

# Ezi-SERVO<sup>®</sup>

## Closed Loop Stepping System

### Brake Integrated Step Motor

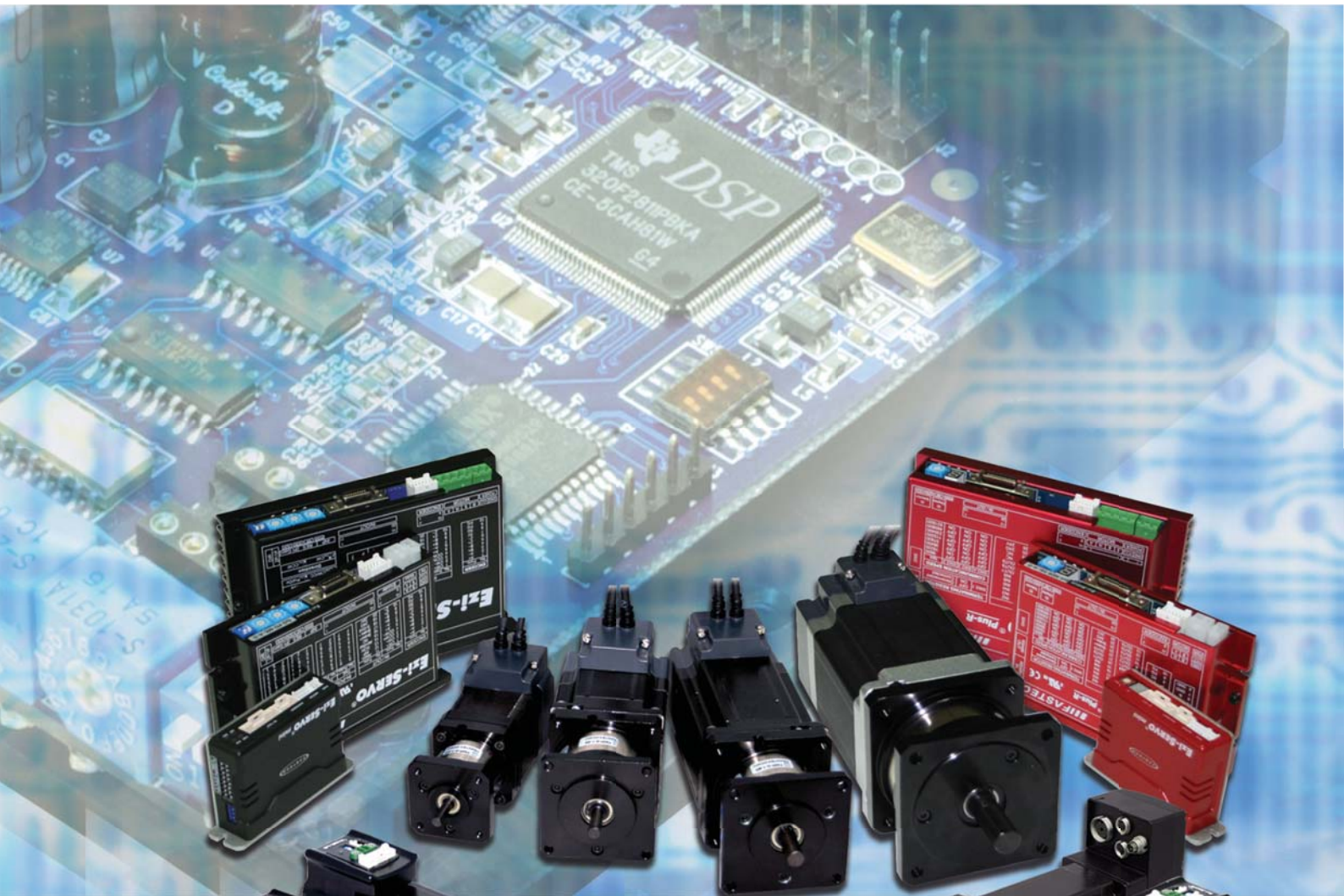
- Non-Excitation Electromagnetic Brake
- Automatic Braking during Power Cutoff
- High Friction Torque
- Short Braking Time
- Long Life & High Durability

# BK



**FASTECH**

*Fast, Accurate, Smooth Motion*



**FASTECH**

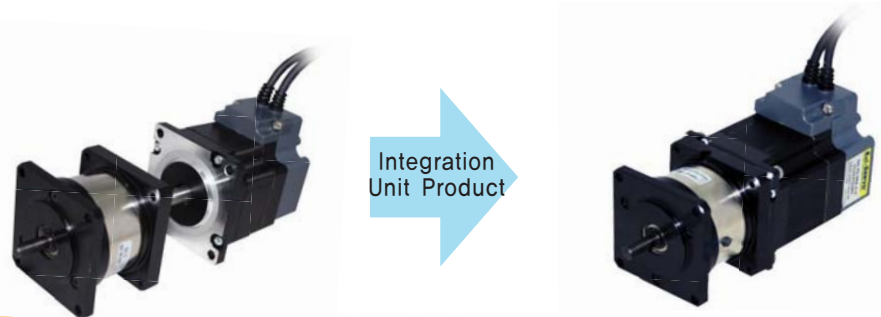
*Fast, Accurate, Smooth Motion*

**Ezi-SERVO<sup>®</sup> BK**

**Closed Loop Stepping System**

## 1 Ezi-SERVO BK Series Specification

Ezi-SERVO BK Series, Fastech's new unit product, maximizes User's operational convenience with integration between Ezi-SERVO Series of stepping motor and non-excitation electromagnetic brake that has big friction of brake torque and rapid brake timing.



## 2 Ezi-SERVO BK Series Advantages

### ■ Apply non-excitation electromagnetic brake

Different from excitation type of brake that only generates braking-power by electromagnetic-power when power supplies at brake and loses brake-power when power cutoff, Ezi-SERVO BK Series adopts non-excitation electromagnetic brake that immediately generate friction of brake torque by inner spring's binding post-tensioning force once power cutoff. So Ezi-SERVO BK Series enables complete stopping of stepping motor and can forestall risks with brake's mechanical braking-power under emergency situation as like sudden blackout in machine operation.

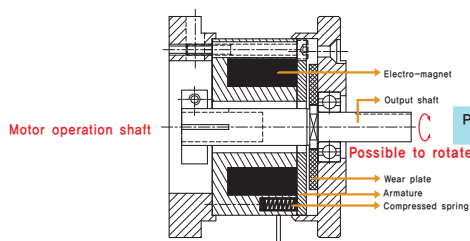
### ■ Automatic Braking during power cutoff or blackout

Ezi-SERVO BK Series, Unit product, integrated between high performance of non-excitation electromagnetic brake and step motor that enables immediate braking to keep holding point and prevent falling under power cutoff or blackout during operation so user can be flexible in responding to sudden situation.

### ■ Rapid Brake Timing

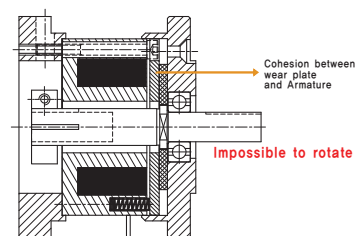
Ezi-SERVO BK Series, non-excitation electromagnetic brake, enables rapid braking because loaded spring closed brake can quicken rising of brake torque.

### ■ Turn on electric current



(Output shaft can be rotated because wear plate can be separate from Armature by electromagnetic force)

### ■ Power cutoff or blackout

















(Impossible to rotate because compressed spring power let wear plate stick to Armature and brakes output shaft.)

### ■ Long Durability

Brake integrated into Ezi-SERVO BK Series applies long durability of brake wear plate (Brake Lining) so it guarantees high durability and long life cycle.

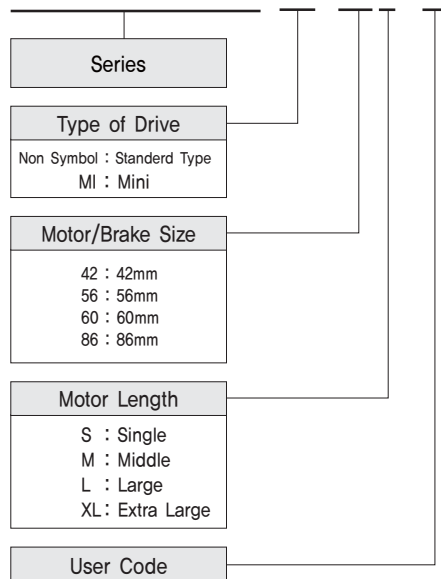
## ● Ezi-SERVO BK Series Line-up

Series	Composition	Motor/Brake Size			
		42mm	56mm	60mm	86mm
Ezi-SERVO ST Series	Ezi-SERVO Motor + Electromagnetic Brake + Ezi-SERVO ST Driver				
Ezi-SERVO PR Series	Ezi-SERVO Motor + Electromagnetic Brake + Ezi-SERVO PR Controller/Driver				
Ezi-SERVO BT Series	Ezi-SERVO Motor + Electromagnetic Brake + Ezi-SERVO BT Driver				-
Ezi-SERVO ALL Series	Ezi-SERVO Motor + Electromagnetic Brake + Ezi-SERVO ALL Controller/Driver				-

## ● Ezi-SERVO BK Series Part Number

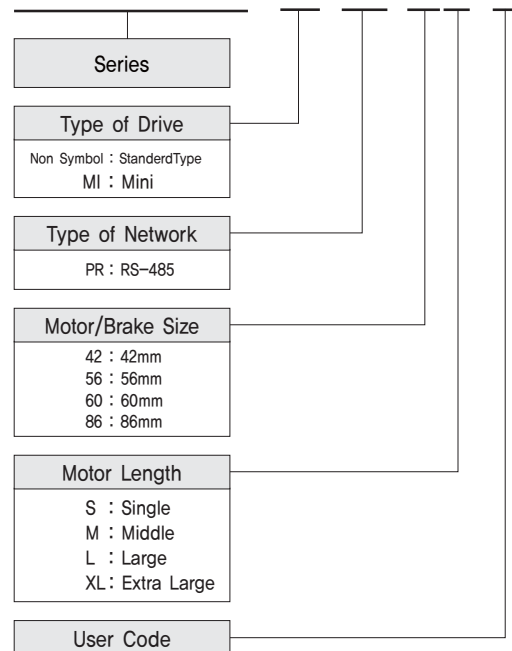
### ◆ Ezi-SERVO ST Series

**Ezi-SERVO-BK-MI-42S-□**



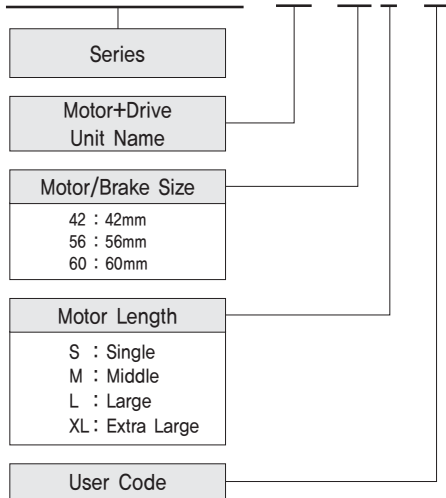
### ◆ Ezi-SERVO Plus-R Series

**Ezi-SERVO-BK-MI-PR-42S-□**



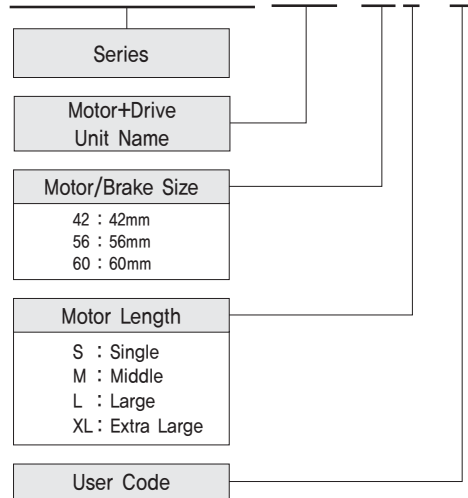
◆ Ezi-SERVO BT Series

Ezi-SERVO-BK-BT-60S-□



◆ Ezi-SERVO ALL Series

Ezi-SERVO-BK-ALL-60S-□



## ● Type of Ezi-SERVO BK Series

Please see all type of Ezi-SERVO BK Series already released as follows.

	Part Number	Combination Drive	Brake Size
Ezi-SERVO ST	Ezi-SERVO-BK-42S	EzS-PD-42S	42mm
	Ezi-SERVO-BK-42M	EzS-PD-42M	
	Ezi-SERVO-BK-42L	EzS-PD-42L	
	Ezi-SERVO-BK-42XL	EzS-PD-42XL	
	Ezi-SERVO-BK-MI-42S	EzS-PD-MI-42S	
	Ezi-SERVO-BK-MI-42M	EzS-PD-MI-42M	
	Ezi-SERVO-BK-MI-42L	EzS-PD-MI-42L	
	Ezi-SERVO-BK-MI-42XL	EzS-PD-MI-42XL	56mm
	Ezi-SERVO-BK-56S	EzS-PD-56S	
	Ezi-SERVO-BK-56M	EzS-PD-56M	
	Ezi-SERVO-BK-56L	EzS-PD-56L	60mm
	Ezi-SERVO-BK-60S	EzS-PD-60S	
	Ezi-SERVO-BK-60M	EzS-PD-60M	
	Ezi-SERVO-BK-60L	EzS-PD-60L	86mm
	Ezi-SERVO-BK-86M	EzS-PD-86M	
Ezi-SERVO-BK-86L	EzS-PD-86L		
Ezi-SERVO-BK-86XL	EzS-PD-86XL	42mm	
Ezi-SERVO-BK-PR-42S	EzS-NDR-42S		
Ezi-SERVO-BK-PR-42M	EzS-NDR-42M		
Ezi-SERVO-BK-PR-42L	EzS-NDR-42L		
Ezi-SERVO-BK-PR-42XL	EzS-NDR-42XL		
Ezi-SERVO-BK-MI-PR-42S	EzS-NDR-MI-42S		
Ezi-SERVO-BK-MI-PR-42M	EzS-NDR-MI-42M		56mm
Ezi-SERVO-BK-MI-PR-42L	EzS-NDR-MI-42L		
Ezi-SERVO-BK-MI-PR-42XL	EzS-NDR-MI-42XL		
Ezi-SERVO-BK-PR-56S	EzS-NDR-56S	60mm	
Ezi-SERVO-BK-PR-56M	EzS-NDR-56M		
Ezi-SERVO-BK-PR-56L	EzS-NDR-56L		
Ezi-SERVO-BK-PR-60S	EzS-NDR-60S	86mm	
Ezi-SERVO-BK-PR-60M	EzS-NDR-60M		
Ezi-SERVO-BK-PR-60L	EzS-NDR-60L		
Ezi-SERVO-BK-PR-86M	EzS-NDR-86M	42mm	
Ezi-SERVO-BK-PR-86L	EzS-NDR-86L		
Ezi-SERVO-BK-PR-86XL	EzS-NDR-86XL		
Ezi-SERVO BT	Ezi-SERVO-BK-BT-42S	Drive Integrated	42mm
	Ezi-SERVO-BK-BT-42M	Drive Integrated	
	Ezi-SERVO-BK-BT-42L	Drive Integrated	
	Ezi-SERVO-BK-BT-42XL	Drive Integrated	56mm
	Ezi-SERVO-BK-BT-56S	Drive Integrated	
	Ezi-SERVO-BK-BT-56M	Drive Integrated	
	Ezi-SERVO-BK-BT-56L	Drive Integrated	60mm
	Ezi-SERVO-BK-BT-60S	Drive Integrated	
	Ezi-SERVO-BK-BT-60M	Drive Integrated	
Ezi-SERVO-BK-BT-60L	Drive Integrated	42mm	
Ezi-SERVO-BK-ALL-42S	Drive Integrated		
Ezi-SERVO-BK-ALL-42M	Drive Integrated		
Ezi-SERVO-BK-ALL-42L	Drive Integrated		
Ezi-SERVO-BK-ALL-42XL	Drive Integrated		
Ezi-SERVO-BK-ALL-56S	Drive Integrated		56mm
Ezi-SERVO-BK-ALL-56M	Drive Integrated		
Ezi-SERVO-BK-ALL-56L	Drive Integrated		
Ezi-SERVO-BK-ALL-60S	Drive Integrated	60mm	
Ezi-SERVO-BK-ALL-60M	Drive Integrated		
Ezi-SERVO-BK-ALL-60L	Drive Integrated		

## ● Ezi-SERVO BK Series Specification and Drawing

### ◆ Ezi-SERVO ST Series Specification

Unit Part Number	Motor					Electromagnetic Brake					Unit							
	Size (mm)	Length L (mm)	Inertia Moment (g · cm <sup>2</sup> )	Rated Current (A/Phase)	Voltage (V)	Hold-ing Torque (N · m)	Form	Input Voltage (V)	Rated Current (A)	Power Consumption (W)	Friction Torque (N · m)	Weight (Kg)						
Ezi-SERVO-BK-42S	42	33	35	1,2	3,36	0,32	Non-excitation Type	24VDC ±10%	0,3A ±10%	8,2	0,2	510						
Ezi-SERVO-BK-42M		39	54		4,32	0,44						570						
Ezi-SERVO-BK-42L		47	77		4,56	0,5						640						
Ezi-SERVO-BK-42XL		59	114		7,2	0,8						770						
Ezi-SERVO-BK MI-42S		33	35		3,36	0,32						510						
Ezi-SERVO-BK MI-42M		39	54		4,32	0,44						570						
Ezi-SERVO-BK MI-42L		47	77		4,56	0,5						640						
Ezi-SERVO-BK MI-42XL		59	114		7,2	0,8						770						
Ezi-SERVO-BK-56S	56	46	120	3	1,56	0,64			Non-excitation Type	24VDC ±10%	0,3A ±10%	7,5	0,7	1030				
Ezi-SERVO-BK-56M		54	200		1,62	1								1190				
Ezi-SERVO-BK-56L		80	480		2,7	2								1630				
Ezi-SERVO-BK-60S	60	46	140	4	1,52	0,88					Non-excitation Type	24VDC ±10%	0,3A ±10%	7,5	0,7	1150		
Ezi-SERVO-BK-60M		56	320		1,56	1,28										1350		
Ezi-SERVO-BK-60L		90	800		2,6	2,4										1960		
Ezi-SERVO-BK-86M	86	79	1400	6	2,4	4							Non-excitation Type	24VDC ±10%	0,43A ±10%	10,5	2,5	3600
Ezi-SERVO-BK-86L		117	2700		3,6	7,5												5100
Ezi-SERVO-BK-86XL		155	4000		4,38	9	6600											

\* Electromagnetic brake will not be using for braking but for holding position when power-off.

\* Weight is total sum of motor and electromagnetic brake integrated.

### ◆ Ezi-SERVO Plus-R Series Specification

Unit Part Number	Motor					Electromagnetic Brake					Unit							
	Size (mm)	Length L (mm)	Inertia Moment (g · cm <sup>2</sup> )	Rated Current (A/Phase)	Voltage (V)	Hold-ing Torque (N · m)	Form	Input Voltage (V)	Rated Current (A)	Power Consumption (W)	Friction Torque (N · m)	Weight (Kg)						
Ezi-SERVO-BK-PR-42S	42	33	35	1,2	3,36	0,32	Non-excitation Type	24VDC ±10%	0,3A ±10%	8,2	0,2	500						
Ezi-SERVO-BK-PR-42M		39	54		4,32	0,44						570						
Ezi-SERVO-BK-PR-42L		47	77		4,56	0,5						640						
Ezi-SERVO-BK-PR-42XL		59	114		7,2	0,8						770						
Ezi-SERVO-BK-MI-PR-42S		33	35		3,36	0,32						500						
Ezi-SERVO-BK-MI-PR-42M		39	54		4,32	0,44						570						
Ezi-SERVO-BK-MI-PR-42L		47	77		4,56	0,5						640						
Ezi-SERVO-BK-MI-PR-42XL		59	114		7,2	0,8						770						
Ezi-SERVO-BK-PR-56S	56	46	120	3	1,56	0,64			Non-excitation Type	24VDC ±10%	0,3A ±10%	7,5	0,7	1030				
Ezi-SERVO-BK-PR-56M		54	200		1,62	1								1190				
Ezi-SERVO-BK-PR-56L		80	480		2,7	2								1630				
Ezi-SERVO-BK-PR-60S	60	46	140	4	1,52	0,88					Non-excitation Type	24VDC ±10%	0,3A ±10%	7,5	0,7	1150		
Ezi-SERVO-BK-PR-60M		56	320		1,56	1,28										1350		
Ezi-SERVO-BK-PR-60L		90	800		2,6	2,4										1960		
Ezi-SERVO-BK-PR-86M	86	79	1400	6	2,4	4							Non-excitation Type	24VDC ±10%	0,43A ±10%	10,5	2,5	3600
Ezi-SERVO-BK-PR-86L		117	2700		3,6	7,5												5100
Ezi-SERVO-BK-PR-86XL		155	4000		4,38	9	6600											

\* Electromagnetic brake will not be using for braking but for holding position when power-off.

\* Weight is total sum of motor and electromagnetic brake integrated.

◆ Ezi-SERVO ST Series Drawings (42mm)

Ezi-SERVO ST Series Unit Part Number		Length L (mm)	Motor Part Number
Ezi-SERVO-BK-42S	Ezi-SERVO-BK-MI-42S	33	EzM-42S
Ezi-SERVO-BK-42M	Ezi-SERVO-BK-MI-42M	39	EzM-42M
Ezi-SERVO-BK-42L	Ezi-SERVO-BK-MI-42L	47	EzM-42L
Ezi-SERVO-BK-42XL	Ezi-SERVO-BK-MI-42XL	59	EzM-42XL

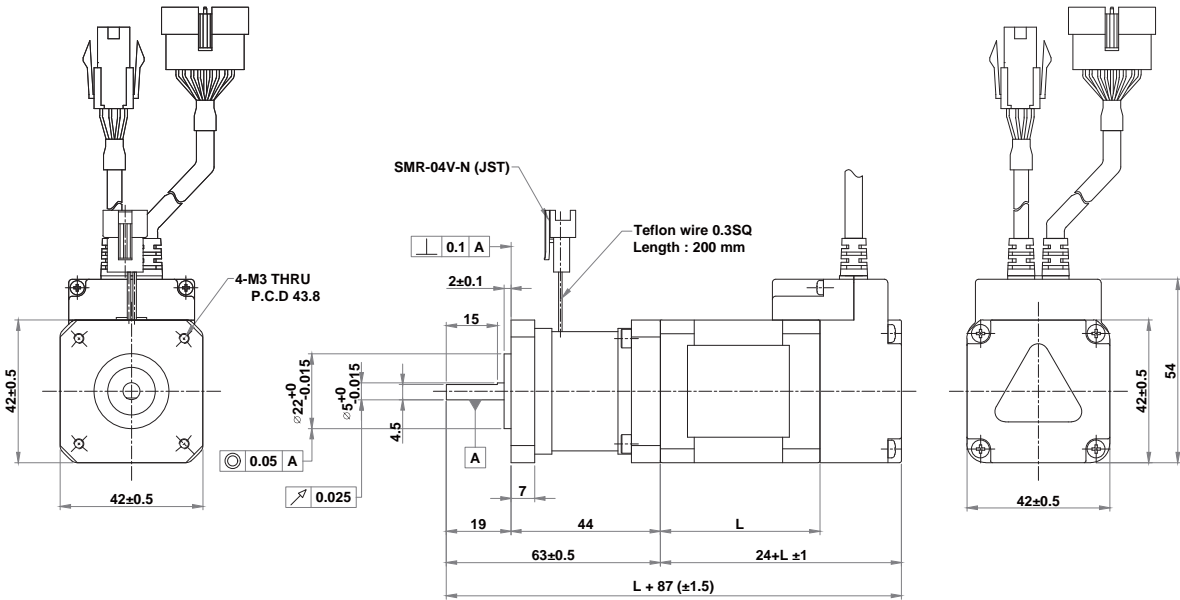
\* Ezi-SERVO-BK-MI-42S/M/L/XL only can be operated by 24VDC Motor input voltage.  
 \* Ezi-SERVO-BK-42S/M/L/XL can be operated by 24VDC and also 40VDC Motor input voltage.

◆ Ezi-SERVO Plus-R Series Drawings (42mm)

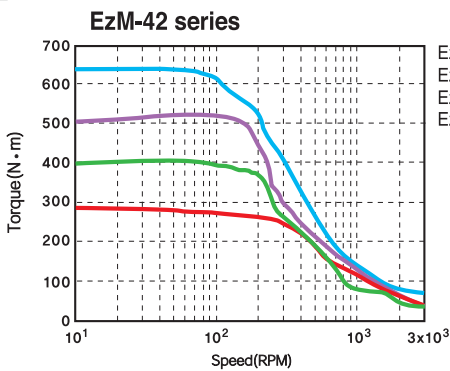
Ezi-SERVO Plus-R Series Unit Part Number		Length L (mm)	Motor Part Number
Ezi-SERVO-BK-PR-42S	Ezi-SERVO-BK-MI-PR-42S	33	EzM-42S
Ezi-SERVO-BK-PR-42M	Ezi-SERVO-BK-MI-PR-42M	39	EzM-42M
Ezi-SERVO-BK-PR-42L	Ezi-SERVO-BK-MI-PR-42L	47	EzM-42L
Ezi-SERVO-BK-PR-42XL	Ezi-SERVO-BK-MI-PR-42XL	59	EzM-42XL

\* Ezi-SERVO-BK-MI-42S/M/L/XL only can be operated by 24VDC Motor input voltage.  
 \* Ezi-SERVO-BK-42S/M/L/XL can be operated by 24VDC and also 40VDC Motor input voltage.

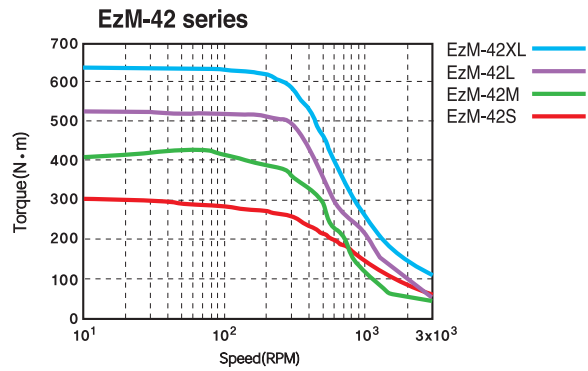
FASTECH Ezi-SERVO BK



◆ Ezi-SERVO ST & Plus-R Series Speed-Torque Curve (Motor Size 42mm)



※ Measured Condition  
 Motor Voltage = 24VDC  
 Motor Current = Rated Current(Refer to Motor Specification)  
 Drive = Ezi-SERVO ST / Plus-R



※ Measured Condition  
 Motor Voltage = 40VDC  
 Motor Current = Rated Current(Refer to Motor Specification)  
 Drive = Ezi-SERVO ST / Plus-R



◆ Ezi-SERVO ST Series Drawings (56mm)

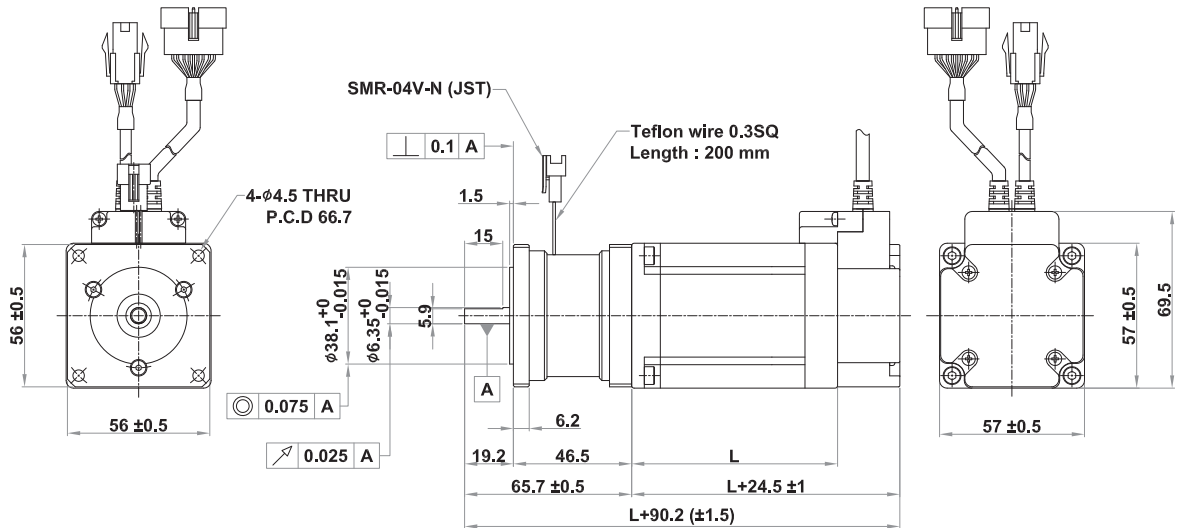
Ezi-SERVO ST Series Unit Part Number	Length L (mm)	Motor Part Number
Ezi-SERVO-BK-56S	46	EzM-56S
Ezi-SERVO-BK-56M	54	EzM-56M
Ezi-SERVO-BK-56L	80	EzM-56L

\* Ezi-SERVO-BK-56S/M/L can be operated by 24VDC and also 40VDC Motor input voltage.

◆ Ezi-SERVO Plus R-Series Drawings (56mm)

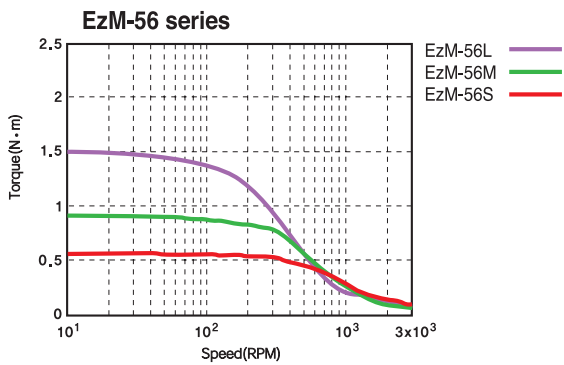
Ezi-SERVO Plus-R Series Unit Part Number	Length L (mm)	Motor Part Number
Ezi-SERVO-BK-PR-56S	46	EzM-56S
Ezi-SERVO-BK-PR-56M	54	EzM-56M
Ezi-SERVO-BK-PR-56L	80	EzM-56L

\* Ezi-SERVO-BK-PR-56S/M/L can be operated by 24VDC and also 40VDC Motor input voltage.

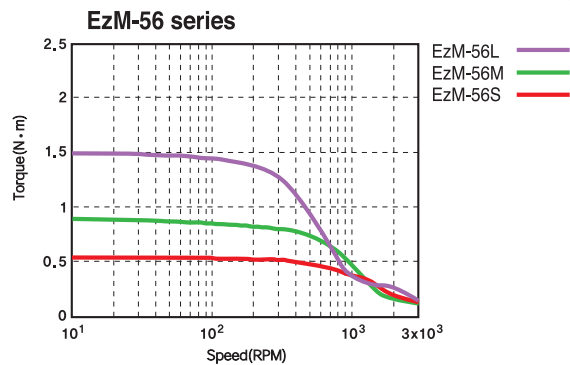


FASTECH Ezi-SERVO BK

◆ Ezi-SERVO ST & Plus-R Series Speed-Torque Curve (Motor Size 56mm)



※ Measured Condition  
 Motor Voltage = 24VDC  
 Motor Current = Rated Current(Refer to Motor Specification)  
 Drive = Ezi-SERVO ST / Plus-R



※ Measured Condition  
 Motor Voltage = 40VDC  
 Motor Current = Rated Current(Refer to Motor Specification)  
 Drive = Ezi-SERVO ST / Plus-R

◆ Ezi-SERVO ST Series Drawings (60mm)

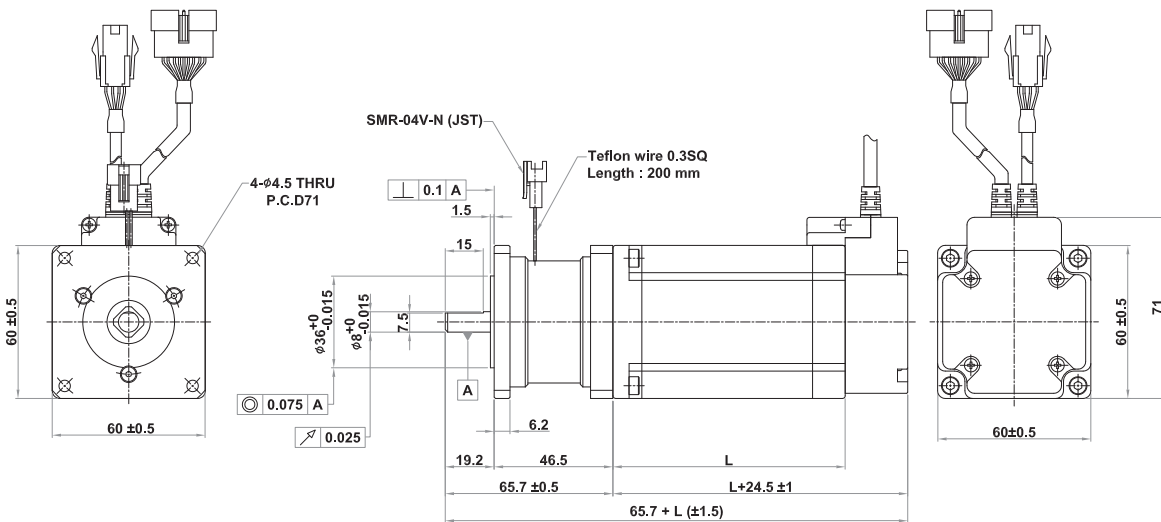
Ezi-SERVO ST Series Unit Part Number	Length L (mm)	Motor Part Number
Ezi-SERVO-BK-60S	46	EzM-60S
Ezi-SERVO-BK-60M	56	EzM-60M
Ezi-SERVO-BK-60L	90	EzM-60L

\* Ezi-SERVO-BK-60S/M/L only can be operated by 24VDC Motor input voltage.

◆ Ezi-SERVO Plus-R Series Drawings (60mm)

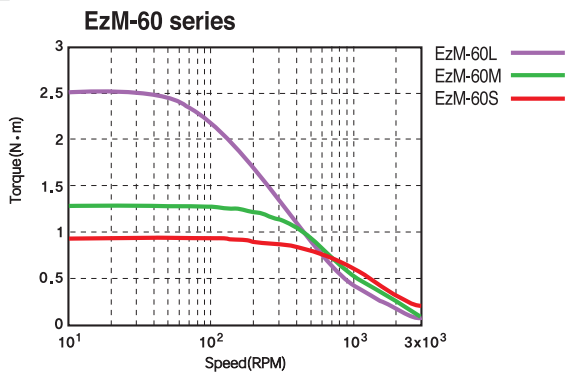
Ezi-SERVO Plus-R Series Unit Part Number	Length L (mm)	Motor Part Number
Ezi-SERVO-BK-PR-60S	46	EzM-60S
Ezi-SERVO-BK-PR-60M	56	EzM-60M
Ezi-SERVO-BK-PR-60L	90	EzM-60L

\* Ezi-SERVO-BK-PR-60S/M/L can be operated by 24VDC and also 40VDC Motor input voltage.

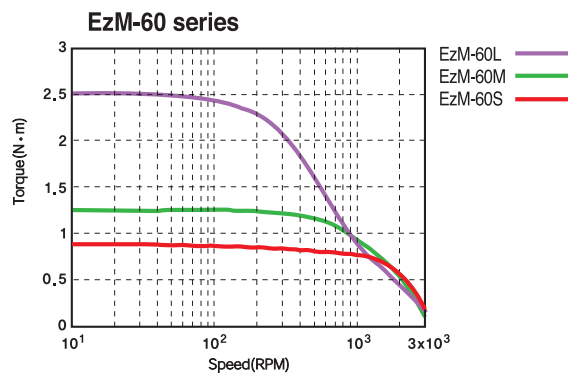


FASTECH Ezi-SERVO BK

◆ Ezi-SERVO ST & Plus-R Series Speed-Torque Curve (Motor Size 60mm)



※ Measured Condition  
 Motor Voltage = 24VDC  
 Motor Current = Rated Current(Refer to Motor Specification)  
 Drive = Ezi-SERVO ST / Plus-R



※ Measured Condition  
 Motor Voltage = 40VDC  
 Motor Current = Rated Current(Refer to Motor Specification)  
 Drive = Ezi-SERVO ST / Plus-R

◆ Ezi-SERVO ST Series Drawings (86mm)

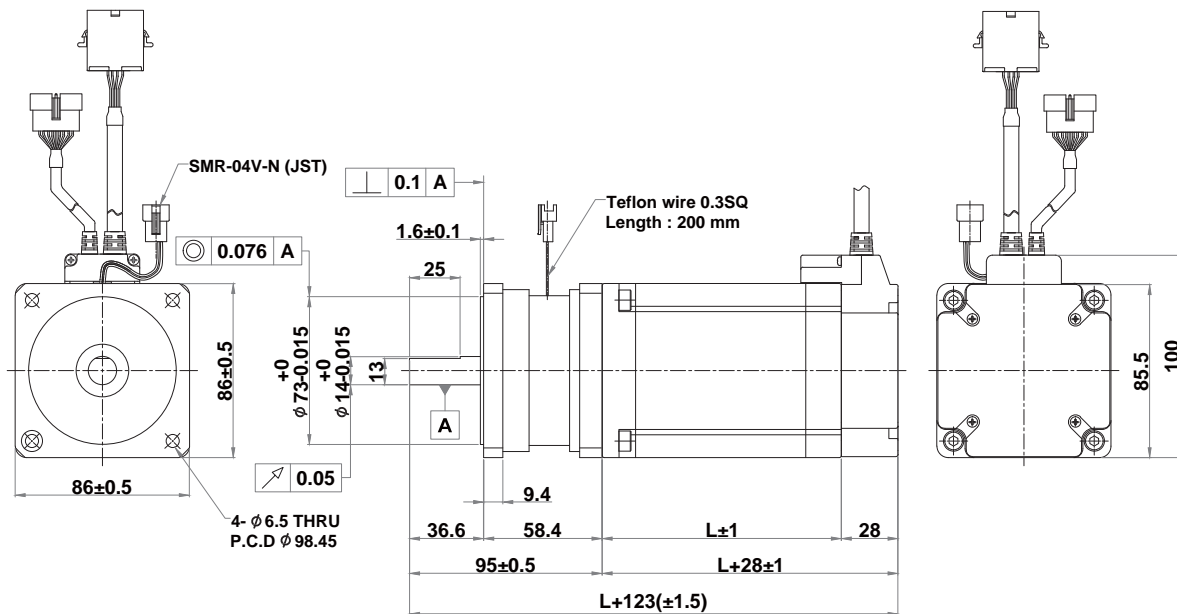
Ezi-SERVO ST Series Unit Part Number	Length L (mm)	Motor Part Number
Ezi-SERVO-BK-86M	79	EzM-86M
Ezi-SERVO-BK-86L	117	EzM-86L
Ezi-SERVO-BK-86XL	155	EzM-86XL

\* Ezi-SERVO-BK-86M/L/XL only can be operated by 40~70VDC Motor input voltage.

◆ Ezi-SERVO Plus-R Series Drawings (86mm)

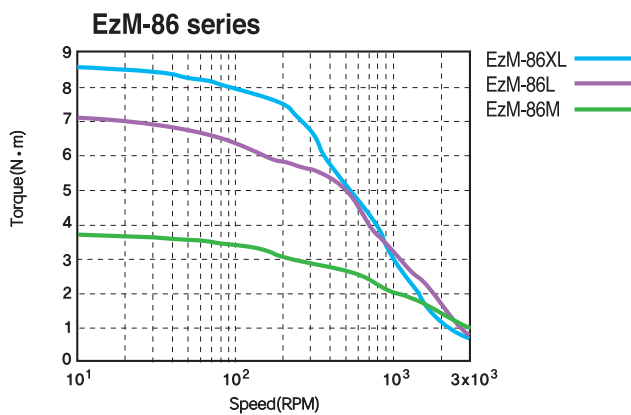
Ezi-SERVO Plus-R Series Unit Part Number	Length L (mm)	Motor Part Number
Ezi-SERVO-BK-PR-86M	79	EzM-86M
Ezi-SERVO-BK-PR-86L	117	EzM-86L
Ezi-SERVO-BK-PR-86XL	155	EzM-86XL

\* Ezi-SERVO-BK-86M/L/XL only can be operated by 40~70VDC Motor input voltage.



FASTECH Ezi-SERVO BK

◆ Ezi-SERVO ST & Plus-R Series Speed-Torque Curve (Motor Size 86mm)



※ Measured Condition

Motor Voltage = 70VDC  
 Motor Current = Rated Current(Refer to Motor Specification)  
 Drive = Ezi-SERVO ST / Plus-R

### ◆ Ezi-SERVO BT Series Specification

Unit Part Number	Motor					Electromagnetic Brake					Unit							
	Size (mm)	Length L (mm)	Inertia Moment (g · cm <sup>2</sup> )	Rated Current (A/Phase)	Voltage (V)	Holding Torque (N · m)	Form	Input Voltage (V)	Rated Current (A)	Power Consumption (W)	Friction Torque (N · m)	Weight (Kg)						
Ezi-SERVO-BK-BT-42S	42	33	35	1.2	3.36	0.32	Non-excitation Type	24VDC ±10%	0.3A ±10%	8.2	0.2	590						
Ezi-SERVO-BK-BT-42M		39	54		4.32	0.44						650						
Ezi-SERVO-BK-BT-42L		47	77		4.56	0.5						720						
Ezi-SERVO-BK-BT-42XL		59	114		7.2	0.8						850						
Ezi-SERVO-BK-BT-56S	56	46	120	3	1.56	0.64				Non-excitation Type	24VDC ±10%	0.3A ±10%	7.5	0.7	1120			
Ezi-SERVO-BK-BT-56M		54	200		1.62	1									1280			
Ezi-SERVO-BK-BT-56L		80	480		2.7	2									1720			
Ezi-SERVO-BK-BT-60S	60	46	140	4	1.52	0.88							Non-excitation Type	24VDC ±10%	0.3A ±10%	7.5	0.7	1230
Ezi-SERVO-BK-BT-60M		56	320		1.56	1.28												1420
Ezi-SERVO-BK-BT-60L		90	800		2.6	2.4												2040

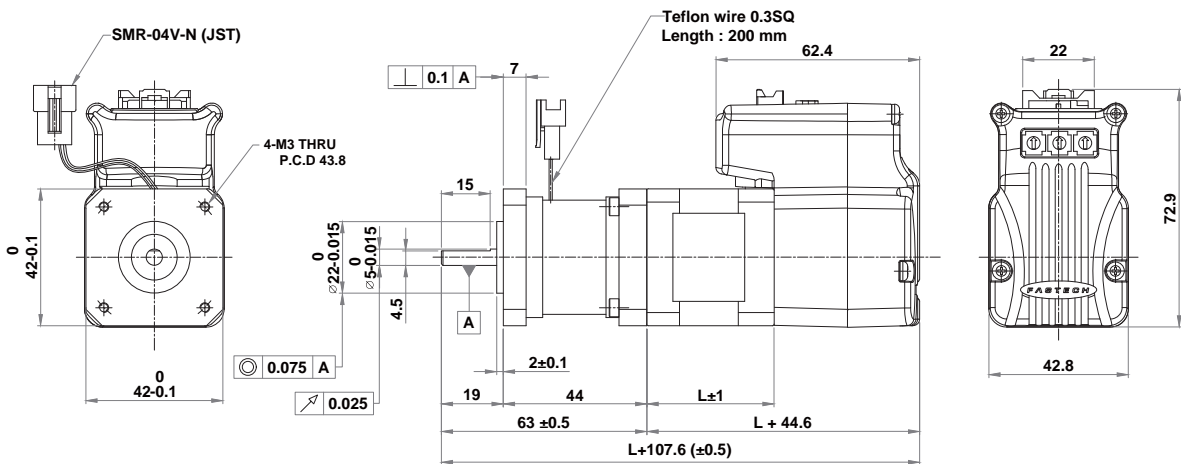
\* Electromagnetic brake will not be using for braking but for holding position when power-off.  
 \* Weight is total sum of motor and electromagnetic brake integrated.

### ◆ Ezi-SERVO BT Series Drawings (42mm)

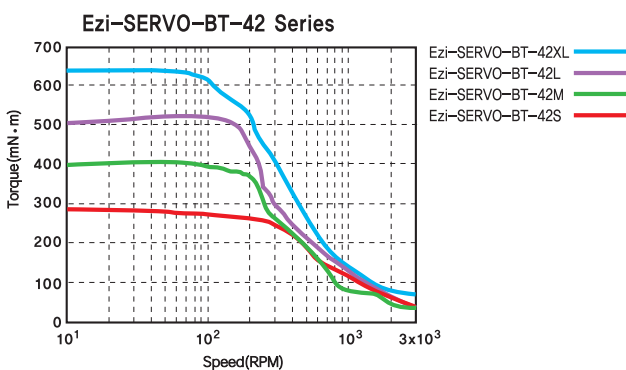
Ezi-SERVO BT Series Unit Part Number	Length L (mm)	Motor Part Number
Ezi-SERVO-BK-BT-42S	33	Ezi-SERVO-BT-42S
Ezi-SERVO-BK-BT-42M	39	Ezi-SERVO-BT-42M
Ezi-SERVO-BK-BT-42L	47	Ezi-SERVO-BT-42L
Ezi-SERVO-BK-BT-42XL	59	Ezi-SERVO-BT-42XL

\* Ezi-SERVO-BK-60S/M/L only can be operated by 24VDC Motor input voltage.

FASTECH Ezi-SERVO BK



### ◆ Ezi-SERVO BT Speed-Torque Curve (Motor Size 42mm)



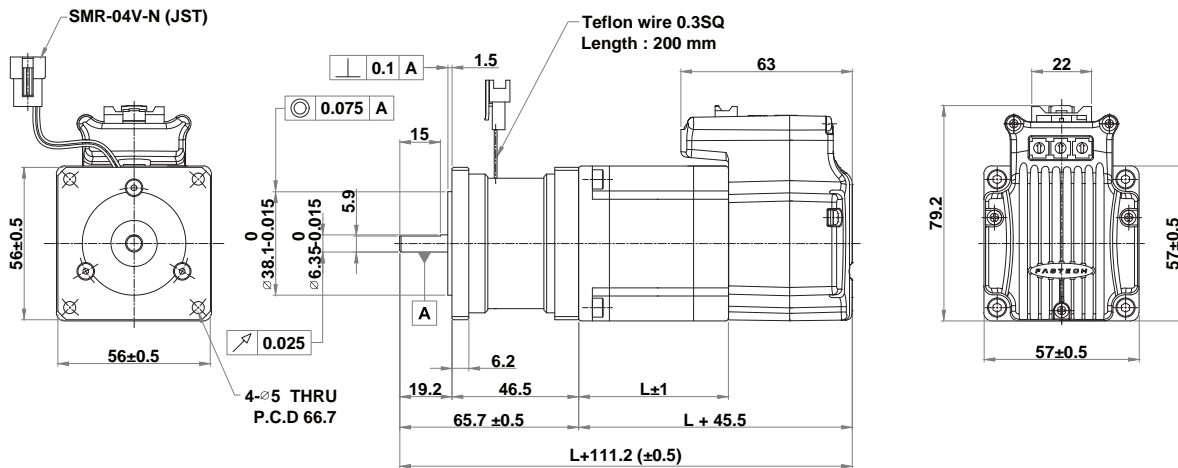
#### ※ Measured Condition

Motor Voltage = 24VDC  
 Motor Current = Rated Current (Refer to Motor Specification)  
 Drive = Ezi-SERVO BT

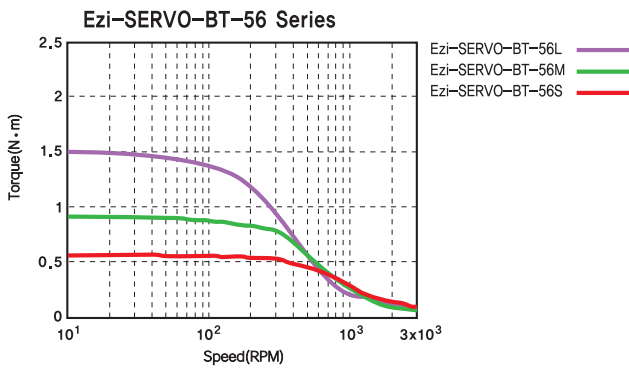
### ◆ Ezi-SERVO BT Series Drawings (56mm)

Ezi-SERVO BT Series Unit Part Number	Length L (mm)	Motor Part Number
Ezi-SERVO-BK-BT-56S	46	Ezi-SERVO-BT-56S
Ezi-SERVO-BK-BT-56M	54	Ezi-SERVO-BT-56M
Ezi-SERVO-BK-BT-56L	80	Ezi-SERVO-BT-56L

\* Ezi-SERVO-BK-BT-56S/M/L only can be operated by 24VDC Motor input voltage.



### ◆ Ezi-SERVO BT Speed-Torque Curve (Motor Size 56mm)



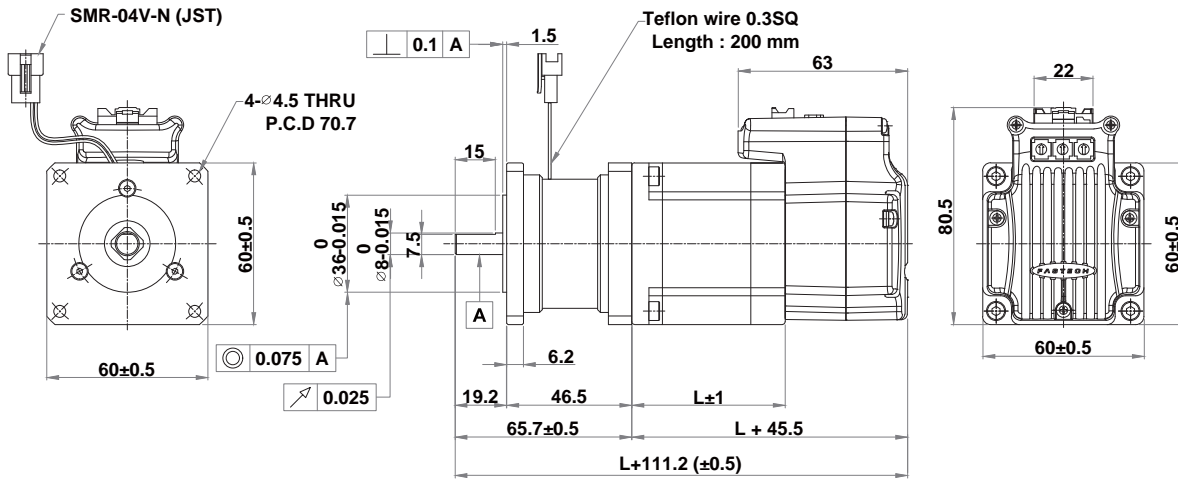
#### ※ Measured Condition

Motor Voltage = 24VDC  
 Motor Current = Rated Current(Refer to Motor Specification)  
 Drive = Ezi-SERVO BT

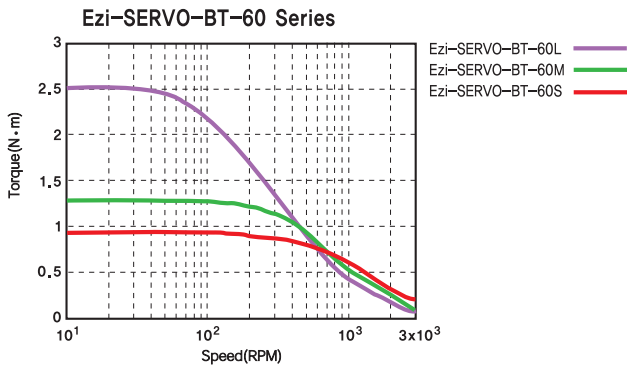
◆ Ezi-SERVO BT Series Drawings (60mm)

Ezi-SERVO BT Series Unit Part Number	Length L (mm)	Motor Part Number
Ezi-SERVO-BK-BT-60S	46	Ezi-SERVO-BT-60S
Ezi-SERVO-BK-BT-60M	56	Ezi-SERVO-BT-60M
Ezi-SERVO-BK-BT-60L	90	Ezi-SERVO-BT-60L

\* Ezi-SERVO-BK-BT-60S/M/L only can be operated by 24VDC Motor input voltage.



◆ Ezi-SERVO BT Speed-Torque Curve (Motor Size 60mm)



※ Measured Condition

Motor Voltage = 24VDC  
 Motor Current = Rated Current(Refer to Motor Specification)  
 Drive = Ezi-SERVO BT

### ◆ Ezi-SERVO ALL Series Specification

Unit Part Number	Motor						Electromagnetic Brake					Unit		
	Size (mm)	Length L (mm)	Inertia Moment (g · cm <sup>2</sup> )	Rated Current (A/Phase)	Voltage (V)	Holding Torque (N · m)	Form	Input Voltage (V)	Rated Current (A)	Power Consumption (W)	Friction Torque (N · m)	Weight (Kg)		
Ezi-SERVO-BK-ALL-42S	42	33	35	1.2	3.36	0.32	Non-excitation Type	24VDC ±10%	0.3A ±10%	8.2	0.2	580		
Ezi-SERVO-BK-ALL-42M		39	54		4.32	0.44						650		
Ezi-SERVO-BK-ALL-42L		47	77		4.56	0.5						720		
Ezi-SERVO-BK-ALL-42XL		59	114		7.2	0.8						850		
Ezi-SERVO-BK-ALL-56S	56	46	120	3	1.56	0.64				7.5	0.7	1120		
Ezi-SERVO-BK-ALL-56M		54	200		1.62	1						1280		
Ezi-SERVO-BK-ALL-56L		80	480		2.7	2						1720		
Ezi-SERVO-BK-ALL-60S	60	46	140	4	1.52	0.88						7.5	0.7	1230
Ezi-SERVO-BK-ALL-60M		56	320		1.56	1.28								1420
Ezi-SERVO-BK-ALL-60L		90	800		2.6	2.4								2040

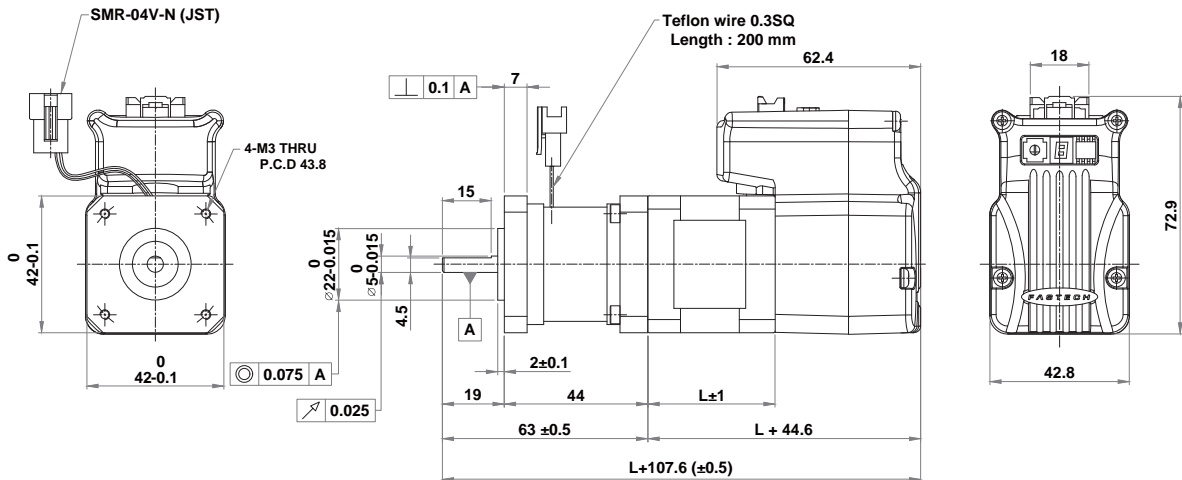
\* Electromagnetic brake will not be using for braking but for holding position when power-off.

\* Weight is total sum of motor and electromagnetic brake integrated.

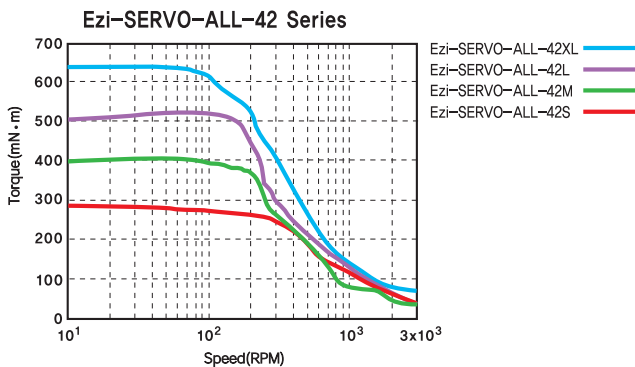
### ◆ Ezi-SERVO ALL Series Drawings (42mm)

Ezi-SERVO ALL Series Unit Part Number	Length L (mm)	Motor Part Number
Ezi-SERVO-BK-ALL-42S	33	Ezi-SERVO-ALL-42S
Ezi-SERVO-BK-ALL-42M	39	Ezi-SERVO-ALL-42M
Ezi-SERVO-BK-ALL-42L	47	Ezi-SERVO-ALL-42L
Ezi-SERVO-BK-ALL-42XL	59	Ezi-SERVO-ALL-42XL

\* Ezi-SERVO-BK-ALL-42S/M/L/X only can be operated by 24VDC Motor input voltage.



### ◆ Ezi-SERVO ALL Speed-Torque Curve (Motor Size 42mm)



※ Measured Condition

Motor Voltage = 24VDC

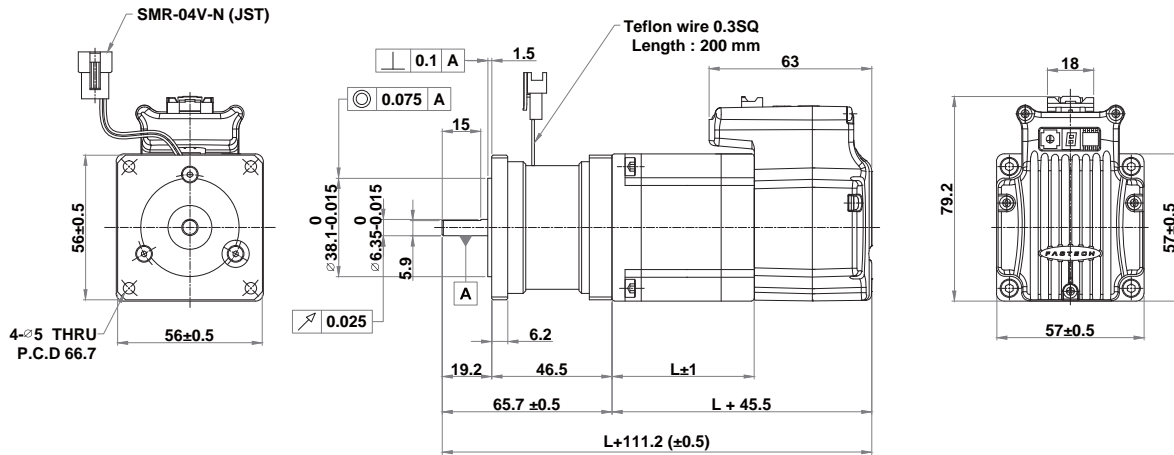
Motor Current = Rated Current(Refer to Motor Specification)

Drive = Ezi-SERVO ALL

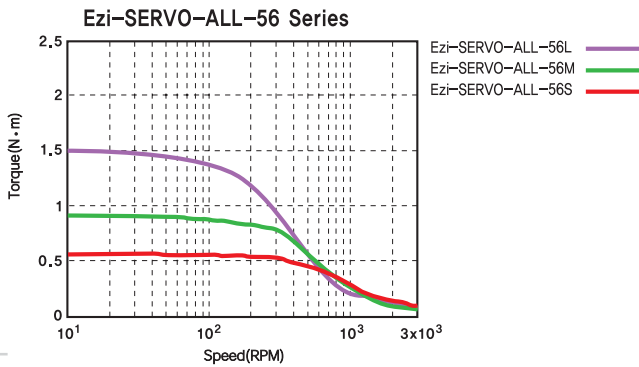
### ◆ Ezi-SERVO ALL Series Drawings (56mm)

Ezi-SERVO ALL Series Unit Part Number	Length L (mm)	Motor Part Number
Ezi-SERVO-BK-ALL-56S	46	Ezi-SERVO-ALL-56S
Ezi-SERVO-BK-ALL-56M	54	Ezi-SERVO-ALL-56M
Ezi-SERVO-BK-ALL-56L	80	Ezi-SERVO-ALL-56L

\* Ezi-SERVO-BK-ALL-56S/M/L only can be operated by 24VDC Motor input voltage.



### ◆ Ezi-SERVO ALL Speed-Torque Curve (Motor Size 56mm)



#### ※ Measured Condition

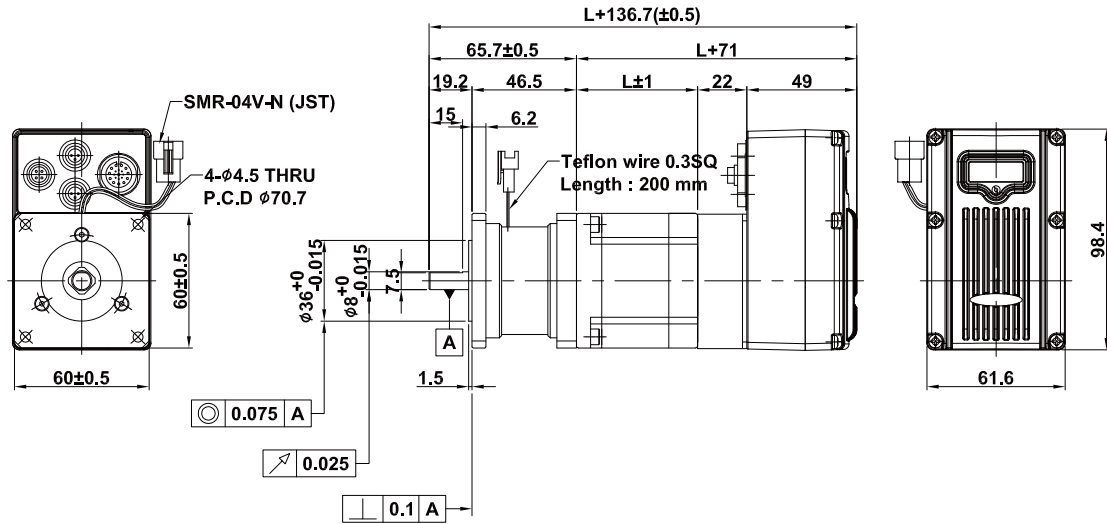
Motor Voltage = 24VDC  
 Motor Current = Rated Current(Refer to Motor Specification)  
 Drive = Ezi-SERVO ALL



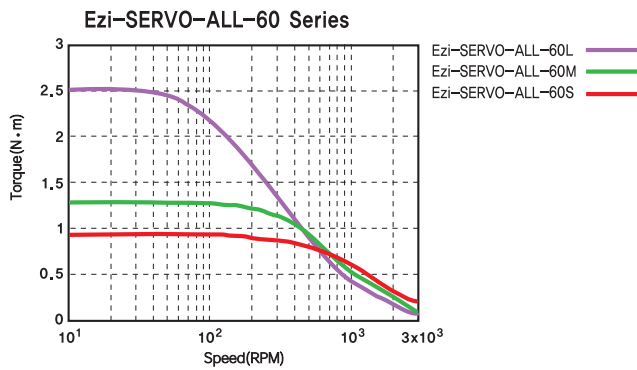
◆ Ezi-SERVO ALL Series Drawings (60mm)

Ezi-SERVO ALL Series Unit Part Number	Length L (mm)	Motor Part Number
Ezi-SERVO-BK-ALL-60S	46	Ezi-SERVO-ALL-60S
Ezi-SERVO-BK-ALL-60M	56	Ezi-SERVO-ALL-60M
Ezi-SERVO-BK-ALL-60L	90	Ezi-SERVO-ALL-60L

\* Ezi-SERVO-BK-ALL-60S/M/L only can be operated by 24VDC Motor input voltage.



◆ Ezi-SERVO ALL Speed-Torque Curve (Motor Size 60mm)



※ Measured Condition

Motor Voltage = 24VDC  
 Motor Current = Rated Current(Refer to Motor Specification)  
 Drive = Ezi-SERVO ALL

## ● Ezi-SERVO BK Series Permissible Overhung Load and Thrust Load

Unit Part Number				Permissible Overhung Load (N)				Permissible Thrust Load(N)
Ezi-SERVO ST Series	Ezi-SERVO PR Series	Ezi-SERVO BT Series	Ezi-SERVO ALL Series	Distance from the end of motor shaft (mm)				
				3	8	13	18	
Ezi-SERVO-BK-42S	Ezi-SERVO-BK-PR-42S	Ezi-SERVO-BK-BT-42S	Ezi-SERVO-BK-ALL-42S	22	26	33	46	Must be lower than Unit's weight
Ezi-SERVO-BK-42M	Ezi-SERVO-BK-PR-42M	Ezi-SERVO-BK-BT-42M	Ezi-SERVO-BK-ALL-42M					
Ezi-SERVO-BK-42L	Ezi-SERVO-BK-PR-42L	Ezi-SERVO-BK-BT-42L	Ezi-SERVO-BK-ALL-42L					
Ezi-SERVO-BK-42XL	Ezi-SERVO-BK-PR-42XL	Ezi-SERVO-BK-BT-42XL	Ezi-SERVO-BK-ALL-42XL					
Ezi-SERVO-BK-MI-42S	Ezi-SERVO-BK-MI-PR-42S	-	-					
Ezi-SERVO-BK-MI-42M	Ezi-SERVO-BK-MI-PR-42M	-	-					
Ezi-SERVO-BK-MI-42L	Ezi-SERVO-BK-MI-PR-42L	-	-					
Ezi-SERVO-BK-MI-42XL	Ezi-SERVO-BK-MI-PR-42XL	-	-					
Ezi-SERVO-BK-56S	Ezi-SERVO-BK-PR-56S	Ezi-SERVO-BK-BT-56S	Ezi-SERVO-BK-ALL-56S	52	65	85	123	
Ezi-SERVO-BK-56M	Ezi-SERVO-BK-PR-56M	Ezi-SERVO-BK-BT-56M	Ezi-SERVO-BK-ALL-56M					
Ezi-SERVO-BK-56L	Ezi-SERVO-BK-PR-56L	Ezi-SERVO-BK-BT-56L	Ezi-SERVO-BK-ALL-56L					
Ezi-SERVO-BK-60S	Ezi-SERVO-BK-PR-60S	Ezi-SERVO-BK-BT-60S	Ezi-SERVO-BK-ALL-60S	70	87	114	165	
Ezi-SERVO-BK-60M	Ezi-SERVO-BK-PR-60M	Ezi-SERVO-BK-BT-60M	Ezi-SERVO-BK-ALL-60M					
Ezi-SERVO-BK-60L	Ezi-SERVO-BK-PR-60L	Ezi-SERVO-BK-BT-60L	Ezi-SERVO-BK-ALL-60L					
Ezi-SERVO-BK-86M	Ezi-SERVO-BK-PR-86M	-	-	270	300	350	400	
Ezi-SERVO-BK-86L	Ezi-SERVO-BK-PR-86L	-	-					
Ezi-SERVO-BK-86XL	Ezi-SERVO-BK-PR-86XL	-	-					

## ● Drive Specification and Size

Please refer to the individual catalogue (Ezi-SERVO ST, Ezi-SERVO Plus-R, Ezi-SERVO BT and Ezi-SERVO ALL) to check drive specification and size of Ezi-SERVO ST/PR/BT/ALL of Ezi-SERVO BK Series

## ● System Configuration and Setting/Operation

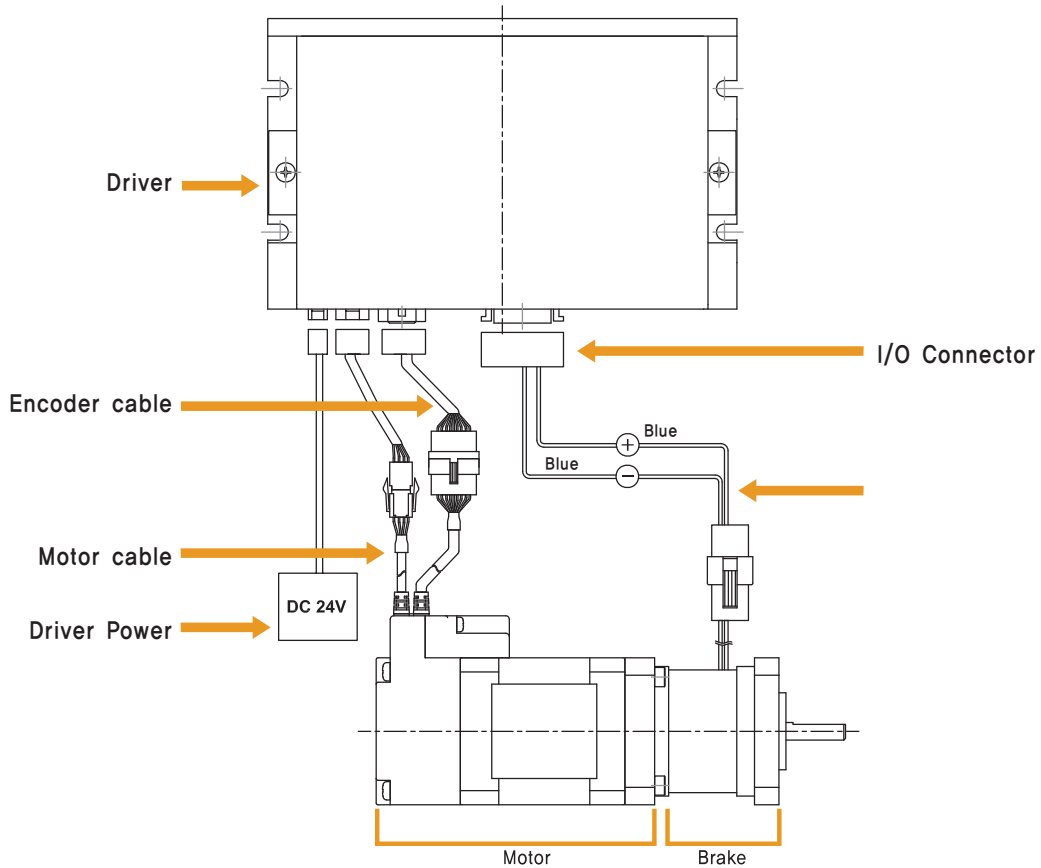
Please refer to the individual catalogue (Ezi-SERVO ST, Ezi-SERVO Plus-R, Ezi-SERVO BT and Ezi-SERVO ALL) to check Series' system configuration, setting and operation of Ezi-SERVO ST/PR/BT/ALL of Ezi-SERVO BK Series

## ● External Wiring Diagram

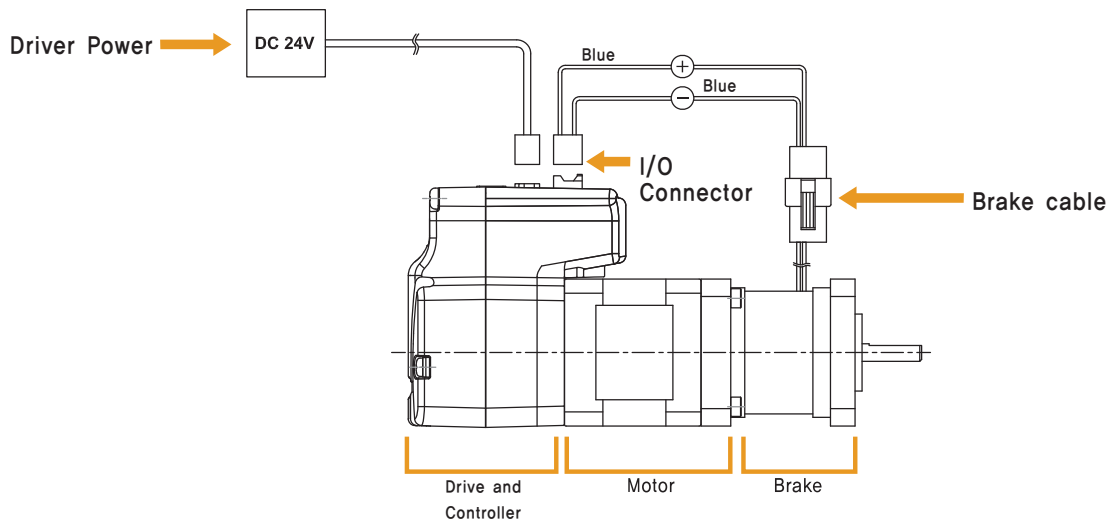
Please refer to the individual catalogue (Ezi-SERVO ST, Ezi-SERVO Plus-R, Ezi-SERVO BT and Ezi-SERVO ALL) to check Series' external wiring diagram of Ezi-SERVO ST/PR/BT/ALL of Ezi-SERVO BK Series

## ● Interface Between Power and Ezi-SERVO BK Series of Electromagnetic Brake

### ◆ Ezi-SERVO ST and Plus-R Series

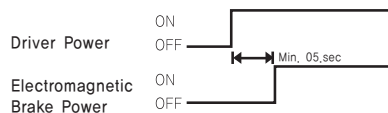


### ◆ Ezi-SERVO BT and ALL Series



#### Electromagnetic Brake Operation Timing Chart

Please release electromagnetic brake at least 0,5 sec later power input to the drive, if not, work can be falling



- Please use Cable at least thicker than AWG24 (0,2mm<sup>2</sup>) when connect electromagnetic brake and power.
- Electromagnetic Brake is non-polar so there is no polarity in Brake Cable
- Over input voltage can induce high temperature of electromagnetic brake and motor so it can be main reason of failure
- Reversely too low input voltage will cause non-operation of electromagnetic brake.



*Fast, Accurate, Smooth Motion*

**FASTECH Co., Ltd.**

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