

Ezi-SERVO[®] II

Closed Loop Stepping System

- CiA 402 Drive Profile Support
- Closed Loop Stepping System
- No Gain Tuning / No Hunting
- Torque Improvement by Boost Current Control

EtherCAT[®]
Conformance tested



CE **RoHS**
COMPLIANT

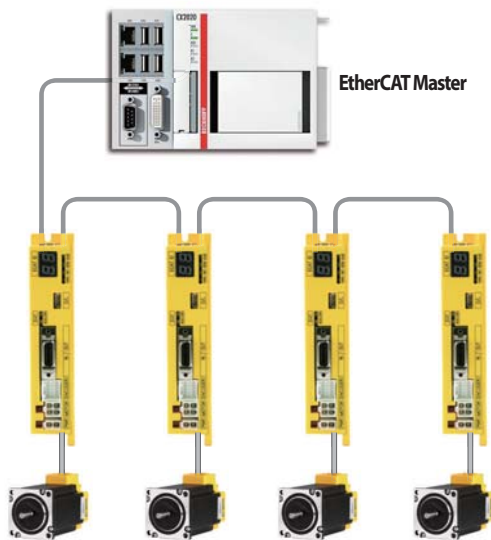
FASTECH

Fast, Accurate, Smooth Motion

Features

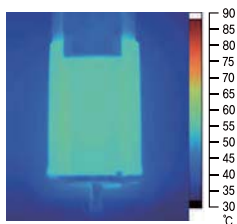
1. EtherCAT Based Motion Control

Ezi-SERVO II EtherCAT is stepping motor control system using EtherCAT, high speed ethernet(100Mbps full-duplex) based fieldbus. Ezi-SERVO II EtherCAT is EtherCAT slave module which support CAN application layer over EtherCAT(CoE). CiA 402 Drive profile implemented. Supported modes are Profile Position, Profile Velocity, Homing.

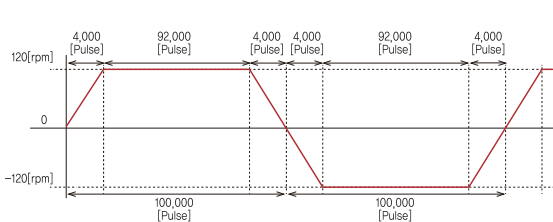


2. Current Control According to Load

Ezi-SERVO II EtherCAT automatically control the motor current according to loads. Thus, febricity of motor and drive are minimized so can save the energy as well.



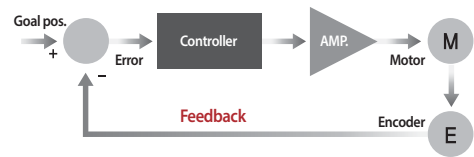
Motor temperature [measured by thermograph]



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

3. Closed Loop System

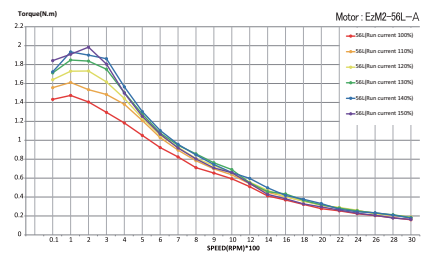
Ezi-SERVO II EtherCAT is an innovative closed loop stepping motor and controller that utilizes a high-resolution motor mounted encoder to constantly monitor the motor shaft position. The encoder feedback feature allows the Ezi-SERVO II EtherCAT to update the current motor shaft position information every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



4. Boost Current / Run Current

Accel / Decel characteristics can be improved by set the Boost Current Parameters. Torque can be improved when driving by set the Run Current Parameters.

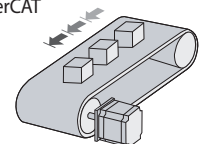
[Example of the Torque Graph According to Run Current Setting]



Measured Condition Drive = Ezi-SERVO II EtherCAT
Motor Voltage = 40VDC
Input Voltage = 24VDC

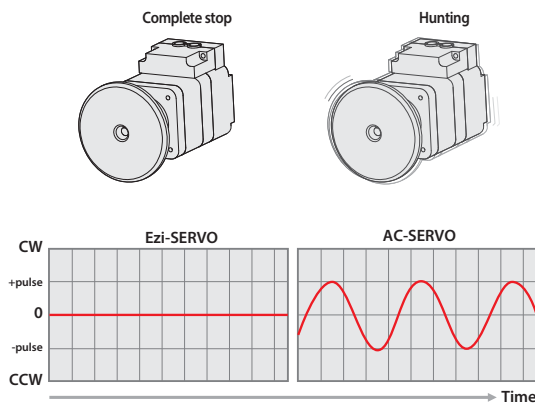
5. No Gain Tuning

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



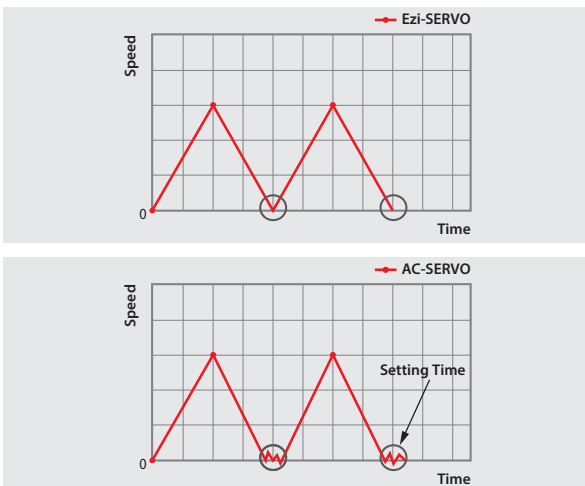
6. No Hunting

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



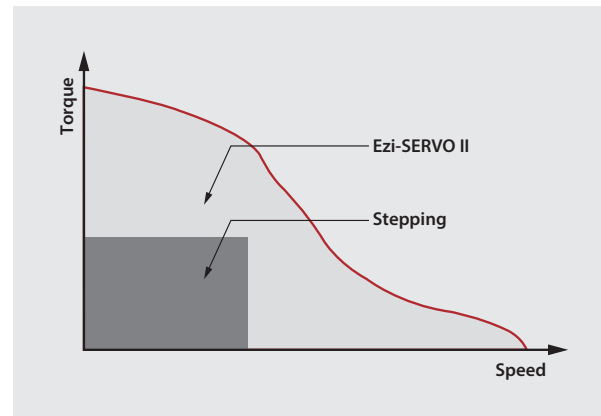
7. Fast Response

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



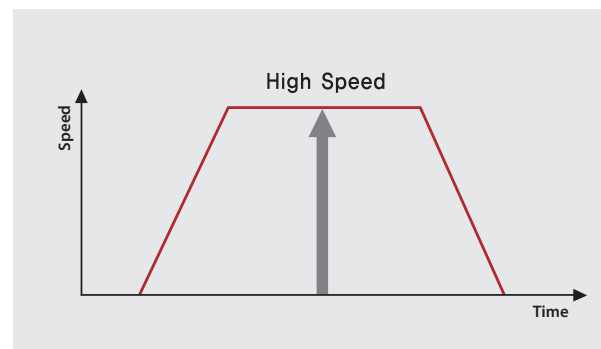
8. High Torque

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



9. High Speed

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



Part Numbering Method

Ezi-SERVO II-EC-56L-A-BK-PN05-□



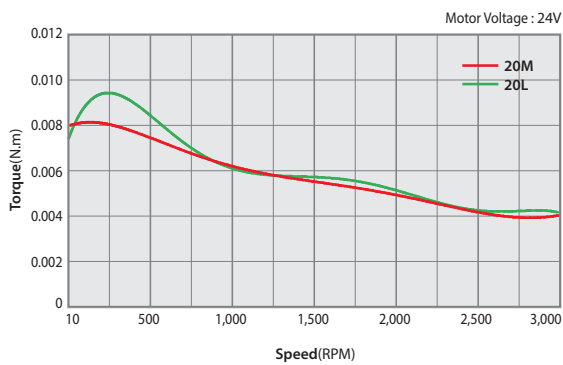
Motor, Drive Combination

UNIT No.	MOTOR No.	DRIVE No.
Ezi-SERVO II-EC-20M-F	EzM2-20M-F	EzS2-EC-20M-F
Ezi-SERVO II-EC-20L-F	EzM2-20L-F	EzS2-EC-20L-F
Ezi-SERVO II-EC-28S-D	EzM2-28S-D	EzS2-EC-28S-D
Ezi-SERVO II-EC-28M-D	EzM2-28M-D	EzS2-EC-28M-D
Ezi-SERVO II-EC-28L-D	EzM2-28L-D	EzS2-EC-28L-D
Ezi-SERVO II-EC-35M-D	EzM2-35M-D	EzS2-EC-35M-D
Ezi-SERVO II-EC-35L-D	EzM2-35L-D	EzS2-EC-35L-D
Ezi-SERVO II-EC-42S-A	EzM2-42S-A	EzS2-EC-42S-A
Ezi-SERVO II-EC-42S-B	EzM2-42S-B	EzS2-EC-42S-B
Ezi-SERVO II-EC-42M-A	EzM2-42M-A	EzS2-EC-42M-A
Ezi-SERVO II-EC-42M-B	EzM2-42M-B	EzS2-EC-42M-B
Ezi-SERVO II-EC-42L-A	EzM2-42L-A	EzS2-EC-42L-A
Ezi-SERVO II-EC-42L-B	EzM2-42L-B	EzS2-EC-42L-B
Ezi-SERVO II-EC-42XL-A	EzM2-42XL-A	EzS2-EC-42XL-A
Ezi-SERVO II-EC-42XL-B	EzM2-42XL-B	EzS2-EC-42XL-B
Ezi-SERVO II-EC-56S-A	EzM2-56S-A	EzS2-EC-56S-A
Ezi-SERVO II-EC-56S-B	EzM2-56S-B	EzS2-EC-56S-B
Ezi-SERVO II-EC-56M-A	EzM2-56M-A	EzS2-EC-56M-A
Ezi-SERVO II-EC-56M-B	EzM2-56M-B	EzS2-EC-56M-B
Ezi-SERVO II-EC-56L-A	EzM2-56L-A	EzS2-EC-56L-A
Ezi-SERVO II-EC-56L-B	EzM2-56L-B	EzS2-EC-56L-B
Ezi-SERVO II-EC-60S-A	EzM2-60S-A	EzS2-EC-60S-A
Ezi-SERVO II-EC-60S-B	EzM2-60S-B	EzS2-EC-60S-B
Ezi-SERVO II-EC-60M-A	EzM2-60M-A	EzS2-EC-60M-A
Ezi-SERVO II-EC-60M-B	EzM2-60M-B	EzS2-EC-60M-B
Ezi-SERVO II-EC-60L-A	EzM2-60L-A	EzS2-EC-60L-A
Ezi-SERVO II-EC-60L-B	EzM2-60L-B	EzS2-EC-60L-B
Ezi-SERVO II-EC-86M-A	EzM2-86M-A	EzS2-EC-86M-A
Ezi-SERVO II-EC-86M-B	EzM2-86M-B	EzS2-EC-86M-B
Ezi-SERVO II-EC-86L-A	EzM2-86L-A	EzS2-EC-86L-A
Ezi-SERVO II-EC-86L-B	EzM2-86L-B	EzS2-EC-86L-B
Ezi-SERVO II-EC-86XL-A	EzM2-86XL-A	EzS2-EC-86XL-A
Ezi-SERVO II-EC-86XL-B	EzM2-86XL-B	EzS2-EC-86XL-B

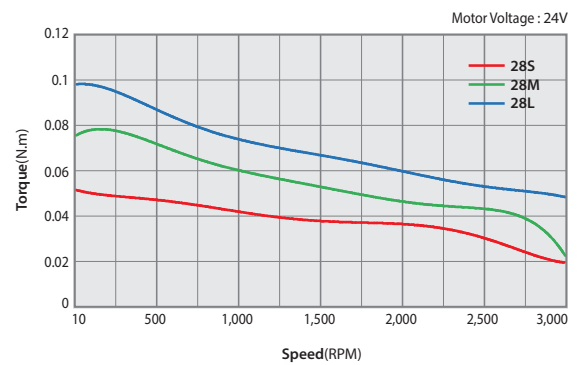
Motor Specification Table

Model	Unit	20		28			35	
		20M	20L	28S	28M	28L	35M	35L
DRIVE METHOD	-	BI-POLAR						
Number OF PHASES	-	2	2	2	2	2	2	2
VOLTAGE	VDC	2.75	3	3	3	3	2.88	4.59
CURRENT per PHASE	A	0.5	0.5	0.95	0.95	0.95	0.6	0.85
RESISTANCE per PHASE	Ohm	5.5	6	3.2	3.2	3.2	4.8	5.4
INDUCTANCE per PHASE	mH	2	2.6	2	2.7	3.2	6.1	6.5
HOLDING TORQUE	N·m	0.016	0.025	0.069	0.098	0.118	0.050	0.176
ROTOR INERTIA	g·cm ²	2.5	3.3	9	13	18	8	11
WEIGHTS	g	50	80	110	140	200	180	260
LENGTH(L)	mm	28	38	32	45	50	26	38
ALLOWABLE OVERHUNG LOAD (DISTANCE FROM END OF SHAFT)	3mm	18	18	30	30	30	22	22
	8mm	30	30	38	38	38	26	26
	13mm	-	-	53	53	53	33	33
	18mm	-	-	-	-	-	46	46
ALLOWABLE THRUST LOAD	N	Lower than motor weight						
INSULATION RESISTANCE	Mohm	100 MΩ MIN.(at 500VDC)						
INSULATION CLASS	-	CLASS B(130°C)						
OPERATING TEMPERATURE	°C	0 to 55						

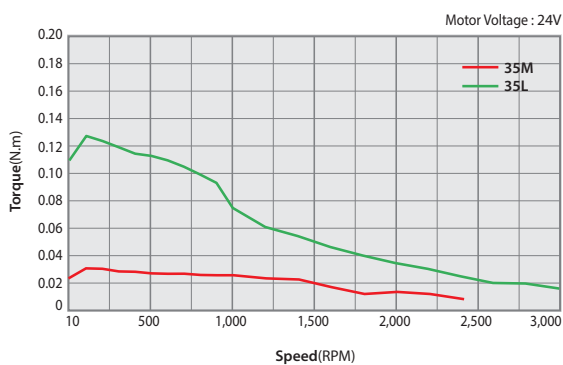
Ezi-SERVO II EtherCAT_ 20 Series



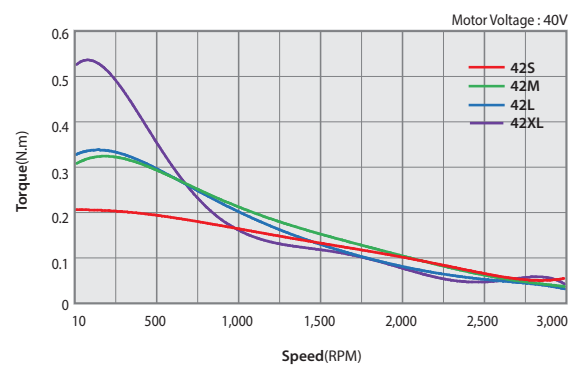
Ezi-SERVO II EtherCAT_ 28 Series



Ezi-SERVO II EtherCAT_ 35 Series

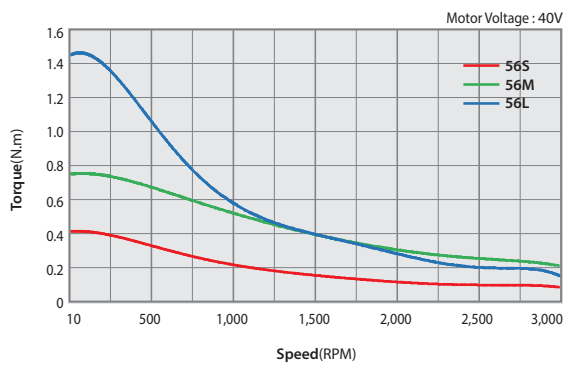


Ezi-SERVO II EtherCAT_ 42 Series

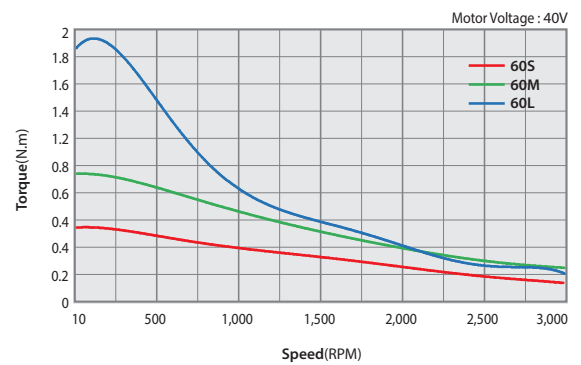


42				56			60			86		
42S	42M	42L	42XL	56S	56M	56L	60S	60M	60L	86M	86L	86XL
BI-POLAR												
2	2	2	2	2	2	2	2	2	2	2	2	2
3.36	4.32	4.56	7.2	1.56	1.62	2.64	1.32	1.48	2.2	2.34	3.6	4.8
1.2	1.2	1.2	1.2	3	3.0	3.0	4.0	4.0	4.0	6.0	6.0	6.0
2.8	3.6	3.8	6	0.52	0.54	0.88	0.33	0.37	0.55	0.39	0.6	0.8
5.4	7.2	8	15.6	1.2	2	4	0.75	1.1	2.7	3	6.5	8.68
0.32	0.44	0.5	0.65	0.64	1	1.5	0.88	1.28	2.4	4.5	8.5	12
35	54	77	114	180	280	520	240	490	690	1800	3600	5400
250	280	350	500	500	720	1150	600	1000	1300	2.3	3.8	5.3
34	40	48	60	46	55	80	47	56	85	78	117	155
22	22	22	22	52	52	52	70	70	70	270	270	270
26	26	26	26	65	65	65	87	87	87	300	300	300
33	33	33	33	85	85	85	114	114	114	350	350	350
46	46	46	46	123	123	123	165	165	165	400	400	400
Lower than motor weight												
100 MΩ MIN.(at 500VDC)												
CLASS B(130°C)												
0 to 55												

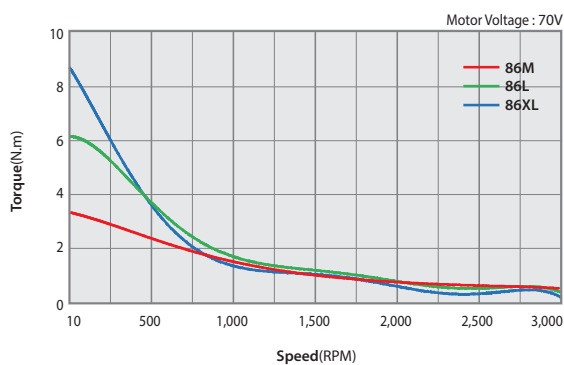
Ezi-SERVO II EtherCAT_ 56 Series



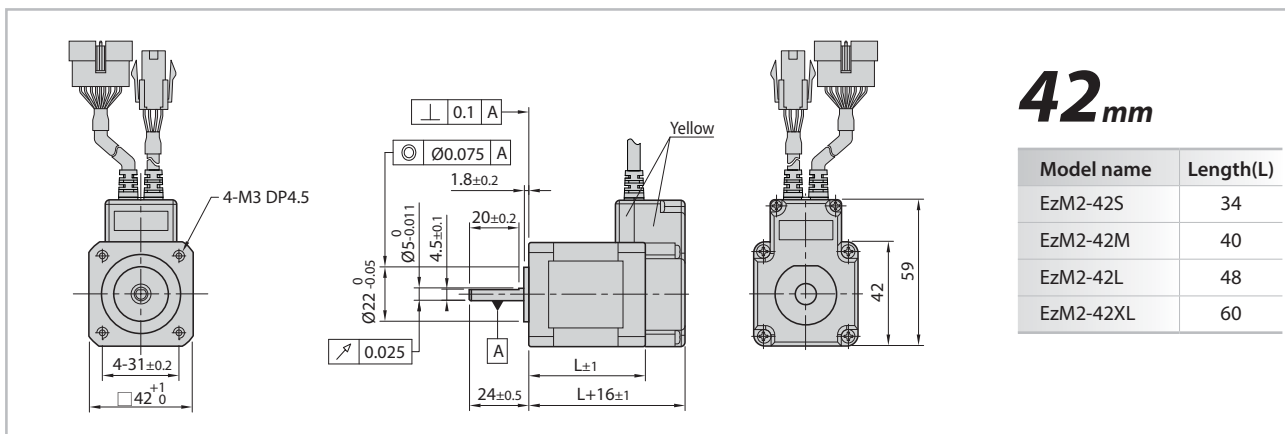
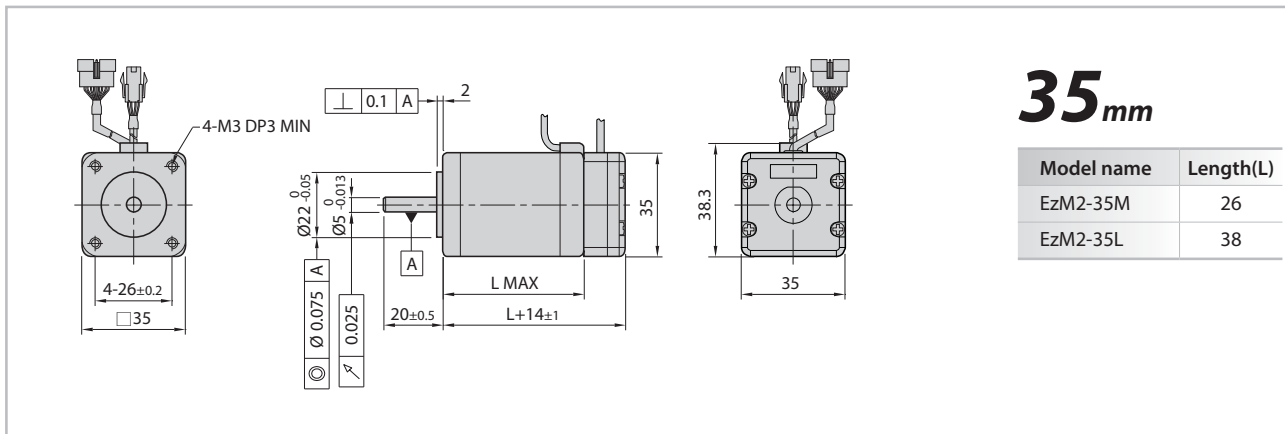
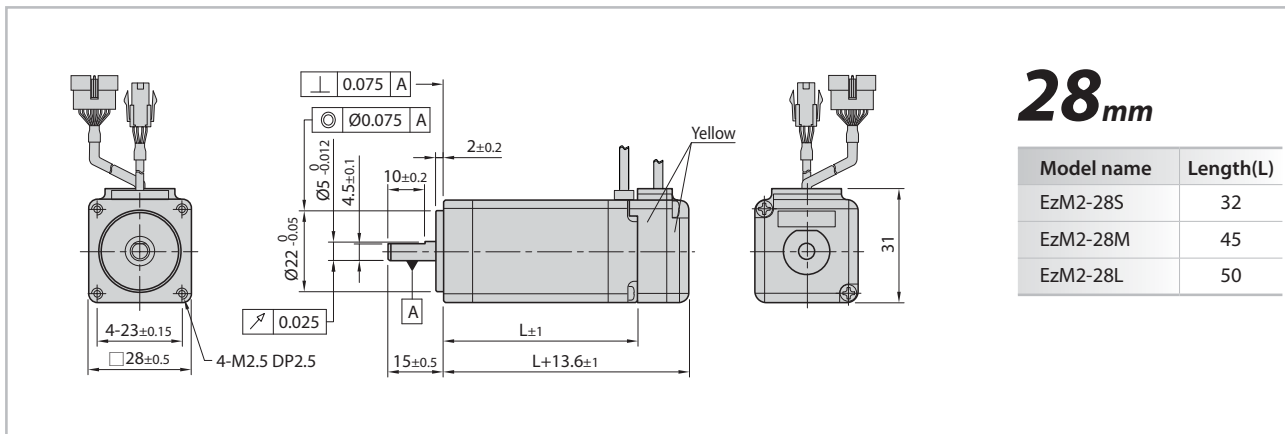
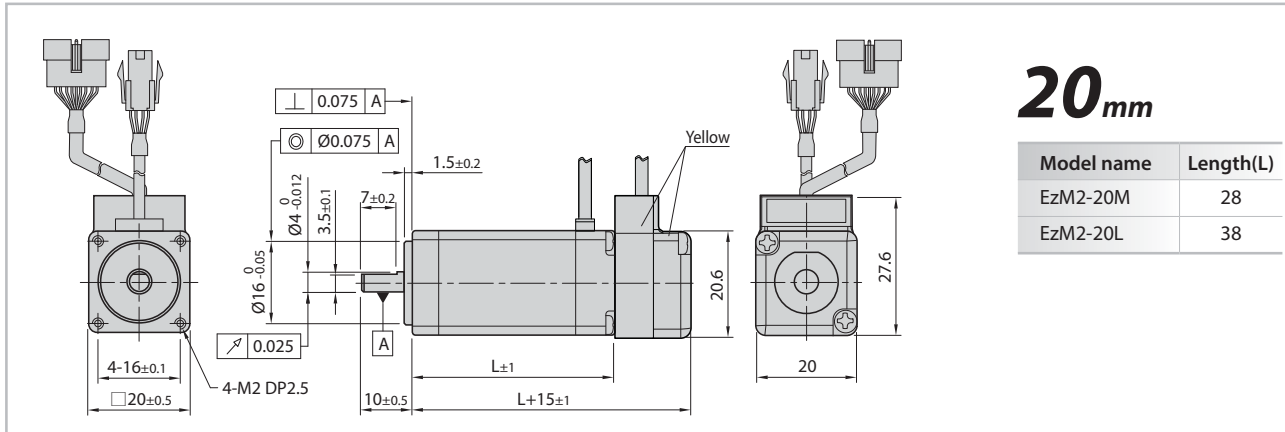
Ezi-SERVO II EtherCAT_ 60 Series

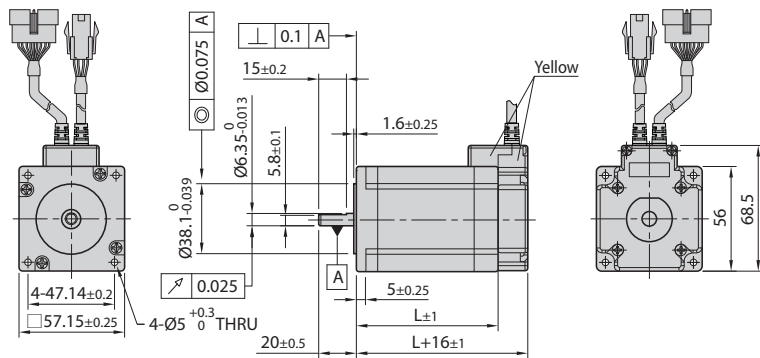


Ezi-SERVO II EtherCAT_ 86 Series



Motor Drawing

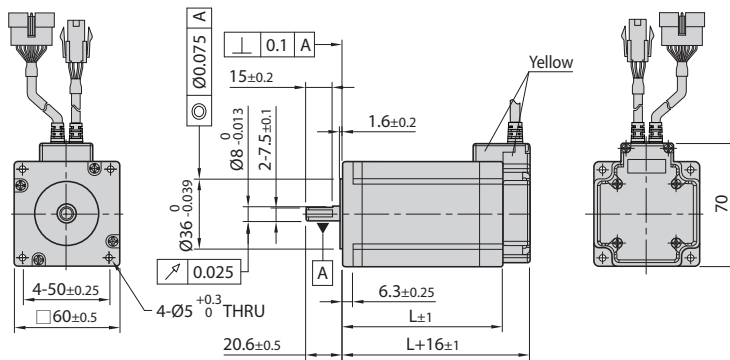




56mm

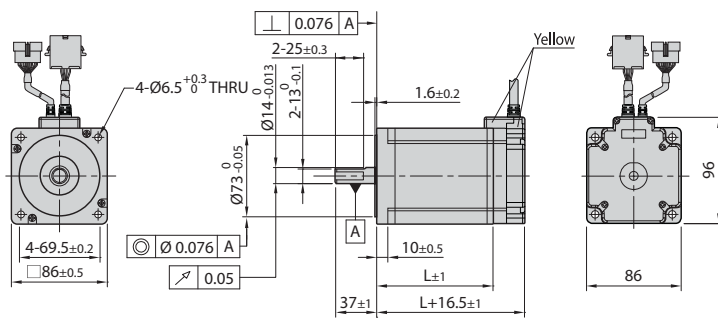
Model name	Length(L)
EzM2-56S	46
EzM2-56M	55
EzM2-56L	80

※ There are 2 kinds size of front shaft diameter for EzM2-56 series as $\Phi 6.35$ and $\Phi 8.0$.



60mm

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



86mm

Model name	Length(L)
EzM2-86M	78
EzM2-86L	117
EzM2-86XL	155

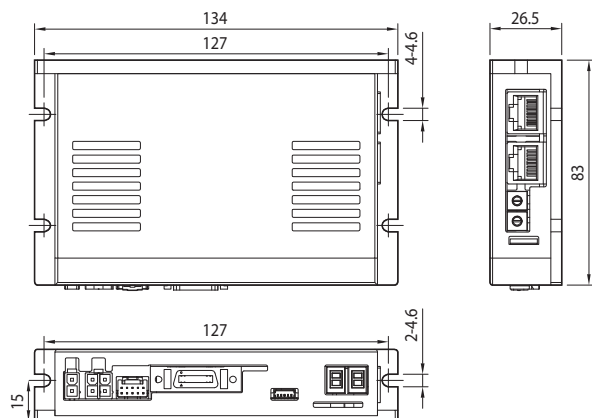
Drive Specification

Specifications

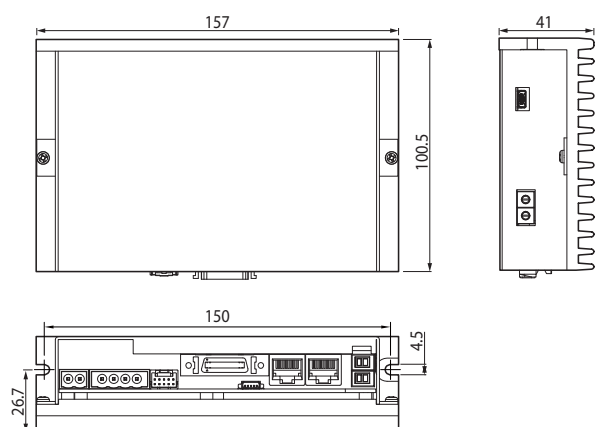
Motor Model	EzM2-20-F Series	EzM2-28-D Series	EzM2-35-D Series	EzM2-42-A Series	EzM2-56-A Series	EzM2-60-A Series
Drive Model	EzS2-EC-20 Series	EzS2-EC-28 Series	EzS2-EC-35 Series	EzS2-EC-42 Series	EzS2-EC-56 Series	EzS2-EC-60 Series
Input Voltage	24VDC ±10%					40 ~ 70VDC
Control Method	Closed Loop Control by ARM-based 32-bit MCU					
Current Consumption	Max. 500mA(Except Motor Current)					
Operating Condition	Ambient Temperature	· In Use : 0 ~ 50°C · In Storage : -20 ~ 70°C				
	Humidity	· In Use : 35 ~ 85% RH(Non-Condensing) · In Storage : 10 ~ 90% RH(Non-Condensing)				
	Vib. Resist.	0.5G				
Function	Rotation Speed	0 ~ 3,000[rpm]				
	Resolution[ppr]	· 4,000[ppr] Encoder model : 500 / 1,000 / 1,600 / 2,000 / 3,600 / 5,000 / 6,400 / 7,200 / 10,000 / 4,000 · 10,000[ppr] Encoder model : 500 / 1,000 / 1,600 / 2,000 / 3,600 / 5,000 / 6,400 / 7,200 / 10,000 · 16,000[ppr] Encoder model : 500 / 1,000 / 1,600 / 2,000 / 3,600 / 5,000 / 6,400 / 7,200 / 10,000 / 16,000 · 20,000[ppr] Encoder model : 500 / 1,000 / 1,600 / 2,000 / 3,600 / 5,000 / 6,400 / 7,200 / 10,000 / 20,000 (Selectable by Parameter)				
	Protection	Over Current Error, Over Speed Error, Position Tracking Error, Over Load Error, Over Temperature Error, Over Regenerated Voltage Error, Motor Connection Error, Encoder Connection Error, Motor Voltage Error, In-Position Error, ROM Error, Position Overflow Error				
	LED Display	Power status, In-Position status, Alarm status, Servo on status				
Ether CAT	Supported Mode	Cyclic Synchronous Position Profile. Position Profile. Homing Profile				
	Synchronization	Free Run, SM Event, DC SYNC Event				
	Supported Protocol	CoE(CiA 402 Drive Profile), FoE(Firmware Download)				
I/O Signal	Input Signal	3 dedicated inputs(LIMIT+, LIMIT-, ORIGIN), 7 user inputs				
	Output Signal	2 dedicated outputs(BRAKE+, BRAKE-), 6 user outputs(Photocoupler)				

Drive Dimension(mm)

1. Drive

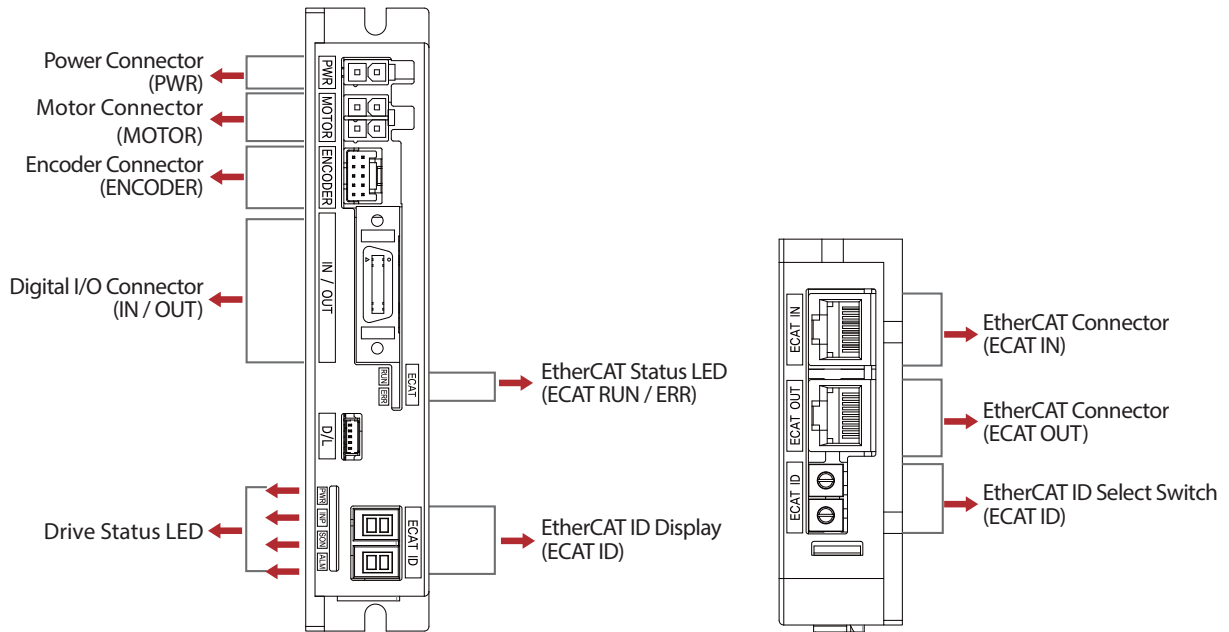


2. 86mm Motor Drive(EzS2-EC-86 Series)

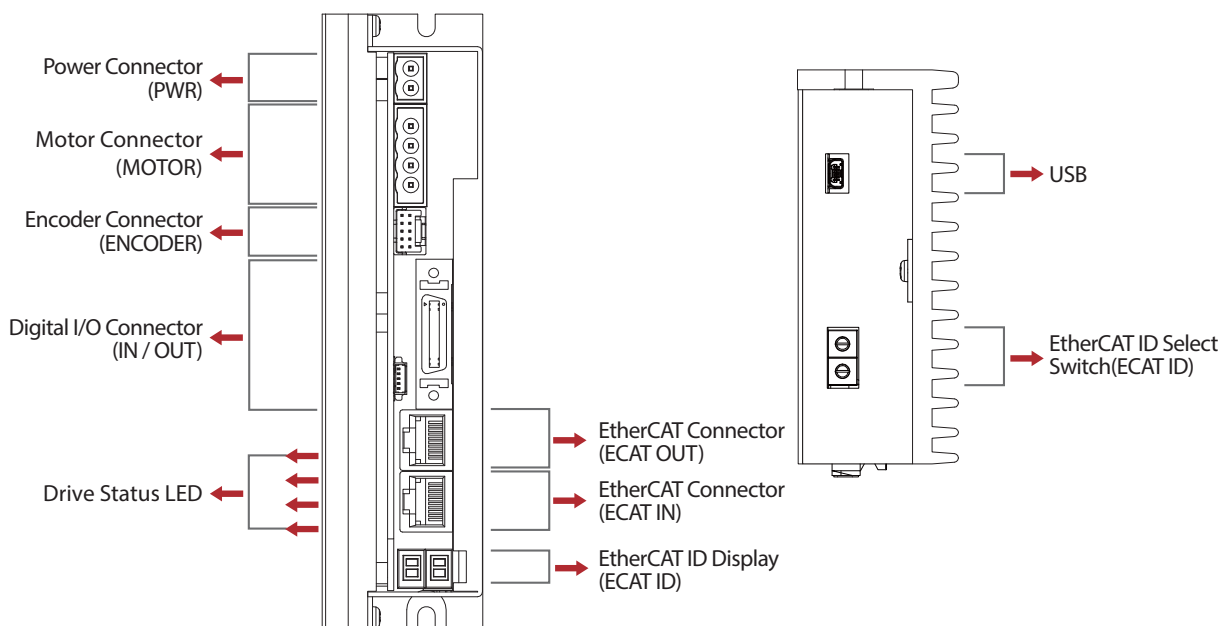


Setting and Operation

1. Drive



2. 86mm Motor Drive (EzS2-EC-86 Series)



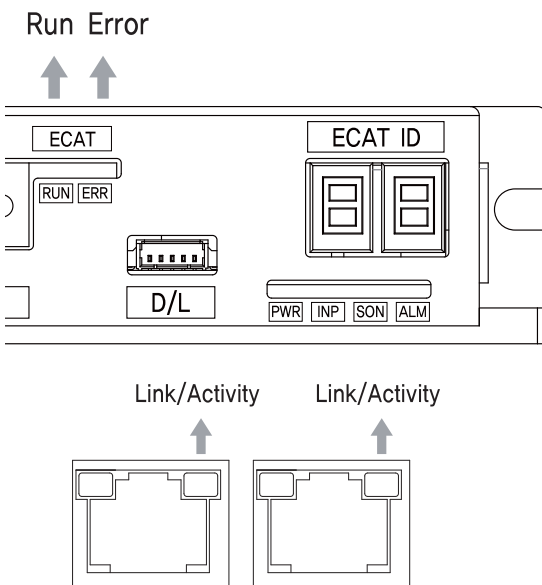
System Operation Manual

Status Monitor LED

1. EtherCAT Status Monitor LED

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

Name	Color	Status	Explanation
Run	Green	Off	State INT or Power Off
		Blinking	State PRE-OPERATIONAL
		Single Flash	State SAFE-OPERATIONAL
		On	State OPERATIONAL
		Flickering	State BOOTSTRAP
Error	Red	Off	No Error or Power Off
		Blinking	Invalid Configuration
		Single Flash	Local Error
		Double Flash	Watchdog Time Out
Link / Activity	Green	Off	Link not Established
		On	Link Established
		Flickering	Link Established and in Operation



2. Status Monitor LED

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

3. Protection functions and LED flash times

Error Code*2	Protection	Conditions
E-001	Over Current Error	The current through power devices in inverter exceeds the limit value
E-002	Over Speed Error	Motor speed exceed 3,000[rpm]
E-003	Position Tracking Error	Position error value is higher than 90° in motor run state
E-004	Over Load Error	The motor is continuously operated more than 5 second under a load exceeding the Max. torque
E-005	Over Temperature Error	Inside temperature of drive exceeds 85°C
E-006	Over Regenerated Voltage Error	Back-EMF more high limit value *1
E-007	Motor Connect Error	The power is ON without connection of the motor cable to drive
E-008	Encoder Connect Error	Cable connection error with Encoder Connector in drive
E-010	In-Position Error	After operation is finished, a position error occurs
E-011	System Error	Error occurs in drive system
E-012	ROM Error	Error occurs in parameter storage device(ROM)
E-015	Position Overflow Error	Position error value is higher than 90° in motor stop state

*1 : Voltage limit of Back-EMF depends on motor model

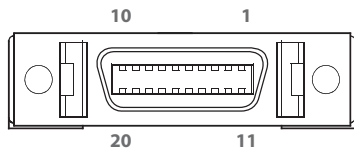
*2 : When an alarm occurs, error code is displayed instead of EtherCAT ID on the EtherCAT ID Display(ECAT ID)

※Please refer to the manual

Connector

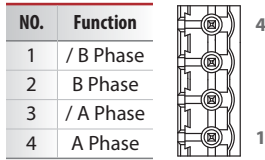
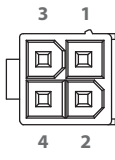
1. Input / Output Signal(IN/OUT)

NO.	Function	I/O	NO.	Function	I/O
1	LIMIT+	Input	11	Digital Output 1	Output
2	LIMIT-	Input	12	Digital Output 2	Output
3	ORIGIN	Input	13	Digital Output 3	Output
4	Digital Input 1	Input	14	Digital Output 4	Output
5	Digital Input 2	Input	15	Digital Output 5	Output
6	Digital Input 3	Input	16	Digital Output 6	Output
7	Digital Input 4	Input	17	BRAKE+	Output
8	Digital Input 5	Input	18	BRAKE-	Output
9	Digital Input 6	Input	19	24VDC GND	Input
10	Digital Input 7	Input	20	24VDC	Input



2. Motor Connection(Motor)

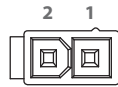
NO.	Function	NO.	Function
1	A Phase	1	/ B Phase
2	B Phase	2	B Phase
3	/ A Phase	3	/ A Phase
4	/ B Phase	4	A Phase



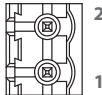
※ 86mm motor drive only

3. Power Connection(PWR)

NO.	Function
1	24VDC ±10%
2	GND



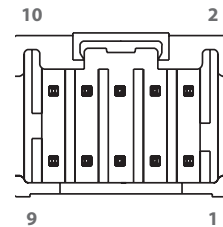
NO.	Function
1	GND
2	40 ~ 70VDC



※ 86mm motor drive only

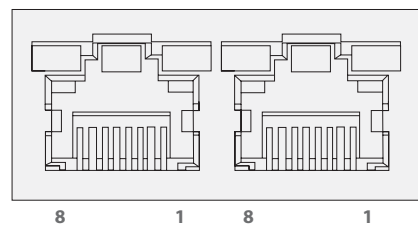
4. Encoder Connector(Encoder)

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



5. EtherCAT Communication Connector

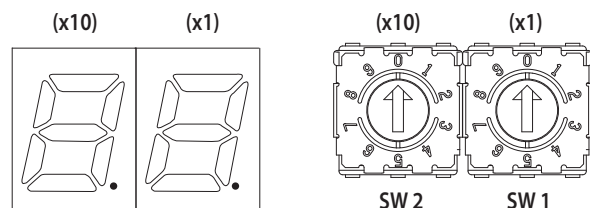
NO.	Function	NO.	Function
1	TD+	6	RD-
2	TD-	7	----
3	RD+	8	----
4	----	Connector Hood	FG
5	----		



Switch

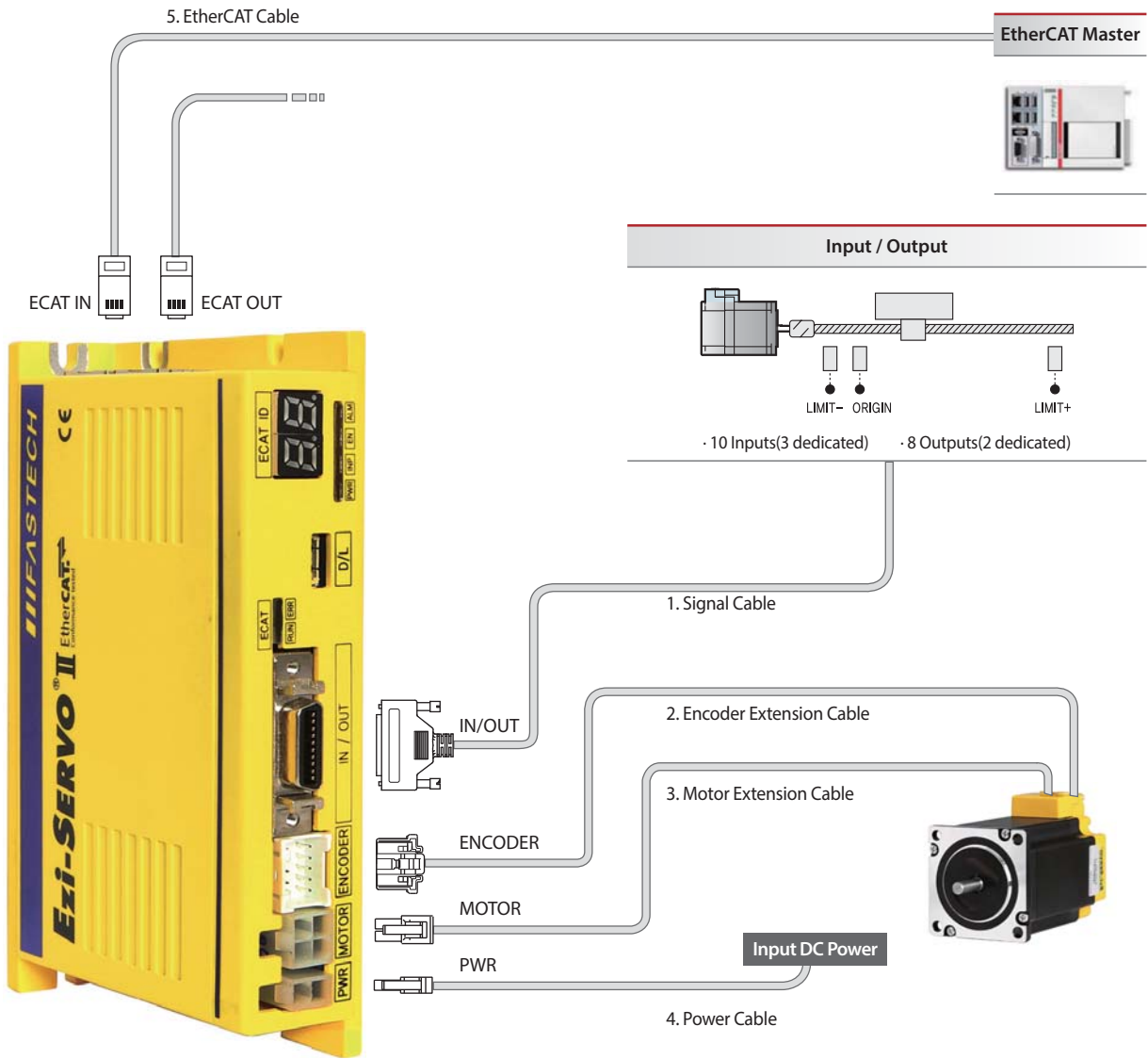
1. EtherCAT ID Display and Select Switch

There are two Rotary Switches to set value of EtherCAT ID (ECAT Device ID). Switch on the right side indicates the ones'place(x1), and Switch on the left side indicates the tens'place(x10).



System Configuration

Drive



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

Accessories

Purpose	ITEM	Standard	Manufacturer
CN 1 : Input / Output Signal(IN/OUT)	Connector	10120-3000PE	3M
	Shell	10320-52FO-008	
CN 2 : Encoder Connector(ENCODER)	Housing	51353-1000	MOLEX
	Terminal	56134-9000	
CN 3 : Motor Connection(MOTOR)	Housing	5557-04R	MOLEX
	Terminal	5556T	
CN 4 : Power Connection(PWR)	Housing	5557-02R	MOLEX
	Terminal	5556T	

Option Cable

1. Signal Cable

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

Model Name	Length[m]	Remark
CSVN-S-□□□F	□□□	Normal Cable
CSVN-S-□□□M	□□□	Robot Cable

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

2. Encoder Extension Cable

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

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

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

3. Motor Extension Cable

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

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

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

4. EtherCAT Cable

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

Model Name	Length[m]	Remark
CGNR-EC-0R6F	0.6	Normal Cable
CGNR-EC-001F	1	
CGNR-EC-1R5F	1.5	
CGNR-EC-002F	2	
CGNR-EC-003F	3	
CGNR-EC-005F	5	

5. Power Cable

Available to connect between Power and Ezi-SERVO II EtherCAT.

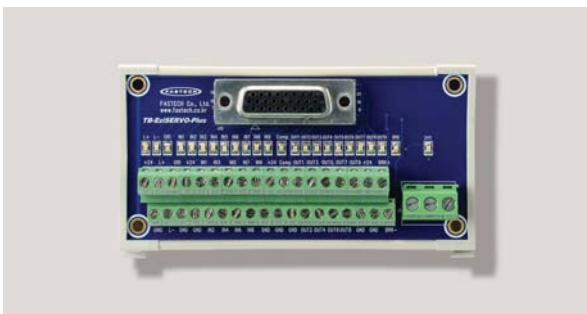
Model Name	Length[m]	Remark
CSVO-P-□□□F	□□□	Normal Cable
CSVO-P-□□□M	□□□	Robot Cable

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

Option

1. TB-Plus(Interface Board)

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



Interface Cable

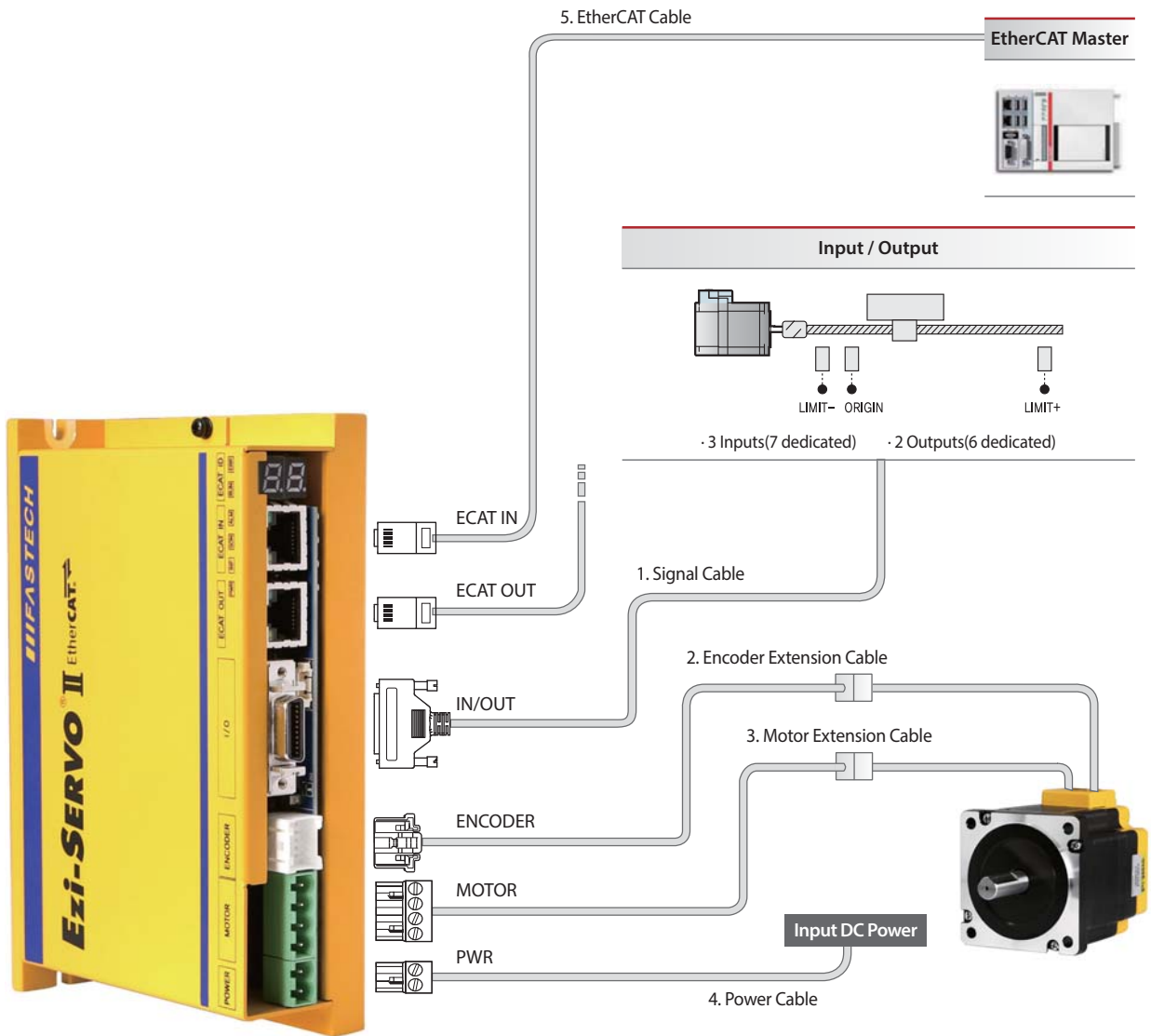
Available to Connect between TB-Plus Interface Board and Ezi-SERVO II EtherCAT.

Model Name	Length[m]	Remark
CIFN-S-□□□F	□□□	Normal Cable
CIFN-S-□□□M	□□□	Robot Cable

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

System Configuration

86mm Motor Drive



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

Accessories

Purpose	ITEM	Standard	Manufacturer
CN 3 : Motor Connection(MOTOR)	Terminal	AK-950-4	PTR
	Block		
CN 4 : Power Connection(PWR)	Terminal	AK-950-2	PTR
	Block		

※ 86mm motor drive only

Option Cable

1. Signal Cable

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

Model Name	Length[m]	Remark
CSVN-S-□□□F	□□□	Normal Cable
CSVN-S-□□□M	□□□	Robot Cable

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

2. Encoder Extension Cable

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

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

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

3. Motor Extension Cable

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

Model Name	Length[m]	Remark
CSVP-M-□□□F	□□□	Normal Cable
CSVP-M-□□□M	□□□	Robot Cable

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

4. EtherCAT Cable

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

Model Name	Length[m]	Remark
CGNR-EC-001F	1	Normal Cable
CGNR-EC-002F	2	
CGNR-EC-003F	3	
CGNR-EC-005F	5	

5. Power Cable

Available to connect between Power and Ezi-SERVO II EtherCAT.

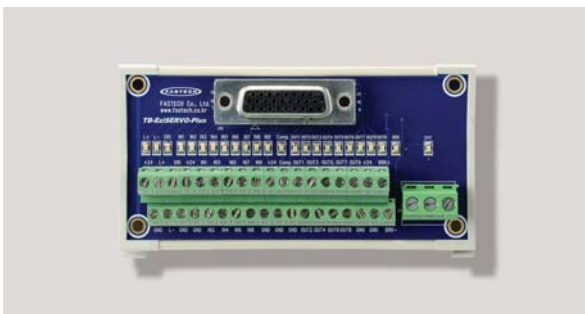
Model Name	Length[m]	Remark
CSVP-P-□□□F	□□□	Normal Cable
CSVP-P-□□□M	□□□	Robot Cable

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

Option

1. TB-Plus(Interface Board)

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



Interface Cable

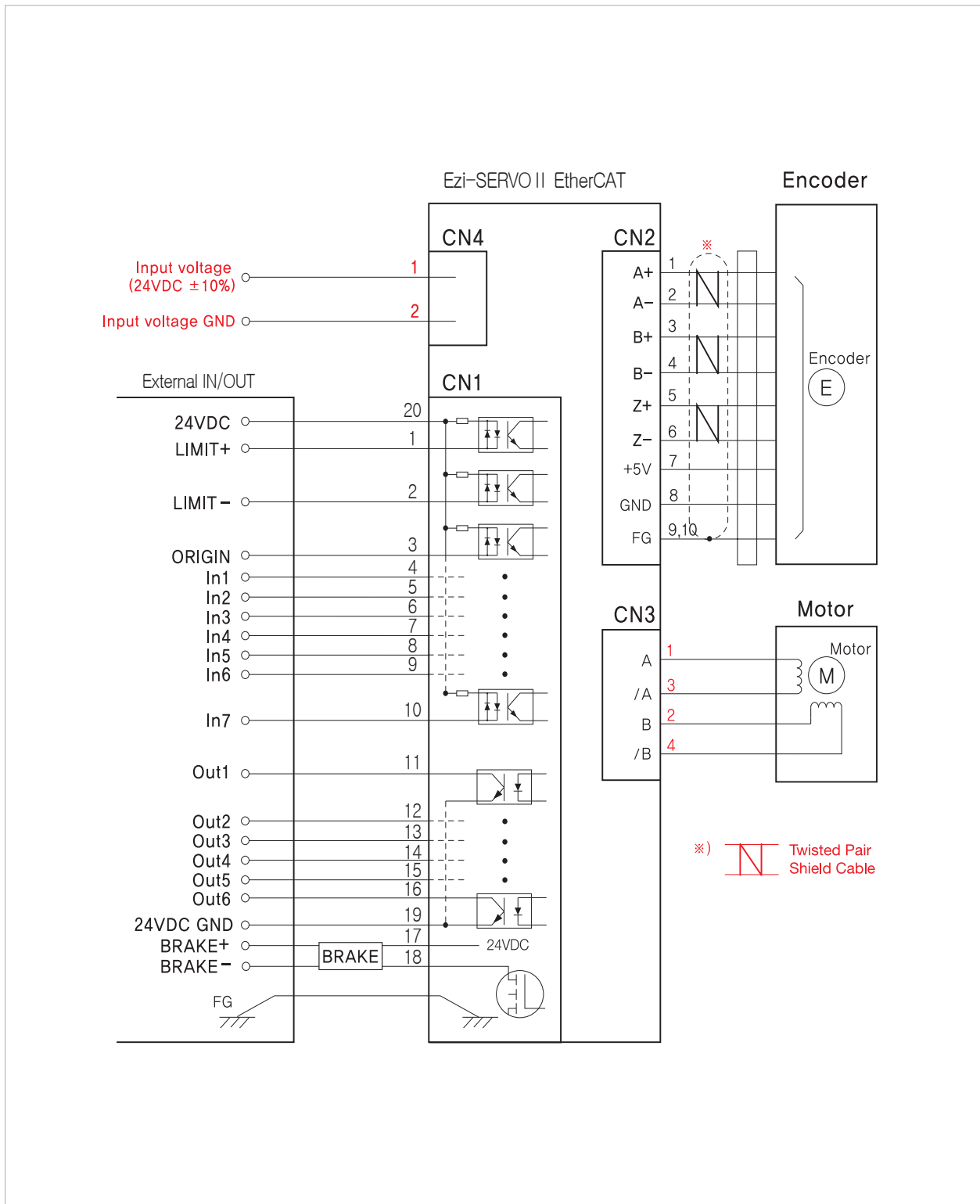
Available to Connect between TB-Plus Interface Board and Ezi-SERVO II EtherCAT.

Model Name	Length[m]	Remark
CIFN-S-□□□F	□□□	Normal Cable
CIFN-S-□□□M	□□□	Robot Cable

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

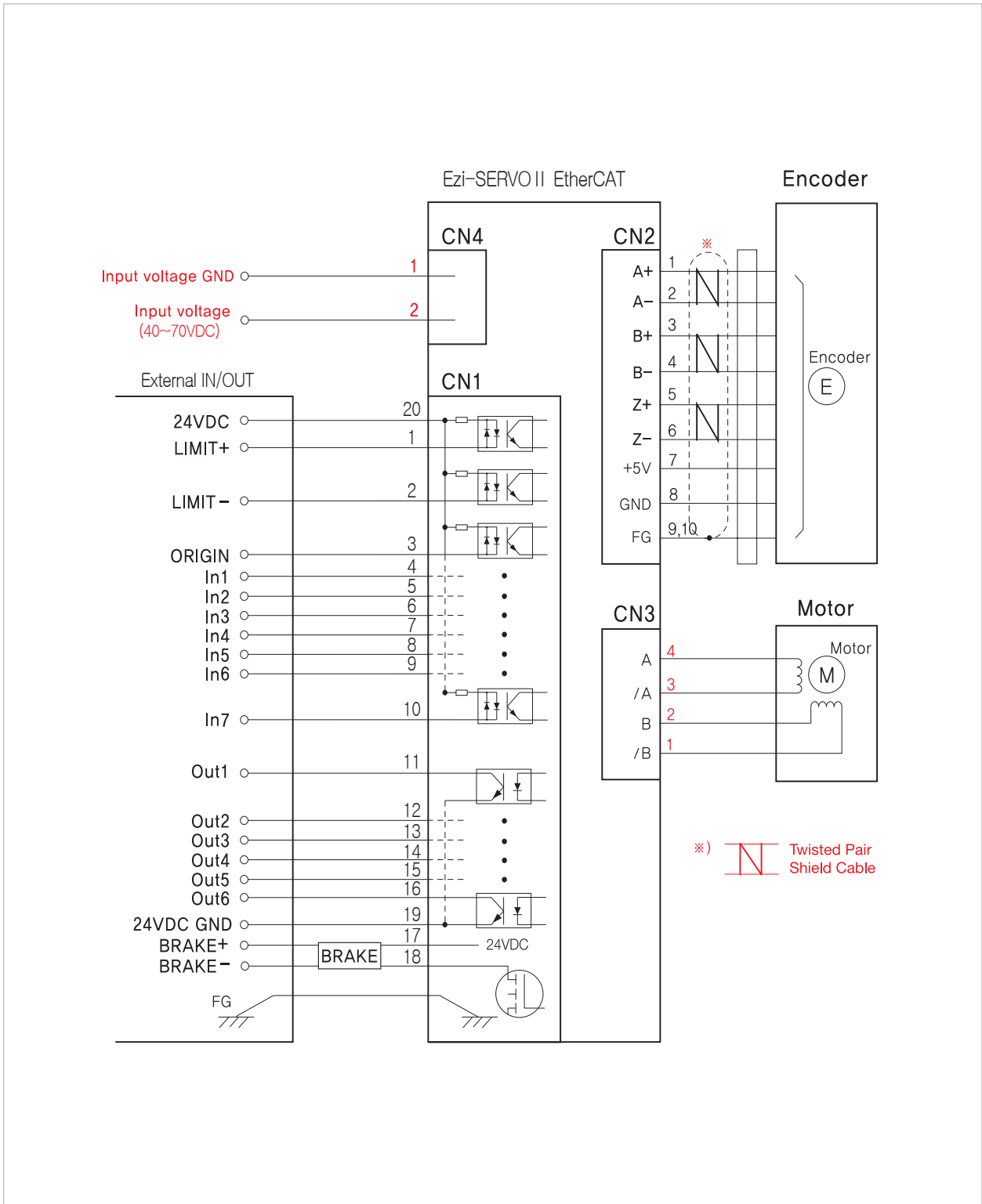
External Wiring Diagram

Ezi-SERVO II EtherCAT



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

Ezi-SERVO II EtherCAT_ 86mm





Fast, Accurate, Smooth Motion

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