

# Ezi-Pos<sup>®</sup> CC-Link IE TSN

## Servo Control System

- CC-Link IE TSN-compatible Low-Voltage Servo Control System
- CiA402 Drive Profile
- DC Power Supply Input (12 ~ 48 V DC)
- Auto-Tuning
- Torque-Off Function

[Draft ver.]

General-Purpose (G-Type) Motor Series



Fast Accurate Smooth Motion

# **Ezi-Pos<sup>®</sup>** CC-LINK IE TSN

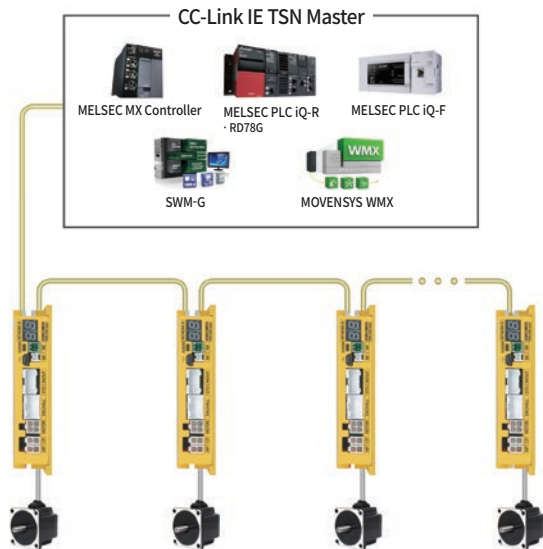
Servo Control System 



General-Purpose (G-Type) Motor Series

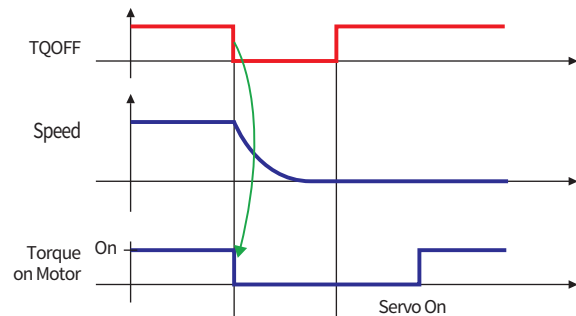
## CC-Link IE TSN-compatible Motion Control

Ezi-POS CC-Link IE TSN is a servo control unit that supports CC-Link IE TSN, a high-speed Ethernet-based (1 Gbps, full-duplex) industrial network system. Ezi-POS CC-Link IE TSN employs CiA 402 drive profile and supports Cyclic Synchronous Position Mode, Profile Position Mode, and Homing Mode.



## Torque-Off Function

Ezi-POS CC-Link IE TSN provides a hardware-based function to cut off power to the motor independently of CC-Link IE TSN communication. When the TQOFF input of the torque-off connector is detected, the drive immediately turns off the servo, and the motor stops.

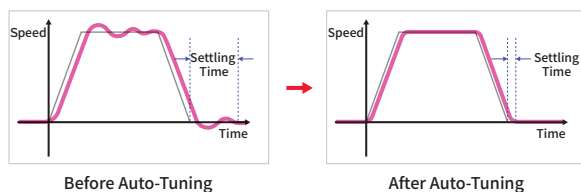


### CAUTION

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

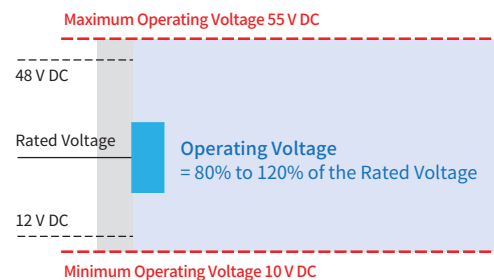
## Auto-Tuning

Ezi-POS CC-Link IE TSN offers a simple and user-friendly Auto-Tuning function. The drive automatically estimates the system's load inertia and adjusts the optimal gain values. By using the user software (GUI), Auto-Tuning can be completed with just a few button clicks. During the tuning process, each step can be monitored in real time, and the results can be tested immediately.



## Battery-compatible DC Power Input

Ezi-POS CC-Link IE TSN offers a low-voltage product lineup with a rated voltage of 12 to 48 V DC. It supports a wide operating voltage range (80 ~ 120 % of the rated voltage), features low power consumption, and enables high-efficiency motor control, making it ideal for battery-powered applications. The battery's charge status can also be continuously monitored by checking the drive's power voltage through the upper-level controller.



## Ezi-POS CC-Link IE TSN Part Number Standard Combination

### Ezi-POS-CT-A2A-G-GMX100AD-BK-P10

|                                                                                                                                                 |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Series Name                                                                                                                                     |  |
| Model Name                                                                                                                                      |  |
| CT: CC-Link IE TSN                                                                                                                              |  |
| Drive Series                                                                                                                                    |  |
| A: A Type                                                                                                                                       |  |
| Drive Output                                                                                                                                    |  |
| 2 : 200 W                                                                                                                                       |  |
| Encoder Input Type                                                                                                                              |  |
| A : Absolute Encoder                                                                                                                            |  |
| Motor Type                                                                                                                                      |  |
| G : General Motor                                                                                                                               |  |
| Motor ID                                                                                                                                        |  |
| GMX30AD : 30 W Motor<br>GMX50AD : 50 W Motor<br>GMX100AD : 100 W Motor<br>GMX200AD : 200 W Motor<br><br>* Encoder : 14-bit Single-Turn Absolute |  |
| Brake                                                                                                                                           |  |
| No symbol : None<br>BK : Brake                                                                                                                  |  |
| Gearbox                                                                                                                                         |  |
| No symbol : None<br>P: Parallel Shaft Gearbox<br>H: Hollow Shaft Flat Gearbox                                                                   |  |
| Gear Ratio                                                                                                                                      |  |
| No symbol: None<br>5 : 1:5<br>10 : 1:10<br>15 : 1:15<br>20 : 1:20<br>30 : 1:30<br>50 : 1:50<br>100 : 1:100<br>200 : 1:200                       |  |

| Unit Part Number          | Motor Part Number | Drive Part Number      |
|---------------------------|-------------------|------------------------|
| Ezi-POS-CT-A2A-G-GMX30AD  | EzPM-G-GMX30AD    | EzPD-CT-A2A-G-GMX30AD  |
| Ezi-POS-CT-A2A-G-GMX50AD  | EzPM-G-GMX50AD    | EzPD-CT-A2A-G-GMX50AD  |
| Ezi-POS-CT-A2A-G-GMX100AD | EzPM-G-GMX100AD   | EzPD-CT-A2A-G-GMX100AD |
| Ezi-POS-CT-A2A-G-GMX200AD | EzPM-G-GMX200AD   | EzPD-CT-A2A-G-GMX200AD |

## Combination of Motor with Parallel Shaft Gearbox and Drive

| Unit Part Number              | Motor Part Number   | Drive Part Number     | Gear Ratio | Unit Part Number               | Motor Part Number    | Drive Part Number      | Gear Ratio |
|-------------------------------|---------------------|-----------------------|------------|--------------------------------|----------------------|------------------------|------------|
| Ezi-POS-CT-A2A-G-GMX30AD-P5   | EzPM-G-GMX30AD-P5   | EzPD-CT-A2A-G-GMX30AD | 1:5        | Ezi-POS-CT-A2A-G-GMX100AD-P5   | EzPM-G-GMX100AD-P5   | EzPD-CT-A2A-G-GMX100AD | 1:5        |
| Ezi-POS-CT-A2A-G-GMX30AD-P10  | EzPM-G-GMX30AD-P10  |                       | 1:10       | Ezi-POS-CT-A2A-G-GMX100AD-P10  | EzPM-G-GMX100AD-P10  |                        | 1:10       |
| Ezi-POS-CT-A2A-G-GMX30AD-P15  | EzPM-G-GMX30AD-P15  |                       | 1:15       | Ezi-POS-CT-A2A-G-GMX100AD-P15  | EzPM-G-GMX100AD-P15  |                        | 1:15       |
| Ezi-POS-CT-A2A-G-GMX30AD-P20  | EzPM-G-GMX30AD-P20  |                       | 1:20       | Ezi-POS-CT-A2A-G-GMX100AD-P20  | EzPM-G-GMX100AD-P20  |                        | 1:20       |
| Ezi-POS-CT-A2A-G-GMX30AD-P30  | EzPM-G-GMX30AD-P30  |                       | 1:30       | Ezi-POS-CT-A2A-G-GMX100AD-P30  | EzPM-G-GMX100AD-P30  |                        | 1:30       |
| Ezi-POS-CT-A2A-G-GMX30AD-P50  | EzPM-G-GMX30AD-P50  |                       | 1:50       | Ezi-POS-CT-A2A-G-GMX100AD-P50  | EzPM-G-GMX100AD-P50  |                        | 1:50       |
| Ezi-POS-CT-A2A-G-GMX30AD-P100 | EzPM-G-GMX30AD-P100 |                       | 1:100      | Ezi-POS-CT-A2A-G-GMX100AD-P100 | EzPM-G-GMX100AD-P100 |                        | 1:100      |
| Ezi-POS-CT-A2A-G-GMX30AD-P200 | EzPM-G-GMX30AD-P200 |                       | 1:200      | Ezi-POS-CT-A2A-G-GMX100AD-P200 | EzPM-G-GMX100AD-P200 |                        | 1:200      |
| Ezi-POS-CT-A2A-G-GMX50AD-P5   | EzPM-G-GMX50AD-P5   | EzPD-CT-A2A-G-GMX50AD | 1:5        | Ezi-POS-CT-A2A-G-GMX200AD-P5   | EzPM-G-GMX200AD-P5   | EzPD-CT-A2A-G-GMX200AD | 1:5        |
| Ezi-POS-CT-A2A-G-GMX50AD-P10  | EzPM-G-GMX50AD-P10  |                       | 1:10       | Ezi-POS-CT-A2A-G-GMX200AD-P10  | EzPM-G-GMX200AD-P10  |                        | 1:10       |
| Ezi-POS-CT-A2A-G-GMX50AD-P15  | EzPM-G-GMX50AD-P15  |                       | 1:15       | Ezi-POS-CT-A2A-G-GMX200AD-P15  | EzPM-G-GMX200AD-P15  |                        | 1:15       |
| Ezi-POS-CT-A2A-G-GMX50AD-P20  | EzPM-G-GMX50AD-P20  |                       | 1:20       | Ezi-POS-CT-A2A-G-GMX200AD-P20  | EzPM-G-GMX200AD-P20  |                        | 1:20       |
| Ezi-POS-CT-A2A-G-GMX50AD-P30  | EzPM-G-GMX50AD-P30  |                       | 1:30       | Ezi-POS-CT-A2A-G-GMX200AD-P30  | EzPM-G-GMX200AD-P30  |                        | 1:30       |
| Ezi-POS-CT-A2A-G-GMX50AD-P50  | EzPM-G-GMX50AD-P50  |                       | 1:50       | Ezi-POS-CT-A2A-G-GMX200AD-P50  | EzPM-G-GMX200AD-P50  |                        | 1:50       |
| Ezi-POS-CT-A2A-G-GMX50AD-P100 | EzPM-G-GMX50AD-P100 |                       | 1:100      | Ezi-POS-CT-A2A-G-GMX200AD-P100 | EzPM-G-GMX200AD-P100 |                        | 1:100      |
| Ezi-POS-CT-A2A-G-GMX50AD-P200 | EzPM-G-GMX50AD-P200 |                       | 1:200      | Ezi-POS-CT-A2A-G-GMX200AD-P200 | EzPM-G-GMX200AD-P200 |                        | 1:200      |

## Combination of Motor with Hollow Shaft Flat Gearbox and Drive

| Unit Part Number              | Motor Part Number   | Drive Part Number     | Gear Ratio | Unit Part Number               | Motor Part Number    | Drive Part Number      | Gear Ratio |
|-------------------------------|---------------------|-----------------------|------------|--------------------------------|----------------------|------------------------|------------|
| Ezi-POS-CT-A2A-G-GMX30AD-H5   | EzPM-G-GMX30AD-H5   | EzPD-CT-A2A-G-GMX30AD | 1:5        | Ezi-POS-CT-A2A-G-GMX100AD-H5   | EzPM-G-GMX100AD-H5   | EzPD-CT-A2A-G-GMX100AD | 1:5        |
| Ezi-POS-CT-A2A-G-GMX30AD-H10  | EzPM-G-GMX30AD-H10  |                       | 1:10       | Ezi-POS-CT-A2A-G-GMX100AD-H10  | EzPM-G-GMX100AD-H10  |                        | 1:10       |
| Ezi-POS-CT-A2A-G-GMX30AD-H15  | EzPM-G-GMX30AD-H15  |                       | 1:15       | Ezi-POS-CT-A2A-G-GMX100AD-H15  | EzPM-G-GMX100AD-H15  |                        | 1:15       |
| Ezi-POS-CT-A2A-G-GMX30AD-H20  | EzPM-G-GMX30AD-H20  |                       | 1:20       | Ezi-POS-CT-A2A-G-GMX100AD-H20  | EzPM-G-GMX100AD-H20  |                        | 1:20       |
| Ezi-POS-CT-A2A-G-GMX30AD-H30  | EzPM-G-GMX30AD-H30  |                       | 1:30       | Ezi-POS-CT-A2A-G-GMX100AD-H30  | EzPM-G-GMX100AD-H30  |                        | 1:30       |
| Ezi-POS-CT-A2A-G-GMX30AD-H50  | EzPM-G-GMX30AD-H50  |                       | 1:50       | Ezi-POS-CT-A2A-G-GMX100AD-H50  | EzPM-G-GMX100AD-H50  |                        | 1:50       |
| Ezi-POS-CT-A2A-G-GMX30AD-H100 | EzPM-G-GMX30AD-H100 |                       | 1:100      | Ezi-POS-CT-A2A-G-GMX100AD-H100 | EzPM-G-GMX100AD-H100 |                        | 1:100      |
| Ezi-POS-CT-A2A-G-GMX30AD-H200 | EzPM-G-GMX30AD-H200 |                       | 1:200      | Ezi-POS-CT-A2A-G-GMX100AD-H200 | EzPM-G-GMX100AD-H200 |                        | 1:200      |
| Ezi-POS-CT-A2A-G-GMX50AD-H5   | EzPM-G-GMX50AD-H5   | EzPD-CT-A2A-G-GMX50AD | 1:5        | Ezi-POS-CT-A2A-G-GMX200AD-H5   | EzPM-G-GMX200AD-H5   | EzPD-CT-A2A-G-GMX200AD | 1:5        |
| Ezi-POS-CT-A2A-G-GMX50AD-H10  | EzPM-G-GMX50AD-H10  |                       | 1:10       | Ezi-POS-CT-A2A-G-GMX200AD-H10  | EzPM-G-GMX200AD-H10  |                        | 1:10       |
| Ezi-POS-CT-A2A-G-GMX50AD-H15  | EzPM-G-GMX50AD-H15  |                       | 1:15       | Ezi-POS-CT-A2A-G-GMX200AD-H15  | EzPM-G-GMX200AD-H15  |                        | 1:15       |
| Ezi-POS-CT-A2A-G-GMX50AD-H20  | EzPM-G-GMX50AD-H20  |                       | 1:20       | Ezi-POS-CT-A2A-G-GMX200AD-H20  | EzPM-G-GMX200AD-H20  |                        | 1:20       |
| Ezi-POS-CT-A2A-G-GMX50AD-H30  | EzPM-G-GMX50AD-H30  |                       | 1:30       | Ezi-POS-CT-A2A-G-GMX200AD-H30  | EzPM-G-GMX200AD-H30  |                        | 1:30       |
| Ezi-POS-CT-A2A-G-GMX50AD-H50  | EzPM-G-GMX50AD-H50  |                       | 1:50       | Ezi-POS-CT-A2A-G-GMX200AD-H50  | EzPM-G-GMX200AD-H50  |                        | 1:50       |
| Ezi-POS-CT-A2A-G-GMX50AD-H100 | EzPM-G-GMX50AD-H100 |                       | 1:100      | Ezi-POS-CT-A2A-G-GMX200AD-H100 | EzPM-G-GMX200AD-H100 |                        | 1:100      |
| Ezi-POS-CT-A2A-G-GMX50AD-H200 | EzPM-G-GMX50AD-H200 |                       | 1:200      | Ezi-POS-CT-A2A-G-GMX200AD-H200 | EzPM-G-GMX200AD-H200 |                        | 1:200      |

## Specifications of Drive

| Drive Part Number        |                               | EzPD-CT-A2A-G-GMX30AD<br>EzPD-CT-A2A-G-GMX50AD<br>EzPD-CT-A2A-G-GMX100AD                                                                                                                                                                                                                                                       | EzPD-CT-A2A-G-GMX200AD |
|--------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Main Power Supply        | Input Voltage                 | 24 V DC $\pm$ 10 %                                                                                                                                                                                                                                                                                                             | 48 V DC $\pm$ 10 %     |
|                          | Input Current                 | Maximum Rated Current 8.5 A<br>(For motor-specific input current specifications, refer to the motor specification table.)                                                                                                                                                                                                      |                        |
| Control Power (Optional) | Input Voltage                 | 12 ~ 48 V DC $\pm$ 10 %<br>(If the control power is not connected or its voltage is lower than the main power supply, the main power supply will be used instead.)                                                                                                                                                             |                        |
|                          | Current Consumption           | 4 W or lower                                                                                                                                                                                                                                                                                                                   |                        |
| Condition                | Temperature                   | Operation: 0 ~ 45 °C<br>Storage: -25 ~ 70 °C                                                                                                                                                                                                                                                                                   |                        |
|                          | Humidity                      | Operation: 85 % RH or less (no condensation)<br>Storage: 85 % RH or less (no condensation)                                                                                                                                                                                                                                     |                        |
|                          | Vibration Resistance          | 0.5 g                                                                                                                                                                                                                                                                                                                          |                        |
|                          | Protection Rating             | IP20                                                                                                                                                                                                                                                                                                                           |                        |
| Functions                | PWM Frequency                 | 25 kHz                                                                                                                                                                                                                                                                                                                         |                        |
|                          | Current Control Cycle         | 40 $\mu$ s                                                                                                                                                                                                                                                                                                                     |                        |
|                          | Speed/Position Control Cycle  | 400 $\mu$ s                                                                                                                                                                                                                                                                                                                    |                        |
|                          | Speed Control Range           | 0 ~ 4,000 r/min                                                                                                                                                                                                                                                                                                                |                        |
|                          | Encoder Interface             | Absolute Encoder                                                                                                                                                                                                                                                                                                               |                        |
|                          | Error Types                   | Overcurrent, Overspeed, Position Tracking Error, Overload, Overheating, Regenerative Overvoltage, Motor Connection Error, Encoder Connection Error, Main Power Undervoltage, In-Position Error, System Error, ROM Error, Motor Parameter Error, Main Power Overvoltage, Excessive Position Error, Emergency Stop Circuit Error |                        |
|                          | LED Indicators                | Power status, Servo On status, and Alarm status                                                                                                                                                                                                                                                                                |                        |
|                          | Brake Control                 | Output connector for brake control                                                                                                                                                                                                                                                                                             |                        |
| I/O Signals              | Regenerative Resistor Control | Output connector for regenerative resistor control                                                                                                                                                                                                                                                                             |                        |
|                          | Inputs                        | Dedicated Inputs: 3 points (LIMIT+, LIMIT-, ORIGIN), Photocoupler Input<br>User Inputs: 2 points, Photocoupler Input                                                                                                                                                                                                           |                        |
|                          | Outputs                       | User Outputs: 3 points, Photocoupler Output                                                                                                                                                                                                                                                                                    |                        |
|                          | Torque-Off                    | Dedicated Inputs: 2 points (TQOFF1, TQOFF2), Photocoupler Input                                                                                                                                                                                                                                                                |                        |
| CC-Link IE TSN           | Communication Protocol        | CC-Link IE TSN Class B                                                                                                                                                                                                                                                                                                         |                        |
|                          | Operation Mode                | CiA402 Drive Profile: Cyclic Synchronous Position Mode(CSP), Profile Position Mode(PP), Homing Mode(HM)                                                                                                                                                                                                                        |                        |
|                          | Synchronization               | Minimum Cycle Time: 250 $\mu$ s / Synchronous Comm. (CSP, PP, HM) / Asynchronous Comm. (PP, HM)                                                                                                                                                                                                                                |                        |

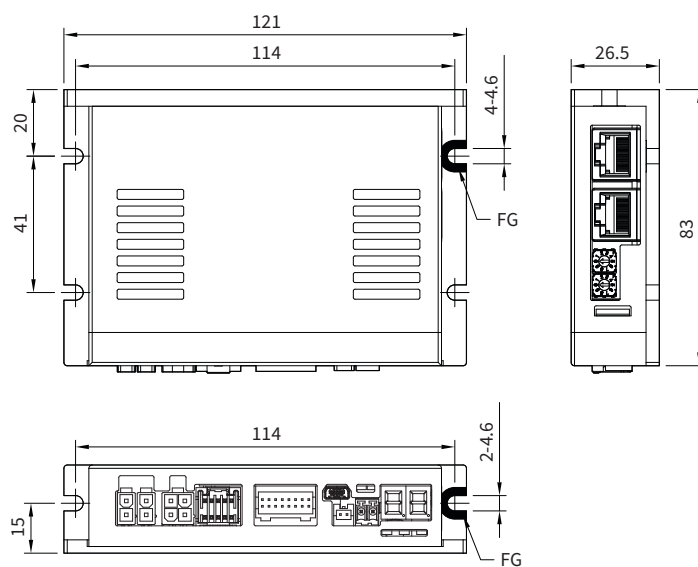
## Dimensions of Drive [mm]

EzPD-CT-A2A-G-GMX30AD

EzPD-CT-A2A-G-GMX50AD

EzPD-CT-A2A-G-GMX100AD

EzPD-CT-A2A-G-GMX200AD

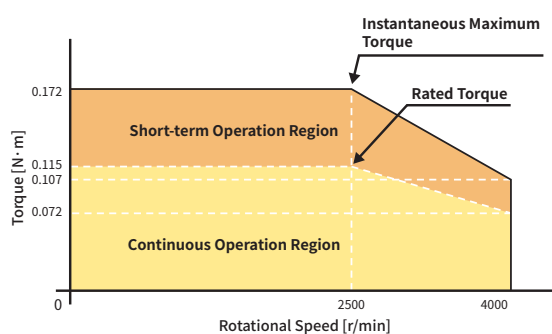


## Specifications of Motor

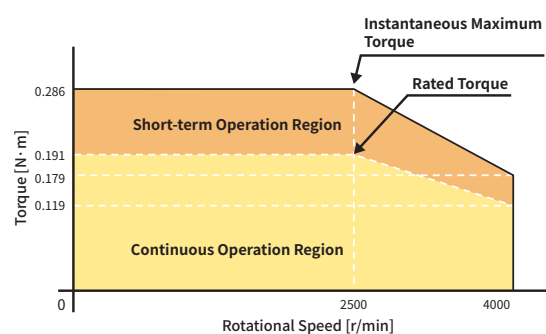
| Motor Part Number                     |                                     |                                | EzPM-G-GMX30AD                                                       | EzPM-G-GMX50AD | EzPM-G-GMX100AD | EzPM-G-GMX200AD |
|---------------------------------------|-------------------------------------|--------------------------------|----------------------------------------------------------------------|----------------|-----------------|-----------------|
| Motor Type                            |                                     |                                | 3-phase BLDC motor                                                   |                |                 |                 |
| Rated Output (Continuous)             | W                                   |                                | 30                                                                   | 50             | 100             | 200             |
| Rated Voltage                         | V                                   |                                | DC 24                                                                |                |                 | DC 48           |
| Main Power Rated Input Current        | A                                   |                                | 1.9                                                                  | 2.8            | 5.5             | 5.4             |
| Main Power Maximum Input Current      | A                                   |                                | 2.9                                                                  | 4.2            | 7.1             | 6.0             |
| Rated Torque                          | N·m                                 |                                | 0.115                                                                | 0.191          | 0.382           | 0.637           |
| Rated Phase Current                   | Arms                                |                                | 1.787                                                                | 2.976          | 5.366           | 6.196           |
| Maximum Instantaneous Torque          | N·m                                 |                                | 0.172                                                                | 0.286          | 0.497           | 0.732           |
| Maximum Instantaneous Phase Current   | Arms                                |                                | 2.615                                                                | 4.336          | 6.870           | 7.011           |
| Rated Rotational Speed                | r/min                               |                                | 2500                                                                 |                |                 | 3000            |
| Maximum Rotational Speed              | r/min                               |                                | 4000                                                                 |                |                 |                 |
| Encoder                               |                                     |                                | Absolute Encoder (14-bit/rev)                                        |                |                 |                 |
| Motor Permissible Load Inertia Moment | $10^{-4}\text{kg} \cdot \text{m}^2$ |                                | 1.7                                                                  | 4.7            | 12.2            | 13.2            |
| Rotor Inertia                         | $10^{-4}\text{kg} \cdot \text{m}^2$ |                                | 0.086                                                                | 0.234          | 0.61            | 0.66            |
| Weight                                | kg                                  |                                | 0.6                                                                  | 0.9            | 1.4             | 2.3             |
|                                       | Permissible Radial Load             | Distance from Output Shaft End | 10 mm                                                                | 70             | 120             | 160             |
|                                       |                                     | 20 mm                          | N                                                                    | 100            | 140             | 170             |
| Permissible Axial Load                | N                                   |                                | Less than half the motor unit weight                                 |                |                 |                 |
| Insulation Resistance                 | MΩ                                  |                                | Minimum 100 MΩ (measured with 500 V DC insulation resistance tester) |                |                 |                 |
| Insulation Class                      |                                     |                                | EN Standard, Class E (120 °C)                                        |                |                 |                 |
| Operating Temperature and Humidity    |                                     |                                | 0 ~ 50 °C, 85 % RH or lower(no condensation)                         |                |                 |                 |
| Storage Temperature and Humidity      |                                     |                                | -25 ~ 70 °C, 85 % RH or lower(no condensation)                       |                |                 |                 |

## Standard Motor Torque

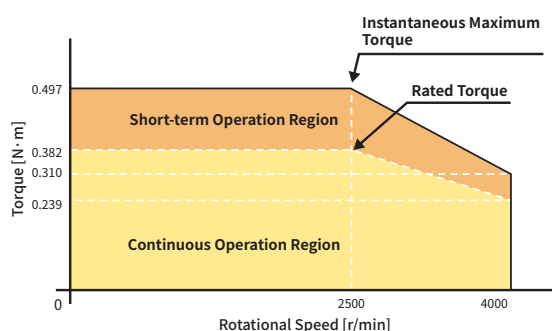
### EzPM-G-GMX30AD



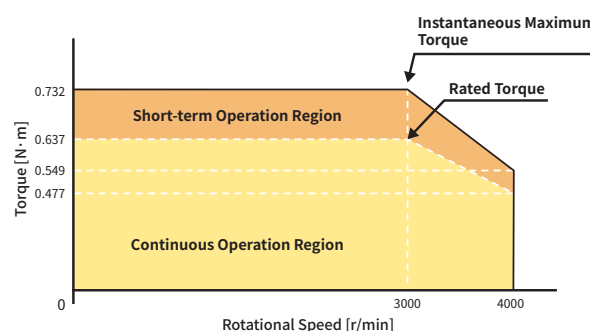
### EzPM-G-GMX50AD



### EzPM-G-GMX100AD

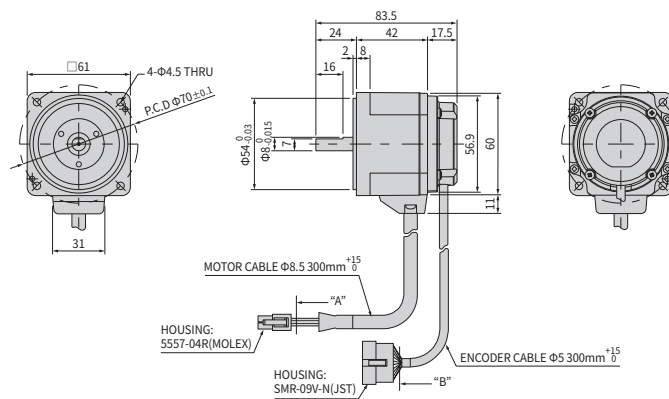


### EzPM-G-GMX200AD

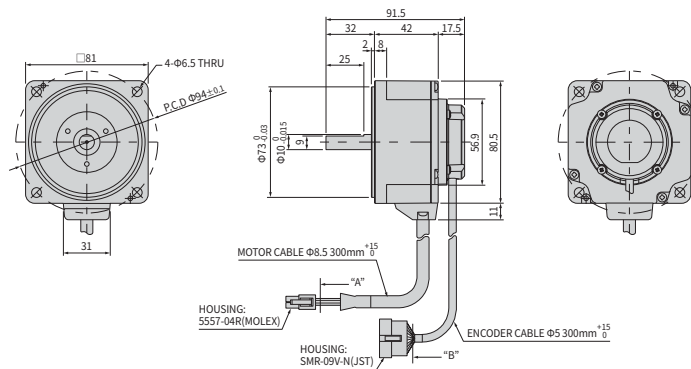


## Dimensions of Motor [mm]

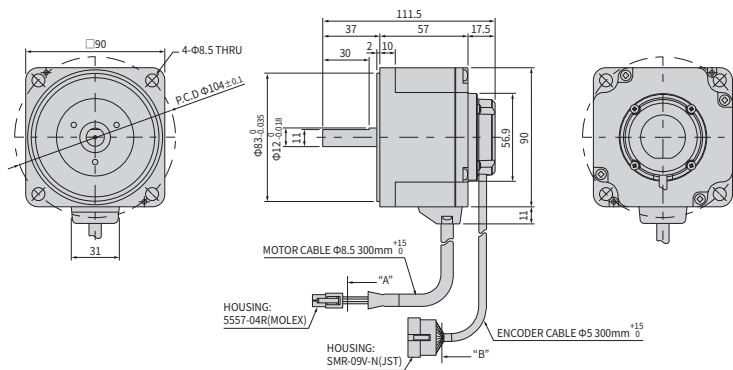
### EzPM-G-GMX30AD



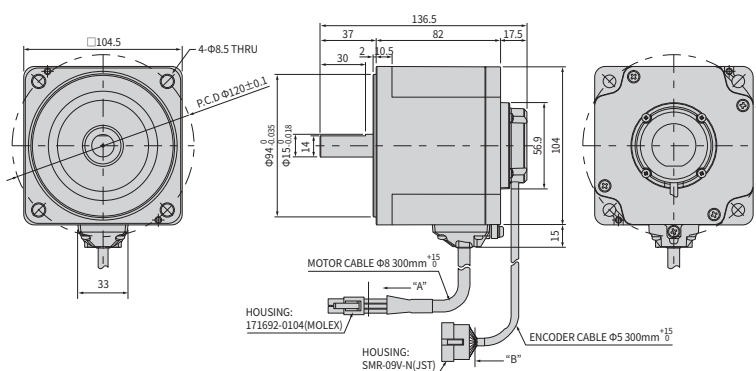
### EzPM-G-GMX50AD



### EzPM-G-GMX100AD



### EzPM-G-GMX200AD



## Parallel Shaft Gearbox Type Motor Specifications

### EzPM-G-GMX30AD-P□

| Unit Part Number              | Motor Part Number   | <div>□</div> Gear Ratio | Back lash<br>[°] | Rated Torque[Nm] |               | Max. Speed<br>[r/min] | Weight<br>[kg] | Permissible Radial Load[N]     |       | Permissible Axial Load[N] |
|-------------------------------|---------------------|-------------------------|------------------|------------------|---------------|-----------------------|----------------|--------------------------------|-------|---------------------------|
|                               |                     |                         |                  | 0~2500<br>r/min  | 4000<br>r/min |                       |                | Distance from Output Shaft End |       |                           |
|                               |                     |                         |                  |                  |               |                       |                | 10 mm                          | 20 mm |                           |
| Ezi-POS-CT-A2A-G-GMX30AD-P5   | EzPM-G-GMX30AD-P5   | 5                       | Max. 1           | 0.52             | 0.32          | 800                   | 1.0            | 100                            | 150   | 40                        |
| Ezi-POS-CT-A2A-G-GMX30AD-P10  | EzPM-G-GMX30AD-P10  | 10                      |                  | 1.03             | 0.64          | 400                   |                | 150                            | 200   |                           |
| Ezi-POS-CT-A2A-G-GMX30AD-P15  | EzPM-G-GMX30AD-P15  | 15                      |                  | 1.55             | 0.97          | 266.7                 |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX30AD-P20  | EzPM-G-GMX30AD-P20  | 20                      |                  | 2.06             | 1.29          | 200                   |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX30AD-P30  | EzPM-G-GMX30AD-P30  | 30                      |                  | 2.96             | 1.85          | 133.3                 |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX30AD-P50  | EzPM-G-GMX30AD-P50  | 50                      |                  | 4.93             | 3.08          | 80                    |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX30AD-P100 | EzPM-G-GMX30AD-P100 | 100                     |                  | 6.0              | 6.0           | 40                    |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX30AD-P200 | EzPM-G-GMX30AD-P200 | 200                     |                  | 6.0              | 6.0           | 20                    |                |                                |       |                           |

### EzPM-G-GMX50AD-P□

| Unit Part Number              | Motor Part Number   |  Gear Ratio | Back lash<br>[°] | Rated Torque[Nm] |               | Max. Speed<br>[r/min] | Weight<br>[kg] | Permissible Radial Load[N]<br>Distance from Output Shaft End |       | Permissible Axial Load[N] |
|-------------------------------|---------------------|------------------------------------------------------------------------------------------------|------------------|------------------|---------------|-----------------------|----------------|--------------------------------------------------------------|-------|---------------------------|
|                               |                     |                                                                                                |                  | 0~2500<br>r/min  | 4000<br>r/min |                       |                | 10 mm                                                        | 20 mm |                           |
|                               |                     |                                                                                                |                  |                  |               |                       |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX50AD-P5   | EzPM-G-GMX50AD-P5   | 5                                                                                              | Max. 1           | 0.86             | 0.54          | 800                   | 1.8            | 200                                                          | 250   | 100                       |
| Ezi-POS-CT-A2A-G-GMX50AD-P10  | EzPM-G-GMX50AD-P10  | 10                                                                                             |                  | 1.72             | 1.07          | 400                   |                | 300                                                          | 350   |                           |
| Ezi-POS-CT-A2A-G-GMX50AD-P15  | EzPM-G-GMX50AD-P15  | 15                                                                                             |                  | 2.58             | 1.61          | 266.7                 |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX50AD-P20  | EzPM-G-GMX50AD-P20  | 20                                                                                             |                  | 3.44             | 2.15          | 200                   |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX50AD-P30  | EzPM-G-GMX50AD-P30  | 30                                                                                             |                  | 4.93             | 3.08          | 133.3                 |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX50AD-P50  | EzPM-G-GMX50AD-P50  | 50                                                                                             |                  | 8.21             | 5.13          | 80                    |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX50AD-P100 | EzPM-G-GMX50AD-P100 | 100                                                                                            |                  | 16.0             | 10.27         | 40                    |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX50AD-P200 | EzPM-G-GMX50AD-P200 | 200                                                                                            |                  | 16.0             | 16.0          | 20                    |                |                                                              |       |                           |

- ※ The motor model name refers to the combination of motor and gearbox.
- ※ The weight indicates the total weight of the motor combined with the gearbox.
- ※ Specifications and characteristics not listed above are identical to those of the standard motor.

## Parallel Shaft Gearbox Type Motor Specifications

### EzPM-G-GMX100AD-P□

| Unit Part Number               | Motor Part Number    | ⬜<br>Gear Ratio | Back lash<br>[°] | Rated Torque[Nm] |               | Max. Speed<br>[r/min] | Weight<br>[kg] | Permissible Radial Load[N]     |       | Permissible Axial Load[N] |
|--------------------------------|----------------------|-----------------|------------------|------------------|---------------|-----------------------|----------------|--------------------------------|-------|---------------------------|
|                                |                      |                 |                  | 0~2500<br>r/min  | 4000<br>r/min |                       |                | Distance from Output Shaft End |       |                           |
|                                |                      |                 |                  |                  |               |                       |                | 10 mm                          | 20 mm |                           |
| Ezi-POS-CT-A2A-G-GMX100AD-P5   | EzPM-G-GMX100AD-P5   | 5               | Max. 1           | 1.72             | 1.07          | 800                   | 2.7            | 300                            | 400   | 150                       |
| Ezi-POS-CT-A2A-G-GMX100AD-P10  | EzPM-G-GMX100AD-P10  | 10              |                  | 3.44             | 2.15          | 400                   |                | 400                            | 500   |                           |
| Ezi-POS-CT-A2A-G-GMX100AD-P15  | EzPM-G-GMX100AD-P15  | 15              |                  | 5.16             | 3.22          | 266.7                 |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX100AD-P20  | EzPM-G-GMX100AD-P20  | 20              |                  | 6.88             | 4.30          | 200                   |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX100AD-P30  | EzPM-G-GMX100AD-P30  | 30              |                  | 9.85             | 6.16          | 133.3                 |                | 500                            | 650   |                           |
| Ezi-POS-CT-A2A-G-GMX100AD-P50  | EzPM-G-GMX100AD-P50  | 50              |                  | 16.42            | 10.27         | 80                    |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX100AD-P100 | EzPM-G-GMX100AD-P100 | 100             |                  | 30.0             | 20.53         | 40                    |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX100AD-P200 | EzPM-G-GMX100AD-P200 | 200             |                  | 30.0             | 30.0          | 20                    |                |                                |       |                           |

### EzPM-G-GMX200AD-P□

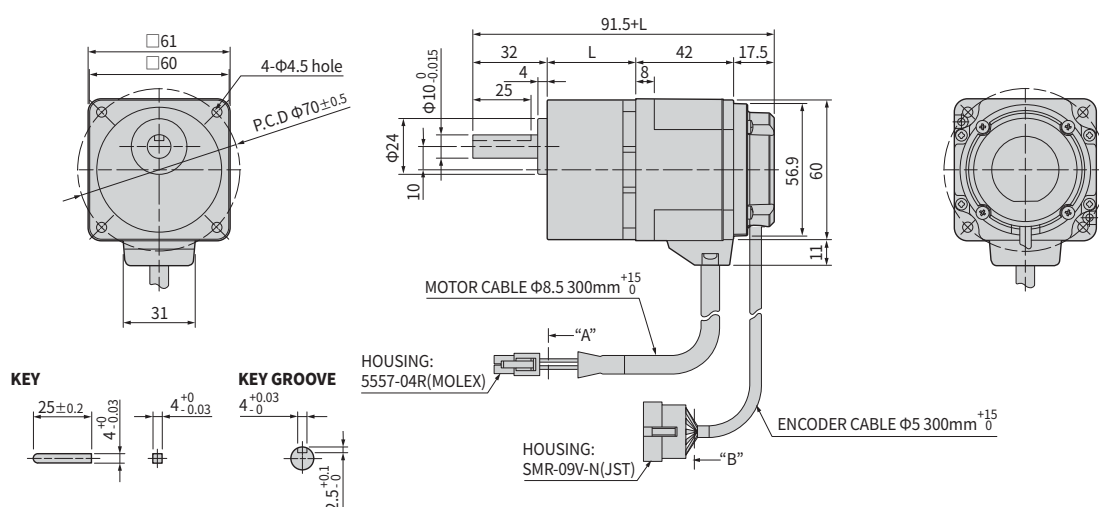
| Unit Part Number               | Motor Part Number    |  Gear Ratio | Back lash [°] | Rated Torque[Nm] |            | Max. Speed [r/min] | Weight [kg] | Permissible Radial Load[N]<br>Distance from Output Shaft End |       | Permissible Axial Load[N] |
|--------------------------------|----------------------|------------------------------------------------------------------------------------------------|---------------|------------------|------------|--------------------|-------------|--------------------------------------------------------------|-------|---------------------------|
|                                |                      |                                                                                                |               | 0~3000 r/min     | 4000 r/min |                    |             | 10 mm                                                        | 20 mm |                           |
|                                |                      |                                                                                                |               |                  |            |                    |             |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX200AD-P5   | EzPM-G-GMX200AD-P5   | 5                                                                                              | Max. 1        | 2.86             | 2.15       | 800                | 5.3         | 550                                                          | 800   | 200                       |
| Ezi-POS-CT-A2A-G-GMX200AD-P10  | EzPM-G-GMX200AD-P10  | 10                                                                                             |               | 5.73             | 4.30       | 400                |             |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX200AD-P15  | EzPM-G-GMX200AD-P15  | 15                                                                                             |               | 8.59             | 6.45       | 266.7              |             |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX200AD-P20  | EzPM-G-GMX200AD-P20  | 20                                                                                             |               | 11.46            | 8.59       | 200                |             |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX200AD-P30  | EzPM-G-GMX200AD-P30  | 30                                                                                             |               | 16.42            | 12.32      | 133.3              |             | 1000                                                         | 1250  | 300                       |
| Ezi-POS-CT-A2A-G-GMX200AD-P50  | EzPM-G-GMX200AD-P50  | 50                                                                                             |               | 27.37            | 20.53      | 80                 |             |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX200AD-P100 | EzPM-G-GMX200AD-P100 | 100                                                                                            |               | 51.57            | 38.67      | 40                 |             |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX200AD-P200 | EzPM-G-GMX200AD-P200 | 200                                                                                            |               | 70.0             | 70.0       | 20                 |             | 1400                                                         | 1700  | 400                       |

- ※ The motor model name refers to the combination of motor and gearbox.  
 ※ The weight indicates the total weight of the motor combined with the gearbox.  
 ※ Specifications and characteristics not listed above are identical to those of the standard motor.

## Parallel Shaft Gearbox Type Motor Specifications [mm]

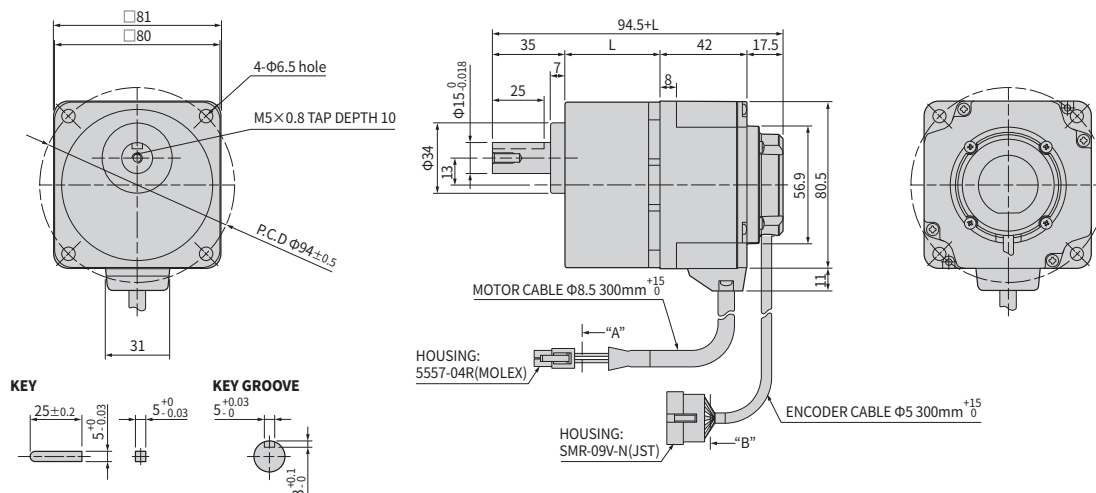
### EzPM-G-GMX30AD-P□

| Unit Part Number            | Applied Motor Part Number | □ Gear Ratio  | Applicable Bolt Specifications | L[mm] |
|-----------------------------|---------------------------|---------------|--------------------------------|-------|
| Ezi-POS-CT-A2A-G-GMX30AD-P□ | EzPM-G-GMX30AD-P□         | 5, 10, 15, 20 | M4X50                          | 34    |
|                             |                           | 30, 50, 100   | M4X55                          | 38    |
|                             |                           | 200           | M4X60                          | 43    |



### EzPM-G-GMX50AD-P□

| Unit Part Number            | Applied Motor Part Number | □ Gear Ratio  | Applicable Bolt Specifications | L[mm] |
|-----------------------------|---------------------------|---------------|--------------------------------|-------|
| Ezi-POS-CT-A2A-G-GMX50AD-P□ | EzPM-G-GMX50AD-P□         | 5, 10, 15, 20 | M6X65                          | 41    |
|                             |                           | 30, 50, 100   | M6X70                          | 46    |
|                             |                           | 200           | M6X75                          | 51    |





## Hollow Shaft Flat Gearbox Type Motor Specifications

### EzPM-G-GMX30AD-H□

| Unit Part Number              | Motor Part Number   | <div><div></div></div> <div>Gear Ratio</div> | Back lash<br>[°] | Rated Torque[Nm] |               | Max. Speed<br>[r/min] | Weight<br>[kg] | Permissible Radial Load[N]     |       | Permissible Axial Load[N] |
|-------------------------------|---------------------|----------------------------------------------|------------------|------------------|---------------|-----------------------|----------------|--------------------------------|-------|---------------------------|
|                               |                     |                                              |                  | 0~2500<br>r/min  | 4000<br>r/min |                       |                | Distance from Mounting Surface |       |                           |
|                               |                     |                                              |                  |                  |               |                       |                | 10 mm                          | 20 mm |                           |
| Ezi-POS-CT-A2A-G-GMX30AD-H5   | EzPM-G-GMX30AD-H5   | 5                                            | Max. 1           | 0.46             | 0.29          | 800                   | 1.3            | 450                            | 370   | 200                       |
| Ezi-POS-CT-A2A-G-GMX30AD-H10  | EzPM-G-GMX30AD-H10  | 10                                           |                  | 0.97             | 0.61          | 400                   |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX30AD-H15  | EzPM-G-GMX30AD-H15  | 15                                           |                  | 1.46             | 0.91          | 266.7                 |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX30AD-H20  | EzPM-G-GMX30AD-H20  | 20                                           |                  | 1.95             | 1.22          | 200                   |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX30AD-H30  | EzPM-G-GMX30AD-H30  | 30                                           |                  | 2.92             | 1.83          | 133.3                 |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX30AD-H50  | EzPM-G-GMX30AD-H50  | 50                                           |                  | 4.87             | 3.04          | 80                    |                | 500                            | 400   |                           |
| Ezi-POS-CT-A2A-G-GMX30AD-H100 | EzPM-G-GMX30AD-H100 | 100                                          |                  | 9.74             | 6.09          | 40                    |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX30AD-H200 | EzPM-G-GMX30AD-H200 | 200                                          |                  | 17.0             | 12.18         | 20                    |                |                                |       |                           |

### EzPM-G-GMX50AD-H□

| Unit Part Number              | Motor Part Number   |  Gear Ratio | Back lash<br>[°] | Rated Torque[Nm] |               | Max. Speed<br>[r/min] | Weight<br>[kg] | Permissible Radial Load[N]     |       | Permissible Axial Load[N] |
|-------------------------------|---------------------|------------------------------------------------------------------------------------------------|------------------|------------------|---------------|-----------------------|----------------|--------------------------------|-------|---------------------------|
|                               |                     |                                                                                                |                  | 0~2500<br>r/min  | 4000<br>r/min |                       |                | Distance from Mounting Surface |       |                           |
|                               |                     |                                                                                                |                  |                  |               |                       |                | 10 mm                          | 20 mm |                           |
| Ezi-POS-CT-A2A-G-GMX50AD-H5   | EzPM-G-GMX50AD-H5   | 5                                                                                              | Max. 1           | 0.81             | 0.51          | 800                   | 2.4            | 800                            | 660   | 400                       |
| Ezi-POS-CT-A2A-G-GMX50AD-H10  | EzPM-G-GMX50AD-H10  | 10                                                                                             |                  | 1.62             | 1.01          | 400                   |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX50AD-H15  | EzPM-G-GMX50AD-H15  | 15                                                                                             |                  | 2.44             | 1.52          | 266.7                 |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX50AD-H20  | EzPM-G-GMX50AD-H20  | 20                                                                                             |                  | 3.25             | 2.03          | 200                   |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX50AD-H30  | EzPM-G-GMX50AD-H30  | 30                                                                                             |                  | 4.87             | 3.04          | 133.3                 |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX50AD-H50  | EzPM-G-GMX50AD-H50  | 50                                                                                             |                  | 8.12             | 5.07          | 80                    |                | 1200                           | 1000  |                           |
| Ezi-POS-CT-A2A-G-GMX50AD-H100 | EzPM-G-GMX50AD-H100 | 100                                                                                            |                  | 16.23            | 10.15         | 40                    |                |                                |       |                           |
| Ezi-POS-CT-A2A-G-GMX50AD-H200 | EzPM-G-GMX50AD-H200 | 200                                                                                            |                  | 32.47            | 20.29         | 20                    |                |                                |       |                           |

※ The motor model name refers to the combination of motor and gear reducer.

※ The weight indicates the total weight of the motor combined with the gear reducer.

※ Specifications and characteristics not listed above are identical to those of the standard motor.

## Hollow Shaft Flat Gearbox Type Motor Specifications

### EzPM-G-GMX100AD-H□

| Unit Part Number               | Motor Part Number    | □<br>Gear Ratio | Back lash<br>[°] | Rated Torque[Nm] |               | Max. Speed<br>[r/min] | Weight<br>[kg] | Permissible Radial Load[N]<br>Distance from Mounting Surface |       | Permissible Axial Load[N] |
|--------------------------------|----------------------|-----------------|------------------|------------------|---------------|-----------------------|----------------|--------------------------------------------------------------|-------|---------------------------|
|                                |                      |                 |                  | 0~2500<br>r/min  | 4000<br>r/min |                       |                | 10 mm                                                        | 20 mm |                           |
|                                |                      |                 |                  |                  |               |                       |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX100AD-H5   | EzPM-G-GMX100AD-H5   | 5               | Max. 1           | 1.62             | 1.01          | 800                   | 3.5            | 900                                                          | 770   | 500                       |
| Ezi-POS-CT-A2A-G-GMX100AD-H10  | EzPM-G-GMX100AD-H10  | 10              |                  | 3.25             | 2.03          | 400                   |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX100AD-H15  | EzPM-G-GMX100AD-H15  | 15              |                  | 4.87             | 3.04          | 266.7                 |                | 1300                                                         | 1110  |                           |
| Ezi-POS-CT-A2A-G-GMX100AD-H20  | EzPM-G-GMX100AD-H20  | 20              |                  | 6.49             | 4.06          | 200                   |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX100AD-H30  | EzPM-G-GMX100AD-H30  | 30              |                  | 9.74             | 6.09          | 133.3                 |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX100AD-H50  | EzPM-G-GMX100AD-H50  | 50              |                  | 16.23            | 10.15         | 80                    |                | 1500                                                         | 1280  |                           |
| Ezi-POS-CT-A2A-G-GMX100AD-H100 | EzPM-G-GMX100AD-H100 | 100             |                  | 32.47            | 20.29         | 40                    |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX100AD-H200 | EzPM-G-GMX100AD-H200 | 200             |                  | 64.94            | 40.58         | 20                    |                |                                                              |       |                           |

### EzPM-G-GMX200AD-H□

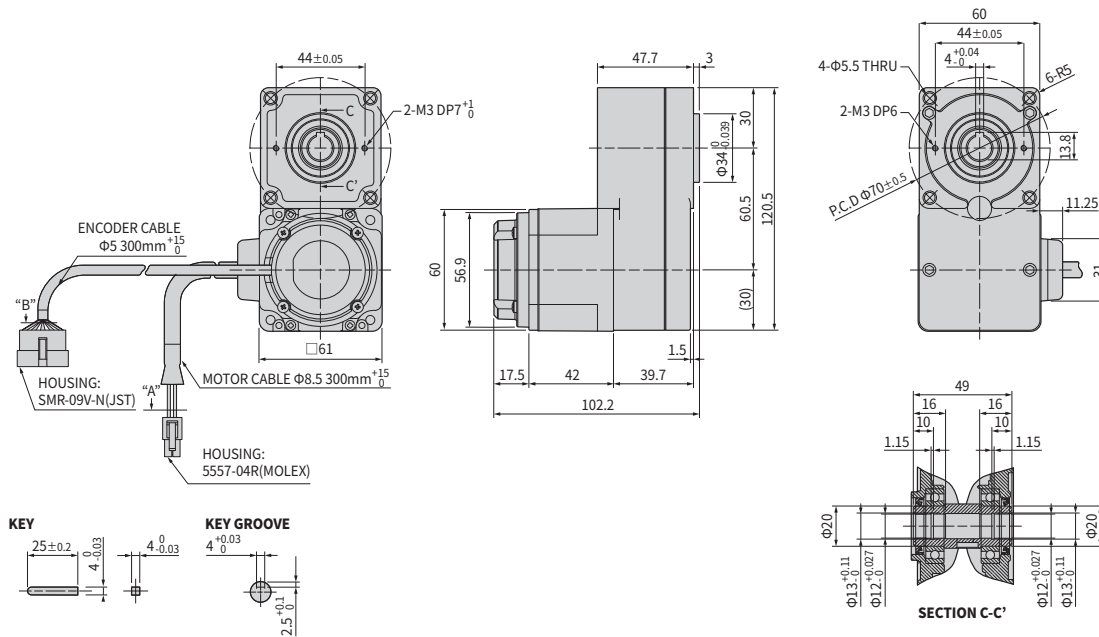
| Unit Part Number               | Motor Part Number    | □<br>Gear Ratio | Back lash<br>[°] | Rated Torque[Nm] |               | Max. Speed<br>[r/min] | Weight<br>[kg] | Permissible Radial Load[N]<br>Distance from Mounting Surface |       | Permissible Axial Load[N] |
|--------------------------------|----------------------|-----------------|------------------|------------------|---------------|-----------------------|----------------|--------------------------------------------------------------|-------|---------------------------|
|                                |                      |                 |                  | 0~3000<br>r/min  | 4000<br>r/min |                       |                | 10 mm                                                        | 20 mm |                           |
|                                |                      |                 |                  |                  |               |                       |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX200AD-H5   | EzPM-G-GMX200AD-H5   | 5               | Max. 1           | 2.71             | 2.03          | 800                   | 7.1            | 1230                                                         | 1070  | 800                       |
| Ezi-POS-CT-A2A-G-GMX200AD-H10  | EzPM-G-GMX200AD-H10  | 10              |                  | 5.41             | 4.06          | 400                   |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX200AD-H15  | EzPM-G-GMX200AD-H15  | 15              |                  | 8.12             | 6.09          | 266.7                 |                | 1680                                                         | 1470  |                           |
| Ezi-POS-CT-A2A-G-GMX200AD-H20  | EzPM-G-GMX200AD-H20  | 20              |                  | 10.82            | 8.12          | 200                   |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX200AD-H30  | EzPM-G-GMX200AD-H30  | 30              |                  | 16.23            | 12.18         | 133.3                 |                |                                                              |       |                           |
| Ezi-POS-CT-A2A-G-GMX200AD-H50  | EzPM-G-GMX200AD-H50  | 50              |                  | 27.06            | 20.29         | 80                    |                | 2040                                                         | 1780  |                           |
| Ezi-POS-CT-A2A-G-GMX200AD-H100 | EzPM-G-GMX200AD-H100 | 100             |                  | 54.11            | 40.58         | 40                    |                |                                                              |       |                           |

※ The motor model name refers to the combination of motor and gear reducer.  
 ※ The weight indicates the total weight of the motor combined with the gear reducer.  
 ※ Specifications and characteristics not listed above are identical to those of the standard motor.

## Hollow Shaft Flat Gearbox Type Motor Specifications[mm]

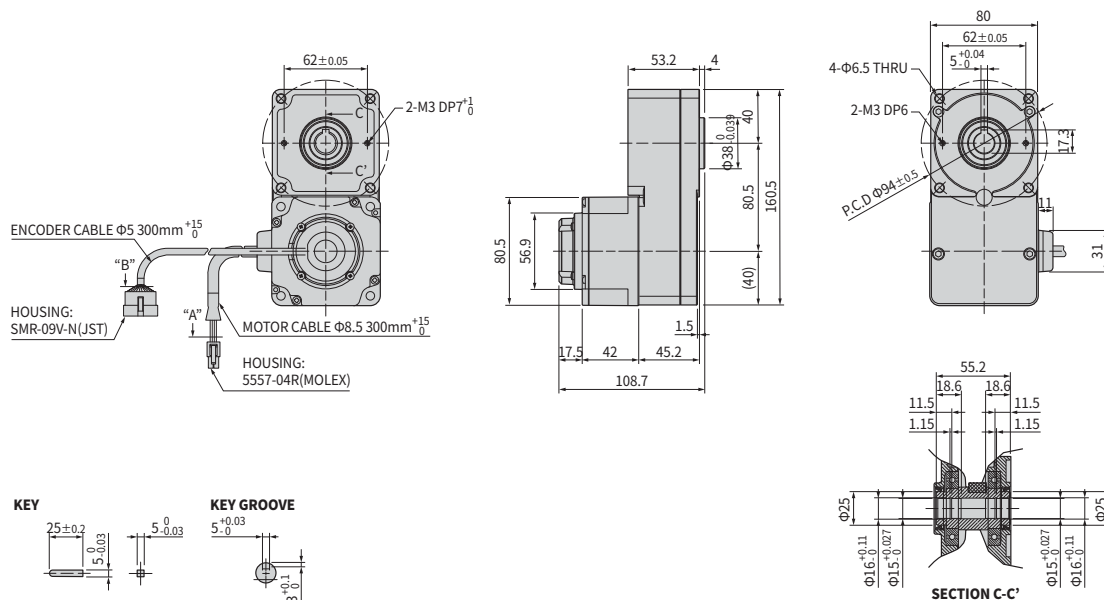
**EzPM-G-GMX30AD-H** ☐

| Unit Part Number                                                                                             | Applied Motor Part Number                                                                          |  Gear Ratio | Applicable Bolt Specifications |
|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------|
| Ezi-POS-CT-A2A-G-GMX30AD-H  | EzPM-G-GMX30AD-H  | 5, 10, 15, 20, 30, 50, 100, 200                                                              | M5X65                          |



**EzPM-G-GMX50AD-H** 

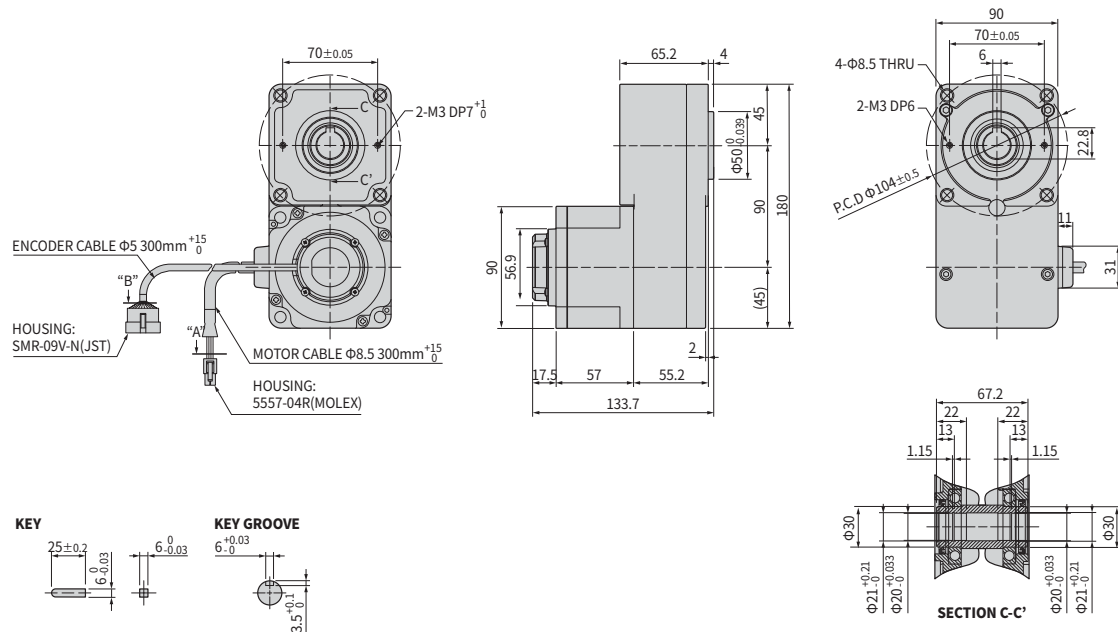
| Unit Part Number                                                                                               | Applied Motor Part Number                                                                            |  Gear Ratio | Applicable Bolt Specifications |
|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------|
| Ezi-POS-CT-A2A-G-GMX50AD-H  | EzPM-G-GMX50AD-H  | 5, 10, 15, 20, 30, 50, 100, 200                                                                | M6X70                          |



## Hollow Shaft Flat Gearbox Type Motor Specifications[mm]

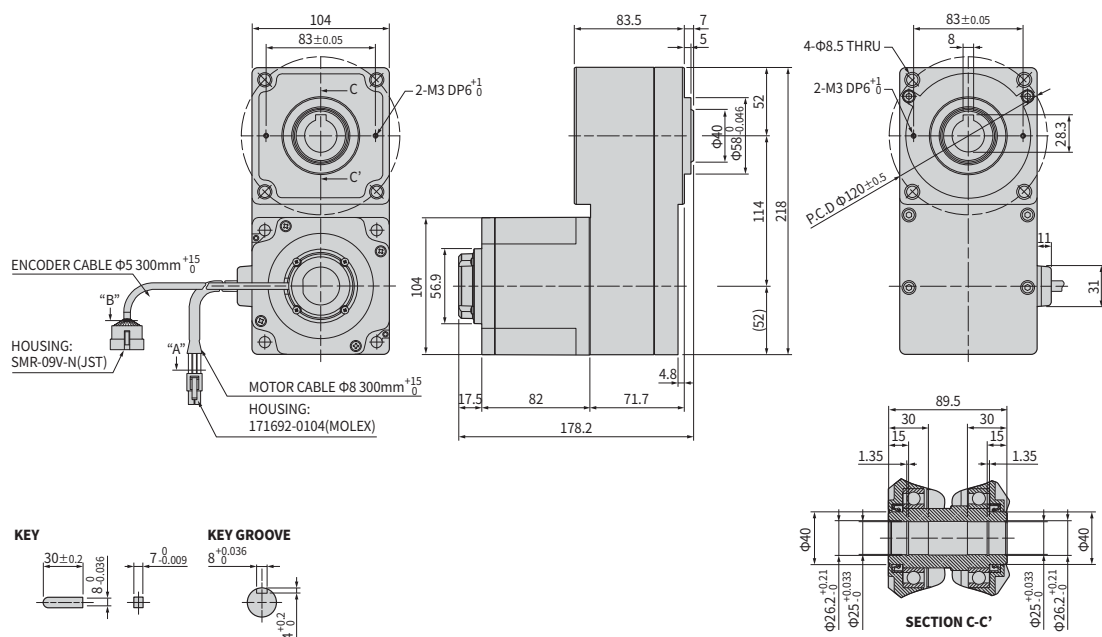
### EzPM-G-GMX100AD-H□

| Unit Part Number             | Applied Motor Part Number | □ Gear Ratio                    | Applicable Bolt Specifications |
|------------------------------|---------------------------|---------------------------------|--------------------------------|
| Ezi-POS-CT-A2A-G-GMX100AD-H□ | EzPM-G-GMX100AD-H□        | 5, 10, 15, 20, 30, 50, 100, 200 | M8X90                          |



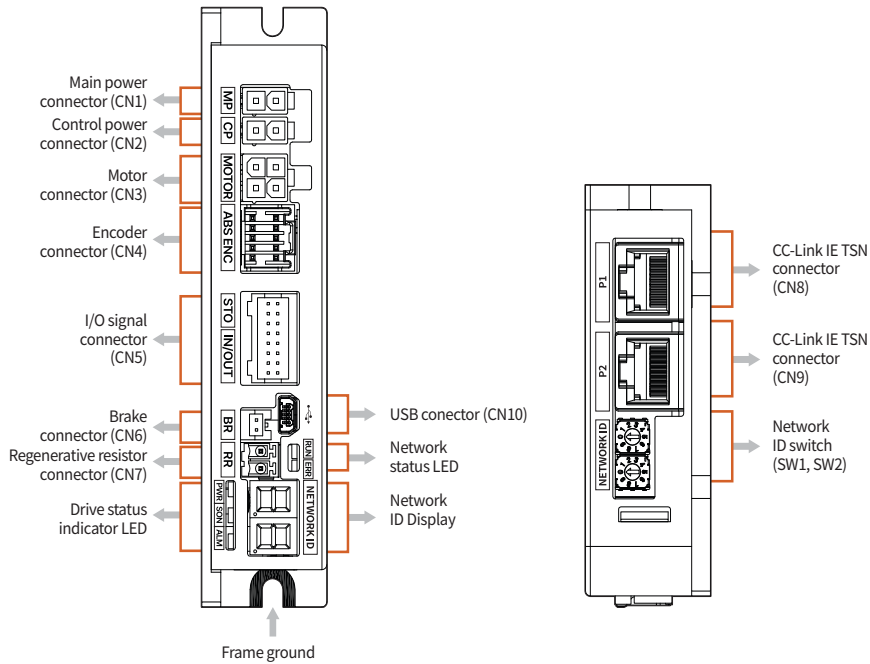
### EzPM-G-GMX200AD-H□

| Unit Part Number             | Applied Motor Part Number | □ Gear Ratio               | Applicable Bolt Specifications |
|------------------------------|---------------------------|----------------------------|--------------------------------|
| Ezi-POS-CT-A2A-G-GMX200AD-H□ | EzPM-G-GMX200AD-H□        | 5, 10, 15, 20, 30, 50, 100 | M8X100                         |



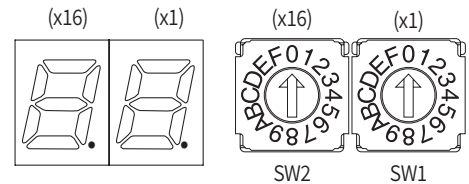
## Settings and Operation

EzPD-CT-A2A-G-GMX30AD  
EzPD-CT-A2A-G-GMX50AD  
EzPD-CT-A2A-G-GMX100AD  
EzPD-CT-A2A-G-GMX200AD



### 1. Network ID Display and Switches(SW1, SW2)

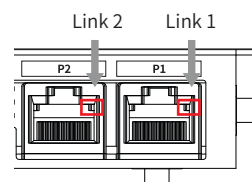
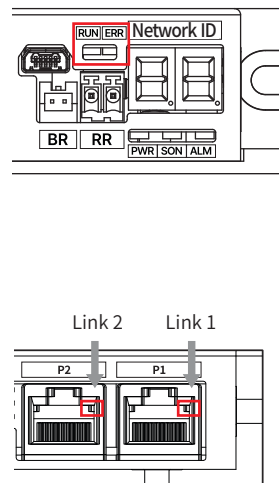
These switches are used to configure the fourth octet of the IP address. The value is displayed on the 7-segment LED in hexadecimal format. SW1 sets the X16 digit, and SW2 sets the X1 digit.  
(For more details, please refer to the relevant user manual.)



### 2. Network Status LED

These LEDs indicate the communication status of CC-Link IE TSN.  
Link1/Link2 LEDs are located at the upper right corner of CC-Link IE TSN ports(P1, P2).

| Indicator       | Color | Status       | Description                        |
|-----------------|-------|--------------|------------------------------------|
| RUN             | Green | OFF          | Power off                          |
|                 |       | Single Flash | Not connected to master            |
|                 |       | Double Flash | Pre-operational state              |
|                 |       | Blinking     | Safe-operational state             |
|                 |       | Interval Off | Operational state                  |
| ERR             | Red   | OFF          | No error or power off              |
|                 |       | Blinking     | Drive error                        |
|                 |       | Single Flash | CC-Link IE TSN communication error |
|                 |       | Double Flash | IP address conflict error          |
| Link1/<br>Link2 | Green | OFF          | Link inactive                      |
|                 |       | ON           | Link active                        |



### 3. Drive Status LED

| Indicator | Color  | Function                 | Description                                                                                                                             |
|-----------|--------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| PWR       | Green  | Power Input Indicator    | Lights up when power is supplied and the drive is operating normally. (During initialization or firmware update, the indicator blinks.) |
| SON       | Orange | Servo ON / OFF Indicator | Lights up when Servo is on; turns off when Servo is off.                                                                                |
| ALM       | Red    | Alarm Indicator          | Blinks repeatedly when an error occurs.                                                                                                 |

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

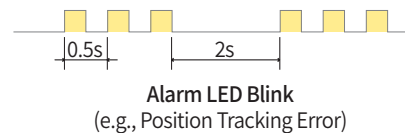
| No. | Error Code | Error Type                    | Cause                                                                                                                |
|-----|------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------|
| 1   | E-001      | Overcurrent Error             | Excessive current flowed through the motor drive components <sup>*1</sup>                                            |
| 2   | E-002      | Overspeed Error               | Motor drive speed exceeds the allowable limit <sup>*1</sup>                                                          |
| 3   | E-003      | Position Tracking Error       | Position error (difference between command and actual position) exceeds the set value during operation <sup>*2</sup> |
| 4   | E-004      | Overload Error                | Load exceeding the motor's continuous maximum torque applied for a certain period <sup>*1</sup>                      |
| 5   | E-005      | Overtemperature Error         | Internal temperature of the drive exceeds 85 °C                                                                      |
| 6   | E-006      | Regenerative Overvoltage      | Internal motor drive voltage exceeds the limit due to increased back EMF or regenerative operation <sup>*1</sup>     |
| 7   | E-007      | Motor Connection Error        | Abnormal connection between the drive and the motor                                                                  |
| 8   | E-008      | Encoder Connection Error      | Abnormal connection between the drive and the encoder                                                                |
| 9   | E-009      | Main Power Undervoltage Error | Main power voltage is below the minimum allowable value <sup>*1</sup>                                                |
| 10  | E-010      | In-position Error             | Position error exceeding the set value continues for more than 3 seconds after operation completion <sup>*2</sup>    |
| 11  | E-011      | System Error                  | Internal system error in the drive                                                                                   |
| 12  | E-012      | ROM Error                     | Error in the parameter storage device (ROM)                                                                          |
| 13  | E-013      | Motor Parameter Error         | Motor parameters are unset or exceed the normal range                                                                |
| 14  | E-014      | Main Power Overvoltage Error  | Main power voltage exceeds the allowable limit <sup>*1</sup>                                                         |
| 15  | E-015      | Excessive Position Error      | Excessive position error occurs after the motor has completed its operation <sup>*2</sup>                            |
| 16  | E-016      | Emergency Stop Circuit Error  | TQOFF1 and TQOFF2 input states do not match                                                                          |

<sup>\*1</sup>: Each threshold or setting is fixed and varies depending on the motor.

<sup>\*2</sup>: Each threshold or setting is predefined but can be modified via parameters.

※ When an alarm occurs, the 7-segment display will show the error code instead of "Network ID."

※ For more details, please refer to the respective user manual.



### 4. Main Power / Control Power Connectors (CN1, CN2)

#### (CN1)

| No. | Function | I/O    |
|-----|----------|--------|
| 1   | DC_MAIN  | Inputs |
| 2   | GND      | Inputs |



#### (CN2)

| No. | Function | I/O    |
|-----|----------|--------|
| 1   | DC_CON   | Inputs |
| 2   | GND      | Inputs |

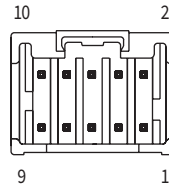
### 5. Motor Connector (CN3)

| No. | Function | I/O     |
|-----|----------|---------|
| 1   | F.GND    | ---     |
| 2   | U Phase  | Outputs |
| 3   | W Phase  | Outputs |
| 4   | V Phase  | Outputs |



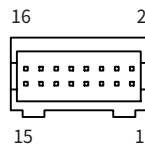
## 6. Encoder Connector (CN4)

| No. | Function | I/O     |
|-----|----------|---------|
| 1   | SL+      | Inputs  |
| 2   | SL-      | Inputs  |
| 3   | MA+      | Inputs  |
| 4   | MA-      | Inputs  |
| 5   | CS       | Outputs |
| 6   | MON      | Inputs  |
| 7   | 5VDC     | Outputs |
| 8   | GND      | Outputs |
| 9   | F.GND    | ----    |
| 10  | F.GND    | ----    |



## 7. I/O Connector (CN5)

| No. | Function     | I/O     |
|-----|--------------|---------|
| 1   | LIMIT+       | Inputs  |
| 2   | LIMIT-       | Inputs  |
| 3   | ORIGIN       | Inputs  |
| 4   | Digital In1  | Inputs  |
| 5   | Digital In2  | Inputs  |
| 6   | Digital Out1 | Outputs |
| 7   | Digital Out2 | Outputs |
| 8   | Digital Out3 | Outputs |
| 9   | OUT_COM      | Inputs  |
| 10  | IN_COM       | Inputs  |
| 11  | TQOFF1_P     | Inputs  |
| 12  | TQOFF1_N     | Inputs  |
| 13  | TQOFF2_P     | Inputs  |
| 14  | TQOFF2_N     | Inputs  |
| 15  | OVRTQ        | Inputs  |
| 16  | GND          | Outputs |



## 8. Brake Connector (CN6)

| No. | Function | I/O     |
|-----|----------|---------|
| 1   | BRAKE+   | Outputs |
| 2   | BRAKE-   | Outputs |



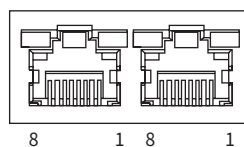
## 9. Regenerative Resistor Connector (CN7)

| No. | Function | I/O     |
|-----|----------|---------|
| 1   | RR+      | Outputs |
| 2   | RR-      | Outputs |

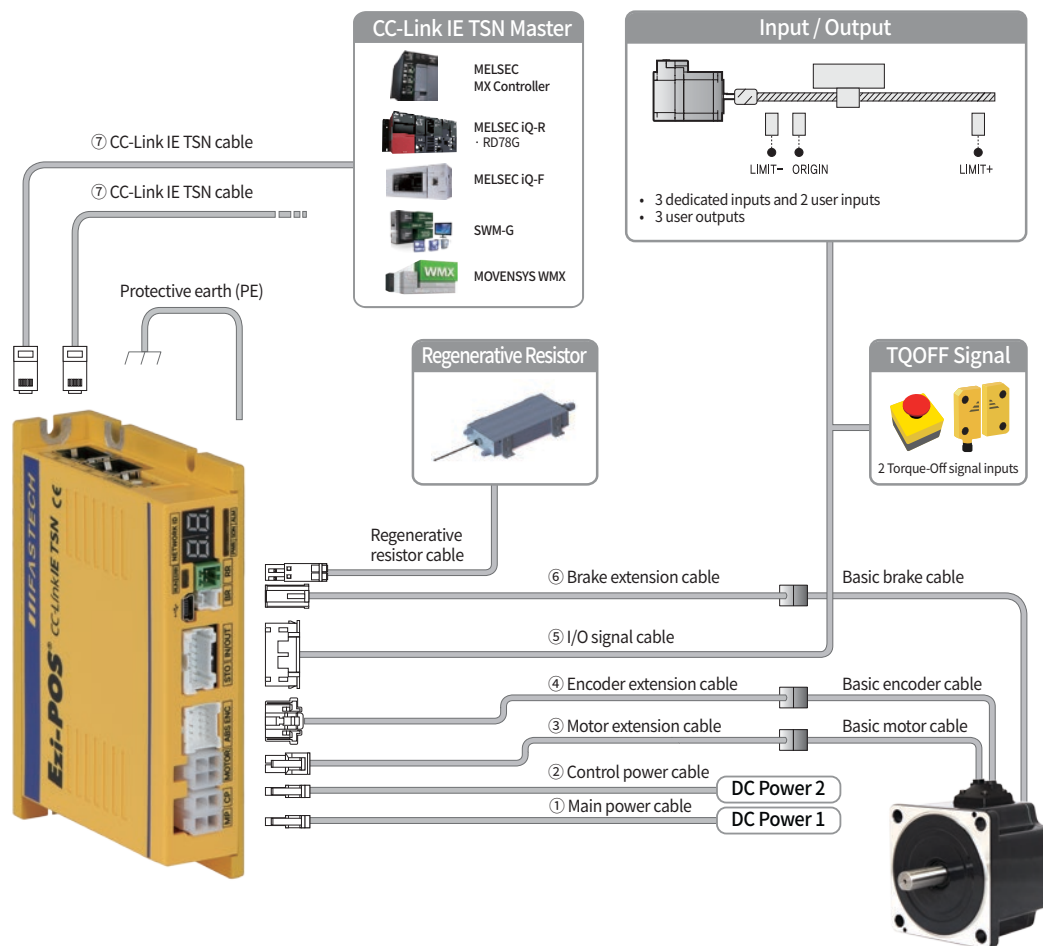


## 10. CC-Link IE TSN Connector (CN8, CN9)

| No. | Function | No.            | I/O   |
|-----|----------|----------------|-------|
| 1   | DA+      | 6              | DB-   |
| 2   | DA-      | 7              | DD+   |
| 3   | DB+      | 8              | DD-   |
| 4   | DC+      | Connector Hood | F.GND |
| 5   | DC-      |                |       |



## System Configuration



| Cable Type                  | Max. Cable Length    | Remarks                              |
|-----------------------------|----------------------|--------------------------------------|
| ① Main Power Cable          | 2 m                  | Options (Sold separately)            |
| ② Control Power Cable       | 2 m                  |                                      |
| ③ Motor Extension Cable     | 5 m                  |                                      |
| ④ Encoder Extension Cable   | 5 m                  |                                      |
| ⑤ I/O Signal Cable          | 5 m                  |                                      |
| ⑥ Brake Extension Cable     | 5 m                  |                                      |
| Regenerative Resistor Cable | 2 m                  | Not for Sale                         |
| ⑦ CC-Link IE TSN Cable      | 100 m                | Options (Sold separately)            |
| Basic Encoder Cable         | 0.3 m (Basic length) | Basic cables are attached to motors. |
| Basic Motor Cable           | 0.3 m (Basic length) |                                      |

## 1. Accessories

### ① Drive Connector

| Purpose                    | Item           | Model Name                                                               |                        | Manufacturer |
|----------------------------|----------------|--------------------------------------------------------------------------|------------------------|--------------|
|                            |                | EzPD-CT-A2A-G-GMX30AD<br>EzPD-CT-A2A-G-GMX50AD<br>EzPD-CT-A2A-G-GMX100AD | EzPD-CT-A2A-G-GMX200AD |              |
| Main Power(CN1)            | Housing        | 5557-02R                                                                 |                        | MOLEX        |
|                            | Terminal       | 5556T                                                                    | 5556T3                 |              |
| Control Power(CN2)         | Housing        | 5557-02R                                                                 |                        | MOLEX        |
|                            | Terminal       | 5556T                                                                    |                        |              |
| Motor(CN3)                 | Housing        | 5557-04R                                                                 |                        | MOLEX        |
|                            | Terminal       | 5556T                                                                    | 5556T3                 |              |
| Encoder(CN4)               | Housing        | 51353-1000                                                               |                        | MOLEX        |
|                            | Terminal       | 56134-9000                                                               |                        |              |
| I/O Signal(CN5)            | Housing        | PADP-16V-1-S                                                             |                        | JST          |
|                            | Terminal       | SPH-002T-P0.5L                                                           |                        |              |
| Brake(CN6)                 | Housing        | PAP-02V-S                                                                |                        | JST          |
|                            | Terminal       | SPHD-002T-P0.5                                                           |                        |              |
| Regenerative Resistor(CN7) | Terminal Block | ESC250V-02P                                                              |                        | DINKLE       |

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

### ② Motor Connector

| Purpose | Item     | Model Name                                          |                 | Manufacturer |
|---------|----------|-----------------------------------------------------|-----------------|--------------|
|         |          | EzPM-G-GMX30AD<br>EzPM-G-GMX50AD<br>EzPM-G-GMX100AD | EzPM-G-GMX200AD |              |
| Motor   | Housing  | 5559-04P                                            | 105411-0104     | MOLEX        |
|         | Terminal | 5558T                                               | 76823-0321      |              |
| Encoder | Housing  | SMP-09V-NC                                          |                 | JST          |
|         | Terminal | SHF-001T-0.8BS                                      |                 |              |
| Brake   | Housing  | PALR-02VF                                           |                 | JST          |
|         | Terminal | SPAL-001T-P0.5                                      |                 |              |

※ The above connectors are provided with the product. When using other components, please ensure they meet the required specifications.

## 2. Options

### ① Main Power Supply Cable

This cable is used to connect the Ezi-POS CC-Link IE TSN drive to the main power supply.

| Purpose                        | Drive                                                                    | Model Name    | Length [m] | Cable Type    | Remarks                |
|--------------------------------|--------------------------------------------------------------------------|---------------|------------|---------------|------------------------|
| Drive-to-Main Power Connection | EzPD-CT-A2A-G-GMX30AD<br>EzPD-CT-A2A-G-GMX50AD<br>EzPD-CT-A2A-G-GMX100AD | CPA2S-P1-001F | 1          | Fixed Type    | Max. Cable Length: 2 m |
|                                |                                                                          | CPA2S-P1-002F | 2          |               |                        |
|                                |                                                                          | CPA2S-P1-001M | 1          | Flexible Type |                        |
|                                |                                                                          | CPA2S-P1-002M | 2          |               |                        |
|                                | EzPD-CT-A2A-G-GMX200AD                                                   | CPA2S-P2-001F | 1          | Fixed Type    |                        |
|                                |                                                                          | CPA2S-P2-002F | 2          |               |                        |
|                                |                                                                          | CPA2S-P2-001M | 1          | Flexible Type |                        |
|                                |                                                                          | CPA2S-P2-002M | 2          |               |                        |

### ② Control Power Cable

This cable is used to connect the Ezi-POS CC-Link IE TSN drive to the control power supply.

| Purpose                           | Drive       | Length [m] | Cable Type    | Remarks                |
|-----------------------------------|-------------|------------|---------------|------------------------|
| Drive-to-Control Power Connection | CSVO-P-001F | 1          | Fixed Type    | Max. Cable Length: 2 m |
|                                   | CSVO-P-002F | 2          |               |                        |
|                                   | CSVO-P-001M | 1          | Flexible Type |                        |
|                                   | CSVO-P-002M | 2          |               |                        |

### ③ Motor Extension Cable

This extension cable is used to connect the Ezi-POS CC-Link IE TSN drive to the motor.

| Purpose                                  | Drive                                                                    | Model Name    | Length [m] | Cable Type    | Remarks                |
|------------------------------------------|--------------------------------------------------------------------------|---------------|------------|---------------|------------------------|
| Drive-to-Motor<br>Basic Cable Connection | EzPD-CT-A2A-G-GMX30AD<br>EzPD-CT-A2A-G-GMX50AD<br>EzPD-CT-A2A-G-GMX100AD | CPA2S-M1-001F | 1          | Fixed Type    | Max. Cable Length: 5 m |
|                                          |                                                                          | CPA2S-M1-002F | 2          |               |                        |
|                                          |                                                                          | CPA2S-M1-003F | 3          |               |                        |
|                                          |                                                                          | CPA2S-M1-005F | 5          |               |                        |
|                                          |                                                                          | CPA2S-M1-001M | 1          | Flexible Type |                        |
|                                          |                                                                          | CPA2S-M1-002M | 2          |               |                        |
|                                          |                                                                          | CPA2S-M1-003M | 3          |               |                        |
|                                          |                                                                          | CPA2S-M1-005M | 5          |               |                        |
|                                          | EzPD-CT-A2A-G-GMX200AD                                                   | CPA2S-M2-001F | 1          | Fixed Type    |                        |
|                                          |                                                                          | CPA2S-M2-002F | 2          |               |                        |
|                                          |                                                                          | CPA2S-M2-003F | 3          |               |                        |
|                                          |                                                                          | CPA2S-M2-005F | 5          |               |                        |
|                                          |                                                                          | CPA2S-M2-001M | 1          | Flexible Type |                        |
|                                          |                                                                          | CPA2S-M2-002M | 2          |               |                        |
|                                          |                                                                          | CPA2S-M2-003M | 3          |               |                        |
|                                          |                                                                          | CPA2S-M2-005M | 5          |               |                        |

## ④ Encoder Extension Cable

This extension cable is used to connect the Ezi-POS CC-Link IE TSN drive to the encoder.

| Purpose                                    | Model Name  | Length [m] | Cable Type    | Remarks                |
|--------------------------------------------|-------------|------------|---------------|------------------------|
| Drive-to-Encoder<br>Basic Cable Connection | CSVO-E-001F | 1          | Fixed Type    | Max. Cable Length: 5 m |
|                                            | CSVO-E-002F | 2          |               |                        |
|                                            | CSVO-E-003F | 3          |               |                        |
|                                            | CSVO-E-005F | 5          |               |                        |
|                                            | CSVO-E-001M | 1          | Flexible Type |                        |
|                                            | CSVO-E-002M | 2          |               |                        |
|                                            | CSVO-E-003M | 3          |               |                        |
|                                            | CSVO-E-005M | 5          |               |                        |

\* For cable lengths other than those listed in the table (in 1-meter increments), please contact FASTECH separately.

## ⑤ I/O Signal Cable

This cable is used to connect the Ezi-POS CC-Link IE TSN drive to input / output devices.

| Purpose                        | Model Name    | Length [m] | Cable Type    | Remarks                |
|--------------------------------|---------------|------------|---------------|------------------------|
| Drive-to-I/O Device Connection | CPA2S-IO-001F | 1          | Fixed Type    | Max. Cable Length: 5 m |
|                                | CPA2S-IO-002F | 2          |               |                        |
|                                | CPA2S-IO-003F | 3          |               |                        |
|                                | CPA2S-IO-005F | 5          |               |                        |
|                                | CPA2S-IO-001M | 1          | Flexible Type |                        |
|                                | CPA2S-IO-002M | 2          |               |                        |
|                                | CPA2S-IO-003M | 3          |               |                        |
|                                | CPA2S-IO-005M | 5          |               |                        |

\* For cable lengths other than those listed in the table (in 1-meter increments), please contact FASTECH separately.

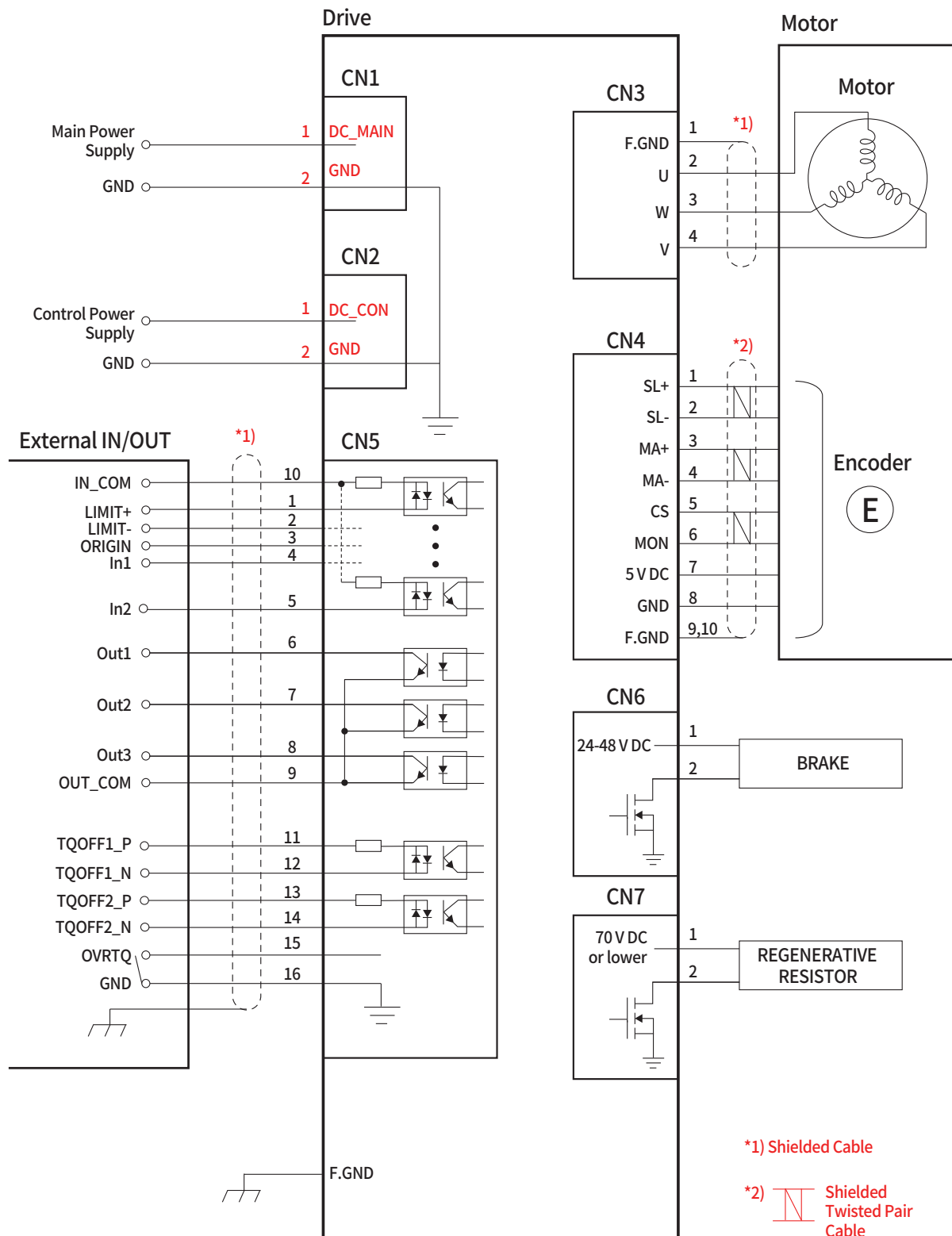
## ⑥ Brake Extension Cable

| Purpose                                  | Model Name   | Length [m] | Cable Type    | Remarks                |
|------------------------------------------|--------------|------------|---------------|------------------------|
| Drive-to-Brake<br>Basic Cable Connection | CPA2S-B-001F | 1          | Fixed Type    | Max. Cable Length: 5 m |
|                                          | CPA2S-B-002F | 2          |               |                        |
|                                          | CPA2S-B-003F | 3          |               |                        |
|                                          | CPA2S-B-005F | 5          |               |                        |
|                                          | CPA2S-B-001M | 1          | Flexible Type |                        |
|                                          | CPA2S-B-002M | 2          |               |                        |
|                                          | CPA2S-B-003M | 3          |               |                        |
|                                          | CPA2S-B-005M | 5          |               |                        |

## ⑦ CC-Link IE TSN Cable

| Purpose                                  | Model Name   | Length [m] | Remarks                |
|------------------------------------------|--------------|------------|------------------------|
| Drive-to-Brake<br>Basic Cable Connection | CPA2S-B-001F | 1          | Max. Cable Length: 5 m |
|                                          | CPA2S-B-002F | 2          |                        |
|                                          | CPA2S-B-003F | 3          |                        |
|                                          | CPA2S-B-005F | 5          |                        |

## External Wiring Diagram



※ When connecting the I/O cable between the drive and the master controller, be sure to turn off the power to both the master controller and the drive. Failure to do so may result in electric shock or product damage.

### CAUTION

To ensure the safe and proper use of the products listed in this catalog, please be sure to read the user manual thoroughly before use.



Fast Accurate Smooth Motion

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