Ezi-POS® CC-Link IE TSN H

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

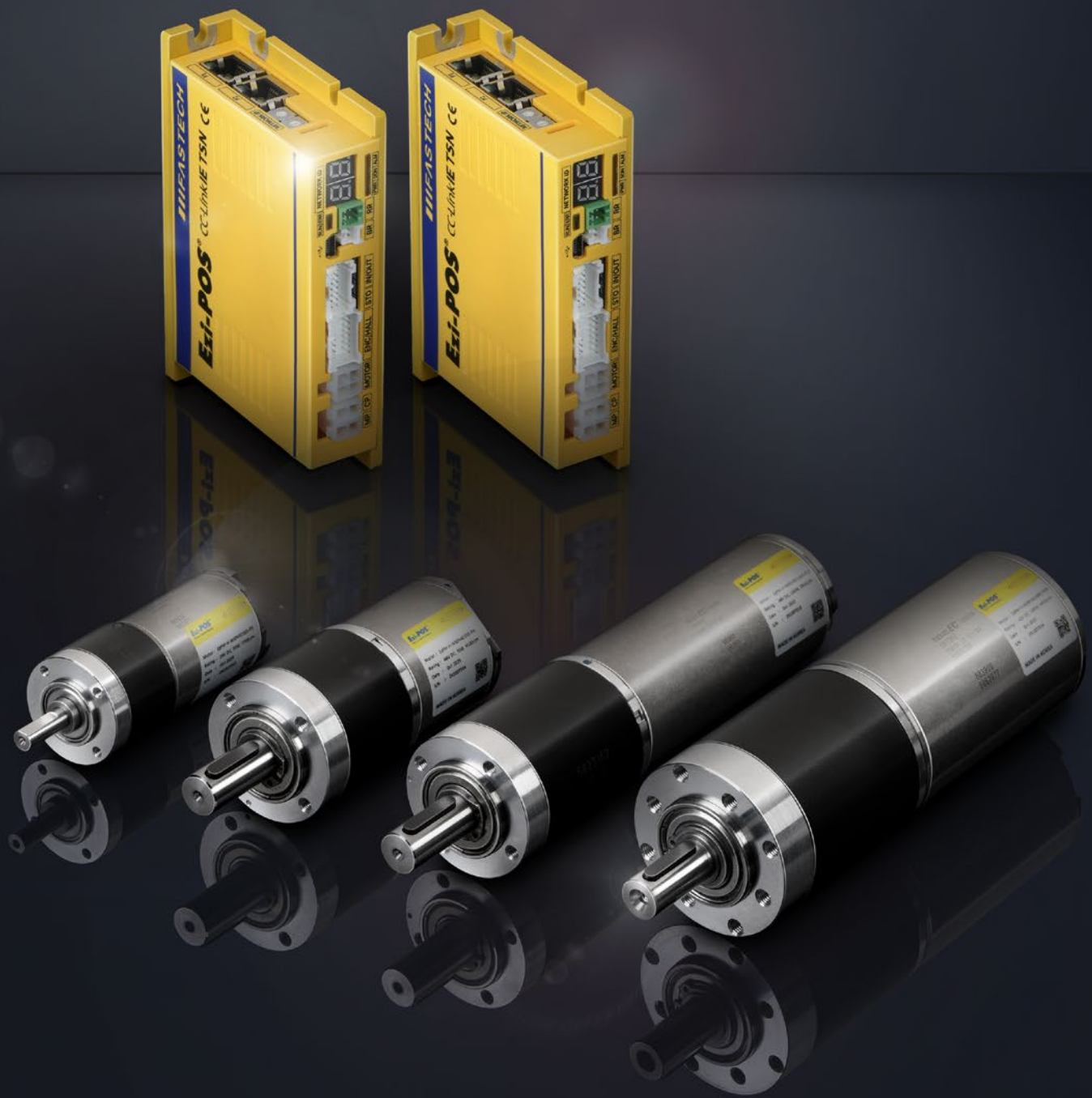
[Draft ver.]

FASTECH

Fast Accurate Smooth Motion

Ezi-Pos® CC-Link IE TSN H

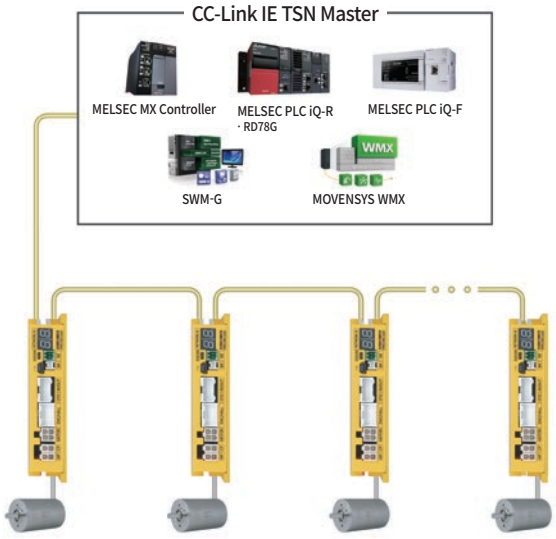
Servo Control System



High-Performance (H Type) Motor Series

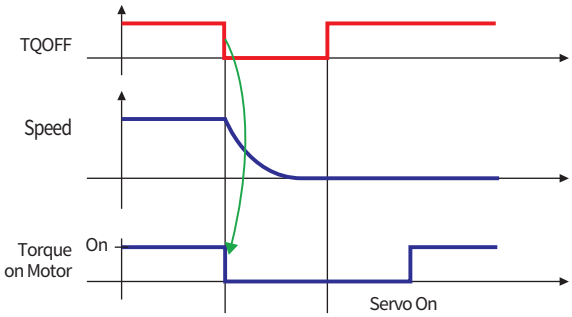
CC-Link IE TSN-compatible Motion Control

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.

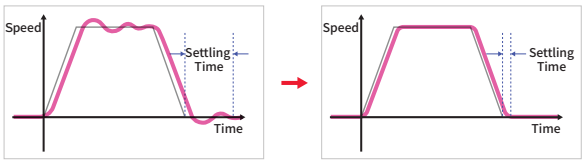


CAUTION

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

Auto-Tuning

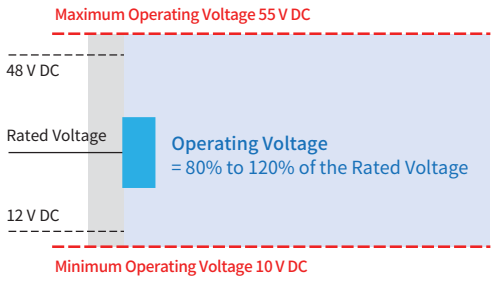
Ezi-POS CC-Link IE TSN offers a simple and user-friendly Auto-Tuning function. The drive automatically estimates the system's load inertia and adjusts the optimal gain values. By using the user software (GUI), Auto-Tuning can be completed with just a few button clicks. During the tuning process, each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



Before Auto-Tuning　　After Auto-Tuning

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

Ezi-POS-CT-A2A-H-MXIT5F18AB-P66

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
E : Incremental Encoder

Motor Type

H : High Performance Motor

Motor ID

MXIN3D3AB : 30 W Motor
MXIT4F7AB : 70 W Motor
MXIT4F13AB: 130 W Motor
MXIT5F18AB: 180 W Motor
* Encoder: 12-bit Single-Turn Absolute

MXIN3D3EE: 30 W Motor
MXIT4F7EE : 70 W Motor
MXIT4F13EE : 130 W Motor
MXIT5F18EE : 180 W Motor
* Encoder : 32,768 P/R Incremental

Gear Ratio

No symbol : None
P4 : 1:4
P5 : 1:5
P15 : 1:15
P18 : 1:18
P19 : 1:19
P43 : 1:43
P66 : 1:66

Standard Combination

Unit Part Number	Motor Part Number	Drive Part Number
Ezi-POS-CT-A2A-H-MXIN3D3AB	EzPM-H-MXIN3D3AB	EzPD-CT-A2A-H-MXIN3D3AB
Ezi-POS-CT-A2A-H-MXIT4F7AB	EzPM-H-MXIT4F7AB	EzPD-CT-A2A-H-MXIT4F7AB
Ezi-POS-CT-A2A-H-MXIT4F13AB	EzPM-H-MXIT4F13AB	EzPD-CT-A2A-H-MXIT4F13AB
Ezi-POS-CT-A2A-H-MXIT5F18AB	EzPM-H-MXIT5F18AB	EzPD-CT-A2A-H-MXIT5F18AB
Ezi-POS-CT-A2E-H-MXIN3D3EE	EzPM-H-MXIN3D3EE	EzPD-CT-A2E-H-MXIN3D3EE
Ezi-POS-CT-A2E-H-MXIT4F7EE	EzPM-H-MXIT4F7EE	EzPD-CT-A2E-H-MXIT4F7EE
Ezi-POS-CT-A2E-H-MXIT4F13EE	EzPM-H-MXIT4F13EE	EzPD-CT-A2E-H-MXIT4F13EE
Ezi-POS-CT-A2E-H-MXIT5F18EE	EzPM-H-MXIT5F18EE	EzPD-CT-A2E-H-MXIT5F18EE

Combination of Motor with Parallel Shaft Gearbox and Drive

Unit Part Number	Motor Part Number	Drive Part Number	Gear Ratio
Ezi-POS-CT-A2A-H-MXIN3D3AB-P5	EzPM-H-MXIN3D3AB-P5	EzPD-CT-A2A-H-MXIN3D3AB	1:5
Ezi-POS-CT-A2A-H-MXIN3D3AB-P18	EzPM-H-MXIN3D3AB-P18		1:18
Ezi-POS-CT-A2A-H-MXIN3D3AB-P66	EzPM-H-MXIN3D3AB-P66		1:66
Ezi-POS-CT-A2A-H-MXIT4F7AB-P4	EzPM-H-MXIT4F7AB-P4	EzPD-CT-A2A-H-MXIT4F7AB	1:4
Ezi-POS-CT-A2A-H-MXIT4F7AB-P15	EzPM-H-MXIT4F7AB-P15		1:15
Ezi-POS-CT-A2A-H-MXIT4F7AB-P43	EzPM-H-MXIT4F7AB-P43		1:43
Ezi-POS-CT-A2A-H-MXIT4F13AB-P4	EzPM-H-MXIT4F13AB-P4	EzPD-CT-A2A-H-MXIT4F13AB	1:4
Ezi-POS-CT-A2A-H-MXIT4F13AB-P15	EzPM-H-MXIT4F13AB-P15		1:15
Ezi-POS-CT-A2A-H-MXIT4F13AB-P43	EzPM-H-MXIT4F13AB-P43		1:43
Ezi-POS-CT-A2A-H-MXIT5F18AB-P4	EzPM-H-MXIT5F18AB-P4	EzPD-CT-A2A-H-MXIT5F18AB	1:4
Ezi-POS-CT-A2A-H-MXIT5F18AB-P19	EzPM-H-MXIT5F18AB-P19		1:19
Ezi-POS-CT-A2A-H-MXIT5F18AB-P43	EzPM-H-MXIT5F18AB-P43		1:43

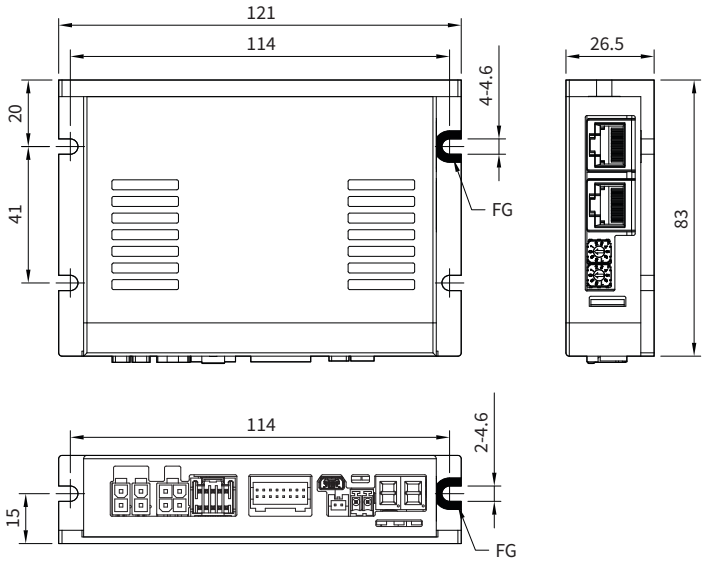
Unit Part Number	Motor Part Number	Drive Part Number	Gear Ratio
Ezi-POS-CT-A2A-H-MXIN3D3AB-P5	EzPM-H-MXIN3D3EE-P5	EzPD-CT-A2E-H-MXIN3D3EE	1:5
Ezi-POS-CT-A2A-H-MXIN3D3AB-P18	EzPM-H-MXIN3D3EE-P18		1:18
Ezi-POS-CT-A2A-H-MXIN3D3AB-P66	EzPM-H-MXIN3D3EE-P66		1:66
Ezi-POS-CT-A2E-H-MXIT4F7EE-P4	EzPM-H-MXIT4F7EE-P4	EzPD-CT-A2E-H-MXIT4F7EE	1:4
Ezi-POS-CT-A2E-H-MXIT4F7EE-P15	EzPM-H-MXIT4F7EE-P15		1:15
Ezi-POS-CT-A2E-H-MXIT4F7EE-P43	EzPM-H-MXIT4F7EE-P43		1:43
Ezi-POS-CT-A2E-H-MXIT4F13EE-P4	EzPM-H-MXIT4F13EE-P4	EzPD-CT-A2E-H-MXIT4F13EE	1:4
Ezi-POS-CT-A2E-H-MXIT4F13EE-P15	EzPM-H-MXIT4F13EE-P15		1:15
Ezi-POS-CT-A2E-H-MXIT4F13EE-P43	EzPM-H-MXIT4F13EE-P43		1:43
Ezi-POS-CT-A2E-H-MXIT5F18EE-P4	EzPM-H-MXIT5F18EE-P4	EzPD-CT-A2E-H-MXIT5F18EE	1:4
Ezi-POS-CT-A2E-H-MXIT5F18EE-P19	EzPM-H-MXIT5F18EE-P19		1:19
Ezi-POS-CT-A2E-H-MXIT5F18EE-P43	EzPM-H-MXIT5F18EE-P43		1:43

Specifications of Drive

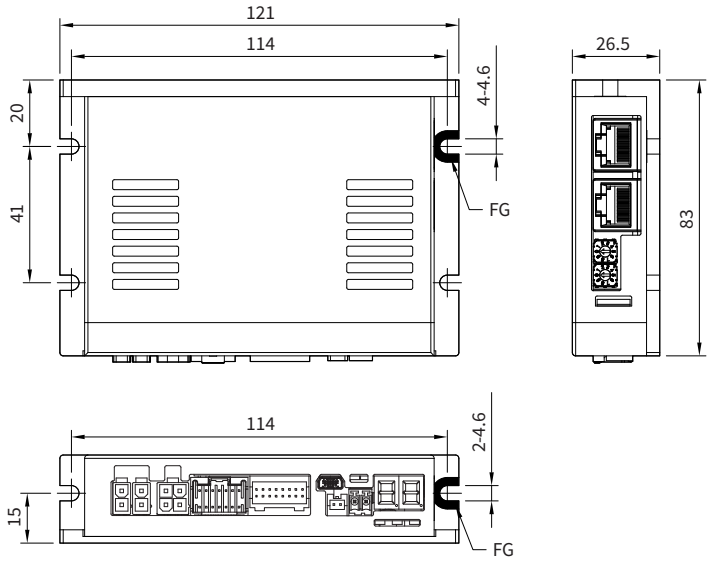
Drive Part Number		EzPD-CT-A2A-H -MXIN3D3AB	EzPD-CT-A2A-H -MXIT4F7AB EzPD-CT-A2A-H -MXIT4F13AB EzPD-CT-A2A-H -MXIT5F18AB	EzPD-CT-A2E-H -MXIN3D3EE	EzPD-CT-A2E-H -MXIT4F7EE EzPD-CT-A2E-H -MXIT4F13EE EzPD-CT-A2E-H -MXIT5F18EE
Main Power Supply	Input Voltage	24 V DC ± 10 %	48 V DC ± 10 %	24 V DC ± 10 %	48 V DC ± 10 %
	Input Current	Maximum Rated Current 8.5 A (For motor-specific input current specifications, refer to the motor specification table.)			
Control Power (Optional)	Input Voltage	12 ~ 48 V DC ± 10 % (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 Storage: -25 ~ 70 °C			
	Humidity	Operation: 85 % RH or less (no condensation) Storage: 85 % RH or less (no condensation)			
	Vibration Resistance	0.5 g			
	Protection Rating	IP20			
Functions	PWM Frequency	25 kHz			
	Current Control Cycle	40 µs			
	Speed/Position Control Cycle	400 µs			
	Speed Control Range	0 ~ 8,000 r/min			
	Encoder Interface	Absolute Encoder		Incremental 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			
	Regenerative Resistor Control	Output connector for regenerative resistor control			
I/O Signals	Inputs	Dedicated Inputs: 3 points (LIMIT+, LIMIT-, ORIGIN), Photocoupler Input 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 µs / Synchronous Comm. (CSP, PP, HM) / Asynchronous Comm. (PP, HM)			

Dimensions of Drive [mm]

EzPD-CT-A2A-H-MXIN3D3AB
EzPD-CT-A2A-H-MXIT4F7AB
EzPD-CT-A2A-H-MXIT4F13AB
EzPD-CT-A2A-H-MXIT5F18AB



EzPD-CT-A2E-H-MXIN3D3EE
EzPD-CT-A2E-H-MXIT4F7EE
EzPD-CT-A2E-H-MXIT4F13EE
EzPD-CT-A2E-H-MXIT5F18EE

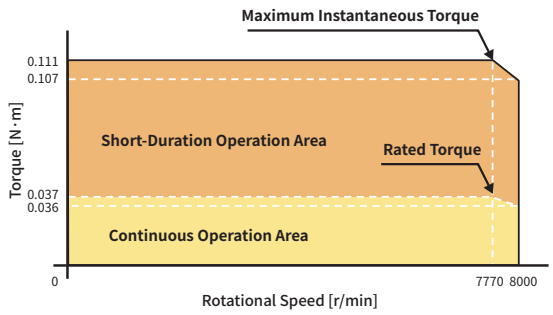


Specifications of Motor

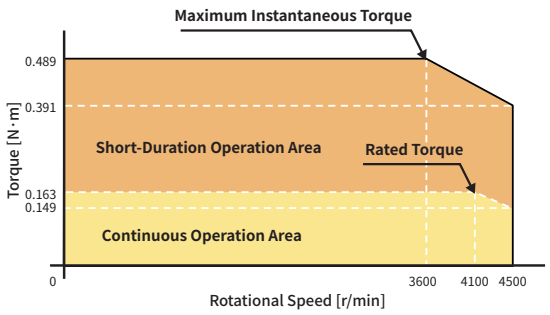
Motor Part Number			EzPM-H-MXIN3D3AB EzPM-H-MXIN3D3EE	EzPM-H-MXIT4F7AB EzPM-H-MXIT4F7EE	EzPM-H-MXIT4F13AB EzPM-H-MXIT4F13EE	EzPM-H-MXIT5F18AB EzPM-H-MXIT5F18EE
Motor Type			3-phase BLDC motor			
Rated Output (Continuous)		W	30	70	130	180
Rated Voltage		V	DC 24	DC 48		
Main Power Rated Input Current		A	1.6	1.8	3.2	4.2
Main Power Maximum Input Current		A	5.5	5.5	7.2	8.3
Rated Torque		N·m	0.037	0.163	0.317	0.386
Rated Phase Current		Arms	1.250	1.454	2.657	3.407
Maximum Instantaneous Torque		N·m	0.111	0.489	0.730	0.773
Maximum Instantaneous Phase Current		Arms	3.690	4.354	6.104	6.809
Rated Rotational Speed		r/min	7770	4100	3910	4450
Maximum Rotational Speed		r/min	8000	4500	4200	4600
Encoder			EzPM-H-MX□AB: Absolute Encoder (12-bit/rev)			
			EzPM-H-MX□EE: Incremental Encoder (32,768 P/R)			
Motor Permissible Load Inertia Moment		10–4kg· m²	0.14	0.46	1.56	3.4
Rotor Inertia		10–4kg· m²	0.0073	0.023	0.078	0.17
Weight		kg	0.19	0.30	0.65	0.86
Permissible Radial Load	Distance from Output Shaft End 5mm	N	25	26	29.9	110
Permissible Axial Load		N	5	7	7	12
Operating Temperature and Humidity			-40 ~ 80 °C, 20 ~ 80 % RH (no condensation)			
Storage Temperature and Humidity			-40 ~ 100 °C, 20 ~ 80 % RH (no condensation)			

Standard Motor Torque

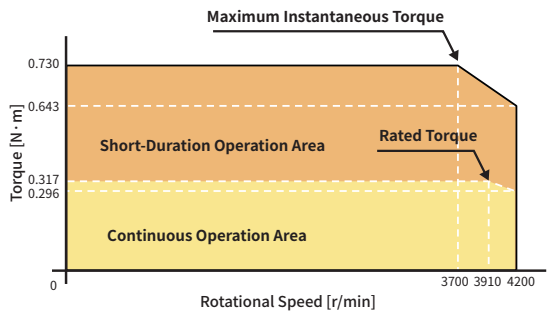
EzPM-H-MXIN3D3AB, EzPM-H-MXIN3D3EE



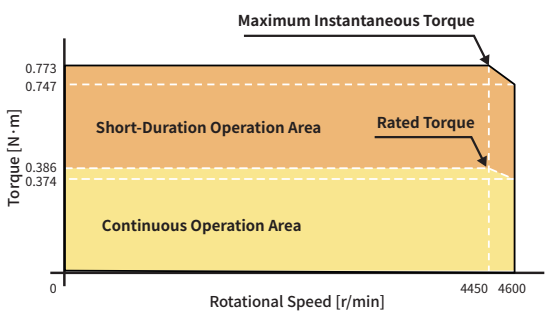
EzPM-H-MXIT4F7AB, EzPM-H-MXIT4F7EE



EzPM-H-MXIT4F13AB, EzPM-H-MXIT4F13EE

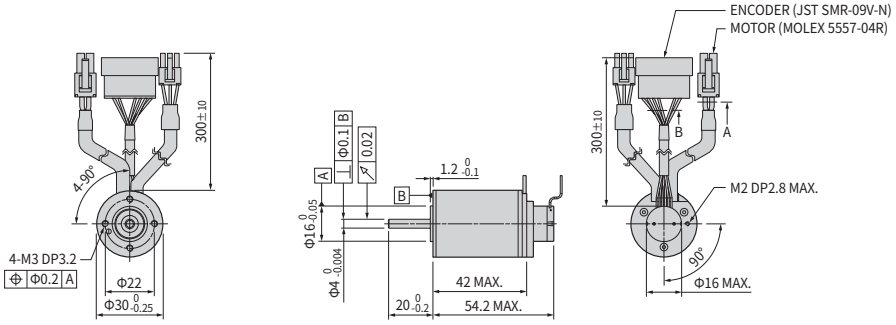


EzPM-H-MXIT5F18AB, EzPM-H-MXIT5F18EE

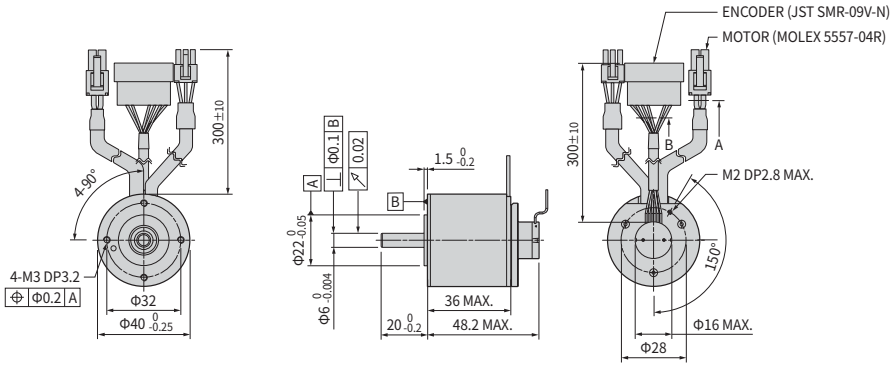


Dimensions of Motor [mm]

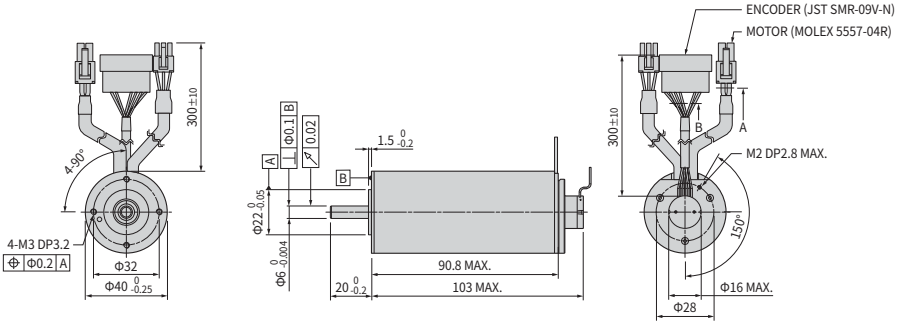
EzPM-H-MXIN3D3AB



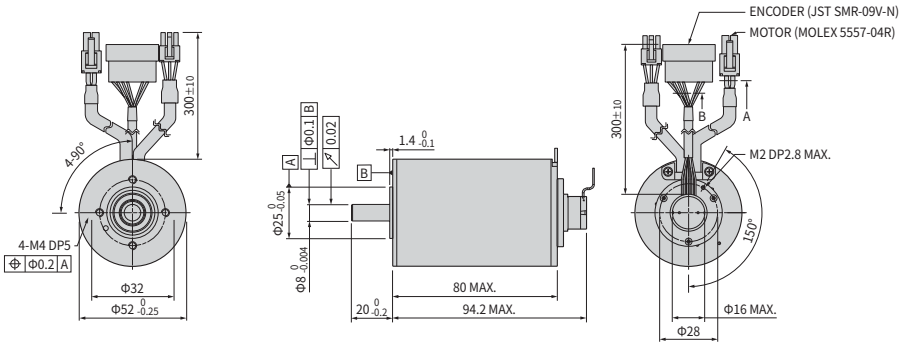
EzPM-H-MXIT4F7AB



EzPM-H-MXIT4F13AB

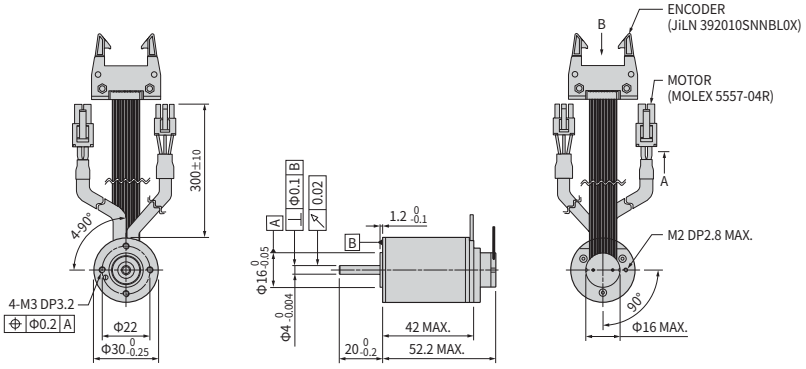


EzPM-H-MXIT5F18AB

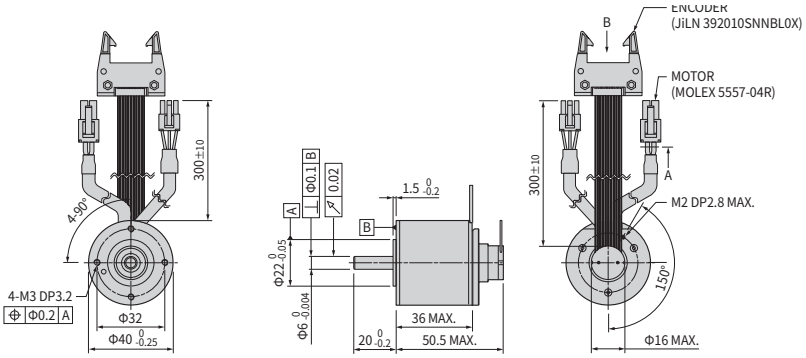


Dimensions of Motor [mm]

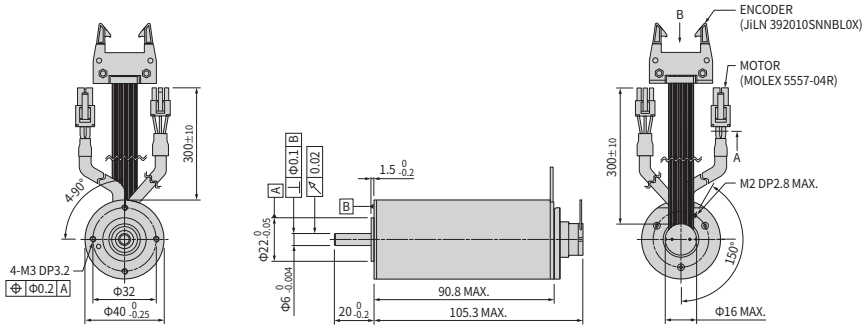
EzPM-H-MXIN3D3EE



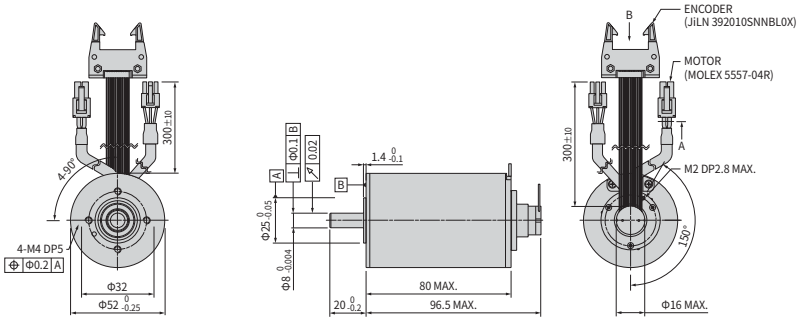
EzPM-H-MXIT4F7EE



EzPM-H-MXIT4F13EE



EzPM-H-MXIT5F18EE



Parallel Shaft Gearbox Type Motor Specifications

EzPM-H-MXIN3D3AB-P□
EzPM-H-MXIN3D3EE-P□

Unit Part Number	Motor Part Number	□ Gear Ratio	Absolute Gear Ratio	Back-lash [°]	Rated Torque[Nm]		Max. Speed [r/min]	Weight [kg]	Permissible Radial Load[N] Distance from Output Shaft End 10 mm	Permissi-ble Axial Load[N]
					0~7770 r/min	8000 r/min				
Ezi-POS-CT-A2A-H-MXIN3D3AB-P5	EzPM-H-MXIN3D3AB-P5	5	24/5	0.7	0.142	0.138	1666.7	0.30	90	120
Ezi-POS-CT-A2E-H-MXIN3D3EE-P5	EzPM-H-MXIN3D3EE-P5									
Ezi-POS-CT-A2A-H-MXIN3D3AB-P18	EzPM-H-MXIN3D3AB-P18	18	624/35	0.8	0.500	0.488	444.4	0.34	140	
Ezi-POS-CT-A2E-H-MXIN3D3EE-P18	EzPM-H-MXIN3D3EE-P18									
Ezi-POS-CT-A2A-H-MXIN3D3AB-P66	EzPM-H-MXIN3D3AB-P66	66	16224 /245	1.0	1.701	1.663	121.2	0.37	200	
Ezi-POS-CT-A2E-H-MXIN3D3EE-P66	EzPM-H-MXIN3D3EE-P66									

EzPM-H-MXIT4F7AB-P□
EzPM-H-MXIT4F7EE-P□

Unit Part Number	Motor Part Number	□ Gear Ratio	Absolute Gear Ratio	Back-lash [°]	Rated Torque[Nm]		Max. Speed [r/min]	Weight [kg]	Permissible Radial Load[N] Distance from Output Shaft End 12 mm	Permissi-ble Axial Load[N]
					0~4100 r/min	4500 r/min				
Ezi-POS-CT-A2A-H-MXIT4F7AB-P4	EzPM-H-MXIT4F7AB-P4	4	13/3	0.6	0.631	0.577	1046.5	0.56	120	150
Ezi-POS-CT-A2E-H-MXIT4F7EE-P4	EzPM-H-MXIT4F7EE-P4									
Ezi-POS-CT-A2A-H-MXIT4F7AB-P15	EzPM-H-MXIT4F7AB-P15	15	91/6	0.8	1.980	1.810	300	0.65	240	
Ezi-POS-CT-A2E-H-MXIT4F7EE-P15	EzPM-H-MXIT4F7EE-P15									
Ezi-POS-CT-A2A-H-MXIT4F7AB-P43	EzPM-H-MXIT4F7AB-P43	43	343/8	1.0	5.046	4.613	104.7	0.74	360	
Ezi-POS-CT-A2E-H-MXIT4F7EE-P43	EzPM-H-MXIT4F7EE-P43									

※ The □ gear ratio indicated in the unit and motor model names is a rounded nominal value. The absolute gear ratio represents the exact value.
※ The motor model name refers to the combination of the motor and the gearhead.
※ The weight represents the total weight of the motor combined with the gearhead.
※ Specifications and features not mentioned above are the same as those of the standard motor.

Parallel Shaft Gearbox Type Motor Specifications

EzPM-H-MXIT4F13AB-P□
EzPM-H-MXIT4F13EE-P□

Unit Part Number	Motor Part Number	□ Gear Ratio	Absolute Gear Ratio	Back-lash [°]	Rated Torque[Nm]		Max. Speed [r/min]	Weight [kg]	Permissible Radial Load[N] Distance from Output Shaft End	Permissi-ble Axial Load[N]
					0~3910 r/min	4200 r/min			12 mm	
Ezi-POS-CT-A2A-H-MXIT4F13AB -P4	EzPM-H-MXIT4F13AB-P4	4	13/3	0.6	1.227	1.146	976.7	0.90	120	150
Ezi-POS-CT-A2E-H-MXIT4F13EE -P4	EzPM-H-MXIT4F13EE-P4									
Ezi-POS-CT-A2A-H-MXIT4F13AB -P15	EzPM-H-MXIT4F13AB-P15	15	91/6	0.8	3.852	3.597	280	1.00	240	
Ezi-POS-CT-A2E-H-MXIT4F13EE -P15	EzPM-H-MXIT4F13EE-P15									
Ezi-POS-CT-A2A-H-MXIT4F13AB -P43	EzPM-H-MXIT4F13AB-P43	43	343/8	1.0	9.814	9.164	97.7	1.09	360	
Ezi-POS-CT-A2E-H-MXIT4F13EE -P43	EzPM-H-MXIT4F13EE-P43									

EzPM-H-MXIT5F18AB-P□
EzPM-H-MXIT5F18EE-P□

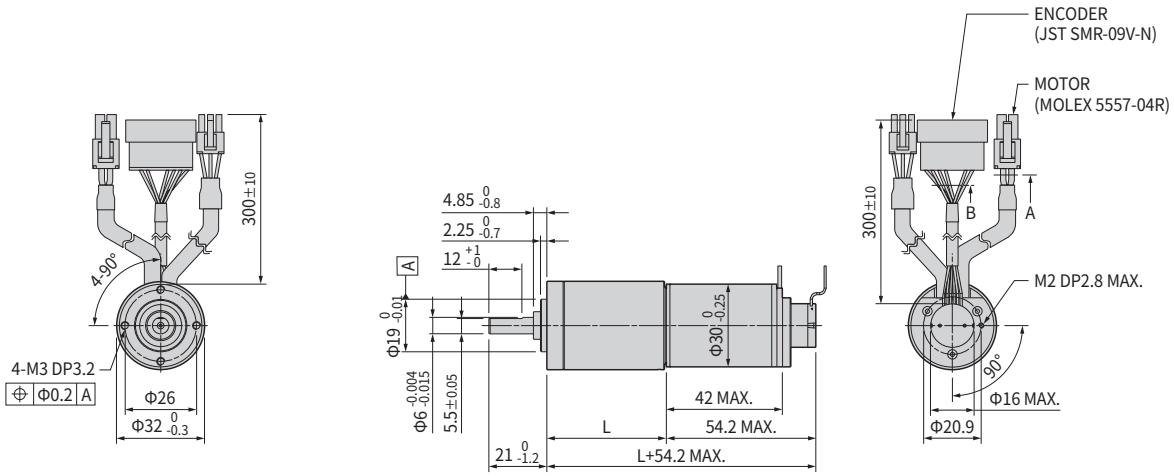
Unit Part Number	Motor Part Number	□ Gear Ratio	Absolute Gear Ratio	Back-lash [°]	Rated Torque[Nm]		Max. Speed [r/min]	Weight [kg]	Permissible Radial Load[N] Distance from Output Shaft End	Permissi-ble Axial Load[N]
					0~4450 r/min	4600 r/min			12 mm	
Ezi-POS-CT-A2A-H-MXIT5F18AB -P4	EzPM-H-MXIT5F18AB-P4	4	13/3	0.6	1.510	1.436	1069.8	1.31	420	200
Ezi-POS-CT-A2E-H-MXIT5F18EE -P4	EzPM-H-MXIT5F18EE-P4									
Ezi-POS-CT-A2A-H-MXIT5F18AB -P19	EzPM-H-MXIT5F18AB-P19	19	169/9	0.8	6.087	5.898	242.1	1.47	630	
Ezi-POS-CT-A2E-H-MXIT5F18EE -P19	EzPM-H-MXIT5F18EE-P19									
Ezi-POS-CT-A2A-H-MXIT5F18AB -P43	EzPM-H-MXIT5F18AB-P43	43	343/8	1.0	12.45	12.06	107.0	1.62	900	
Ezi-POS-CT-A2E-H-MXIT5F18EE -P43	EzPM-H-MXIT5F18EE-P43									

※ The □ gear ratio indicated in the unit and motor model names is a rounded nominal value. The absolute gear ratio represents the exact value.
※ The motor model name refers to the combination of the motor and the gearhead.
※ The weight represents the total weight of the motor combined with the gearhead.
※ Specifications and features not mentioned above are the same as those of the standard motor.

Parallel Shaft Gearbox Type Motor Specifications [mm]

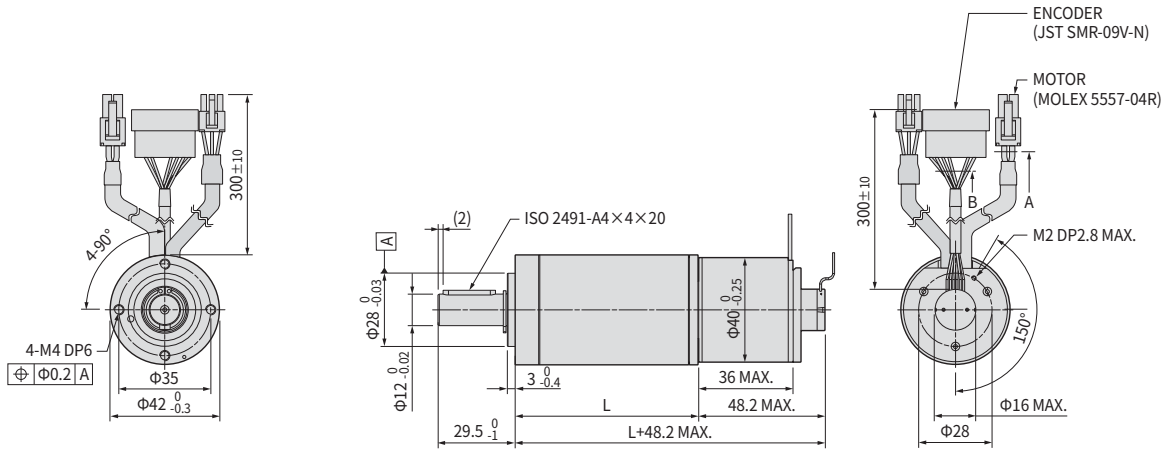
EzPM-H-MXIN3D3AB-P□

Unit Part Number	Applied Motor Part Number	□Gear Ratio	Applicable Bolt Specifications	L[mm]
Ezi-POS-CT-A2A-H-MXIN3D3AB-P□	EzPM-H-MXIN3D3AB-P□	5	M3	26.8
		18		36.7
		66		43.4



EzPM-H-MXIT4F7AB-P□

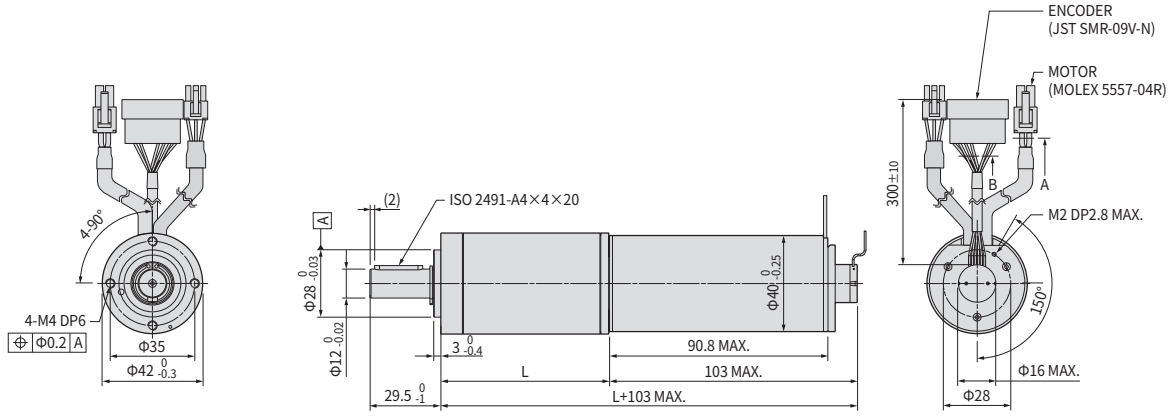
Unit Part Number	Applied Motor Part Number	□Gear Ratio	Applicable Bolt Specifications	L[mm]
Ezi-POS-CT-A2A-H-MXIT4F7AB-P□	EzPM-H-MXIT4F7AB-P□	4	M4	41.6
		15		51.6
		43		70.1



Parallel Shaft Gearbox Type Motor Specifications [mm]

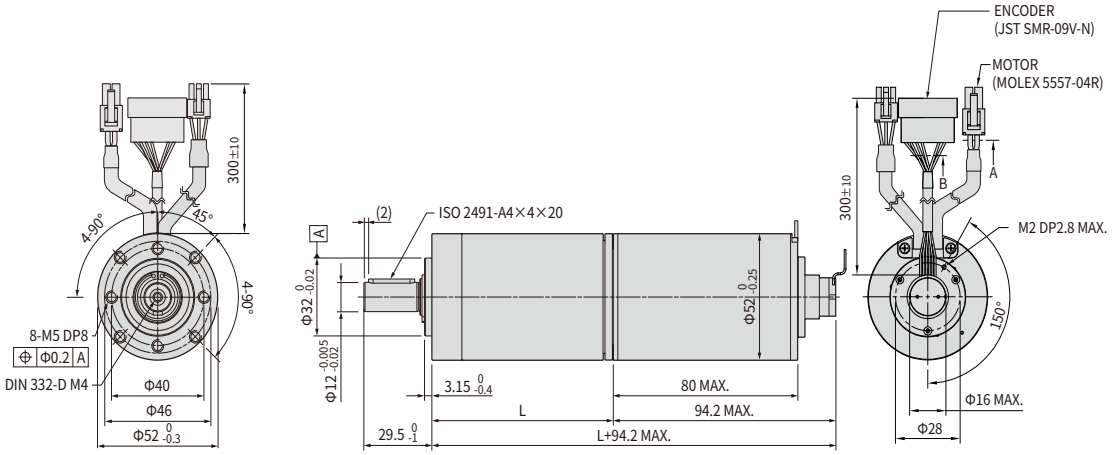
EzPM-H-MXIT4F13AB-P□

Unit Part Number	Applied Motor Part Number	□Gear Ratio	Applicable Bolt Specifications	L[mm]
Ezi-POS-CT-A2A-H-MXIT4F13AB-P□	EzPM-H-MXIT4F13AB-P□	4	M4	41.6
		15		51.6
		43		70.1



EzPM-H-MXIT5F18AB-P□

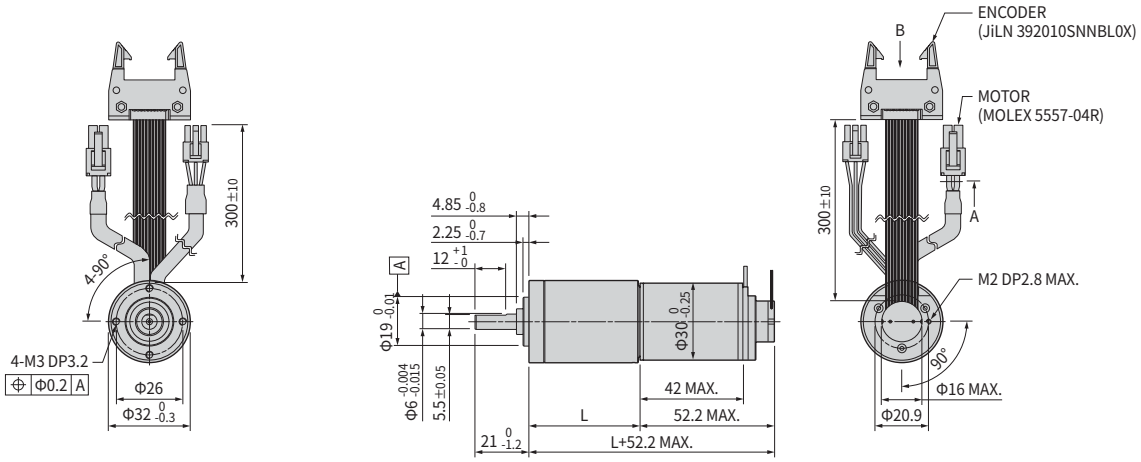
Unit Part Number	Applied Motor Part Number	□Gear Ratio	Applicable Bolt Specifications	L[mm]
Ezi-POS-CT-A2A-H-MXIT5F18AB-P□	EzPM-H-MXIT5F18AB-P□	4	M5	49.1
		19		65.1
		43		78.6



Parallel Shaft Gearbox Type Motor Specifications [mm]

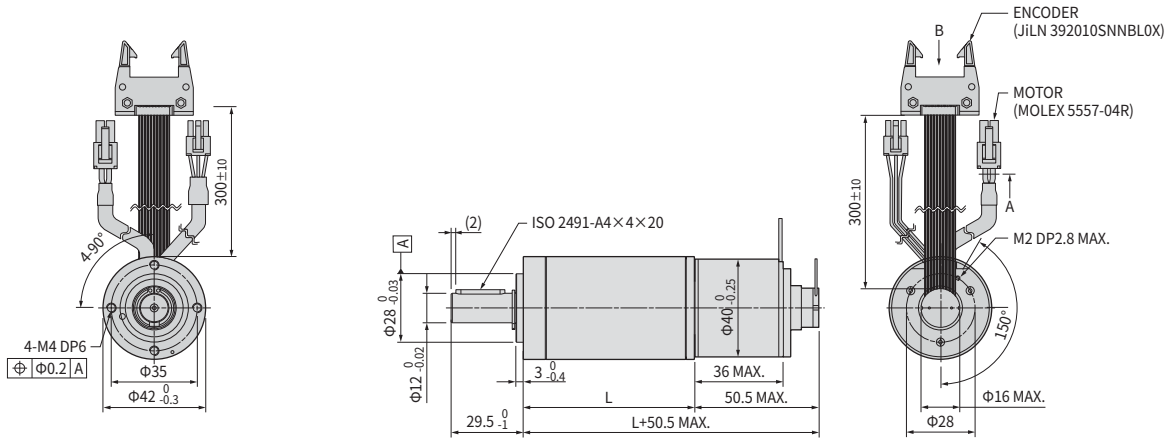
EzPM-H-MXIN3D3EE-P□

Unit Part Number	Applied Motor Part Number	□Gear Ratio	Applicable Bolt Specifications	L[mm]
Ezi-POS-CT-A2E-H-MXIN3D3EE-P□	EzPM-H-MXIN3D3EE-P□	5	M3	26.8
		18		36.7
		66		43.4



EzPM-H-MXIT4F7EE-P□

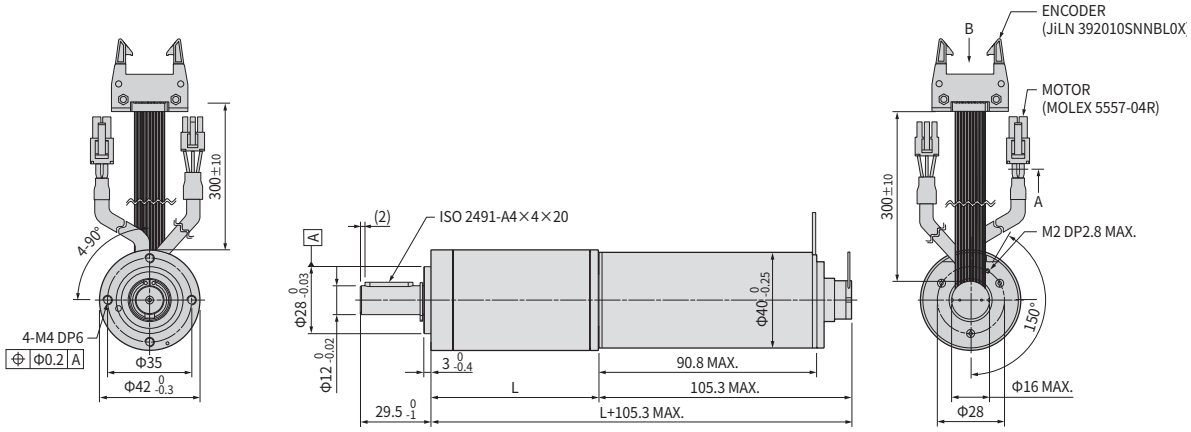
Unit Part Number	Applied Motor Part Number	□Gear Ratio	Applicable Bolt Specifications	L[mm]
Ezi-POS-CT-A2E-H-MXIT4F7EE-P□	EzPM-H-MXIT4F7EE-P□	4	M4	41.6
		15		51.6
		43		70.1



Parallel Shaft Gearbox Type Motor Specifications [mm]

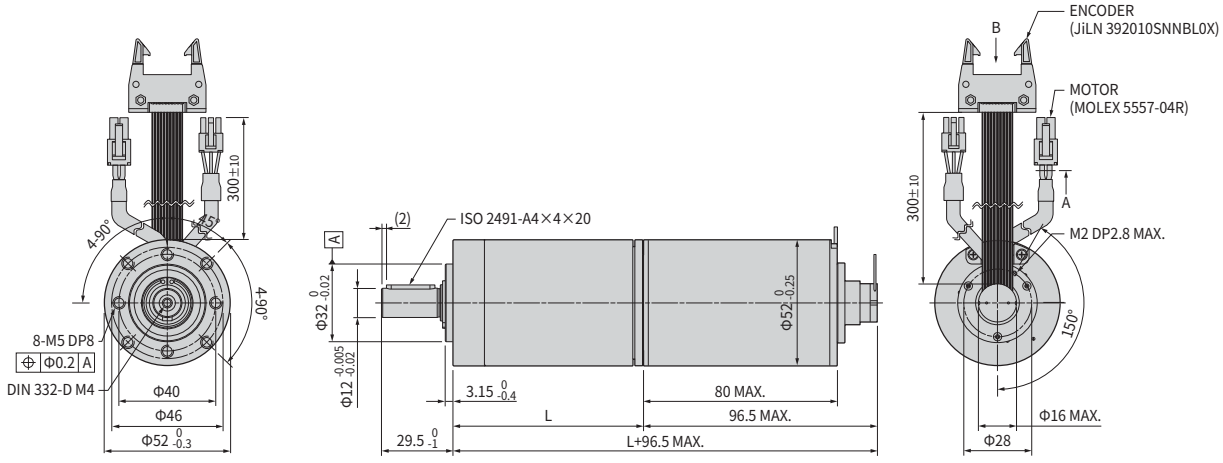
EzPM-H-MXIT4F13EE-P□

Unit Part Number	Applied Motor Part Number	□Gear Ratio	Applicable Bolt Specifications	L[mm]
Ezi-POS-CT-A2E-H-MXIT4F13EE-P□	EzPM-H-MXIT4F13EE-P□	4	M4	41.6
		15		51.6
		43		70.1



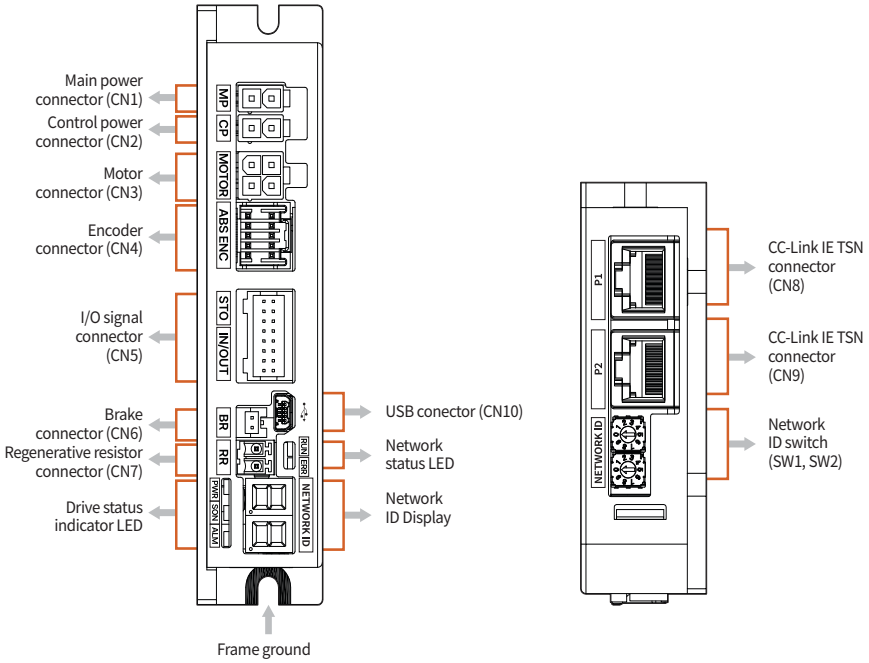
EzPM-H-MXIT5F18EE-P□

Unit Part Number	Applied Motor Part Number	□Gear Ratio	Applicable Bolt Specifications	L[mm]
Ezi-POS-CT-A2E-H-MXIT5F18EE-P□	EzPM-H-MXIT5F18EE-P□	4	M5	49.1
		19		65.1
		43		78.6

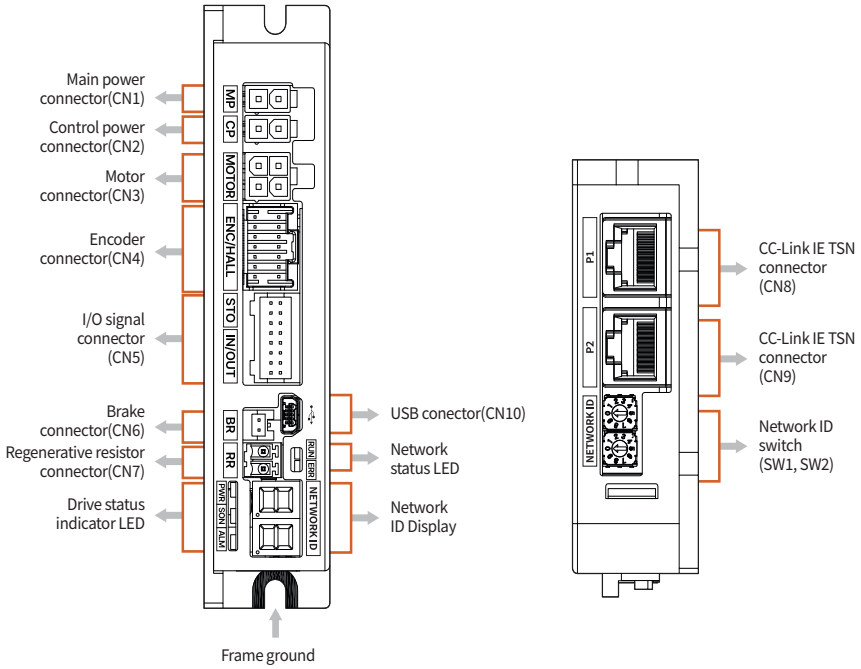


Settings and Operation

EzPD-CT-A2A-H-MXIN3D3AB
EzPD-CT-A2A-H-MXIT4F7AB
EzPD-CT-A2A-H-MXIT4F13AB
EzPD-CT-A2A-H-MXIT5F18AB

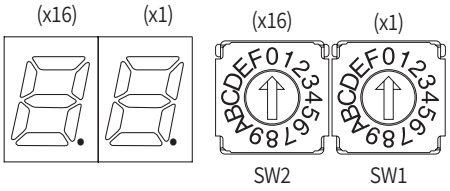


EzPD-CT-A2E-H-MXIN3D3EE
EzPD-CT-A2E-H-MXIT4F7EE
EzPD-CT-A2E-H-MXIT4F13EE
EzPD-CT-A2E-H-MXIT5F18EE



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

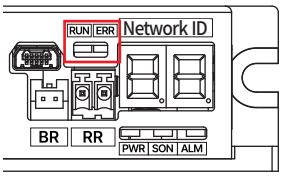
These switches are used to configure the fourth octet of the IP address. The value is displayed on the 7-segment LED in hexadecimal format. SW1 sets the X16 digit, and SW2 sets the X1 digit.
(For more details, please refer to the relevant user manual.)



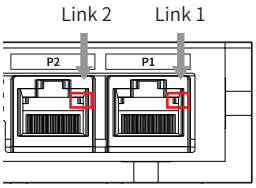
2. Network Status LED

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



Indicator	Color	Status	Description
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



Indicator	Color	Status	Description
Link1/ Link2	Green	OFF	Link inactive
		ON	Link active

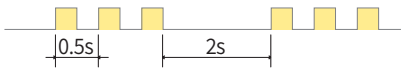
3. Drive Status LED

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 *1
2	E-002	Overspeed Error	Motor drive speed exceeds the allowable limit *1
3	E-003	Position Tracking Error	Position error (difference between command and actual position) exceeds the set value during operation *2
4	E-004	Overload Error	Load exceeding the motor's continuous maximum torque applied for a certain period *1
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 *1
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 (or when using a Hall sensor, if there is an issue with the Hall sensor connection)
9	E-009	Main Power Undervoltage Error	Main power voltage is below the minimum allowable value *1
10	E-010	In-position Error	Position error exceeding the set value continues for more than 3 seconds after operation completion *2
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 *1
15	E-015	Excessive Position Error	Excessive position error occurs after the motor has completed its operation *2
16	E-016	Emergency Stop Circuit Error	TQOFF1 and TQOFF2 input states do not match

*1: Each threshold or setting is fixed and varies depending on the motor.
*2: 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



Alarm LED Blink
(e.g., Position Tracking Error)

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)

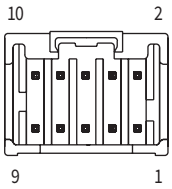
No.	Function	I/O
1	F.GND	----
2	U Phase	Outputs
3	W Phase	Outputs
4	V Phase	Outputs

6. Encoder Connector (CN4)

EzPD-CT-A2A-H-□

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

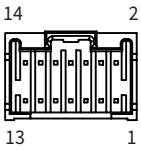
※ □ indicates the motor ID in the unit model name.



EzPD-CT-A2E-H-□

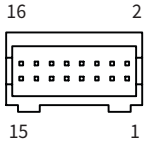
No.	Function	I/O
1	HALL_U	Inputs
2	HALL_V	Inputs
3	HALL_W	Inputs
4	GND	Outputs
5	A+	Inputs
6	A-	Inputs
7	B+	Inputs
8	B-	Inputs
9	Z+	Inputs
10	Z-	Inputs
11	5 V DC	Outputs
12	GND	Outputs
13	F.GND	----
14	F.GND	----

※ □ indicates the motor ID in the unit model name.



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)

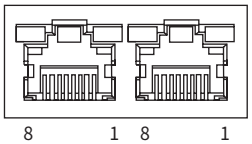
No.	Function	I/O
1	BRAKE+	Outputs
2	BRAKE-	Outputs

9. Regenerative Resistor Connector (CN7)

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

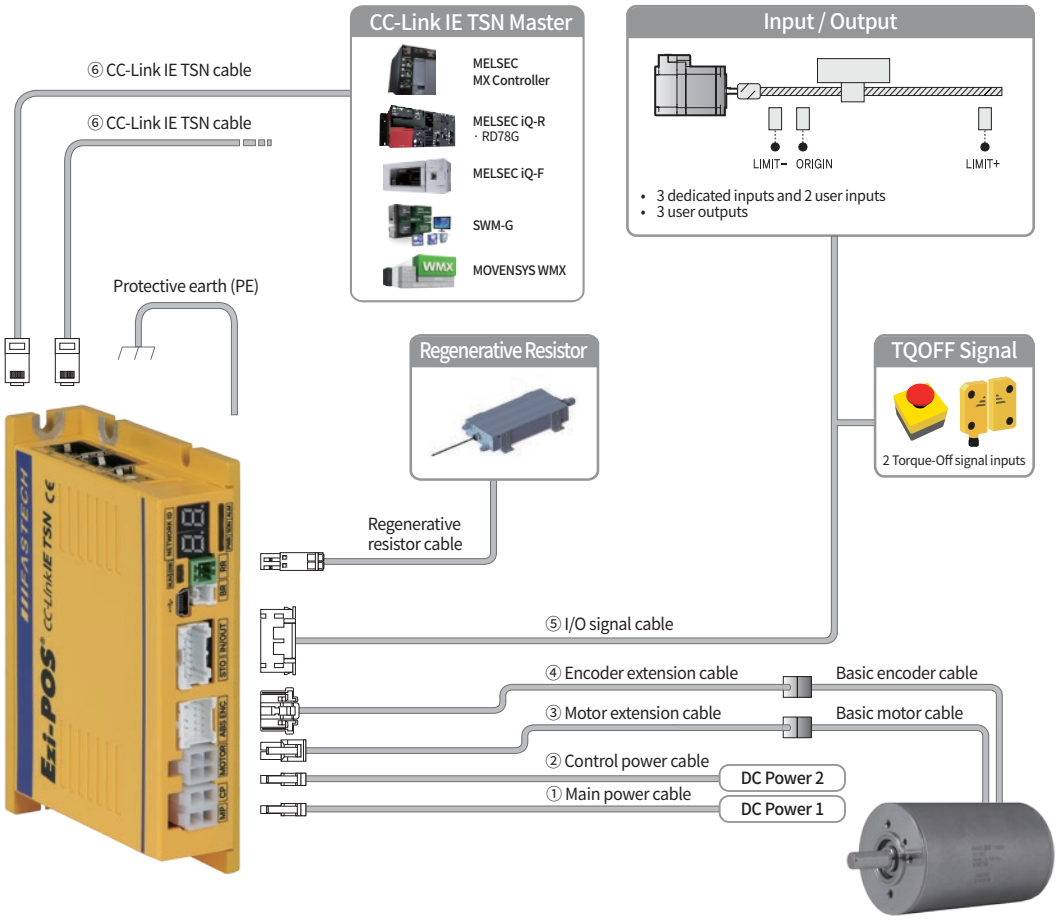
10. CC-Link IE TSN Connector (CN8, CN9)

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

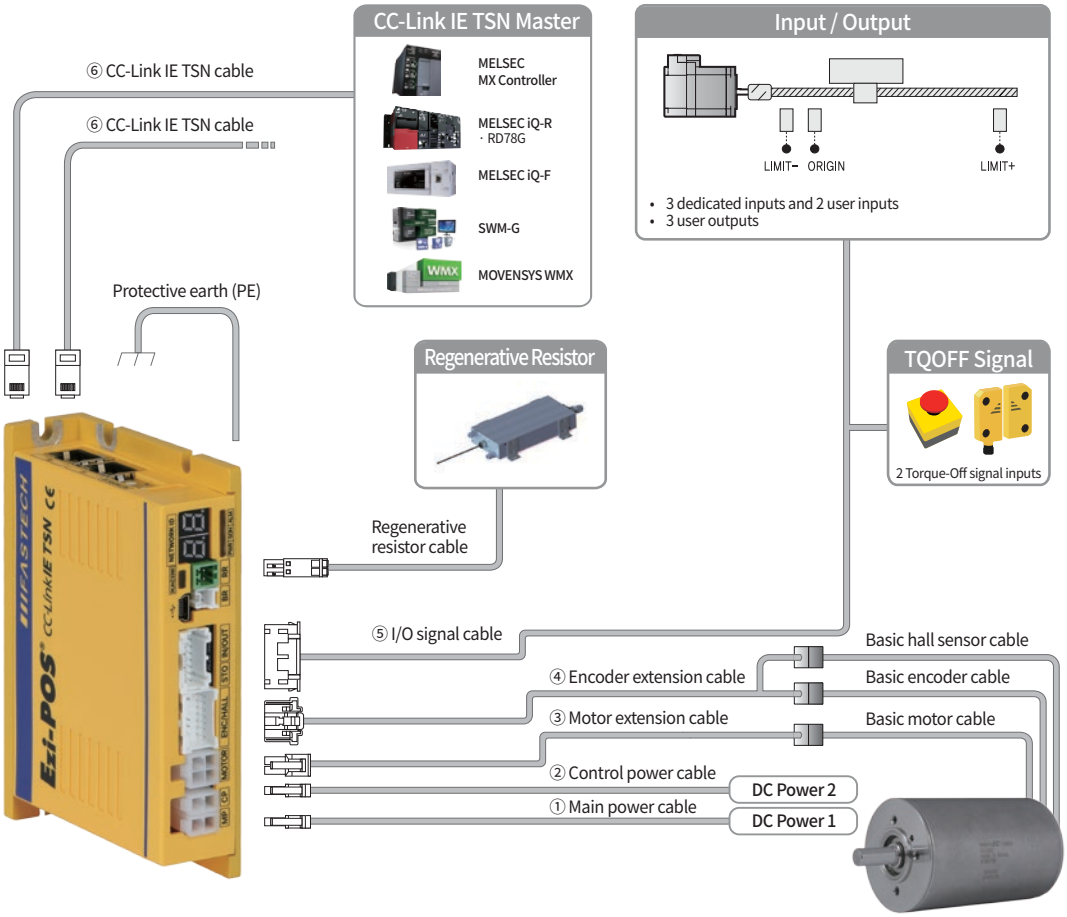
EzPD-CT-A2A-H-□



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 CC-Link IE TSN Cable	100 m	
Regenerative Resistor Cable	2 m	Not for Sale
Basic Encoder Cable	0.3 m (Basic length)	Basic cables are attached to motors.
Basic Motor Cable	0.3 m (Basic length)	
Basic Hall Sensor Cable	0.3 m (Basic length)	Basic cables are attached to motors. EzPD-CT-A2A-H-□ drive does not support Hall sensor input.

System Configuration

EzPD-CT-A2E-H-□



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 CC-Link IE TSN Cable	100 m	
Regenerative Resistor Cable	2 m	Not for Sale
Basic Encoder Cable	0.3 m (Basic length)	Basic cables are attached to motors.
Basic Motor Cable	0.3 m (Basic length)	
Basic Hall Sensor Cable	0.3 m (Basic length)	

1. Accessories

Ezi-POS-CT-A2A-H-MXIN3D3AB
Ezi-POS-CT-A2A-H-MXIT4F7AB
Ezi-POS-CT-A2A-H-MXIT4F13AB
Ezi-POS-CT-A2A-H-MXIT5F18AB

① Drive Connector

Purpose	Item	Model Name		Manufacturer
		EzPD-CT-A2A-H-MXIN3D3AB EzPD-CT-A2A-H-MXIT4F7AB	EzPD-CT-A2A-H-MXIT4F13AB EzPD-CT-A2A-H-MXIT5F18AB	
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 above connectors are provided with the product. When using other components, please ensure they meet the required specifications.

② Motor Connector

Purpose	Item	Model Name		Manufacturer
		EzPM-H-MXIN3D3AB EzPM-H-MXIT4F7AB	EzPM-H-MXIT4F13AB EzPM-H-MXIT5F18AB	
Motor	Housing	5559-04P		MOLEX
	Terminal	5558T	5558T3	
Encoder	Housing	SMP-09V-NC		JST
	Terminal	SHF-001T-0.8BS		

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

Ezi-POS-CT-A2E-H-MXIN3D3EE
Ezi-POS-CT-A2E-H-MXIT4F7EE
Ezi-POS-CT-A2E-H-MXIT4F13EE
Ezi-POS-CT-A2E-H-MXIT5F18EE

① Drive Connector

Purpose	Item	Model Name		Manufacturer
		EzPD-CT-A2E-H-MXIN3D3EE EzPD-CT-A2E-H-MXIT4F7EE	EzPD-CT-A2E-H-MXIT4F13EE EzPD-CT-A2E-H-MXIT5F18EE	
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	51353-1400		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 above connectors are provided with the product. When using other components, please ensure they meet the required specifications.

② Motor Connector

Purpose		Item	Model Name		Manufacturer
			EzPM-H-MXIN3D3EE EzPM-H-MXIT4F7EE	EzPM-H-MXIT4F13EE EzPM-H-MXIT5F18EE	
Motor		Housing	5559-04P		MOLEX
		Terminal	5558T	5558T3	
Encoder	Hall Sensor	Housing	43020-0600		MOLEX
		Terminal	43031-0004		
	Encoder	Housing	HIF3C-10D-2.54C		HIROSE
		Terminal	HIF3-2226SCFA		

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

2. Options (Sold separately)

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-H-MXIN3D3AB EzPD-CT-A2A-H-MXIT4F7AB EzPD-CT-A2E-H-MXIN3D3EE EzPD-CT-A2E-H-MXIT4F7EE	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-H-MXIT4F13AB EzPD-CT-A2A-H-MXIT5F18AB EzPD-CT-A2E-H-MXIT4F13EE EzPD-CT-A2E-H-MXIT5F18EE	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	Model Name	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 Basic Cable Connection	EzPD-CT-A2A-H-MXIN3D3AB EzPD-CT-A2A-H-MXIT4F7AB EzPD-CT-A2E-H-MXIN3D3EE EzPD-CT-A2E-H-MXIT4F7EE	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-H-MXIT4F13AB EzPD-CT-A2A-H-MXIT5F18AB EzPD-CT-A2E-H-MXIT4F13EE EzPD-CT-A2E-H-MXIT5F18EE	CPA2M-M2-001F	1	Fixed Type	
		CPA2M-M2-002F	2		
		CPA2M-M2-003F	3		
		CPA2M-M2-005F	5		
		CPA2M-M2-001M	1	Flexible Type	
		CPA2M-M2-002M	2		
		CPA2M-M2-003M	3		
		CPA2M-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	Drive	Model Name	Length [m]	Cable Type	Remarks
Drive-to-Encoder Basic Cable Connection	EzPD-CT-A2A-H-MXIN3D3AB EzPD-CT-A2A-H-MXIT4F7AB EzPD-CT-A2A-H-MXIT4F13AB EzPD-CT-A2A-H-MXIT5F18AB	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		
	EzPD-CT-A2E-H-MXIN3D3EE EzPD-CT-A2E-H-MXIT4F7EE EzPD-CT-A2E-H-MXIT4F13EE EzPD-CT-A2E-H-MXIT5F18EE	CPA2M-E-001F	1	Fixed Type	
		CPA2M-E-002F	2		
		CPA2M-E-003F	3		
		CPA2M-E-005F	5		
		CPA2M-E-001M	1	Flexible Type	
		CPA2M-E-002M	2		
		CPA2M-E-003M	3		
		CPA2M-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		

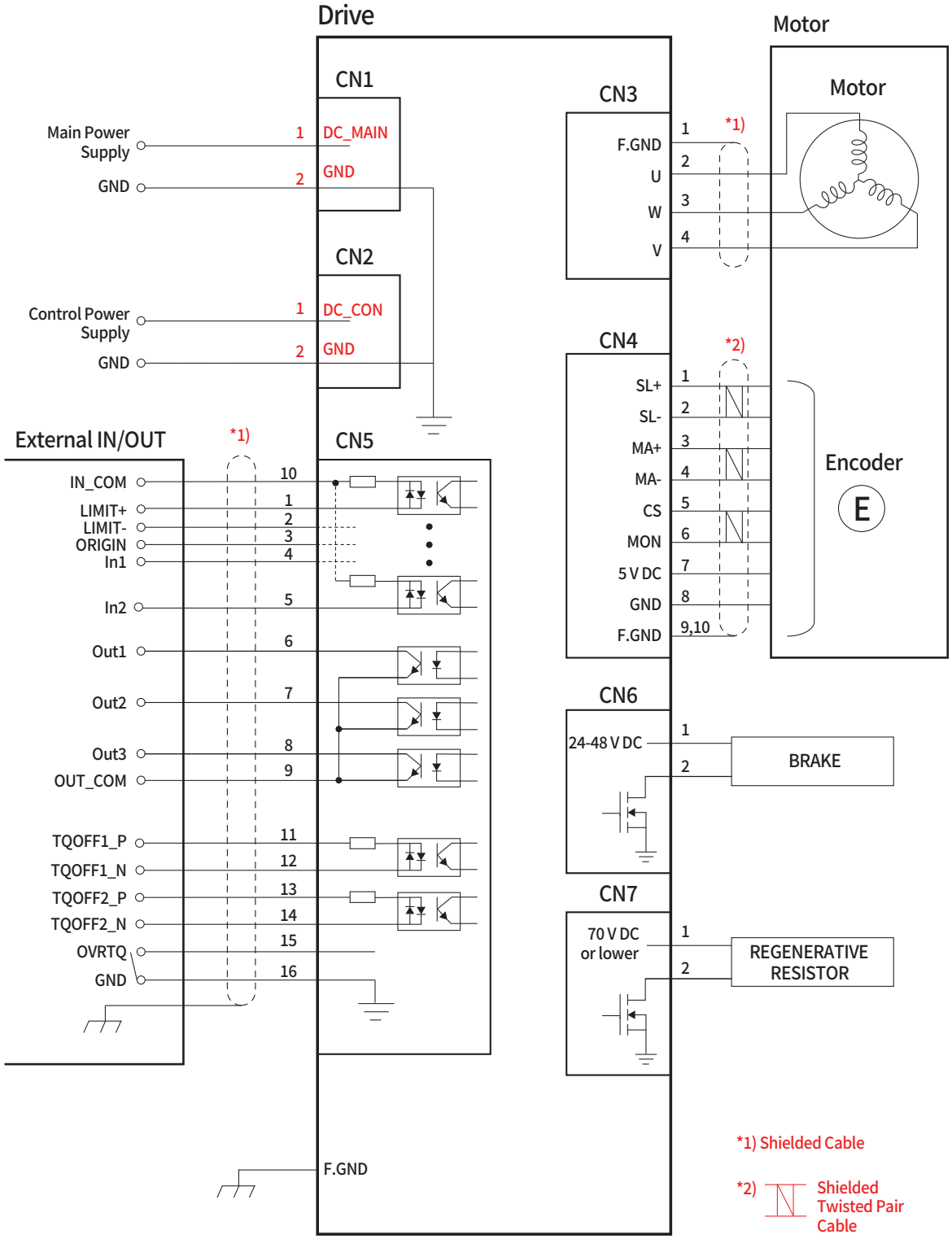
* For cable lengths other than those listed in the table (in 1-meter increments), please contact FASTECH separately.

⑥ CC-Link IE TSN Cable

Purpose	Model Name	Length [m]	Remarks
Drive-to-Brake 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

EzPD-CT-A2A-H-□



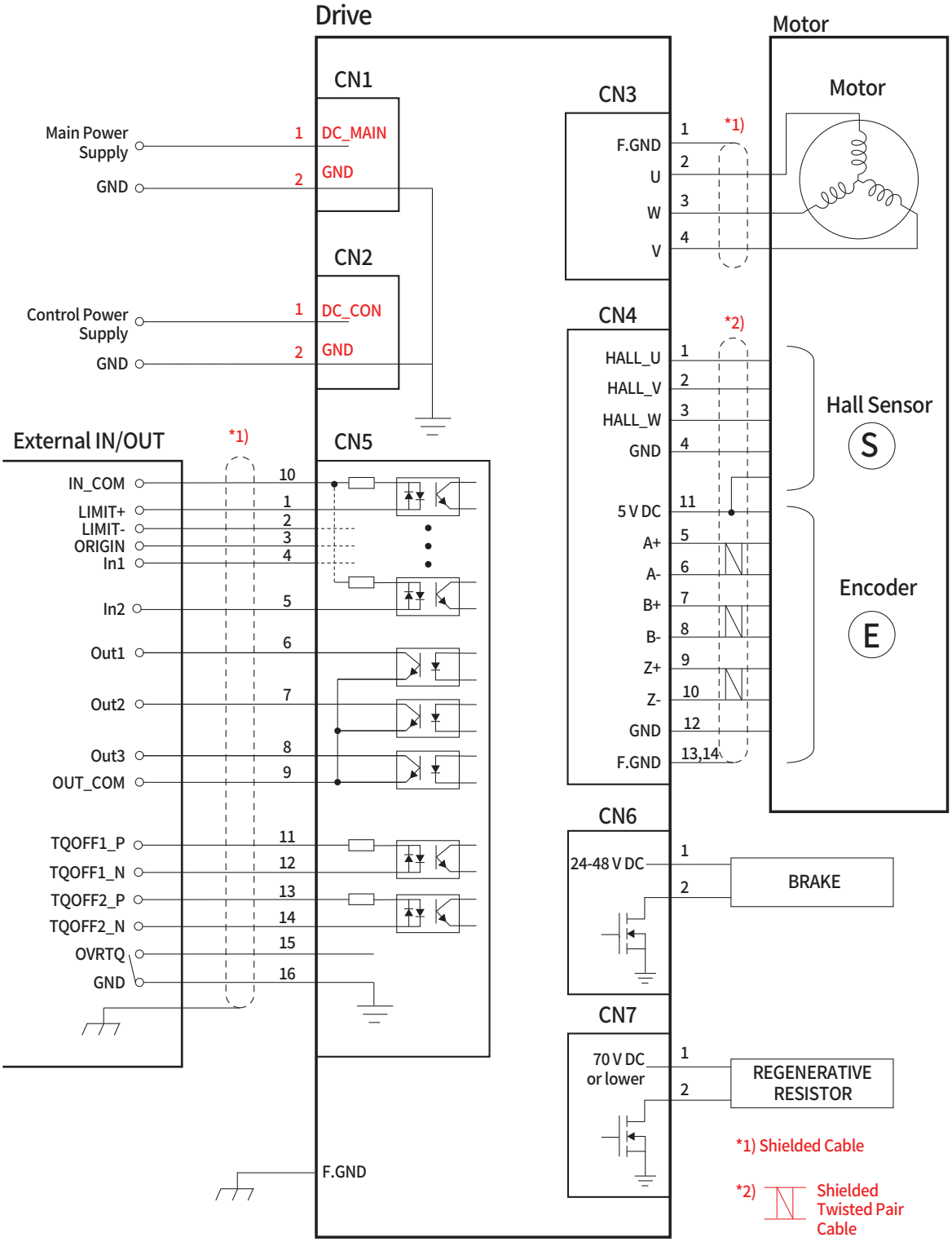
CAUTION

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.

※ 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.

External Wiring Diagram

EzPD-CT-A2E-H-□



※ 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.

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MEMO

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Fast Accurate Smooth Motion

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※ Please note that the color and size of the products in this catalog may different depending on the measurement method and the specifications can be changed without prior notice for quality improvement.

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