9 | 18 | 0~60 | | 620 | 640 |
| Ezi-SERVO II-EC-TO-42M-■-PN3 | 0,85 | 54x10 ⁻⁷ | 3 | 5 | 3 | 0,012° | 6 | 12 | 0~1000 | 0,81 | 240 | 270 |
| Ezi-SERVO II-EC-TO-42M-■-PN5 | 1,42 | | | | 5 | 0,0072° | 9 | 18 | 0~600 | | 290 | 330 |
| Ezi-SERVO II-EC-TO-42M-■-PN8 | 2,28 | | | | 8 | 0,0045° | 9 | 18 | 0~375 | | 340 | 410 |
| Ezi-SERVO II-EC-TO-42M-■-PN10 | 2,85 | | | | 10 | 0,0036° | 6 | 12 | 0~300 | | 360 | 450 |
| Ezi-SERVO II-EC-TO-42M-■-PN15 | 4,14 | | 5 | 7 | 15 | 0,0024° | 6 | 12 | 0~200 | 0,97 | 410 | 540 |
| Ezi-SERVO II-EC-TO-42M-■-PN25 | 6,90 | | | | 25 | 0,00144° | 9 | 18 | 0~120 | | 490 | 640 |
| Ezi-SERVO II-EC-TO-42M-■-PN40 | 9,00 | | | | 40 | 0,0009° | 9 | 18 | 0~75 | | 570 | 640 |
| Ezi-SERVO II-EC-TO-42M-■-PN50 | 9,00 | | | | 50 | 0,00072° | 9 | 18 | 0~60 | | 620 | 640 |
| Ezi-SERVO II-EC-TO-42L-■-PN3 | 0,92 | 77x10 ⁻⁷ | 3 | 5 | 3 | 0,012° | 6 | 12 | 0~1000 | 0,89 | 240 | 270 |
| Ezi-SERVO II-EC-TO-42L-■-PN5 | 1,54 | | | | 5 | 0,0072° | 9 | 18 | 0~600 | | 290 | 330 |
| Ezi-SERVO II-EC-TO-42L-■-PN8 | 2,47 | | | | 8 | 0,0045° | 9 | 18 | 0~375 | | 340 | 410 |
| Ezi-SERVO II-EC-TO-42L-■-PN10 | 3,09 | | | | 10 | 0,0036° | 6 | 12 | 0~300 | | 360 | 450 |
| Ezi-SERVO II-EC-TO-42L-■-PN15 | 4,49 | | 5 | 7 | 15 | 0,0024° | 6 | 12 | 0~200 | 1,04 | 410 | 540 |
| Ezi-SERVO II-EC-TO-42L-■-PN25 | 7,49 | | | | 25 | 0,00144° | 9 | 18 | 0~120 | | 490 | 640 |
| Ezi-SERVO II-EC-TO-42L-■-PN40 | 9,00 | | | | 40 | 0,0009° | 9 | 18 | 0~75 | | 570 | 640 |
| Ezi-SERVO II-EC-TO-42L-■-PN50 | 9,00 | | | | 50 | 0,00072° | 9 | 18 | 0~60 | | 620 | 640 |
| Ezi-SERVO II-EC-TO-42XL-■-PN3 | 1,45 | 114x10 ⁻⁷ | 3 | 5 | 3 | 0,012° | 6 | 12 | 0~1000 | 1,03 | 240 | 270 |
| Ezi-SERVO II-EC-TO-42XL-■-PN5 | 2,42 | | | | 5 | 0,0072° | 9 | 18 | 0~600 | | 290 | 330 |
| Ezi-SERVO II-EC-TO-42XL-■-PN8 | 3,87 | | | | 8 | 0,0045° | 9 | 18 | 0~375 | | 340 | 410 |
| Ezi-SERVO II-EC-TO-42XL-■-PN10 | 4,84 | | | | 10 | 0,0036° | 6 | 12 | 0~300 | | 360 | 450 |
| Ezi-SERVO II-EC-TO-42XL-■-PN15 | 6,00 | | 5 | 7 | 15 | 0,0024° | 6 | 12 | 0~200 | 1,18 | 410 | 540 |
| Ezi-SERVO II-EC-TO-42XL-■-PN25 | 9,00 | | | | 25 | 0,00144° | 9 | 18 | 0~120 | | 490 | 640 |
| Ezi-SERVO II-EC-TO-42XL-■-PN40 | 9,00 | | | | 40 | 0,0009° | 9 | 18 | 0~75 | | 570 | 640 |
| Ezi-SERVO II-EC-TO-42XL-■-PN50 | 9,00 | | | | 50 | 0,00072° | 9 | 18 | 0~60 | | 620 | 640 |

* The code of encoder resolution will be marked in "■"

● Specifications of Motor with Gearbox

56_{mm}

| Unit Part Number | Maximum Holding Torque [N·m] | Rotor Inertia Moment [kg·m ²] | Backlash [arcmin] | Angle Transmission Error [arcmin] | Gear Ratio | Resolution (10,000 P/R Standard) | Permissible Torque [N·m] | Instantaneous Maximum Torque [N·m] | Permissible Speed Range [r/min] | Unit Weight [kg] | Permissible Radial Load (At Center of Axis) [N] | Permissible Axial Load [N] |
|--------------------------------|------------------------------|---|-------------------|-----------------------------------|------------|----------------------------------|--------------------------|------------------------------------|---------------------------------|------------------|---|----------------------------|
| Ezi-SERVO II -EC-T0-56S-■-PN3 | 1,1 | 180x10 ⁻⁷ | 3 | 5 | 3 | 0,012° | 18 | 35 | 0~1000 | 1,75 | 430 | 310 |
| Ezi-SERVO II -EC-T0-56S-■-PN5 | 1,9 | | | | 5 | 0,0072° | 27 | 50 | 0~600 | | 510 | 390 |
| Ezi-SERVO II -EC-T0-56S-■-PN8 | 3,0 | | | | 8 | 0,0045° | 27 | 50 | 0~375 | | 600 | 480 |
| Ezi-SERVO II -EC-T0-56S-■-PN10 | 3,8 | | | | 10 | 0,0036° | 18 | 35 | 0~300 | | 640 | 530 |
| Ezi-SERVO II -EC-T0-56S-■-PN15 | 5,5 | | | | 15 | 0,0024° | 18 | 35 | 0~200 | 2,05 | 740 | 630 |
| Ezi-SERVO II -EC-T0-56S-■-PN25 | 9,3 | | | | 25 | 0,00144° | 27 | 50 | 0~120 | | 870 | 790 |
| Ezi-SERVO II -EC-T0-56S-■-PN40 | 14,9 | | | | 40 | 0,0009° | 27 | 50 | 0~75 | | 1000 | 970 |
| Ezi-SERVO II -EC-T0-56S-■-PN50 | 18,6 | | | | 50 | 0,00072° | 27 | 50 | 0~60 | | 1100 | 1100 |
| Ezi-SERVO II -EC-T0-56M-■-PN3 | 2,0 | 280x10 ⁻⁷ | 3 | 5 | 3 | 0,012° | 18 | 35 | 0~1000 | 1,92 | 430 | 310 |
| Ezi-SERVO II -EC-T0-56M-■-PN5 | 3,4 | | | | 5 | 0,0072° | 27 | 50 | 0~600 | | 510 | 390 |
| Ezi-SERVO II -EC-T0-56M-■-PN8 | 5,4 | | | | 8 | 0,0045° | 27 | 50 | 0~375 | | 600 | 480 |
| Ezi-SERVO II -EC-T0-56M-■-PN10 | 6,8 | | | | 10 | 0,0036° | 18 | 35 | 0~300 | | 640 | 530 |
| Ezi-SERVO II -EC-T0-56M-■-PN15 | 9,9 | | | | 15 | 0,0024° | 18 | 35 | 0~200 | 2,23 | 740 | 630 |
| Ezi-SERVO II -EC-T0-56M-■-PN25 | 16,6 | | | | 25 | 0,00144° | 27 | 50 | 0~120 | | 870 | 790 |
| Ezi-SERVO II -EC-T0-56M-■-PN40 | 27,0 | | | | 40 | 0,0009° | 27 | 50 | 0~75 | | 1000 | 970 |
| Ezi-SERVO II -EC-T0-56M-■-PN50 | 27,0 | | | | 50 | 0,00072° | 27 | 50 | 0~60 | | 1100 | 1100 |
| Ezi-SERVO II -EC-T0-56L-■-PN3 | 4,0 | 520x10 ⁻⁷ | 3 | 5 | 3 | 0,012° | 18 | 35 | 0~1000 | 2,37 | 430 | 310 |
| Ezi-SERVO II -EC-T0-56L-■-PN5 | 6,8 | | | | 5 | 0,0072° | 27 | 50 | 0~600 | | 510 | 390 |
| Ezi-SERVO II -EC-T0-56L-■-PN8 | 10,8 | | | | 8 | 0,0045° | 27 | 50 | 0~375 | | 600 | 480 |
| Ezi-SERVO II -EC-T0-56L-■-PN10 | 13,6 | | | | 10 | 0,0036° | 18 | 35 | 0~300 | | 640 | 530 |
| Ezi-SERVO II -EC-T0-56L-■-PN15 | 18,0 | | | | 15 | 0,0024° | 18 | 35 | 0~200 | 2,67 | 740 | 630 |
| Ezi-SERVO II -EC-T0-56L-■-PN25 | 27,0 | | | | 25 | 0,00144° | 27 | 50 | 0~120 | | 870 | 790 |
| Ezi-SERVO II -EC-T0-56L-■-PN40 | 27,0 | | | | 40 | 0,0009° | 27 | 50 | 0~75 | | 1000 | 970 |
| Ezi-SERVO II -EC-T0-56L-■-PN50 | 27,0 | | | | 50 | 0,00072° | 27 | 50 | 0~60 | | 1100 | 1100 |

* The code of encoder resolution will be marked in "■"

● Specifications of Motor with Gearbox

60_{mm}

| Unit Part Number | Maximum Holding Torque [N·m] | Rotor Inertia Moment [kg·m ²] | Backlash [arcmin] | Angle Transmission Error [arcmin] | Gear Ratio | Resolution (10,000 P/R Standard) | Permissible Torque [N·m] | Instantaneous Maximum Torque [N·m] | Permissible Speed Range [r/min] | Unit Weight [kg] | Permissible Radial Load (At Center of Axis) [N] | Permissible Axial Load [N] |
|-------------------------------|------------------------------|---|-------------------|-----------------------------------|------------|----------------------------------|--------------------------|------------------------------------|---------------------------------|------------------|---|----------------------------|
| Ezi-SERVO II-EC-TO-60S-■-PN3 | 1,5 | 240x10 ⁻⁷ | 3 | 5 | 3 | 0,012° | 18 | 35 | 0~1000 | 1,84 | 430 | 310 |
| Ezi-SERVO II-EC-TO-60S-■-PN5 | 2,5 | | | | 5 | 0,0072° | 27 | 50 | 0~600 | | 510 | 390 |
| Ezi-SERVO II-EC-TO-60S-■-PN8 | 4,0 | | | | 8 | 0,0045° | 27 | 50 | 0~375 | | 600 | 480 |
| Ezi-SERVO II-EC-TO-60S-■-PN10 | 5,1 | | | | 10 | 0,0036° | 18 | 35 | 0~300 | | 640 | 530 |
| Ezi-SERVO II-EC-TO-60S-■-PN15 | 7,4 | | | | 15 | 0,0024° | 18 | 35 | 0~200 | 740 | 630 | 2,13 |
| Ezi-SERVO II-EC-TO-60S-■-PN25 | 12,3 | | | | 25 | 0,00144° | 27 | 50 | 0~120 | 870 | 790 | |
| Ezi-SERVO II-EC-TO-60S-■-PN40 | 19,8 | | | | 40 | 0,0009° | 27 | 50 | 0~75 | 1000 | 970 | |
| Ezi-SERVO II-EC-TO-60S-■-PN50 | 24,7 | | | | 50 | 0,00072° | 27 | 50 | 0~60 | 1100 | 1100 | |
| Ezi-SERVO II-EC-TO-60M-■-PN3 | 2,6 | 490x10 ⁻⁷ | 3 | 5 | 3 | 0,012° | 18 | 35 | 0~1000 | 1,20 | 430 | 310 |
| Ezi-SERVO II-EC-TO-60M-■-PN5 | 4,4 | | | | 5 | 0,0072° | 27 | 50 | 0~600 | | 510 | 390 |
| Ezi-SERVO II-EC-TO-60M-■-PN8 | 7,0 | | | | 8 | 0,0045° | 27 | 50 | 0~375 | | 600 | 480 |
| Ezi-SERVO II-EC-TO-60M-■-PN10 | 8,8 | | | | 10 | 0,0036° | 18 | 35 | 0~300 | | 640 | 530 |
| Ezi-SERVO II-EC-TO-60M-■-PN15 | 12,8 | | | | 15 | 0,0024° | 18 | 35 | 0~200 | 740 | 630 | 2,30 |
| Ezi-SERVO II-EC-TO-60M-■-PN25 | 21,4 | | | | 25 | 0,00144° | 27 | 50 | 0~120 | 870 | 790 | |
| Ezi-SERVO II-EC-TO-60M-■-PN40 | 27,0 | | | | 40 | 0,0009° | 27 | 50 | 0~75 | 1000 | 970 | |
| Ezi-SERVO II-EC-TO-60M-■-PN50 | 27,0 | | | | 50 | 0,00072° | 27 | 50 | 0~60 | 1100 | 1100 | |
| Ezi-SERVO II-EC-TO-60L-■-PN3 | 5,2 | 690x10 ⁻⁷ | 3 | 5 | 3 | 0,012° | 18 | 35 | 0~1000 | 2,61 | 430 | 310 |
| Ezi-SERVO II-EC-TO-60L-■-PN5 | 8,7 | | | | 5 | 0,0072° | 27 | 50 | 0~600 | | 510 | 390 |
| Ezi-SERVO II-EC-TO-60L-■-PN8 | 13,9 | | | | 8 | 0,0045° | 27 | 50 | 0~375 | | 600 | 480 |
| Ezi-SERVO II-EC-TO-60L-■-PN10 | 18,0 | | | | 10 | 0,0036° | 18 | 35 | 0~300 | | 640 | 530 |
| Ezi-SERVO II-EC-TO-60L-■-PN15 | 18,0 | | | | 15 | 0,0024° | 18 | 35 | 0~200 | 740 | 630 | 2,86 |
| Ezi-SERVO II-EC-TO-60L-■-PN25 | 27,0 | | | | 25 | 0,00144° | 27 | 50 | 0~120 | 870 | 790 | |
| Ezi-SERVO II-EC-TO-60L-■-PN40 | 27,0 | | | | 40 | 0,0009° | 27 | 50 | 0~75 | 1000 | 970 | |
| Ezi-SERVO II-EC-TO-60L-■-PN50 | 27,0 | | | | 50 | 0,00072° | 27 | 50 | 0~60 | 1100 | 1100 | |

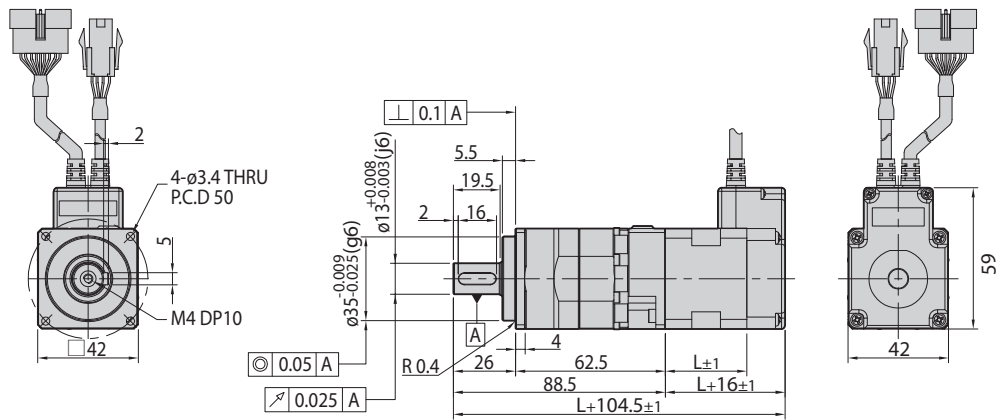
* The code of encoder resolution will be marked in "■"

● Dimensions of Motor with Gearbox [mm]

42mm

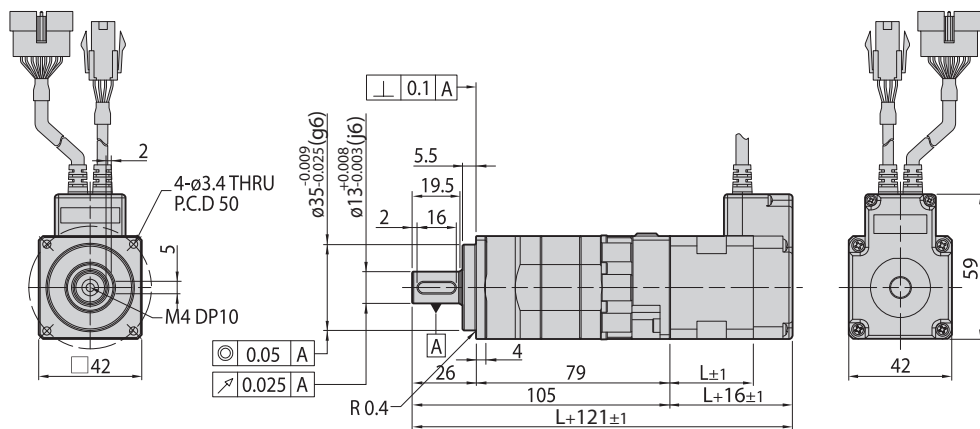
| Unit Part Number | Motor | Stage | □ Gear Ratio | L [mm] |
|-------------------------------|-----------------|--------------|--------------|--------|
| Ezi-SERVO II-EC-TO-42S-■-PN□ | EzM2-42S-■-PN□ | Single Stage | 3, 5, 8, 10 | 34 |
| Ezi-SERVO II-EC-TO-42M-■-PN□ | EzM2-42M-■-PN□ | | 3, 5, 8, 10 | 40 |
| Ezi-SERVO II-EC-TO-42L-■-PN□ | EzM2-42L-■-PN□ | | 3, 5, 8, 10 | 48 |
| Ezi-SERVO II-EC-TO-42XL-■-PN□ | EzM2-42XL-■-PN□ | | 3, 5, 8, 10 | 60 |

* The code of encoder resolution will be marked in "■"



| Unit Part Number | Motor | Stage | □ Gear Ratio | L [mm] |
|-------------------------------|-----------------|--------------|----------------|--------|
| Ezi-SERVO II-EC-TO-42S-■-PN□ | EzM2-42S-■-PN□ | Double Stage | 15, 25, 40, 50 | 34 |
| Ezi-SERVO II-EC-TO-42M-■-PN□ | EzM2-42M-■-PN□ | | 15, 25, 40, 50 | 40 |
| Ezi-SERVO II-EC-TO-42L-■-PN□ | EzM2-42L-■-PN□ | | 15, 25, 40, 50 | 48 |
| Ezi-SERVO II-EC-TO-42XL-■-PN□ | EzM2-42XL-■-PN□ | | 15, 25, 40, 50 | 60 |

* The code of encoder resolution will be marked in "■"

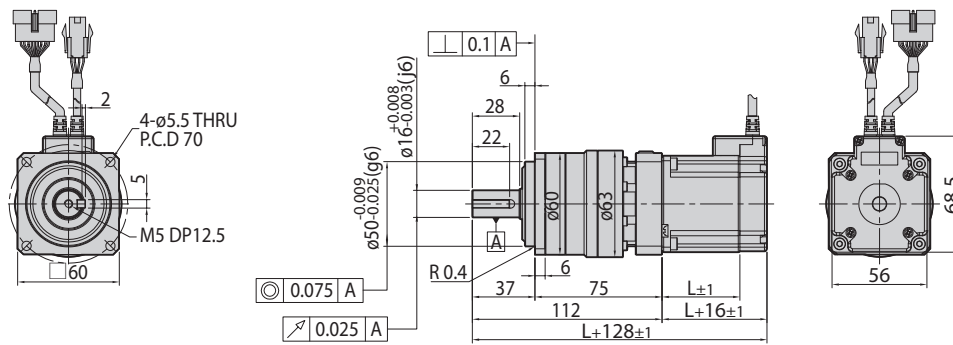


● Dimensions of Motor with Gearbox [mm]

56_{mm}

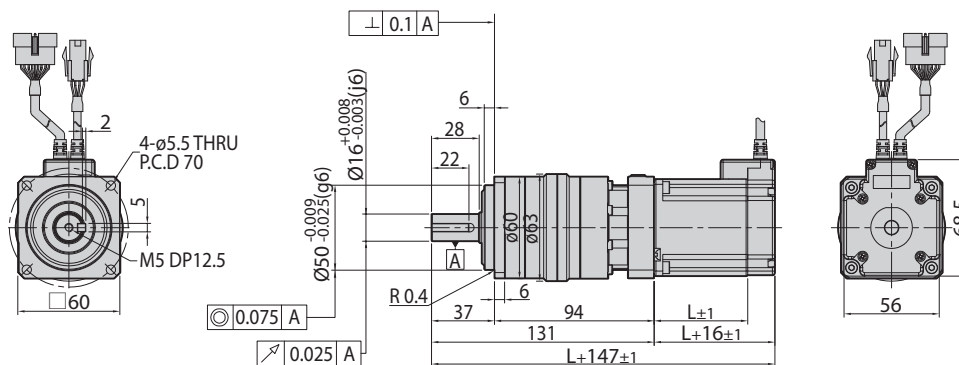
| Unit Part Number | Motor | Stage | □ Gear Ratio | L [mm] |
|-------------------------------|----------------|--------------|--------------|--------|
| Ezi-SERVO II -EC-TO-56S-■-PN□ | EzM2-56S-■-PN□ | Single Stage | 3, 5, 8, 10 | 46 |
| Ezi-SERVO II -EC-TO-56M-■-PN□ | EzM2-56M-■-PN□ | | 3, 5, 8, 10 | 55 |
| Ezi-SERVO II -EC-TO-56L-■-PN□ | EzM2-56L-■-PN□ | | 3, 5, 8, 10 | 80 |

* The code of encoder resolution will be marked in "■"



| Unit Part Number | Motor | Stage | □ Gear Ratio | L [mm] |
|-------------------------------|----------------|--------------|----------------|--------|
| Ezi-SERVO II -EC-TO-56S-■-PN□ | EzM2-56S-■-PN□ | Double Stage | 15, 25, 40, 50 | 46 |
| Ezi-SERVO II -EC-TO-56M-■-PN□ | EzM2-56M-■-PN□ | | 15, 25, 40, 50 | 55 |
| Ezi-SERVO II -EC-TO-56L-■-PN□ | EzM2-56L-■-PN□ | | 15, 25, 40, 50 | 80 |

* The code of encoder resolution will be marked in "■"

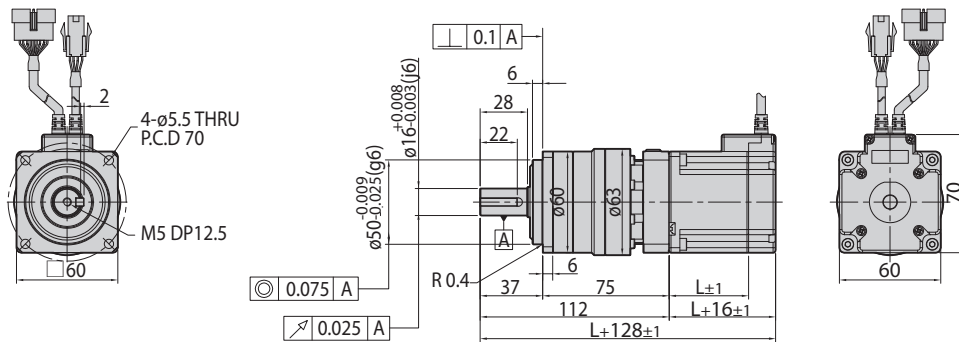


● Dimensions of Motor with Gearbox [mm]

60mm

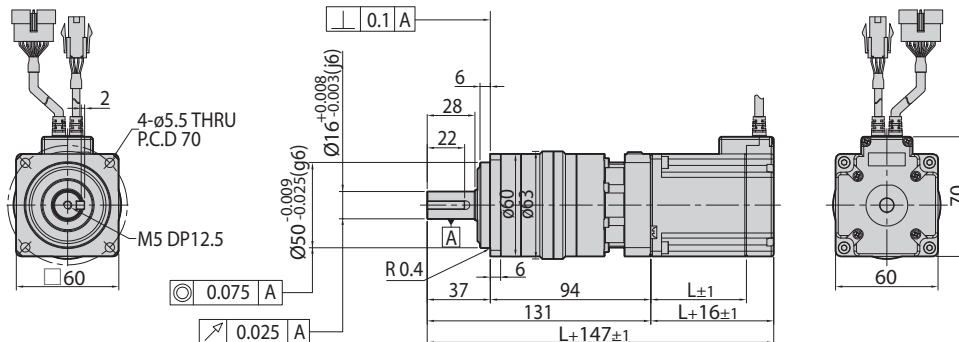
| Unit Part Number | Motor | Stage | □ Gear Ratio | L [mm] |
|------------------------------|----------------|--------------|--------------|--------|
| Ezi-SERVO II-EC-TO-60S-■-PN□ | EzM2-60S-■-PN□ | Single Stage | 3, 5, 8, 10 | 47 |
| Ezi-SERVO II-EC-TO-60M-■-PN□ | EzM2-60M-■-PN□ | | 3, 5, 8, 10 | 56 |
| Ezi-SERVO II-EC-TO-60L-■-PN□ | EzM2-60L-■-PN□ | | 3, 5, 8, 10 | 85 |

* The code of encoder resolution will be marked in "■"

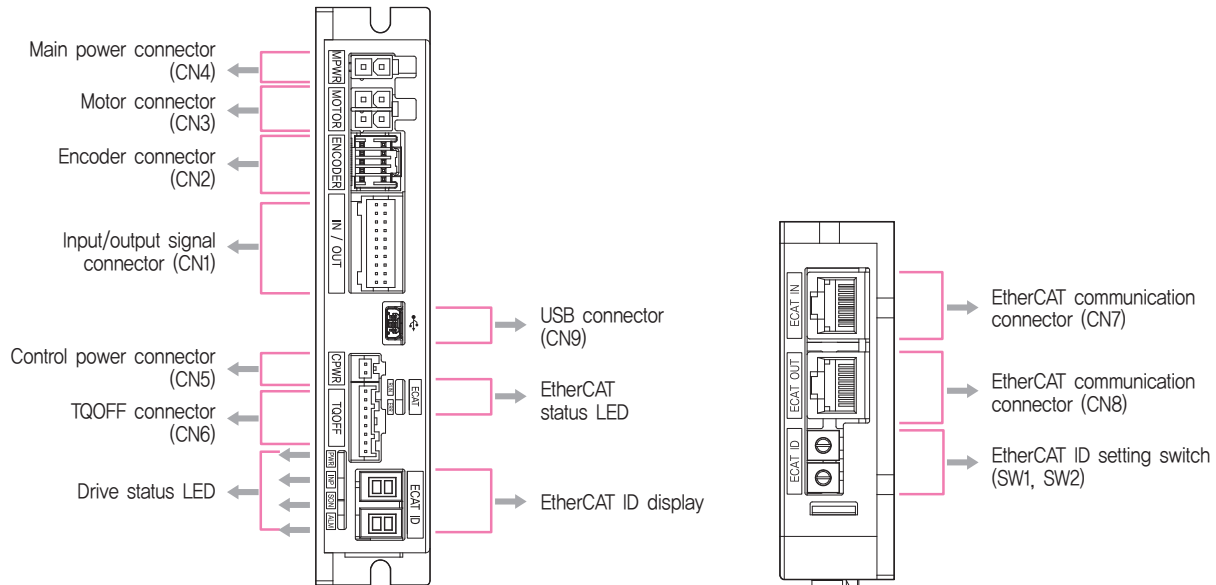


| Unit Part Number | Motor | Stage | □ Gear Ratio | L [mm] |
|------------------------------|----------------|--------------|----------------|--------|
| Ezi-SERVO II-EC-TO-60S-■-PN□ | EzM2-60S-■-PN□ | Double Stage | 15, 25, 40, 50 | 47 |
| Ezi-SERVO II-EC-TO-60M-■-PN□ | EzM2-60M-■-PN□ | | 15, 25, 40, 50 | 56 |
| Ezi-SERVO II-EC-TO-60L-■-PN□ | EzM2-60L-■-PN□ | | 15, 25, 40, 50 | 85 |

* The code of encoder resolution will be marked in "■"

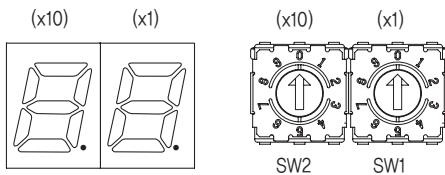


Settings and Operation



1. EtherCAT ID Display and Setting Switch (SW1, SW2)

Use two rotary switches to set EtherCAT ID (ECAT Device ID). Set ones digit (x1) of EtherCAT ID on the right rotary switch (SW1), and set tens digit (x10) of EtherCAT ID on the left rotary switch (SW2).



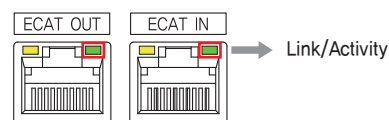
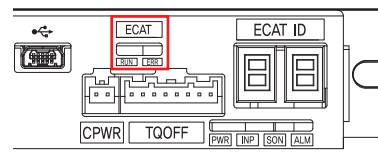
2. EtherCAT Status LED

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

| Name | Color | Status | Description |
|------|-------|--------------|-------------------------|
| RUN | Green | OFF | State INIT or Power OFF |
| | | Blinking | State PRE-OPERATIONAL |
| | | Single Flash | State SAFE-OPERATIONAL |
| | | ON | State OPERATIONAL |
| | | Flickering | State BOOTSTRAP |

| Name | Color | Status | Description |
|------|-------|--------------|-----------------------|
| ERR | Red | OFF | No Error or Power OFF |
| | | Blinking | Invalid Configuration |
| | | Single Flash | Local Error |
| | | Double Flash | Watchdog Time Out |

| Name | Color | Status | Description |
|---------------|-------|------------|-----------------------------------|
| Link/Activity | Green | OFF | Link not Established |
| | | ON | Link Established |
| | | Flickering | Link Established and in Operation |



3. Drive Status LED

LED informs operation status of the drive.

| Indication | Color | Function | Description |
|------------|--------|-----------------------------|--|
| 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 parameter |
| SON | Orange | Servo On/Off Indication | Servo On: Lights On, Servo Off: Lights Off |
| ALM | Red | Alarm indication | Flash when an error occurs |

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

| No. | Error Code ^{*4} | Error Type | Causes |
|-----|--------------------------|---------------------------------|--|
| 1 | E-001 | Over Current Error | The current through power devices in drive exceeds the limit. ^{*1} |
| 2 | E-002 | Over Speed Error | The motor speed exceeds 3,000r/min |
| 3 | E-003 | Position Tracking Error | Position error value is greater than the reference value while the motor is running ^{*2} |
| 4 | E-004 | Over Load Error | The motor is continuously operated more than 5 seconds under a load exceeding the max. torque. |
| 5 | E-005 | Over Temperature Error | Internal temperature of the drive exceeds 85°C |
| 6 | E-006 | Over Regenerative Voltage Error | Back-EMF is higher than limit value ^{*3} |
| 7 | E-007 | Motor Connect Error | There is a problem with the connection between the drive and the motor |
| 8 | E-008 | Encoder Connect Error | There is a problem with the connection between the drive and the encoder |
| 10 | E-010 | In-Position Error | After operation is finished, position error larger than 1 pulse is continued for more than 3 seconds |
| 12 | E-012 | ROM Error | Error occurs in parameter storage device(ROM) |
| 15 | E-015 | Position Overflow Error | Position error value is greater than the reference value while the motor is stopped ^{*2} |

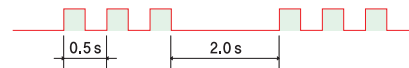
*1 : Limit value depends on motor model. (Refer to the Manual)

*2 : The default setting value is 180°, and it can be changed by parameter. (Refer to the Manual)

*3 : Voltage limit of Back-EMF depends on motor model. (Refer to the Manual)

*4 : When an alarm occurs, error code is displayed on the 7-segment LED display instead of EtherCAT ID.

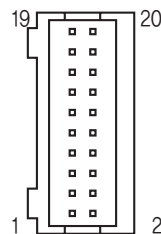
※ Please refer to user Manual for the details of protection functions.



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

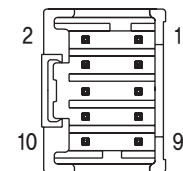
4. Input/Output Signal Connector (CN1)

| No. | Function | I/O |
|-----|--------------|--------|
| 1 | LIMIT+ | Input |
| 2 | LIMIT- | Input |
| 3 | ORIGIN | Input |
| 4 | Digital In1 | Input |
| 5 | Digital In2 | Input |
| 6 | Digital In3 | Input |
| 7 | Digital In4 | Input |
| 8 | Digital In5 | Input |
| 9 | Digital In6 | Input |
| 10 | Digital Out1 | Output |
| 11 | Digital Out2 | Output |
| 12 | Digital Out3 | Output |
| 13 | Digital Out4 | Output |
| 14 | Digital Out5 | Output |
| 15 | BRAKE+ | Output |
| 16 | BRAKE- | Output |
| 17 | EXT_GND | Output |
| 18 | EXT_DC24V | Output |
| 19 | F_GND | --- |
| 20 | F_GND | --- |



5. Encoder Connector (CN2)

| No. | Function | I/O |
|-----|----------|--------|
| 1 | A+ | Input |
| 2 | A- | Input |
| 3 | B+ | Input |
| 4 | B- | Input |
| 5 | Z+ | Input |
| 6 | Z- | Input |
| 7 | DC5V | Output |
| 8 | GND | Output |
| 9 | F_GND | ---- |
| 10 | F_GND | ---- |



6. Motor Connector (CN3)

| No. | Function | I/O |
|-----|----------|--------|
| 1 | A Phase | Output |
| 2 | B Phase | Output |
| 3 | A̅ Phase | Output |
| 4 | B̅ Phase | Output |



11. USB Connector (CN9)

| No. | Function |
|-----|------------------|
| 1 | V _{BUS} |
| 2 | D- |
| 3 | D+ |
| 4 | --- |
| 5 | GND |



5 4 3 2 1

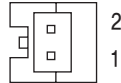
7. Main Power Connector (CN4)

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



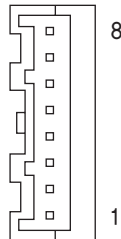
8. Control Power Connector (CN5)

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



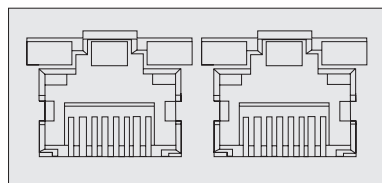
9. TQOFF Connector (CN6)

| No. | Function | I/O |
|-----|----------|--------|
| 1 | TQOFF1_P | Input |
| 2 | TQOFF1_N | Input |
| 3 | TQOFF2_P | Input |
| 4 | TQOFF2_N | Input |
| 5 | TQMON_P | Output |
| 6 | TQMON_N | Output |
| 7 | OVRTQ | Input |
| 8 | GND | Output |



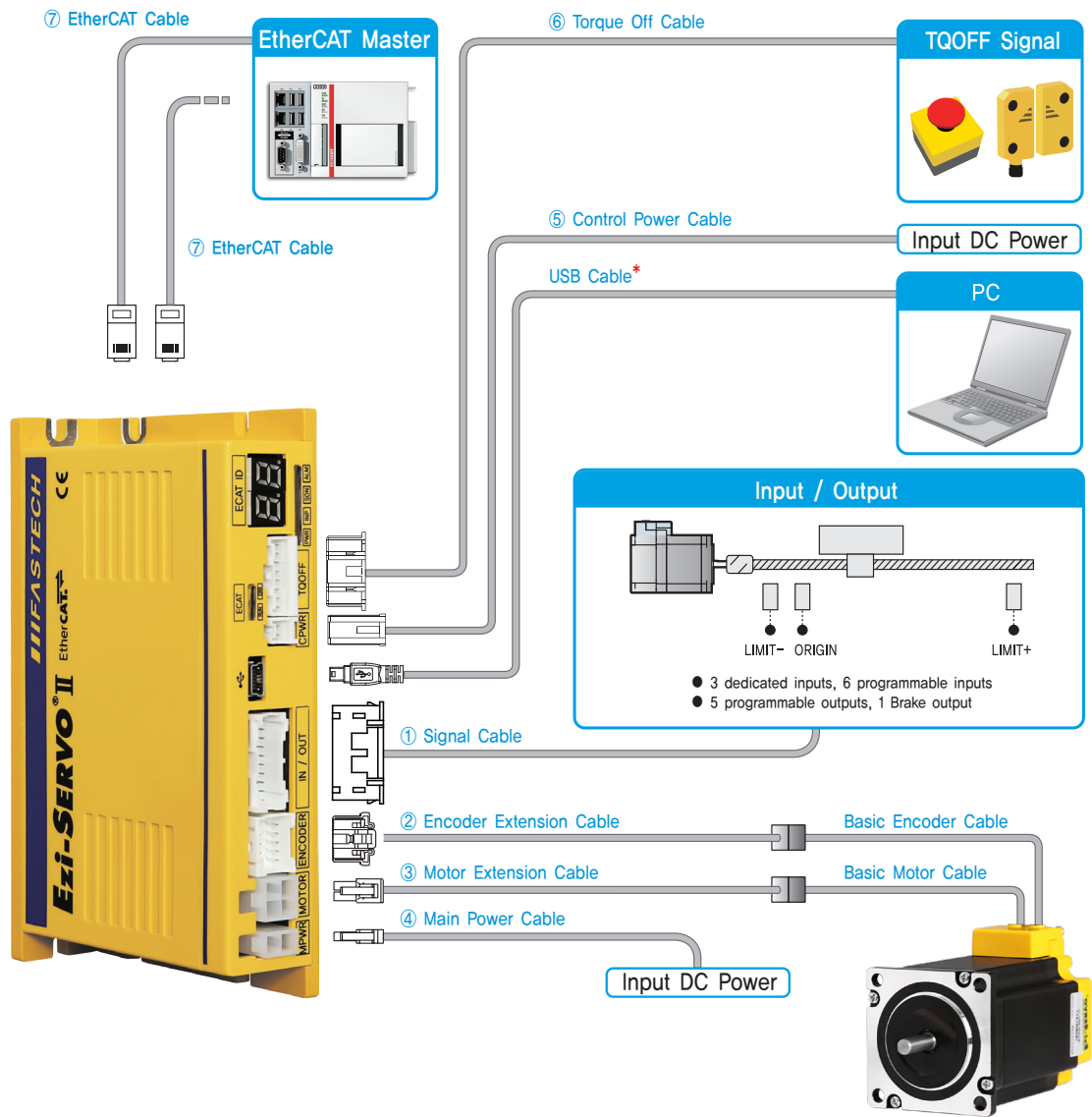
10. EtherCAT Communication Connector (CN7, CN8)

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



8 1 8 1

System Configuration



FASTECH Ezi-SERVO II EtherCAT TO

| Cable Type | Max. Length | Remarks |
|---------------------------|---------------------|--|
| ① Signal Cable | 20m | Options (Sold separately) |
| ② Encoder Extension Cable | 20m | |
| ③ Motor Extension Cable | 20m | |
| ④ Main Power Cable | 2m | |
| ⑤ Control Power Cable | 2m | |
| ⑥ Torque Off Cable | 20m | |
| ⑦ EtherCAT Cable | 100m | |
| Encoder Cable | 0.3m (Basic length) | Basic cables are attached to motors. |
| Motor Cable | 0.3m (Basic length) | |
| USB Cable | 5m | * USB cables are not provided by FASTECH. We recommend using a standard USB cable (USB 2.0 Mini Type B). |

1. Accessories

Connectors

These are connector specifications for drive cabling.

| Purpose | | Item | Part Number | Manufacturer |
|-------------------------|------------------|----------|----------------------------------|--------------|
| Main Power (CN4) | | Housing | 5557-02R | MOLEX |
| | | Terminal | 5556T | |
| Control Power (CN5) | | Housing | PAP-02V-S | JST |
| | | Terminal | SPHD-001T-P0,5 | |
| Motor | Drive Side (CN3) | Housing | 5557-04R | MOLEX |
| | | Terminal | 5556T | |
| | Motor Side | Housing | 5557-04R | MOLEX |
| | | Terminal | 5556T | |
| Encoder | Drive Side (CN2) | Housing | 51353-1000 | MOLEX |
| | | Terminal | 56134-9000 | |
| | Encoder Side | Housing | SMP-09V-NC | JST |
| | | Terminal | SHF-001T-0,8BS | |
| Signal (CN1) | | Housing | PADP-20V-1-S | JST |
| | | Terminal | SPH-002T-P0,5L | |
| Torque Off Signal (CN6) | | Housing | PAP-08V-S | JST |
| | | Terminal | SPHD-001T-P0,5 or SPHD-002T-P0,5 | |

※ 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 EtherCAT TO drive and other input/output devices.

| Purpose | Part Number | Length [m] | Cable Type | Remarks |
|-------------------------------|-------------|------------|--------------|------------------------|
| Drive - I/O Device Connection | CSVS-S-001F | 1 | Normal Cable | Max. cable length: 20m |
| | CSVS-S-002F | 2 | | |
| | CSVS-S-003F | 3 | | |
| | CSVS-S-005F | 5 | | |
| | CSVS-S-001M | 1 | Robot Cable | |
| | CSVS-S-002M | 2 | | |
| | CSVS-S-003M | 3 | | |
| | CSVS-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 Encoder Extension Cable

These are the cables to connect Ezi-SERVOII EtherCAT TO drive and the encoder.

| Purpose | Part Number | Length [m] | Cable Type | Remarks |
|--|-------------|------------|--------------|------------------------|
| Drive – Basic Encoder Cable Connection | CSVO-E-001F | 1 | Normal Cable | Max. cable length: 20m |
| | CSVO-E-002F | 2 | | |
| | CSVO-E-003F | 3 | | |
| | CSVO-E-005F | 5 | | |
| | CSVO-E-001M | 1 | Robot Cable | |
| | CSVO-E-002M | 2 | | |
| | CSVO-E-003M | 3 | | |
| | CSVO-E-005M | 5 | | |

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

③ Motor Extension Cable

These are the cables to connect Ezi-SERVOII EtherCAT TO drive and the motor.

| Purpose | Part Number | Length [m] | Cable Type | Remarks |
|--------------------------------------|-------------|------------|--------------|------------------------|
| Drive – Basic Motor Cable Connection | CSVO-M-001F | 1 | Normal Cable | Max. cable length: 20m |
| | CSVO-M-002F | 2 | | |
| | CSVO-M-003F | 3 | | |
| | CSVO-M-005F | 5 | | |
| | CSVO-M-001M | 1 | Robot Cable | |
| | CSVO-M-002M | 2 | | |
| | CSVO-M-003M | 3 | | |
| | CSVO-M-005M | 5 | | |

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

④ Main Power Cable

These are the cables to connect Ezi-SERVOII EtherCAT TO drive and the main power.

| Purpose | Part Number | Length [m] | Cable Type | Remarks |
|-------------------------------|-------------|------------|--------------|-----------------------|
| Drive – Main Power Connection | CSVO-P-001F | 1 | Normal Cable | Max. cable length: 2m |
| | CSVO-P-002F | 2 | | |
| | CSVO-P-001M | 1 | Robot Cable | |
| | CSVO-P-002M | 2 | | |

⑤ Control Power Cable

| Purpose | Part Number | Length [m] | Cable Type | Remarks |
|----------------------------------|-------------|------------|--------------|-----------------------|
| Drive – Control Power Connection | CMNB-P-001F | 1 | Normal Cable | Max. cable length: 2m |
| | CMNB-P-002F | 2 | | |
| | CMNB-P-001M | 1 | Robot Cable | |
| | CMNB-P-002M | 2 | | |

⑥ Torque Off Cable

These are the cables to connect Ezi-SERVO II EtherCAT TO drive and sensors or switches for Torque Off signal.

| Purpose | Part Number | Length [m] | Cable Type | Remarks |
|--------------------------------------|--------------|------------|--------------|------------------------|
| Drive – Torque Off Signal Connection | CSVTS-S-001F | 1 | Normal Cable | Max. cable length: 20m |
| | CSVTS-S-002F | 2 | | |
| | CSVTS-S-003F | 3 | | |
| | CSVTS-S-005F | 5 | | |
| | CSVTS-S-001M | 1 | Robot Cable | |
| | CSVTS-S-002M | 2 | | |
| | CSVTS-S-003M | 3 | | |
| | CSVTS-S-005M | 5 | | |

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

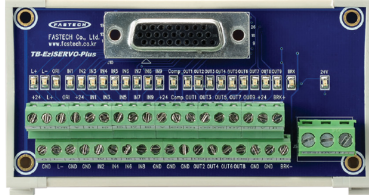
⑦ EtherCAT Cable

| Purpose | Part Number | Length [m] | Remarks |
|---------------------|--------------|------------|---|
| EtherCAT Connection | CGNR-EC-001F | 1 | <ul style="list-style-type: none"> · STP(Shielded Twisted Pair) Cable · Category 5e or higher · Maximum Length: 100m · Normal Cable |
| | CGNR-EC-002F | 2 | |
| | CGNR-EC-003F | 3 | |
| | CGNR-EC-005F | 5 | |

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

[Option] TB-Plus Interface Board

This is an interface board to connect Ezi-SERVO II EtherCAT TO drive and I/O signals more conveniently.

| Purpose | Part Number | Product Image |
|---|-------------|--|
| Interface Board between Drive and I/O Signals | TB-Plus |  |

[Option] TB-Plus Interface Cable

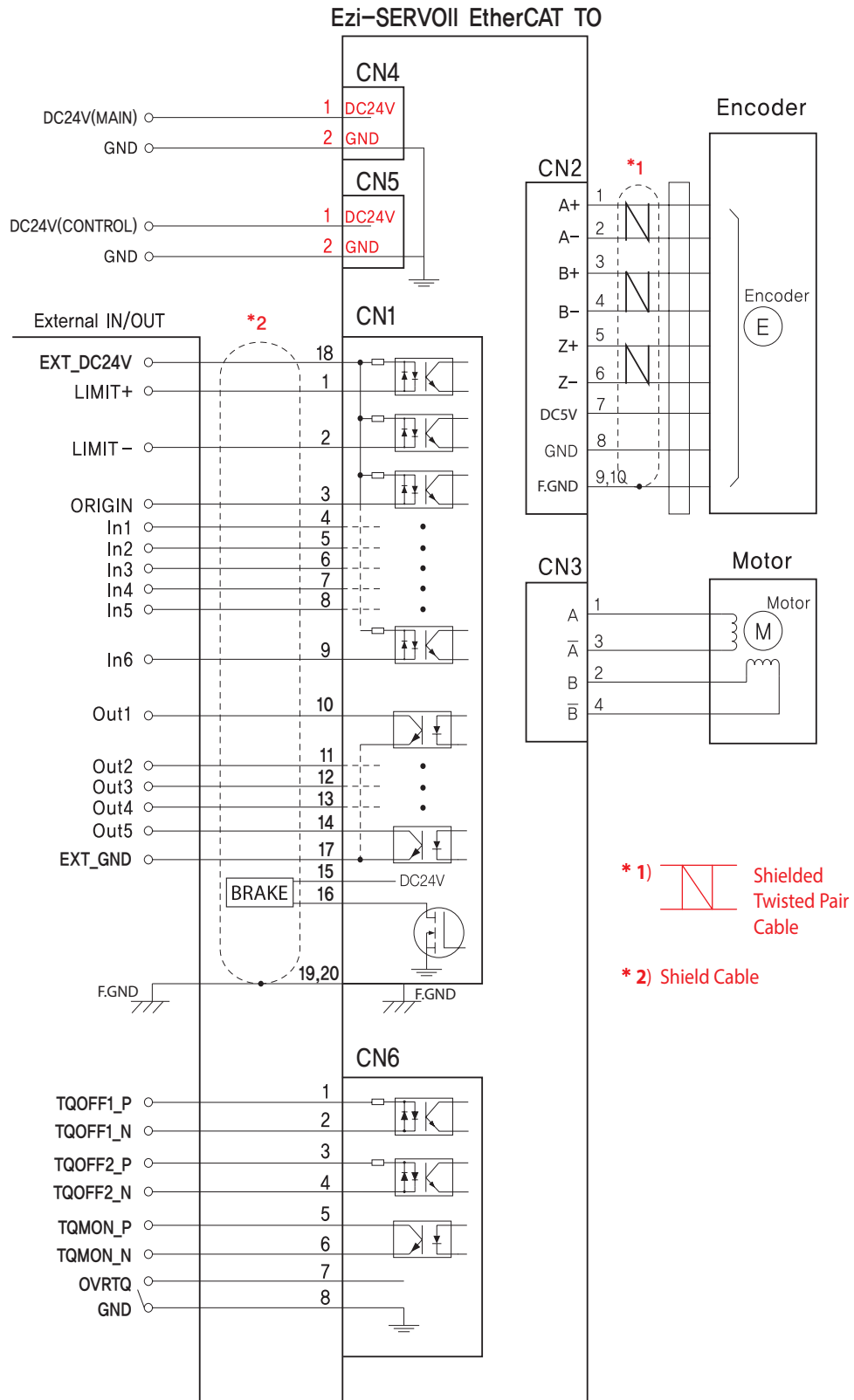
These are the cables to connect Ezi-SERVO II EtherCAT TO and TB-Plus interface board.

| Purpose | Part Number | Length [m] | Cable Type | Remarks |
|---------------------------------------|-------------|------------|--------------|------------------------|
| Drive – Interface(TB-Plus) Connection | CIFT-S-001F | 1 | Normal Cable | Max. cable length: 20m |
| | CIFT-S-002F | 2 | | |
| | CIFT-S-003F | 3 | | |
| | CIFT-S-005F | 5 | | |
| | CIFT-S-001M | 1 | Robot Cable | |
| | CIFT-S-002M | 2 | | |
| | CIFT-S-003M | 3 | | |
| | CIFT-S-005M | 5 | | |

* If you need cables with length not listed on the table, please contact FASTECH for more information.

External Wiring Diagram

FASTECH Ezi-SERVOII EtherCAT TO



※ 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.

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.

MEMO



Fast, Accurate, Smooth Motion

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