

Product Line-up

Ezi-SPEED[®]

BLDC Motor Speed Control System

Modbus
RTU

Modbus
TCP

Ethernet

EtherCAT

CC-Link
ETSN

PROFINET
PROFINET



FASTECH

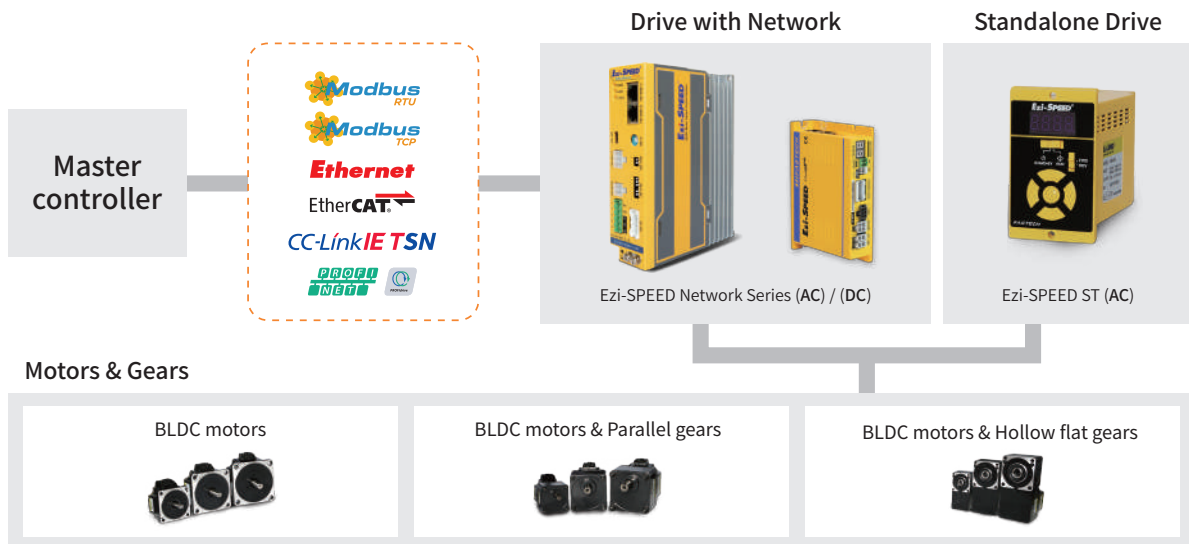
Fast Accurate Smooth Motion

Ezi-SPEED®





BLDC Motor Speed Control System



- BLDC Motor Speed Control System
- Compatible with Field Networks (Modbus-RTU, Modbus-TCP, Ethernet, EtherCAT, CC-Link IE TSN, PROFINET)
- Power supply input (AC 200 ~ 240 V, DC 12 ~ 48 V)
- Compact · Light Weight · High Power · High Efficiency Brushless Motor
- Wide Speed Range (50 ~ 4,000 r/min)
- Stable Speed Regulation ($\pm 0.2\%$)
- BLDC Motor Line-up (30, 60, 120, 200, 400 W)



Ezi-SPEED® Product Line-up

| Series | Product | Feature | Image |
|---|----------------------|--|--|
|  BLDC Motor Speed Control System  | Ezi-SPEED ST | <ul style="list-style-type: none"> • Stand-alone BLDC Motor Speed Control System • AC Power Supply Input (AC 200 ~ 240 V) • Compact · Light Weight · High Power · High Efficiency Brushless Motor • Wide Speed Range (50 ~ 4,000 r/min) • Stable Speed Regulation ($\pm 0.2\%$) • Easy Connection, Easy Operation • BLDC Motor Line-up (30, 60, 120, 200, 400 W) |  <p>P.4</p> |
| | Ezi-SPEED Modbus-RTU | <ul style="list-style-type: none"> • Modbus-RTU-compatible BLDC Motor Speed Control System • AC Power Supply Input (AC 200 ~ 240 V) • Compact · Light Weight · High Power · High Efficiency Brushless Motor • Wide Speed Range (50 ~ 4,000 r/min) • Stable Speed Regulation ($\pm 0.2\%$) • BLDC Motor Line-up (30, 60, 120, 200, 400 W) |  <p>P.6</p> |

| Series | Product | Feature | Image |
|---|--------------------------|--|--|
| Ezi-SPEED® BLDC Motor Speed Control System AC | Ezi-SPEED Modbus-TCP | <ul style="list-style-type: none"> • Modbus-TCP-compatible BLDC Motor Speed Control System • AC Power Supply Input (AC 200 ~ 240 V) • Compact · Light Weight · High Power · High Efficiency Brushless Motor • Wide Speed Range (50 ~ 4,000 r/min) • Stable Speed Regulation ($\pm 0.2\%$) • BLDC Motor Line-up (30, 60, 120, 200, 400 W) |  Modbus-TCP P.8 |
| | Ezi-SPEED Ethernet | <ul style="list-style-type: none"> • Ethernet-compatible BLDC Motor Speed Control System • API for Windows/Linux • AC Power Supply Input (AC 200 ~ 240 V) • Compact · Light Weight · High Power · High Efficiency Brushless Motor • Wide Speed Range (50 ~ 4,000 r/min) • Stable Speed Regulation ($\pm 0.2\%$) • BLDC Motor Line-up (30, 60, 120, 200, 400 W) |  Ethernet P.10 |
| | Ezi-SPEED EtherCAT | <ul style="list-style-type: none"> • EtherCAT-compatible BLDC Motor Speed Control System • CiA402 Drive Profile • AC Power Supply Input (AC 200 ~ 240 V) • Compact · Light Weight · High Power · High Efficiency Brushless Motor • Wide Speed Range (50 ~ 4,000 r/min) • Stable Speed Regulation ($\pm 0.2\%$) • BLDC Motor Line-up (30, 60, 120, 200, 400 W) |  EtherCAT P.12 |
| | Ezi-SPEED CC-Link IE TSN | <ul style="list-style-type: none"> • CC-Link IE TSN-compatible BLDC Motor Speed Control System • AC Power Supply Input (AC 200 ~ 240 V) • Compact · Light Weight · High Power · High Efficiency Brushless Motor • Wide Speed Range (50 ~ 4,000 r/min) • Stable Speed Regulation ($\pm 0.2\%$) • BLDC Motor Line-up (30, 60, 120, 200, 400 W) |  CC-Link IE TSN P.14 |
| | Ezi-SPEED PROFINET | <ul style="list-style-type: none"> • PROFINET-compatible BLDC Motor Speed Control System • RT(Realtime) & IRT(Isochronous Realtime) Communication • PROFIdrive Motion Control (AC1) • Ezi-PROFINET (Windows Software Tool for SMART 'Commissioning & Maintenance') • AC Power Supply Input (AC 200 ~ 240 V) • Compact · Light Weight · High Power · High Efficiency Brushless Motor • Wide Speed Range (50 ~ 4,000 r/min) • Stable Speed Regulation ($\pm 0.2\%$) • BLDC Motor Line-up (30, 60, 120, 200, 400 W) |  PROFINET P.16 |
| Ezi-SPEED® BLDC Motor Speed Control System DC | Ezi-SPEED Ethernet | <ul style="list-style-type: none"> • Ethernet-compatible Low Voltage BLDC Motor Speed Control System • API for Windows/Linux • Embedded Motion Controller • DC Power Input (DC 12 ~ 48 V) • Auto-tuning • Wide Speed Control Range (50 ~ 4,000 r/min) • Stable Speed Regulation ($\pm 0.2\%$) |  Ethernet P.18 |
| | Ezi-SPEED EtherCAT | <ul style="list-style-type: none"> • EtherCAT-compatible Low Voltage BLDC Motor Speed Control System • CiA402 Drive Profile • DC Power Input (DC 12 ~ 48 V) • Auto-tuning • Wide Speed Control Range (50 ~ 4,000 r/min) • Stable Speed Regulation ($\pm 0.2\%$) |  EtherCAT P.20 |
| | Ezi-SPEED CC-Link IE TSN | <ul style="list-style-type: none"> • CC-Link IE TSN-compatible Low Voltage BLDC Motor Speed Control System • DC Power Input (DC 12 ~ 48 V) • Auto-tuning • Wide Speed Control Range (50 ~ 4,000 r/min) • Stable Speed Regulation ($\pm 0.2\%$) |  CC-Link IE TSN P.22 |
| | Ezi-SPEED PROFINET | <ul style="list-style-type: none"> • PROFINET-compatible Low Voltage BLDC Motor Speed Control System • RT(Realtime) & IRT(Isochronous Realtime) Communication • PROFIdrive Motion Control (AC1) • Ezi-PROFINET (Windows Software Tool for SMART 'Commissioning & Maintenance') • DC Power Input (DC 12 ~ 48 V) • Auto-tuning • Wide Speed Control Range (50 ~ 4,000 r/min) • Stable Speed Regulation ($\pm 0.2\%$) |  PROFINET P.24 |

Ezi-SPEED[®] ST

BLDC Motor Speed Control System

- Stand-alone BLDC Motor Speed Control System
- AC Power Supply Input (AC 200 ~ 240 V)
- Compact · Light Weight · High Power · High Efficiency Brushless Motor
- Wide Speed Range (50 ~ 4,000 r/min)
- Stable Speed Regulation ($\pm 0.2\%$)
- Easy Connection, Easy Operation
- BLDC Motor Line-up (30, 60, 120, 200, 400 W)

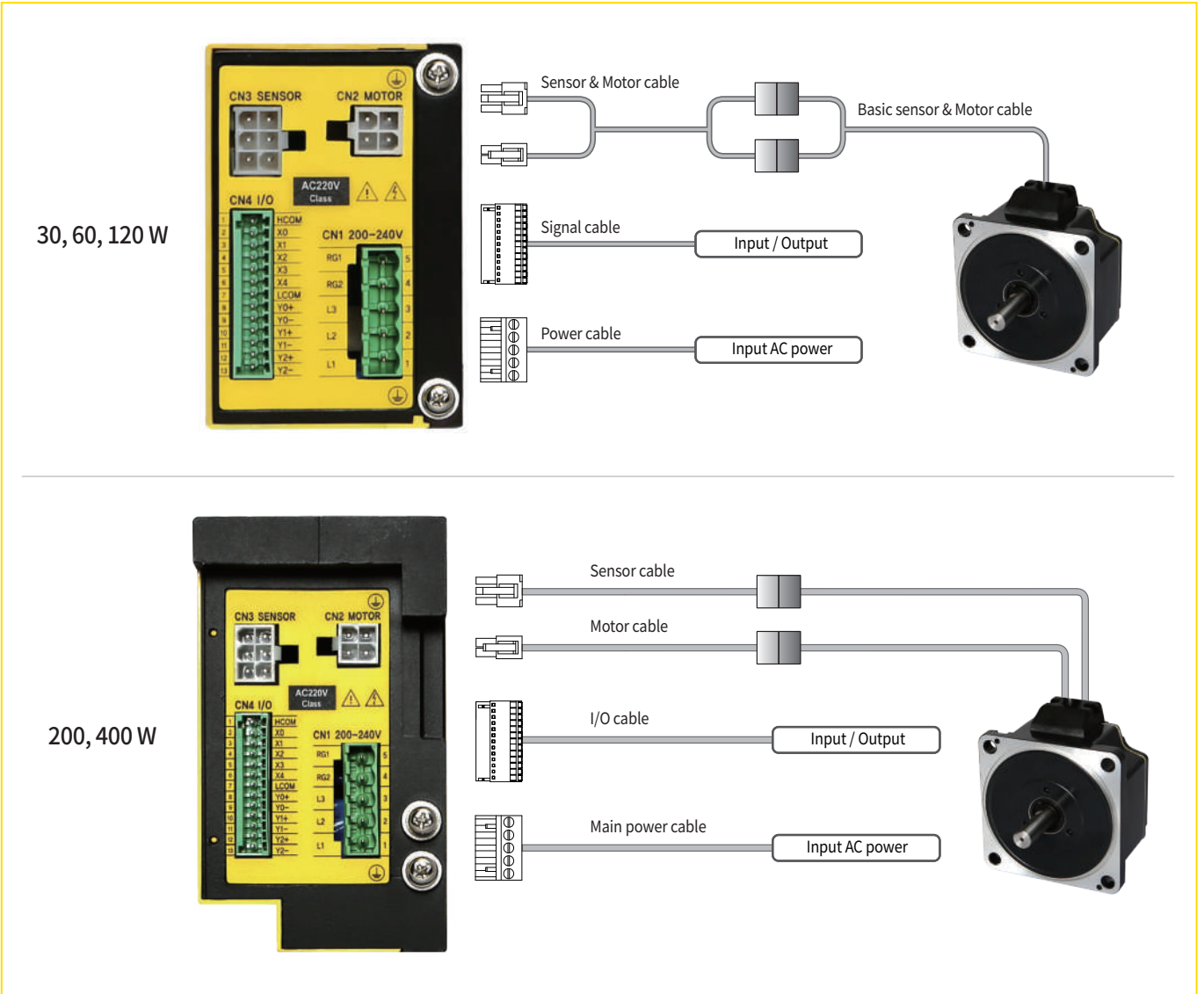


Specifications

□: Motor flange size
■: Shaft figuration

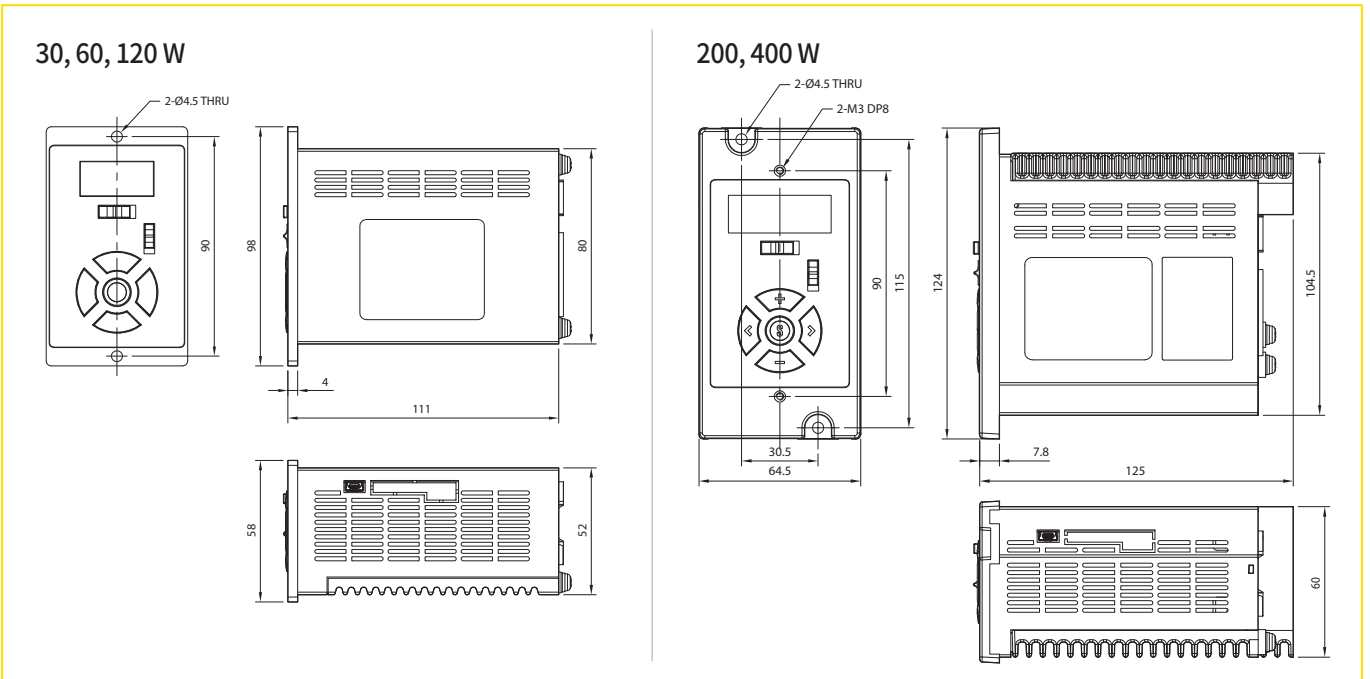
| Model | Ezi-SPEED-□-■-30 | Ezi-SPEED-□-■-60 | Ezi-SPEED-□-■-120 | Ezi-SPEED-□-■-200 | Ezi-SPEED-□-■-400 |
|---------------------------------|---|-----------------------|-----------------------|-----------------------|-----------------------|
| Rated Output Power (Continuous) | 30 W | 60 W | 120 W | 200 W | 400 W |
| Power Supply | Rated Voltage | | | | |
| | Single-phase 200 ~ 240 V / Three-phase 200 ~ 240 V | | | | |
| | Rated Frequency | | | | |
| | 50/60 Hz $\pm 5\%$ | | | | |
| Rated Input Current | Single-Phase : 0.88 A | Single-Phase : 1.55 A | Single-Phase : 2.43 A | Single-Phase : 3.42 A | Single-Phase : 5.64 A |
| | Three-Phase : 0.51 A | Three-Phase : 0.90 A | Three-Phase : 1.41 A | Three-Phase : 1.97 A | Three-Phase : 3.26 A |
| Maximum Input Current | Single-Phase : 1.9 A | Single-Phase : 2.8 A | Single-Phase : 4.5 A | Single-Phase : 5.47 A | Single-Phase : 7.85 A |
| | Three-Phase : 1.1 A | Three-Phase : 1.7 A | Three-Phase : 2.6 A | Three-Phase : 3.16 A | Three-Phase : 4.53 A |
| Rated Phase Current | 0.21 A | 0.36 A | 0.85 A | 1.65 A | 2.37 A |
| Rated Torque | 0.096 N·m | 0.191 N·m | 0.382 N·m | 0.637 N·m | 1.27 N·m |
| Maximum Instantaneous Torque | 0.144 N·m | 0.287 N·m | 0.573 N·m | 1.15 N·m | 1.91 N·m |
| Rated Speed | 3,000 r/min | | | | |
| Speed Control Range | 50 ~ 4,000 r/min | | | | |
| Speed Regulation | $\pm 0.2\%$ or less / Conditions : 0~Rated Torque, Rated Speed, Rated Voltage, Normal Temperature | | | | |
| Digital Input | 5 programmable inputs | | | | |
| Digital Output | 3 programmable outputs | | | | |

System Configuration



Dimension

Unit [mm]



Ezi-SPEED[®] Modbus RTU

BLDC Motor Speed Control System

- Modbus-RTU-compatible BLDC Motor Speed Control System
- AC Power Supply Input (AC 200 ~ 240 V)
- Compact · Light Weight · High Power · High Efficiency Brushless Motor
- Wide Speed Range (50 ~ 4,000 r/min)
- Stable Speed Regulation ($\pm 0.2\%$)
- BLDC Motor Line-up (30, 60, 120, 200, 400 W)

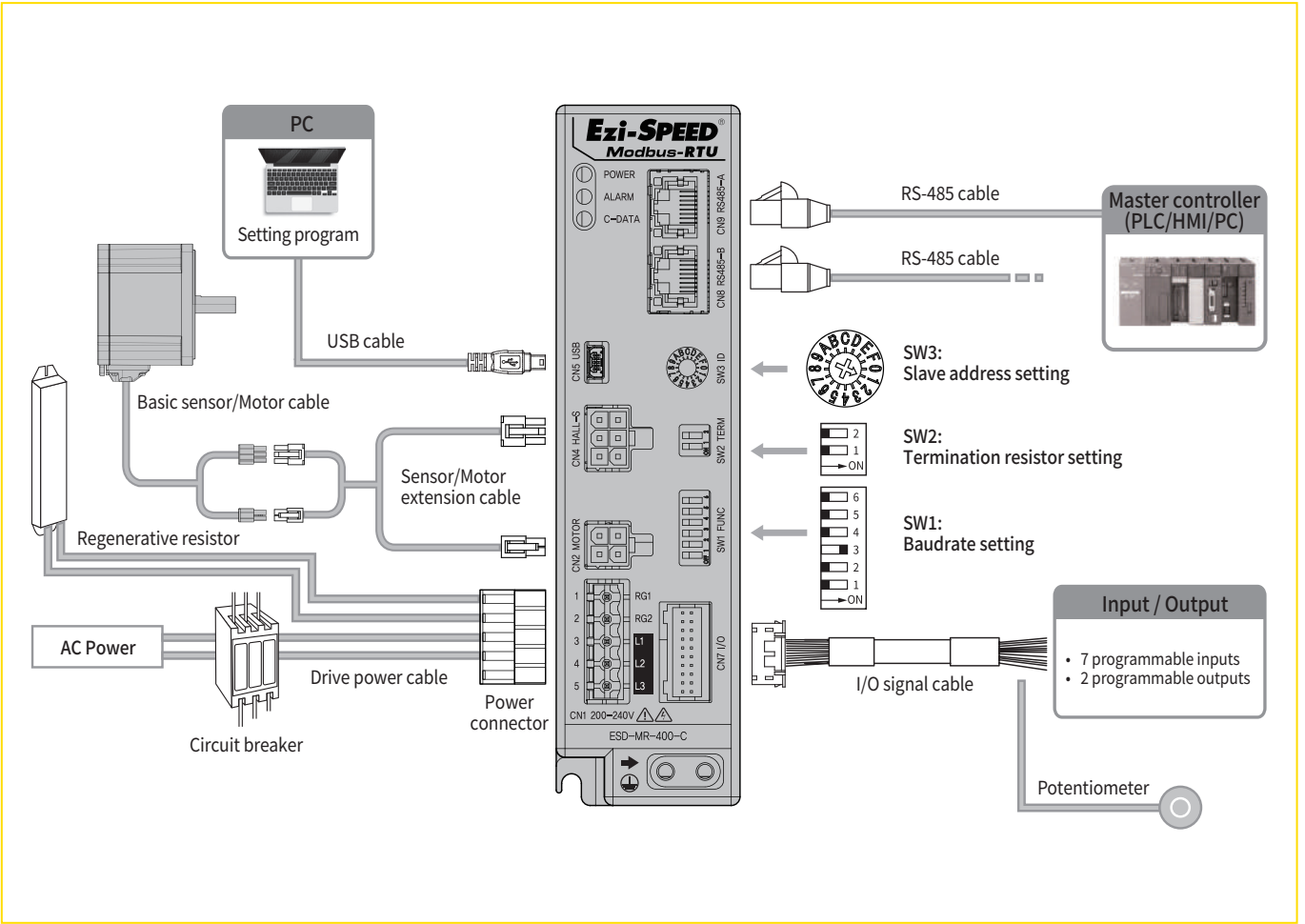


Specifications

□: Motor flange size
■: Shaft figuration

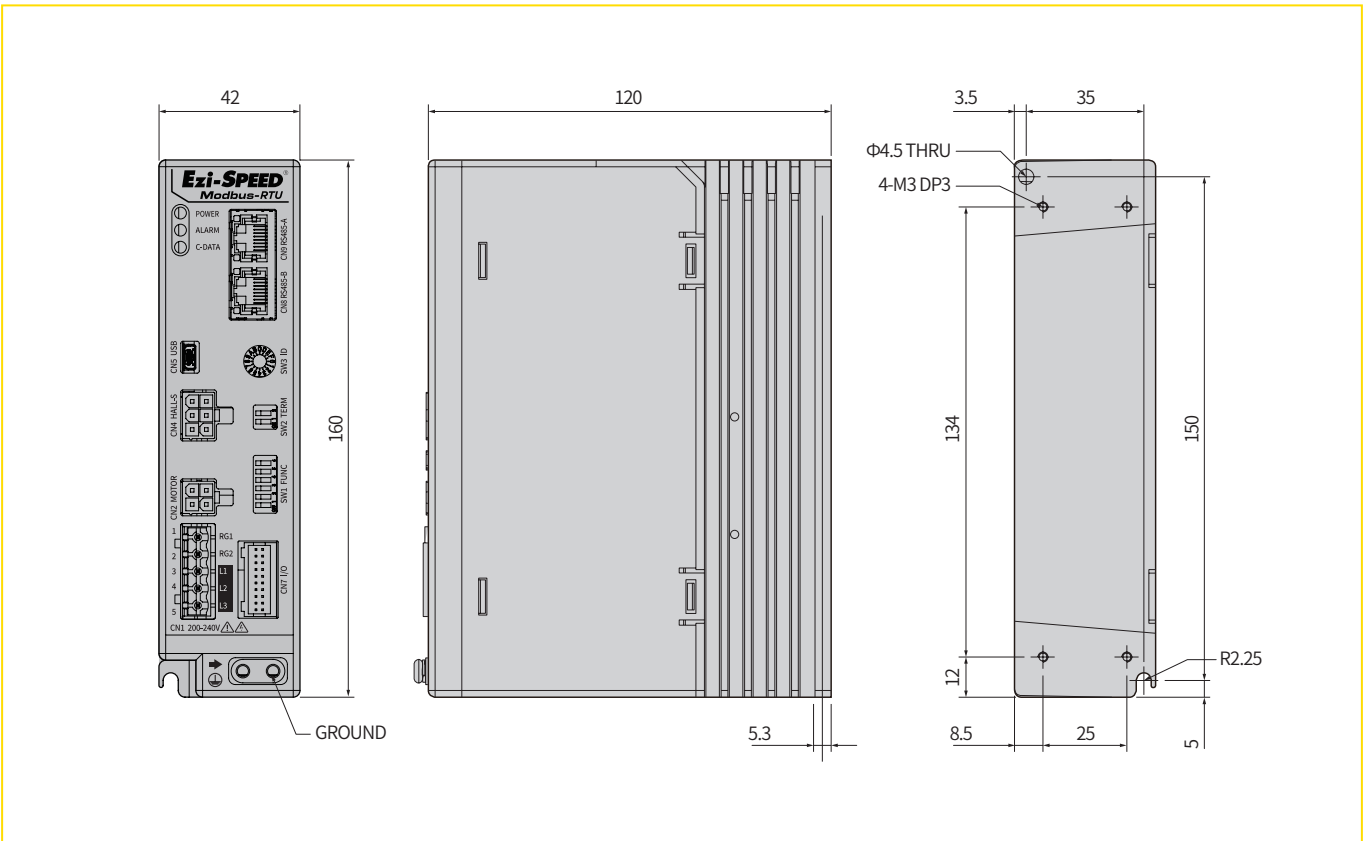
| Model | Ezi-SPEED-MR-□-■-30 | Ezi-SPEED-MR-□-■-60 | Ezi-SPEED-MR-□-■-120 | Ezi-SPEED-MR-□-■-200 | Ezi-SPEED-MR-□-■-400 |
|---------------------------------|---|---|---|---|---|
| Rated Output Power (Continuous) | 30 W | 60 W | 120 W | 200 W | 400 W |
| Power Supply | Rated Voltage | | | | |
| | Single-phase 200 ~ 240 V / Three-phase 200 ~ 240 V | | | | |
| | Rated Frequency | | | | |
| | 50/60 Hz $\pm 5\%$ | | | | |
| Power Supply | Rated Input Current | | | | |
| | Single-Phase : 0.88 A Three-Phase : 0.51 A | Single-Phase : 1.55 A Three-Phase : 0.90 A | Single-Phase : 2.43 A Three-Phase : 1.41 A | Single-Phase : 3.42 A Three-Phase : 1.97 A | Single-Phase : 5.64 A Three-Phase : 3.26 A |
| Power Supply | Maximum Input Current | | | | |
| | Single-Phase : 1.9 A Three-Phase : 1.1 A | Single-Phase : 2.8 A Three-Phase : 1.7 A | Single-Phase : 4.5 A Three-Phase : 2.6 A | Single-Phase : 5.47 A Three-Phase : 3.16 A | Single-Phase : 7.85 A Three-Phase : 4.53 A |
| Rated Phase Current | 0.21 A | 0.36 A | 0.85 A | 1.65 A | 2.37 A |
| Rated Torque | 0.096 N·m | 0.191 N·m | 0.382 N·m | 0.637 N·m | 1.27 N·m |
| Maximum Instantaneous Torque | 0.144 N·m | 0.287 N·m | 0.573 N·m | 1.15 N·m | 1.91 N·m |
| Rated Speed | 3,000 r/min | | | | |
| Speed Control Range | 50 ~ 4,000 r/min | | | | |
| Speed Regulation | $\pm 0.2\%$ or less / Conditions : 0~Rated Torque, Rated Speed, Rated Voltage, Normal Temperature | | | | |
| Digital Input | 7 programmable inputs | | | | |
| Digital Output | 2 programmable outputs | | | | |
| Network | · RS-485 Modbus-RTU Communication · Baudrate: 9,600 ~ 115,200 bps | | | | |

System Configuration



Dimension

Unit [mm]



Ezi-SPEED[®] Modbus TCP

BLDC Motor Speed Control System

- Modbus-TCP-compatible BLDC Motor Speed Control System
- AC Power Supply Input (AC 200 ~ 240 V)
- Compact · Light Weight · High Power · High Efficiency Brushless Motor
- Wide Speed Range (50 ~ 4,000 r/min)
- Stable Speed Regulation ($\pm 0.2\%$)
- BLDC Motor Line-up (30, 60, 120, 200, 400 W)

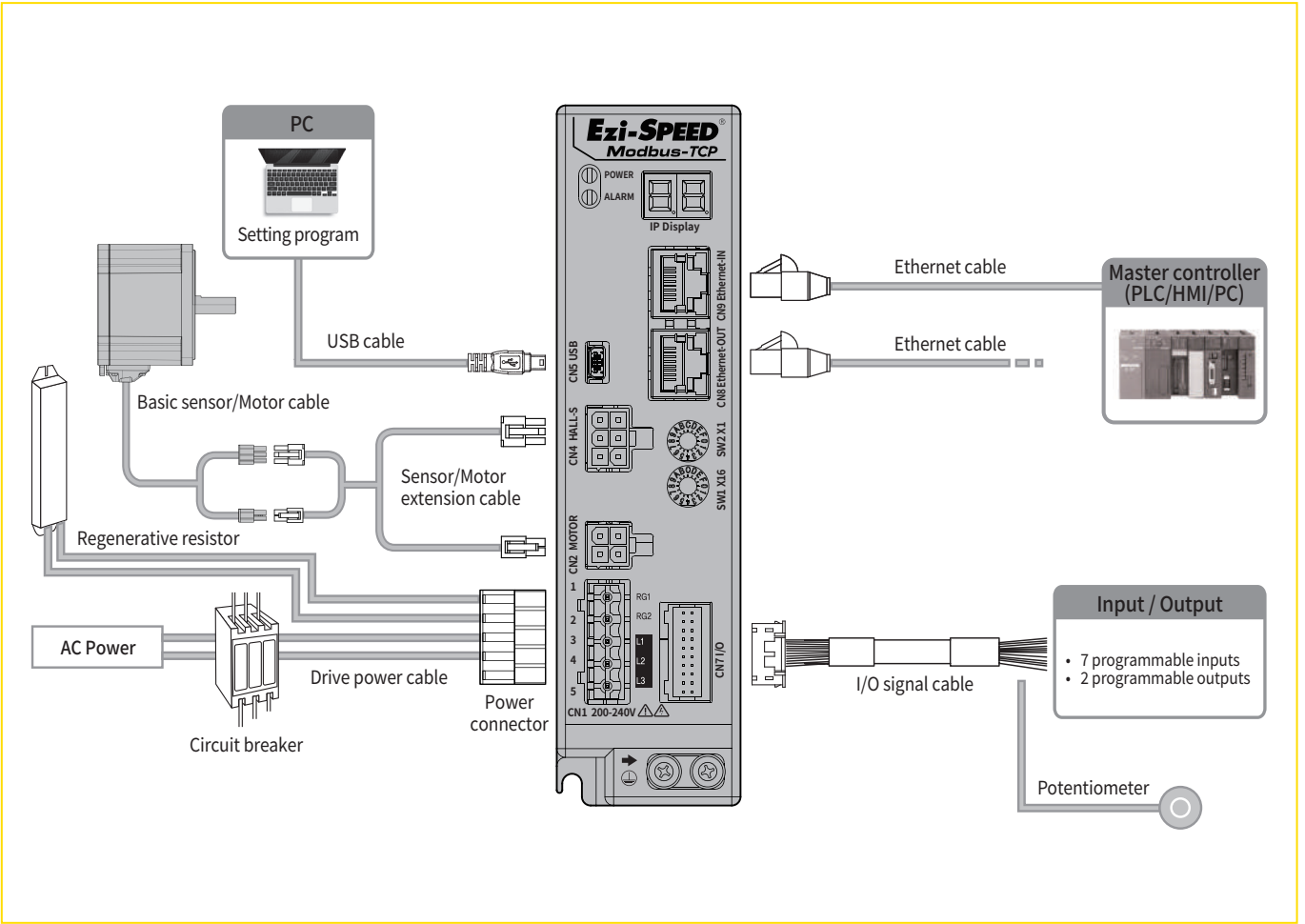


Specifications

□: Motor flange size
■: Shaft figuration

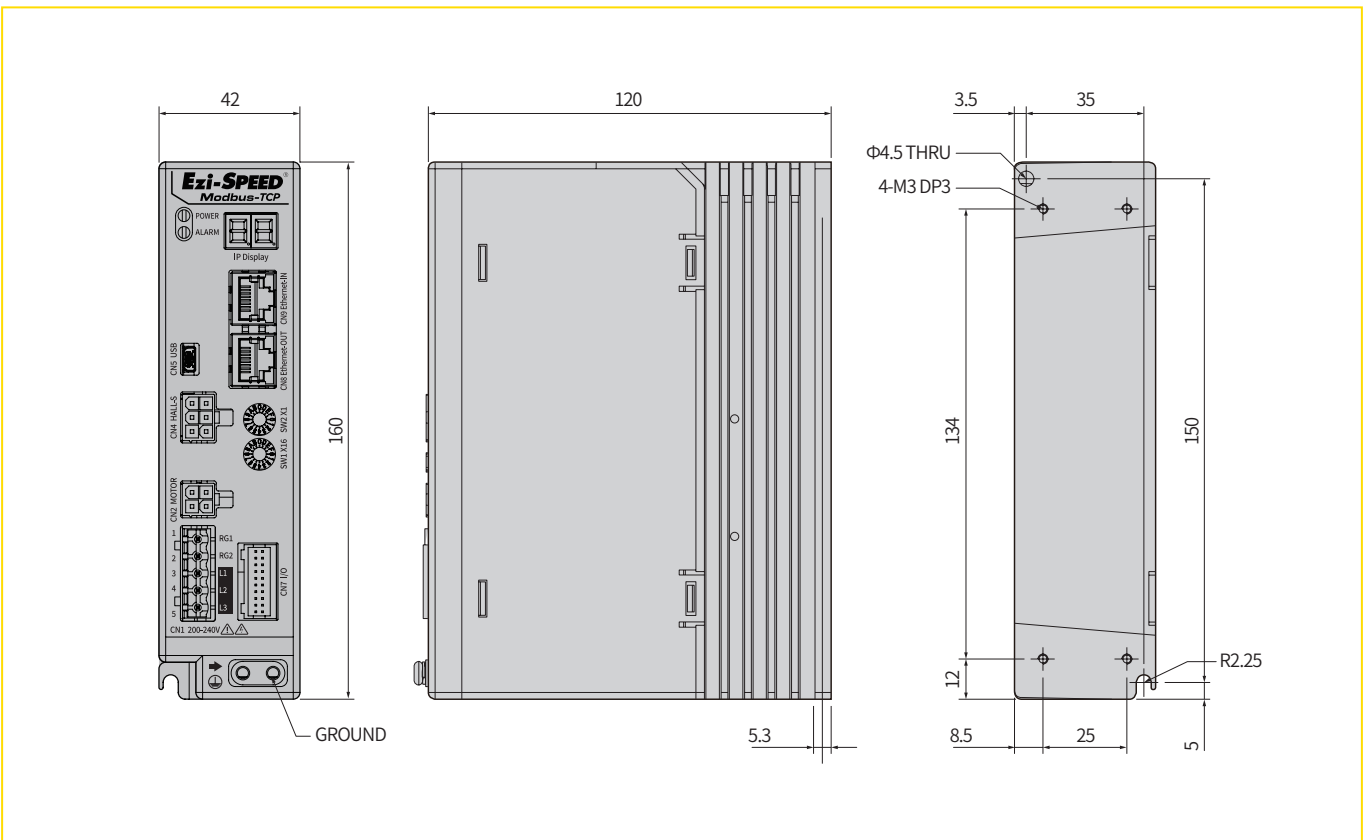
| Model | Ezi-SPEED-MT-□-■-30 | Ezi-SPEED-MT-□-■-60 | Ezi-SPEED-MT-□-■-120 | Ezi-SPEED-MT-□-■-200 | Ezi-SPEED-MT-□-■-400 |
|---------------------------------|---|---|---|---|---|
| Rated Output Power (Continuous) | 30 W | 60 W | 120 W | 200 W | 400 W |
| Power Supply | Rated Voltage | | | | |
| | Single-phase 200 ~ 240 V / Three-phase 200 ~ 240 V | | | | |
| | Rated Frequency | | | | |
| | 50/60 Hz $\pm 5\%$ | | | | |
| Rated Input Current | Single-Phase : 0.88 A Three-Phase : 0.51 A | Single-Phase : 1.55 A Three-Phase : 0.90 A | Single-Phase : 2.43 A Three-Phase : 1.41 A | Single-Phase : 3.42 A Three-Phase : 1.97 A | Single-Phase : 5.64 A Three-Phase : 3.26 A |
| | Single-Phase : 1.9 A Three-Phase : 1.1 A | Single-Phase : 2.8 A Three-Phase : 1.7 A | Single-Phase : 4.5 A Three-Phase : 2.6 A | Single-Phase : 5.47 A Three-Phase : 3.16 A | Single-Phase : 7.85 A Three-Phase : 4.53 A |
| Maximum Input Current | Single-Phase : 1.9 A Three-Phase : 1.1 A | Single-Phase : 2.8 A Three-Phase : 1.7 A | Single-Phase : 4.5 A Three-Phase : 2.6 A | Single-Phase : 5.47 A Three-Phase : 3.16 A | Single-Phase : 7.85 A Three-Phase : 4.53 A |
| Rated Phase Current | 0.21 A | 0.36 A | 0.85 A | 1.65 A | 2.37 A |
| Rated Torque | 0.096 N·m | 0.191 N·m | 0.382 N·m | 0.637 N·m | 1.27 N·m |
| Maximum Instantaneous Torque | 0.144 N·m | 0.287 N·m | 0.573 N·m | 1.15 N·m | 1.91 N·m |
| Rated Speed | 3,000 r/min | | | | |
| Speed Control Range | 50 ~ 4,000 r/min | | | | |
| Speed Regulation | $\pm 0.2\%$ or less / Conditions : 0~Rated Torque, Rated Speed, Rated Voltage, Normal Temperature | | | | |
| Digital Input | 7 programmable inputs | | | | |
| Digital Output | 2 programmable outputs | | | | |
| Network | · Ethernet communication, 100Base-TX · Modbus-TCP communication | | | | |

System Configuration



Dimension

Unit [mm]



Ezi-SPEED[®] Ethernet

BLDC Motor Speed Control System

- Ethernet-compatible BLDC Motor Speed Control System
- API for Windows/Linux
- AC Power Supply Input (AC 200 ~ 240 V)
- Compact · Light Weight · High Power · High Efficiency Brushless Motor
- Wide Speed Range (50 ~ 4,000 r/min)
- Stable Speed Regulation ($\pm 0.2\%$)
- BLDC Motor Line-up (30, 60, 120, 200, 400 W)

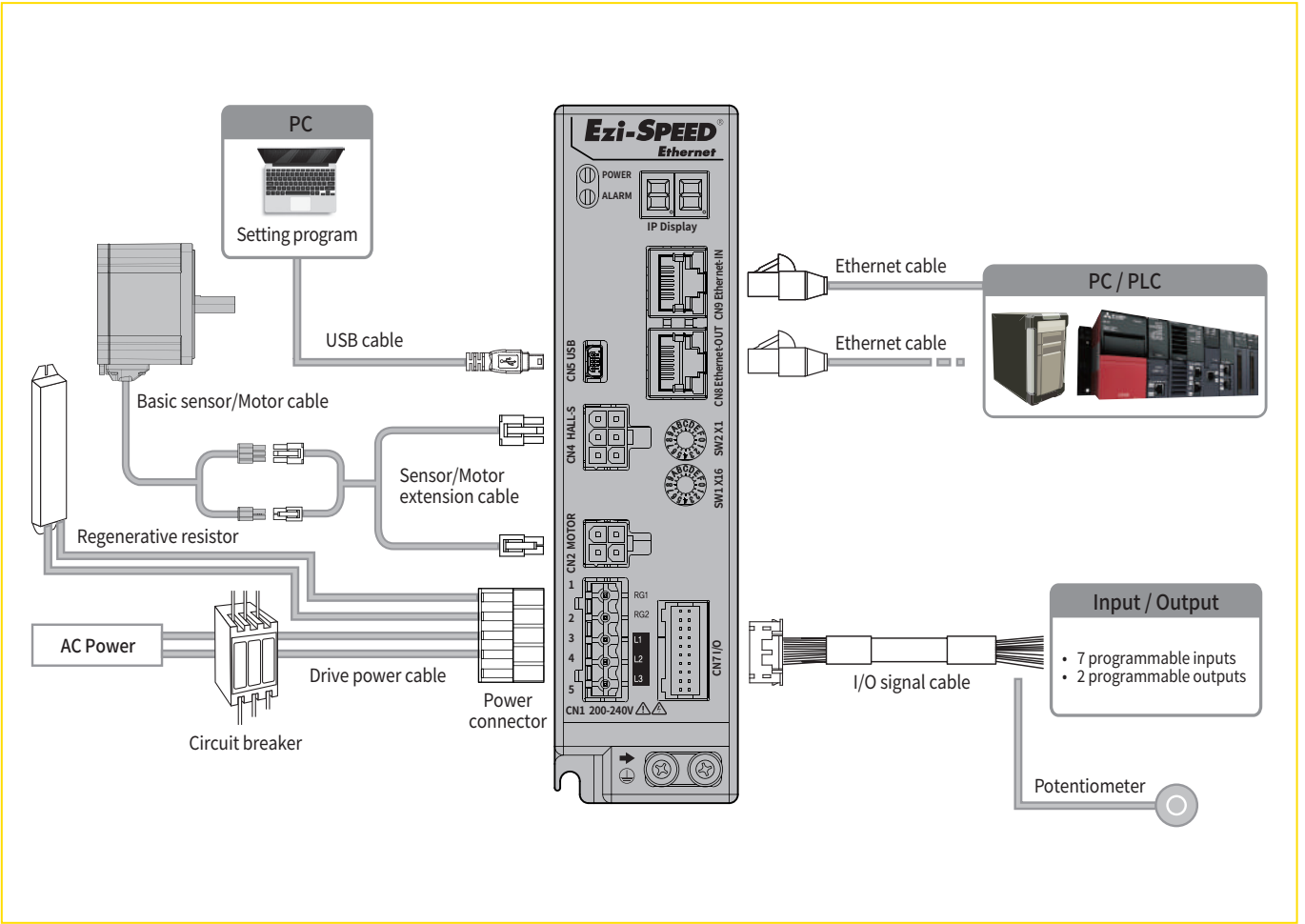


Specifications

□: Motor flange size
■: Shaft figuration

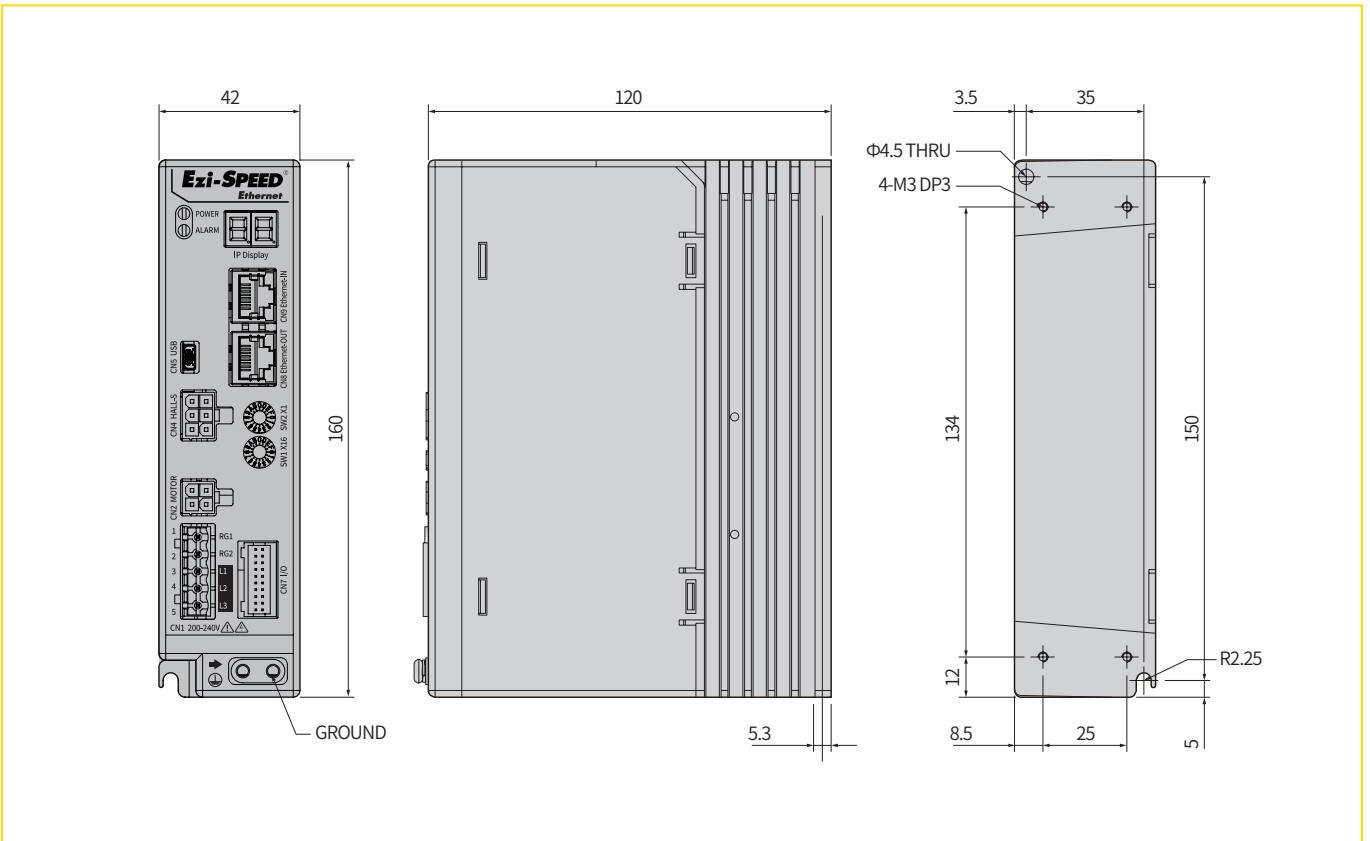
| Model | Ezi-SPEED-EN-□-■-30 | Ezi-SPEED-EN-□-■-60 | Ezi-SPEED-EN-□-■-120 | Ezi-SPEED-EN-□-■-200 | Ezi-SPEED-EN-□-■-400 |
|------------------------------------|---|---|---|---|---|
| Rated Output Power (Continuous) | 30 W | 60 W | 120 W | 200 W | 400 W |
| Power Supply | Rated Voltage | | | | |
| | Single-phase 200 ~ 240 V / Three-phase 200 ~ 240 V | | | | |
| | Rated Frequency | | | | |
| | 50/60 Hz $\pm 5\%$ | | | | |
| Rated Input Current | Single-Phase : 0.88 A Three-Phase : 0.51 A | Single-Phase : 1.55 A Three-Phase : 0.90 A | Single-Phase : 2.43 A Three-Phase : 1.41 A | Single-Phase : 3.42 A Three-Phase : 1.97 A | Single-Phase : 5.64 A Three-Phase : 3.26 A |
| | Single-Phase : 1.9 A Three-Phase : 1.1 A | Single-Phase : 2.8 A Three-Phase : 1.7 A | Single-Phase : 4.5 A Three-Phase : 2.6 A | Single-Phase : 5.47 A Three-Phase : 3.16 A | Single-Phase : 7.85 A Three-Phase : 4.53 A |
| Maximum Input Current | Single-Phase : 1.9 A Three-Phase : 1.1 A | Single-Phase : 2.8 A Three-Phase : 1.7 A | Single-Phase : 4.5 A Three-Phase : 2.6 A | Single-Phase : 5.47 A Three-Phase : 3.16 A | Single-Phase : 7.85 A Three-Phase : 4.53 A |
| Rated Phase Current | 0.21 A | 0.36 A | 0.85 A | 1.65 A | 2.37 A |
| Rated Torque | 0.096 N·m | 0.191 N·m | 0.382 N·m | 0.637 N·m | 1.27 N·m |
| Maximum Instantaneous Torque | 0.144 N·m | 0.287 N·m | 0.573 N·m | 1.15 N·m | 1.91 N·m |
| Rated Speed | 3,000 r/min | | | | |
| Speed Control Range | 50 ~ 4,000 r/min | | | | |
| Speed Regulation | $\pm 0.2\%$ or less / Conditions : 0~Rated Torque, Rated Speed, Rated Voltage, Normal Temperature | | | | |
| Digital Input | 7 programmable inputs | | | | |
| Digital Output | 2 programmable outputs | | | | |
| Ethernet | Specifications | | | | |
| | 100Base-TX | | | | |
| | User Interface Program | | | | |
| GUI for Windows 7 and above | | | | | |
| Motion API | | | | | |
| Motion library for Windows / Linux | | | | | |

System Configuration



Dimension

Unit [mm]



Ezi-SPEED[®] EtherCAT[®]

BLDC Motor Speed Control System

- EtherCAT-compatible BLDC Motor Speed Control System
- CiA402 Drive Profile
- AC Power Supply Input (AC 200 ~ 240 V)
- Compact · Light Weight · High Power · High Efficiency Brushless Motor
- Wide Speed Range (50 ~ 4,000 r/min)
- Stable Speed Regulation ($\pm 0.2\%$)
- BLDC Motor Line-up (30, 60, 120, 200, 400 W)

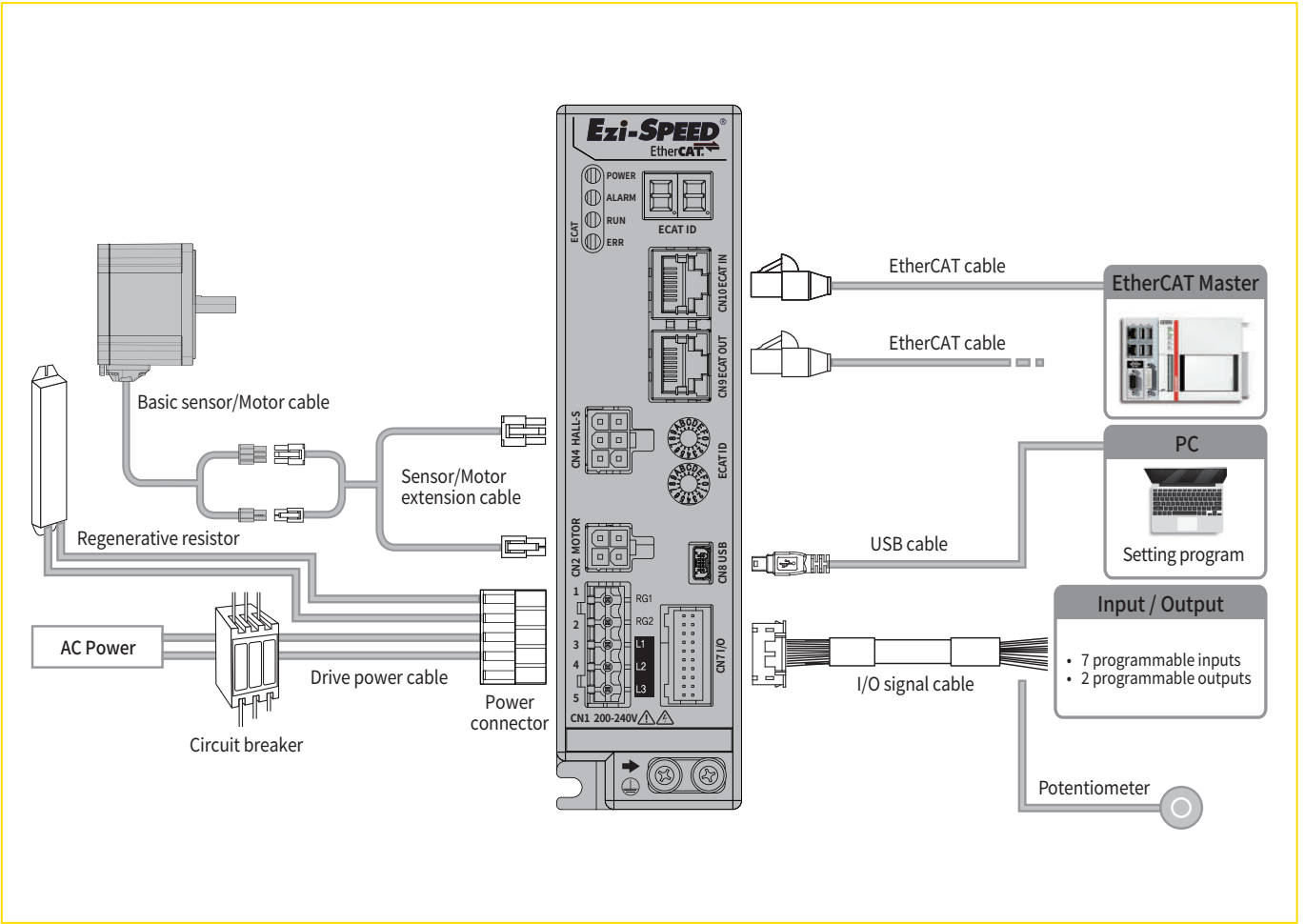


Specifications

□: Motor flange size
■: Shaft figuration

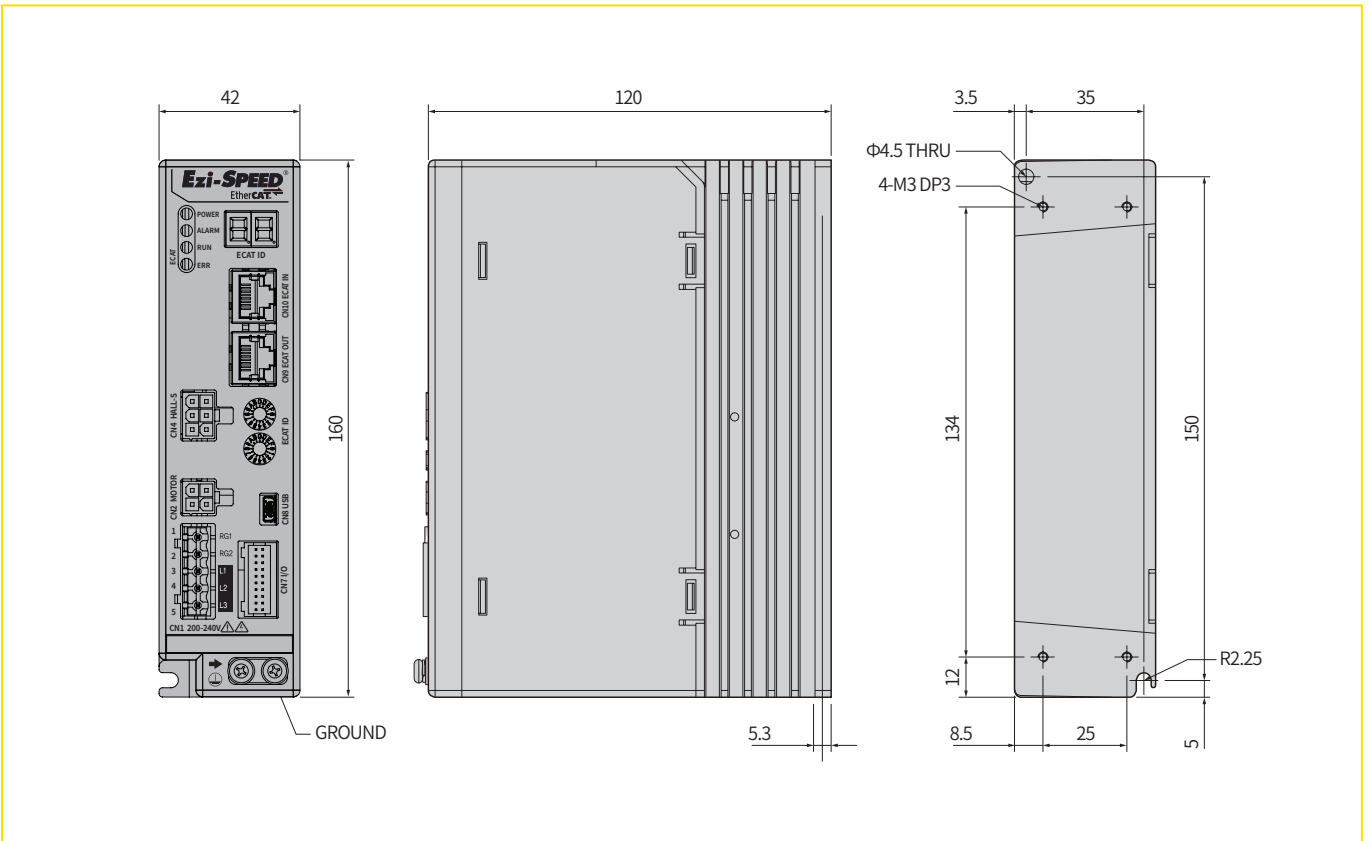
| Model | Ezi-SPEED-EC-□-■-30 | Ezi-SPEED-EC-□-■-60 | Ezi-SPEED-EC-□-■-120 | Ezi-SPEED-EC-□-■-200 | Ezi-SPEED-EC-□-■-400 |
|---------------------------------|---|---------------------|----------------------|----------------------|----------------------|
| Rated Output Power (Continuous) | 30 W | 60 W | 120 W | 200 W | 400 W |
| Power Supply | Rated Voltage: Single-phase 200 ~ 240 V / Three-phase 200 ~ 240 V | | | | |
| | Rated Frequency: 50/60 Hz $\pm 5\%$ | | | | |
| | Rated Input Current: Single-Phase: 0.88 A, Three-Phase: 0.51 A | | | | |
| | Maximum Input Current: Single-Phase: 1.9 A, Three-Phase: 1.1 A | | | | |
| Rated Phase Current | 0.21 A | 0.36 A | 0.85 A | 1.65 A | 2.37 A |
| Rated Torque | 0.096 N·m | 0.191 N·m | 0.382 N·m | 0.637 N·m | 1.27 N·m |
| Maximum Instantaneous Torque | 0.144 N·m | 0.287 N·m | 0.573 N·m | 1.15 N·m | 1.91 N·m |
| Rated Speed | 3,000 r/min | | | | |
| Speed Control Range | 50 ~ 4,000 r/min | | | | |
| Speed Regulation | $\pm 0.2\%$ or less / Conditions: 0~Rated Torque, Rated Speed, Rated Voltage, Normal Temperature | | | | |
| Digital Input | 7 programmable inputs | | | | |
| Digital Output | 2 programmable outputs | | | | |
| EtherCAT | Communication Protocol: CoE (CiA402 Drive Profile), FoE (Firmware Download) | | | | |
| | Operation Mode: CiA402 Drive Profile: Velocity Mode (VL) Manufacturer-specific Mode: IO-Map Command Mode | | | | |
| | Synchronization: Free Run, SM Event, DC SYNC Event | | | | |

System Configuration

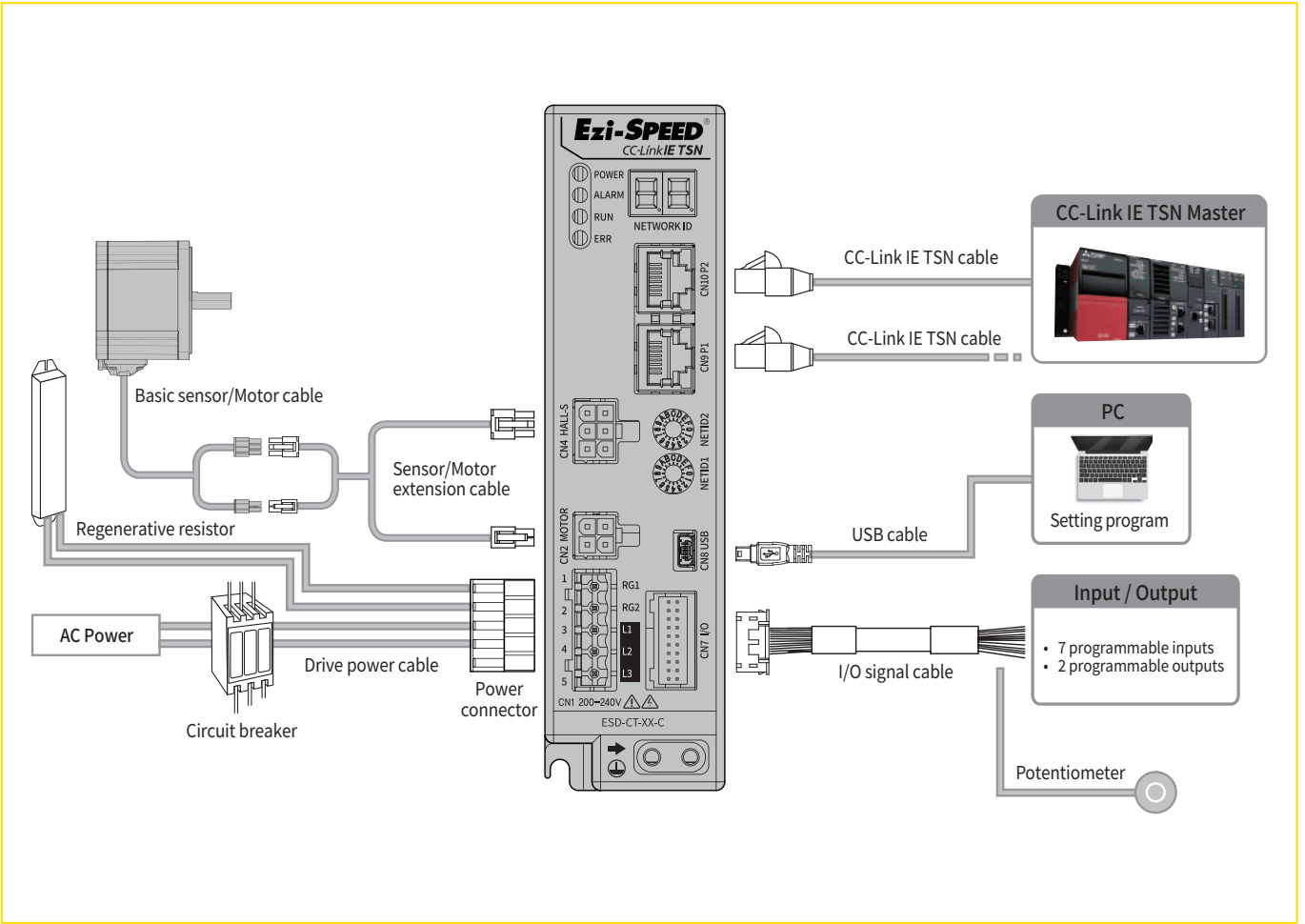


Dimension

Unit [mm]

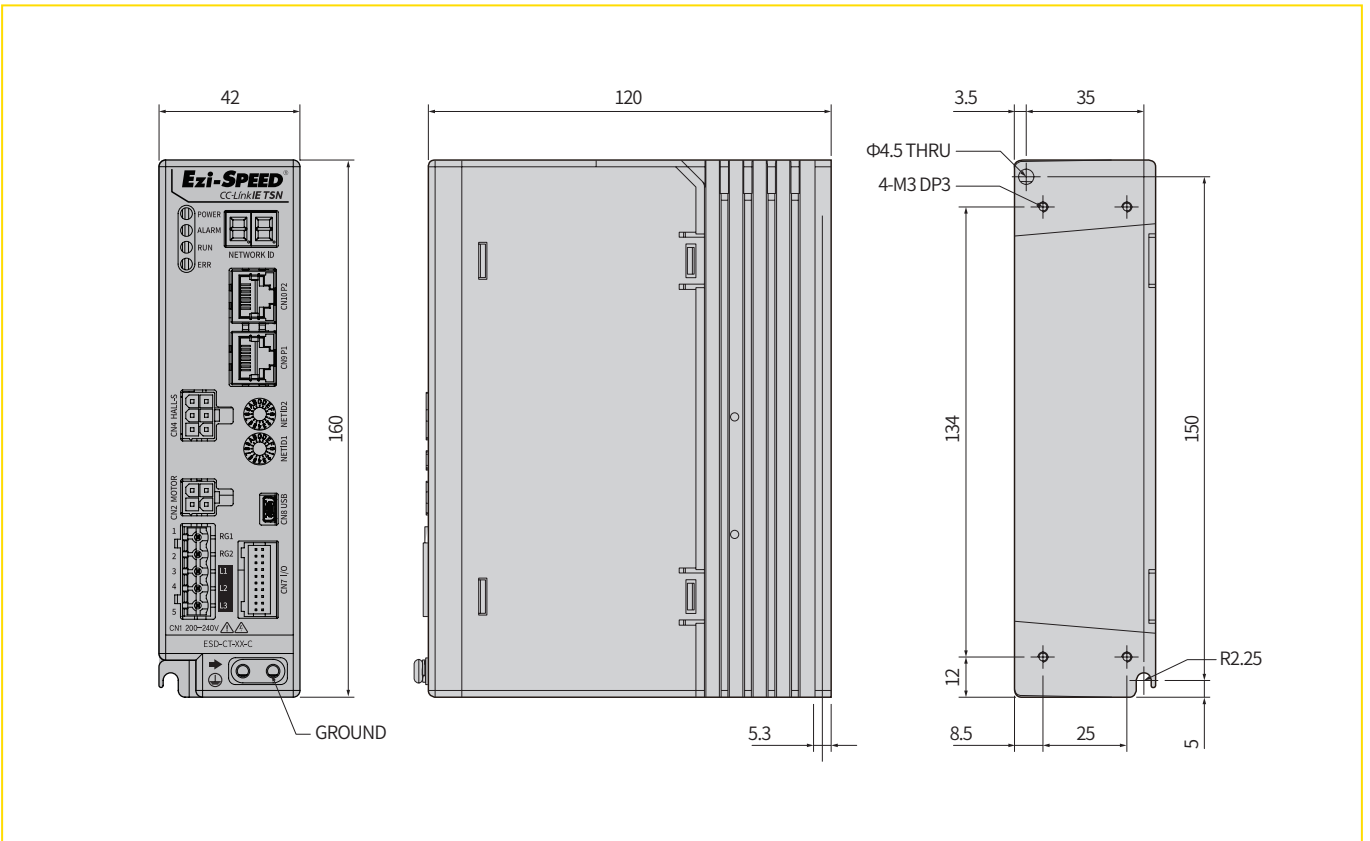


System Configuration



Dimension

Unit [mm]



Ezi-SPEED[®]



BLDC Motor Speed Control System

- PROFINET-compatible BLDC Motor Speed Control System
- RT(Realtime) & IRT(Isochronous Realtime) Communication
- PROFIdrive Motion Control (AC1)
- Ezi-PROFINET (Windows Software Tool for SMART 'Commissioning & Maintenance')
- AC Power Supply Input (AC 200 ~ 240 V)
- Compact · Light Weight · High Power · High Efficiency Brushless Motor
- Wide Speed Range (50 ~ 4,000 r/min)
- Stable Speed Regulation ($\pm 0.2\%$)
- BLDC Motor Line-up (30, 60, 120, 200, 400 W)

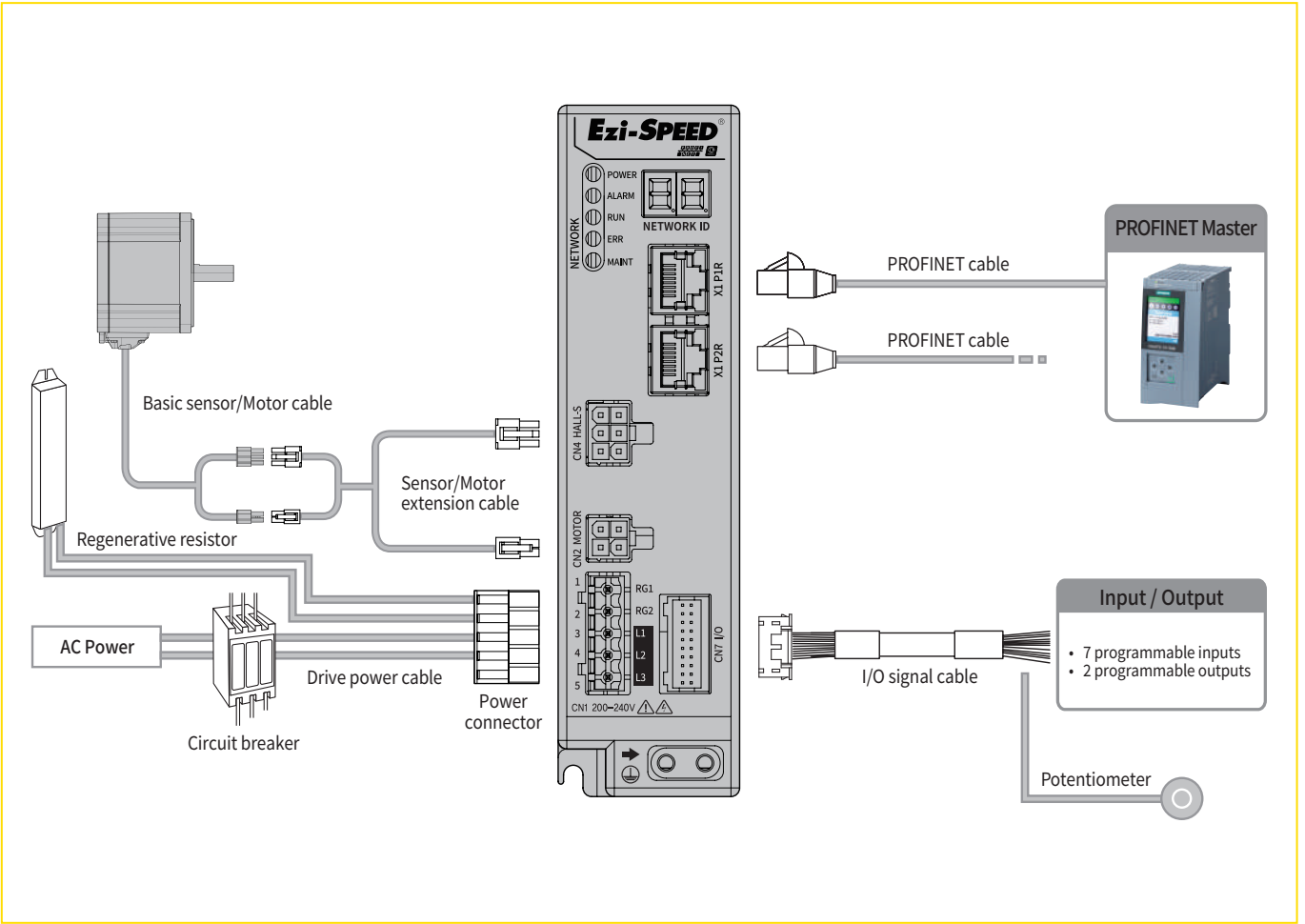


Specifications

□: Motor flange size
■: Shaft figuration

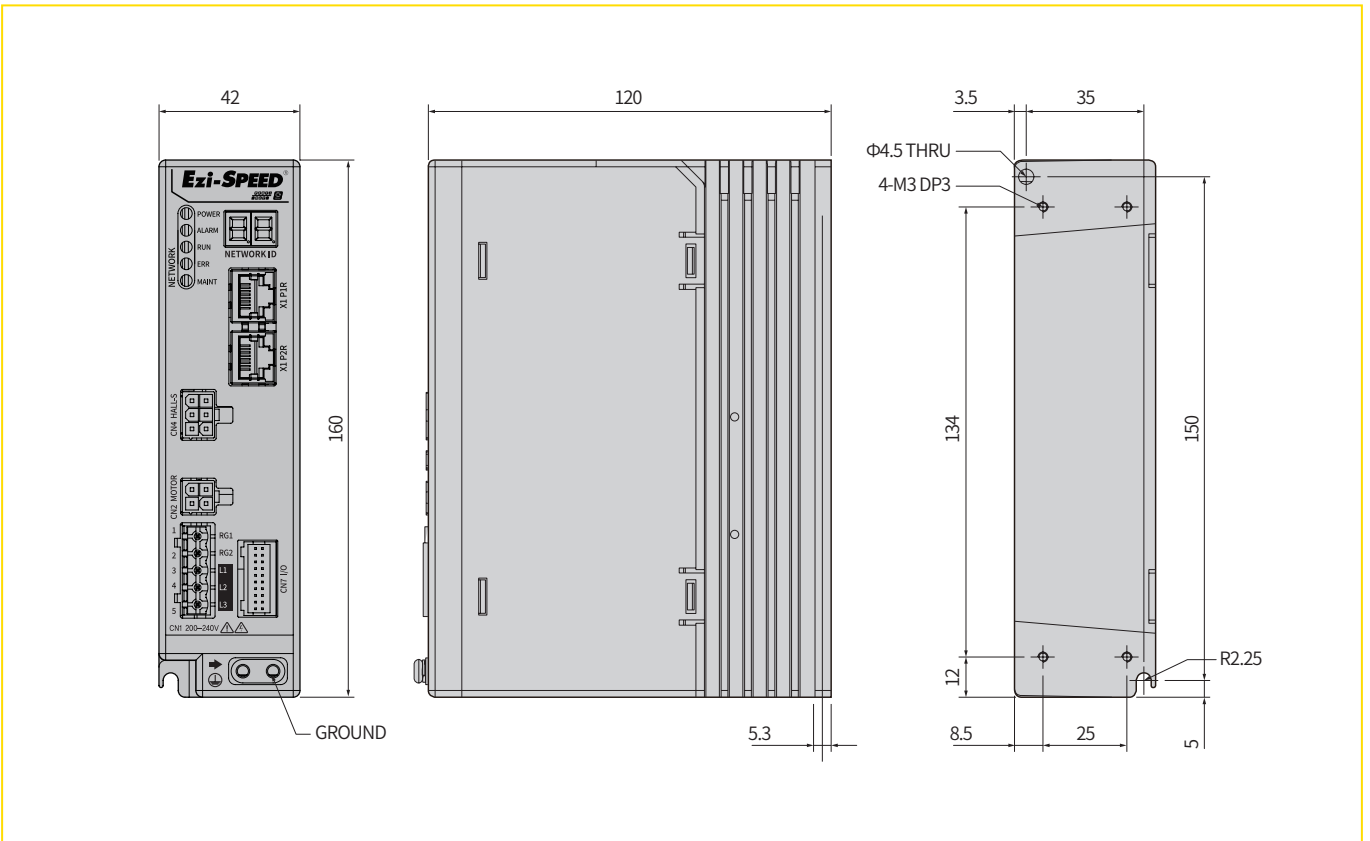
| Model | Ezi-SPEED-PD-□-■-30 | Ezi-SPEED-PD-□-■-60 | Ezi-SPEED-PD-□-■-120 | Ezi-SPEED-PD-□-■-200 | Ezi-SPEED-PD-□-■-400 |
|---------------------------------|---|---|---|---|---|
| Rated Output Power (Continuous) | 30 W | 60 W | 120 W | 200 W | 400 W |
| Power Supply | Rated Voltage | | | | |
| | Single-phase 200 ~ 240 V / Three-phase 200 ~ 240 V | | | | |
| | Rated Frequency | | | | |
| | 50/60 Hz $\pm 5\%$ | | | | |
| Rated Input Current | Single-Phase : 0.88 A Three-Phase : 0.51 A | Single-Phase : 1.55 A Three-Phase : 0.90 A | Single-Phase : 2.43 A Three-Phase : 1.41 A | Single-Phase : 3.42 A Three-Phase : 1.97 A | Single-Phase : 5.64 A Three-Phase : 3.26 A |
| | Single-Phase : 1.9 A Three-Phase : 1.1 A | Single-Phase : 2.8 A Three-Phase : 1.7 A | Single-Phase : 4.5 A Three-Phase : 2.6 A | Single-Phase : 5.47 A Three-Phase : 3.16 A | Single-Phase : 7.85 A Three-Phase : 4.53 A |
| Maximum Input Current | Single-Phase : 1.9 A Three-Phase : 1.1 A | Single-Phase : 2.8 A Three-Phase : 1.7 A | Single-Phase : 4.5 A Three-Phase : 2.6 A | Single-Phase : 5.47 A Three-Phase : 3.16 A | Single-Phase : 7.85 A Three-Phase : 4.53 A |
| Rated Output Phase Current | 0.21 A | 0.36 A | 0.85 A | 1.65 A | 2.37 A |
| Rated Torque | 0.096 N·m | 0.191 N·m | 0.382 N·m | 0.637 N·m | 1.27 N·m |
| Maximum Instantaneous Torque | 0.144 N·m | 0.287 N·m | 0.573 N·m | 1.15 N·m | 1.91 N·m |
| Rated Speed | 3,000 r/min | | | | |
| Speed Control Range | 50 ~ 4,000 r/min | | | | |
| Speed Regulation | $\pm 0.2\%$ or less / Conditions : 0~Rated Torque, Rated Speed, Rated Voltage, Normal Temperature | | | | |
| Digital Input | 7 programmable inputs | | | | |
| Digital Output | 2 programmable outputs | | | | |
| PROFINET | Communication Protocol RT(Realtime) & IRT(Isochronous Realtime) | | | | |
| PROFIdrive | Operation Mode PROFIdrive Motion Control : AC1 (Application Class 1) | | | | |

System Configuration



Dimension

Unit [mm]



Ezi-SPEED[®] Ethernet

BLDC Motor Speed Control System DC

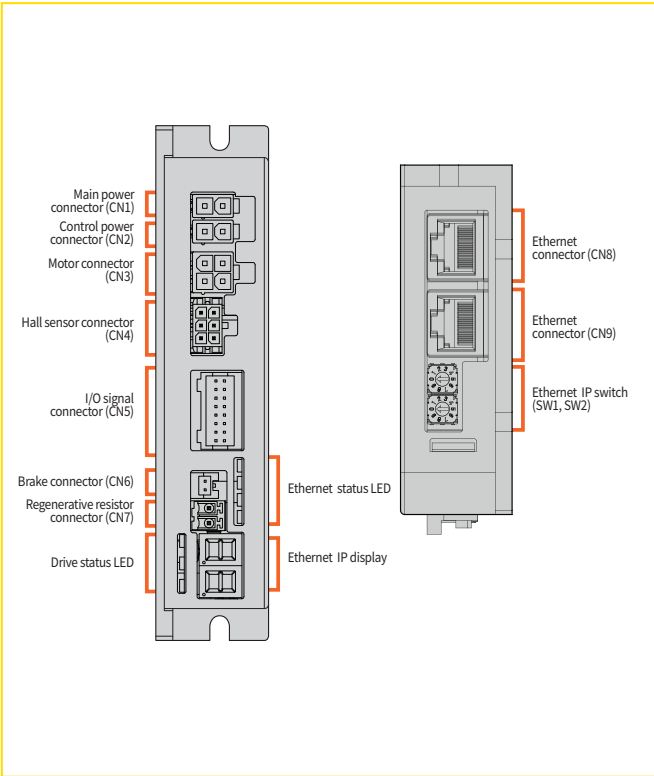
- Ethernet-compatible Low Voltage BLDC Motor Speed Control System
- API for Windows/Linux
- Embedded Motion Controller
- DC Power Input (DC 12 ~ 48 V)
- Auto-tuning
- Wide Speed Control Range (50 ~ 4,000 r/min)
- Stable Speed Regulation ($\pm 0.2\%$)



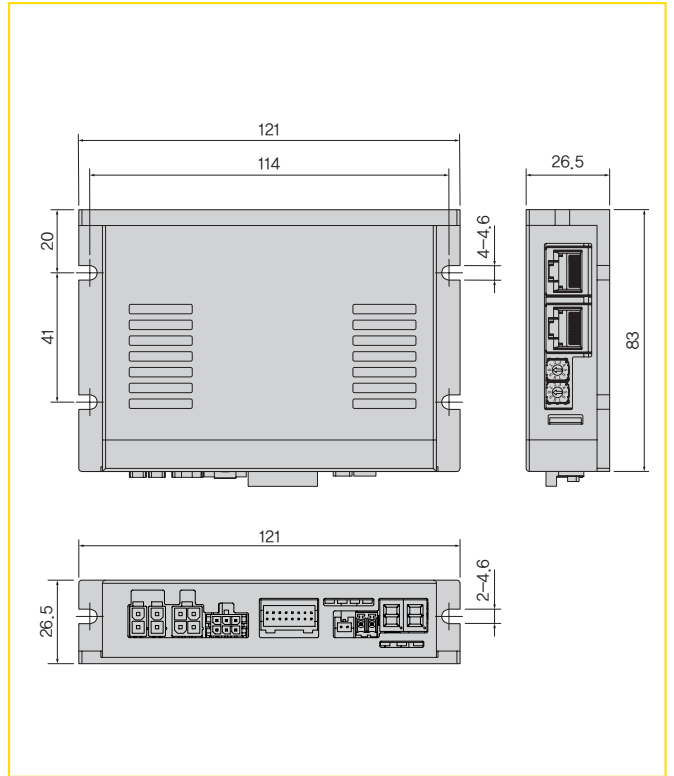
■ Specifications

| Model | | Ezi-SPEED-EN-A2H |
|----------------------------------|------------------------|--|
| Power Supply | | DC 12 ~ 48 V $\pm 10\%$ |
| Input Current (continuous / max) | | ~7 A / 10 A (< 60 s) |
| Output Power (continuous / max) | | ~200 W / 350 W (< 60 s) |
| PWM Frequency | | 25 kHz or 50 kHz |
| Current Control Sampling Rate | | 25 kHz (40 μ s) |
| Speed Control Sampling Rate | | 2.5 kHz (400 μ s) |
| Speed Control Range | | 50 ~ 4,000 r/min |
| Position Sensor | | Hall Sensor: H1, H2, H3 |
| Digital Input | | 5 programmable inputs |
| Digital Output | | 3 programmable outputs |
| Torque-OFF Function | | 2 inputs (TQOFF1, TQOFF2) |
| Additional I/O | Brake | Dedicated connector for external brake |
| | Regeneration Resistor | Dedicated connector for external regenerative resistor |
| Ethernet | Specification | 100Base-TX |
| | User Interface Program | GUI for Windows 7 and above |
| | Motion API | Motion library for Windows / Linux |

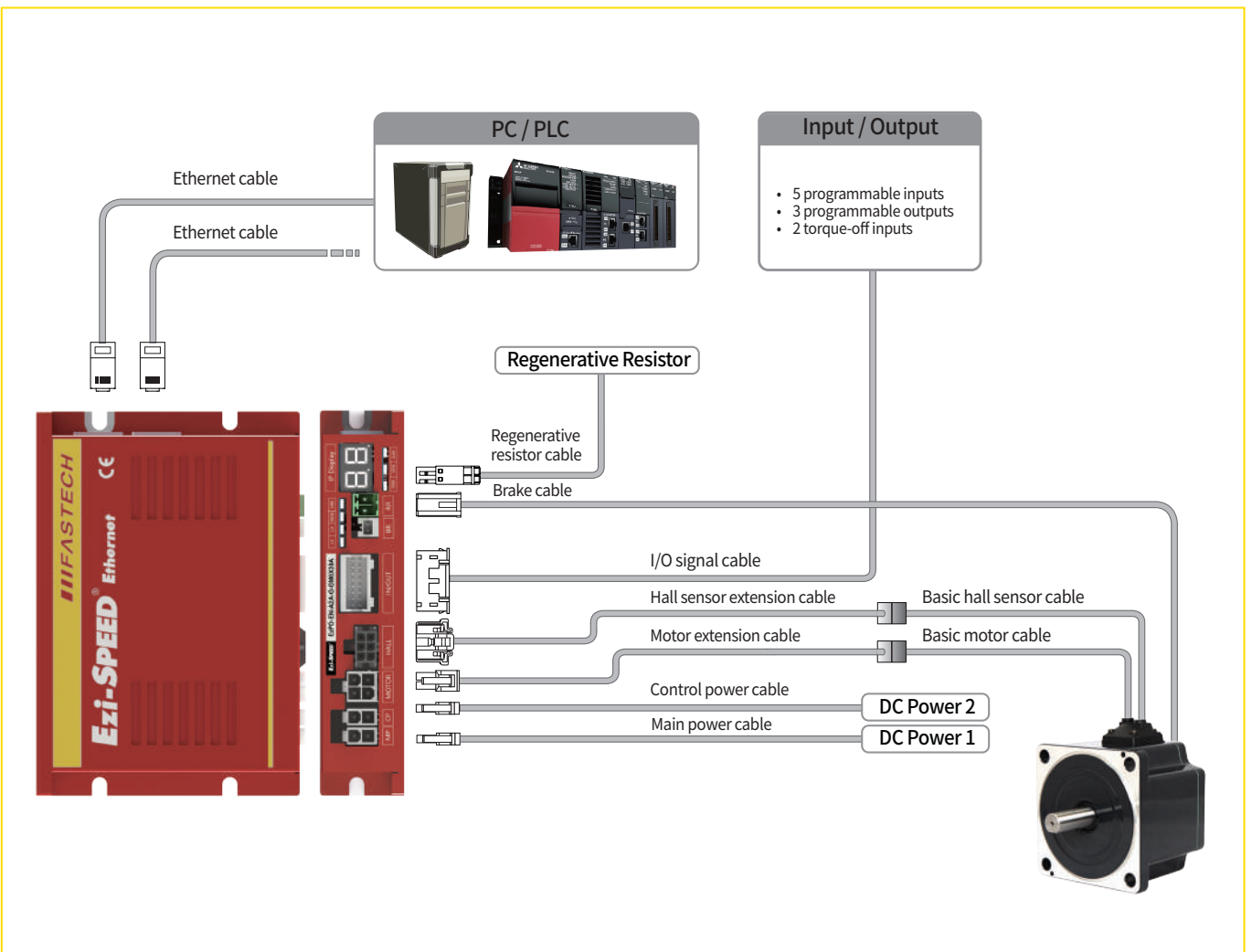
Module Overview



Dimension



System Configuration



Ezi-SPEED[®] EtherCAT[®]

BLDC Motor Speed Control System **DC**

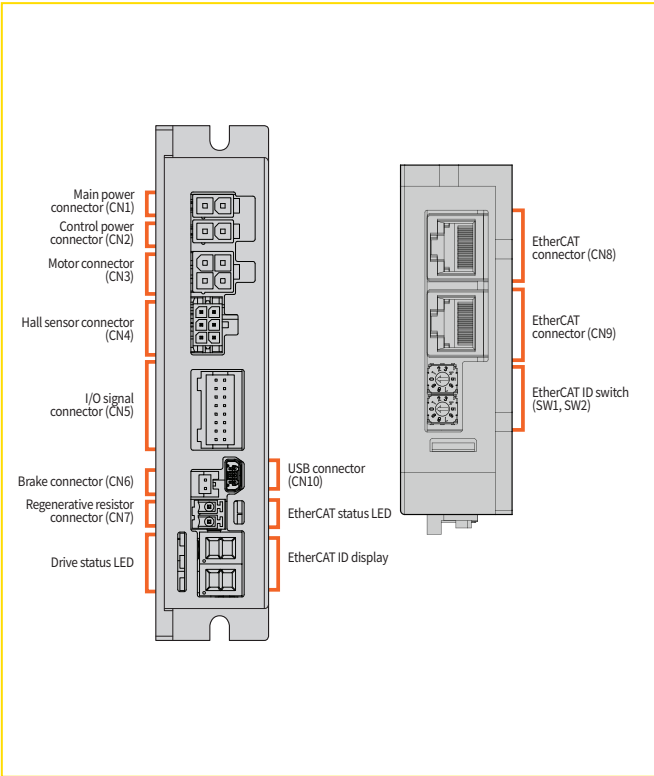
- EtherCAT-compatible Low Voltage BLDC Motor Speed Control System
- CiA402 Drive Profile
- DC Power Input (DC 12 ~ 48 V)
- Auto-tuning
- Wide Speed Control Range (50 ~ 4,000 r/min)
- Stable Speed Regulation ($\pm 0.2\%$)



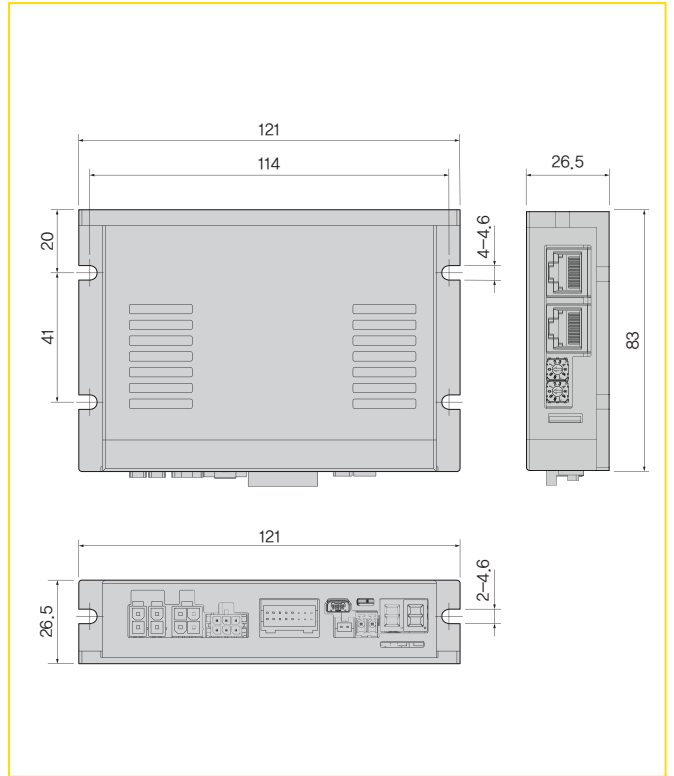
■ Specifications

| Model | | Ezi-SPEED-EC-A2H |
|----------------------------------|------------------------|---|
| Power Supply | | DC 12 ~ 48 V $\pm 10\%$ |
| Input Current (continuous / max) | | ~7 A / 10 A (< 60 s) |
| Output Power (continuous / max) | | ~200 W / 350 W (< 60 s) |
| PWM Frequency | | 25 kHz or 50 kHz |
| Current Control Sampling Rate | | 25 kHz (40 μ s) |
| Speed Control Sampling Rate | | 2.5 kHz (400 μ s) |
| Speed Control Range | | 50 ~ 4,000 r/min |
| Position Sensor | | Hall Sensor: H1, H2, H3 |
| Digital Input | | 5 programmable inputs |
| Digital Output | | 3 programmable outputs |
| Torque-OFF Function | | 2 inputs (TQOFF1, TQOFF2) |
| Additional I/O | Brake | Dedicated connector for external brake |
| | Regeneration Resistor | Dedicated connector for external regenerative resistor |
| EtherCAT | Communication Protocol | CoE (CiA402 Drive Profile), FoE (Firmware Download) |
| | Operation Mode | CiA402 Drive Profile: Velocity Mode (PV) Manufacturer-specific Mode: IO-Map Command Mode |
| | Synchronization | Free Run, SM Event, DC SYNC Event |

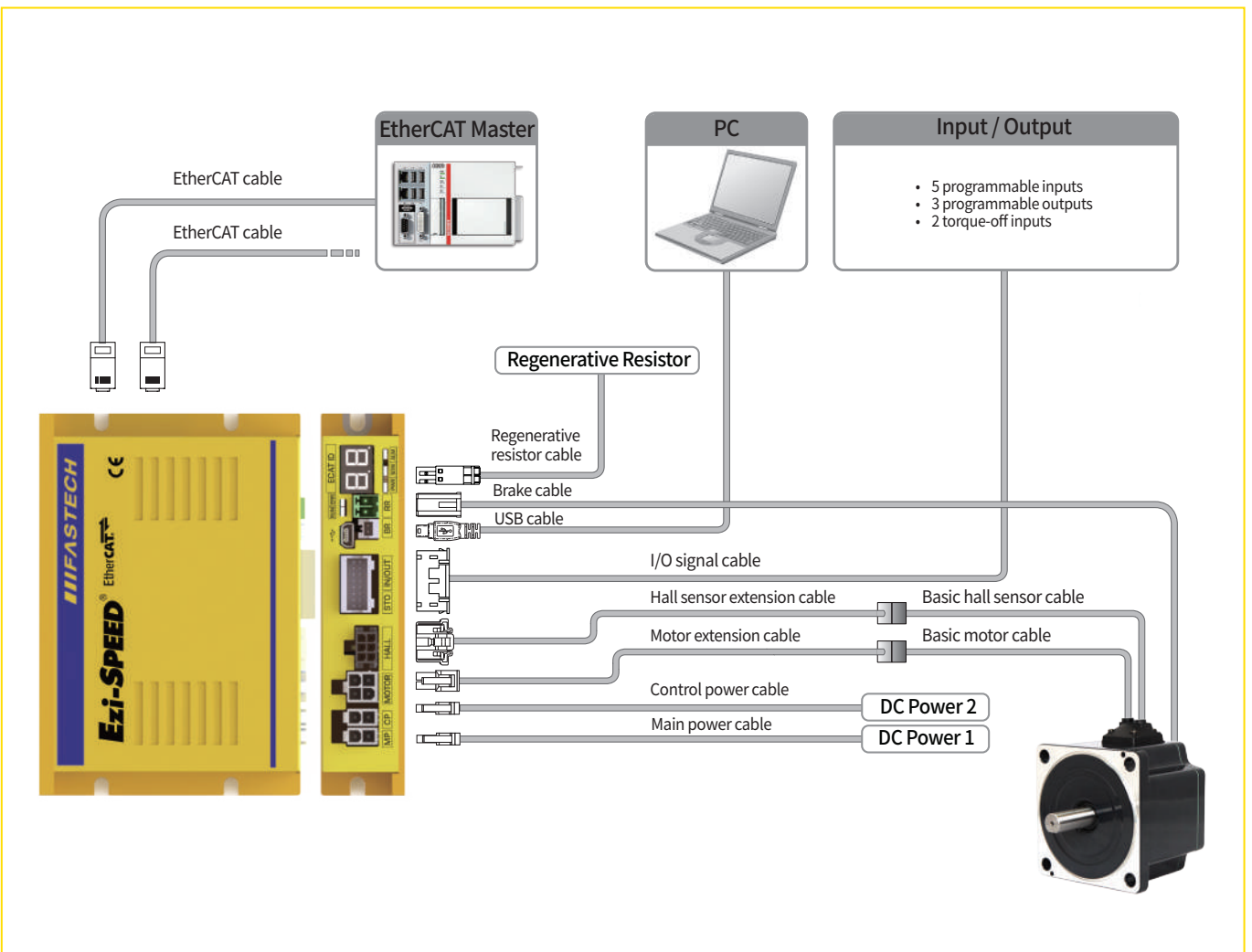
Module Overview



Dimension



System Configuration



Ezi-SPEED[®] CC-Link IE TSN

BLDC Motor Speed Control System DC

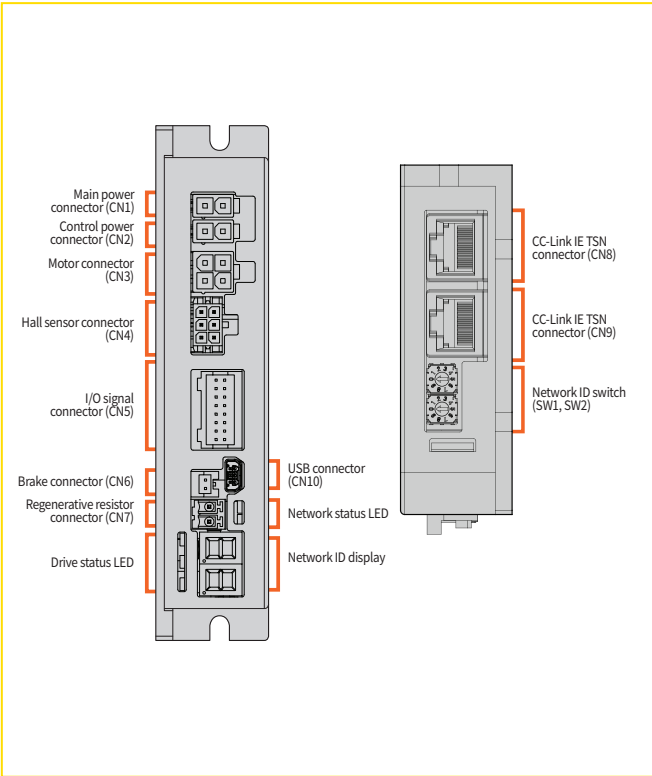
- CC-Link IE TSN-compatible Low Voltage BLDC Motor Speed Control System
- DC Power Input (DC 12 ~ 48 V)
- Auto-tuning
- Wide Speed Range (50 ~ 4,000 r/min)
- Stable Speed Regulation ($\pm 0.2\%$)



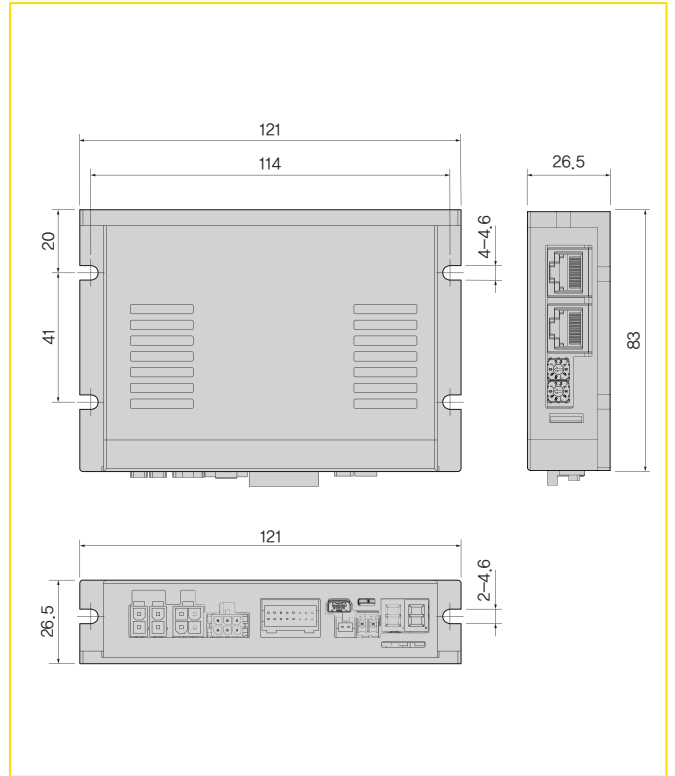
Specifications

| Model | | Ezi-SPEED-CT-A2H |
|----------------------------------|------------------------|--|
| Power Supply | | DC 12 ~ 48 V $\pm 10\%$ |
| Input Current (continuous / max) | | ~7 A / 10 A (< 60 s) |
| Output Power (continuous / max) | | ~200 W / 350 W (< 60 s) |
| PWM Frequency | | 25 kHz or 50 kHz |
| Current Control Sampling Rate | | 25 kHz (40 μ s) |
| Speed Control Sampling Rate | | 2.5 kHz (400 μ s) |
| Speed Control Range | | 50 ~ 4,000 r/min |
| Position Sensor | | Hall Sensor: H1, H2, H3 |
| Digital Input | | 5 programmable inputs |
| Digital Output | | 3 programmable outputs |
| Torque-OFF Function | | 2 inputs (TQOFF1, TQOFF2) |
| Additional I/O | Brake | Dedicated connector for external brake |
| | Regeneration Resistor | Dedicated connector for external regenerative resistor |
| CC-Link IE TSN | Communication Protocol | CC-Link IE TSN Class B |
| | Operation Mode | Manufacturer-specific Mode: IO-Map Command Mode |
| | Synchronization | Minimum Cycle Time: 250 μ s / Synchronous Comm. / Asynchronous Comm. |

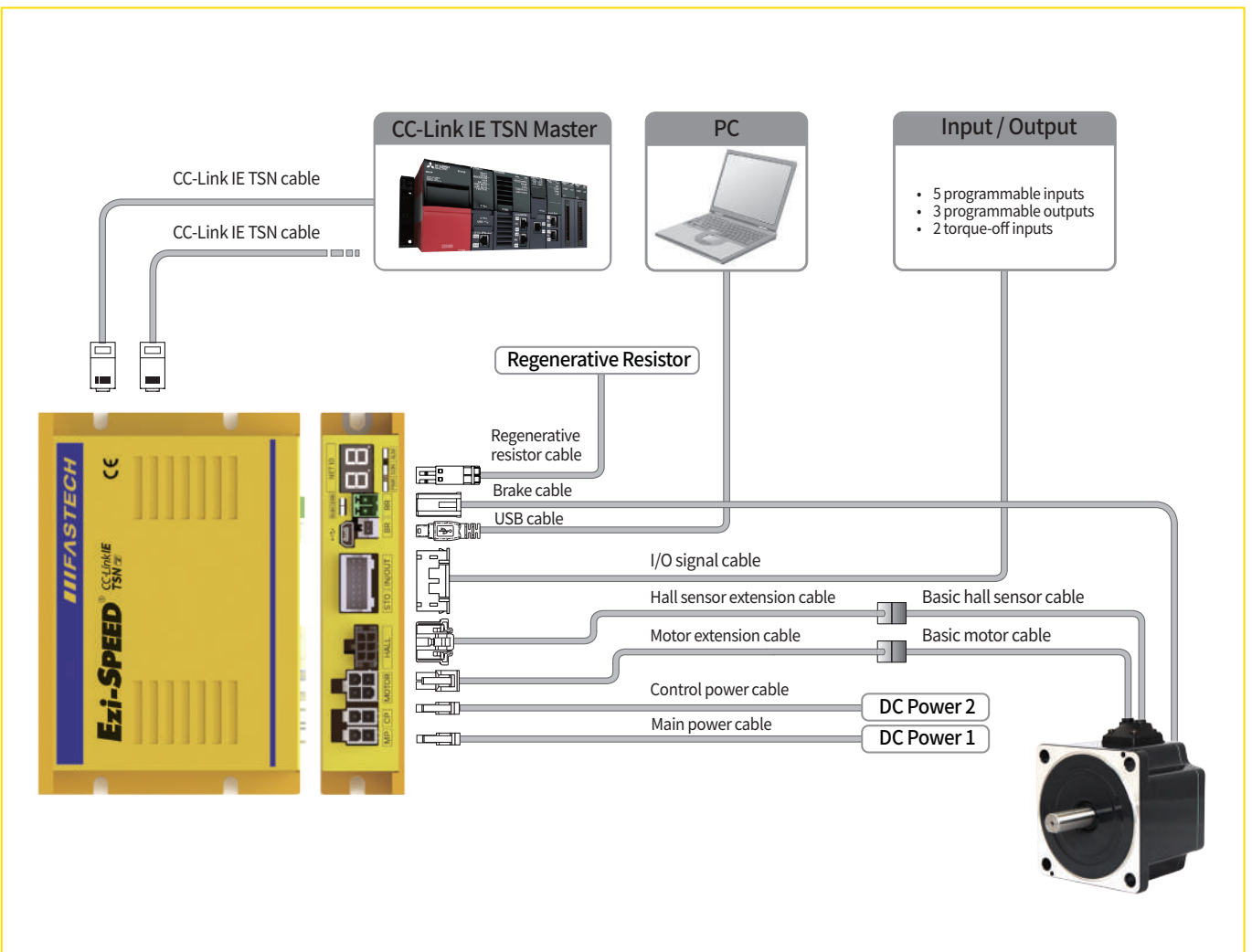
Module Overview



Dimension



System Configuration



Ezi-SPEED[®]



BLDC Motor Speed Control System **DC**

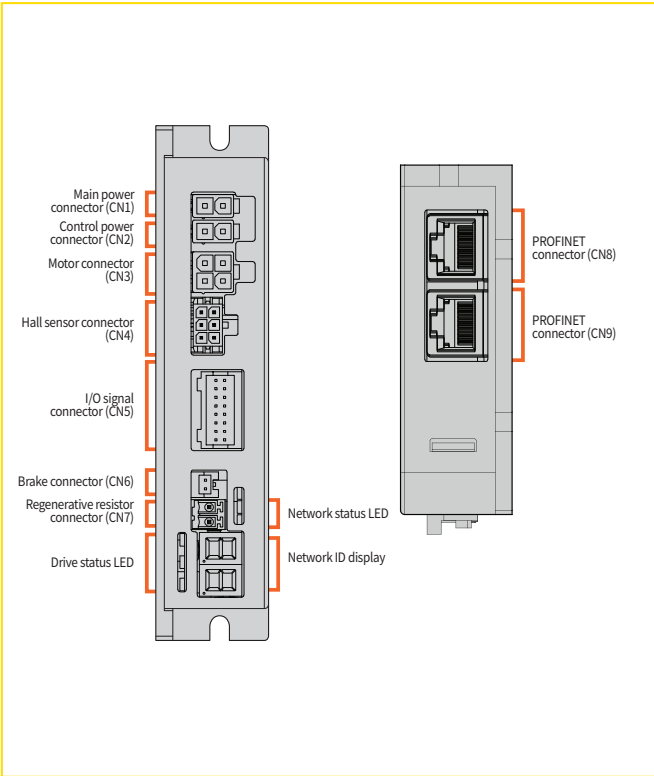
- PROFINET-compatible Low Voltage BLDC Motor Speed Control System
- RT(Realtime) & IRT(Isochronous Realtime) Communication
- PROFIdrive Motion Control (AC1)
- Ezi-PROFINET (Windows Software Tool for SMART 'Commissioning & Maintenance')
- DC Power Input (DC 12 ~ 48 V)
- Auto-tuning
- Wide Speed Control Range (50 ~ 4,000 r/min)
- Stable Speed Regulation ($\pm 0.2\%$)



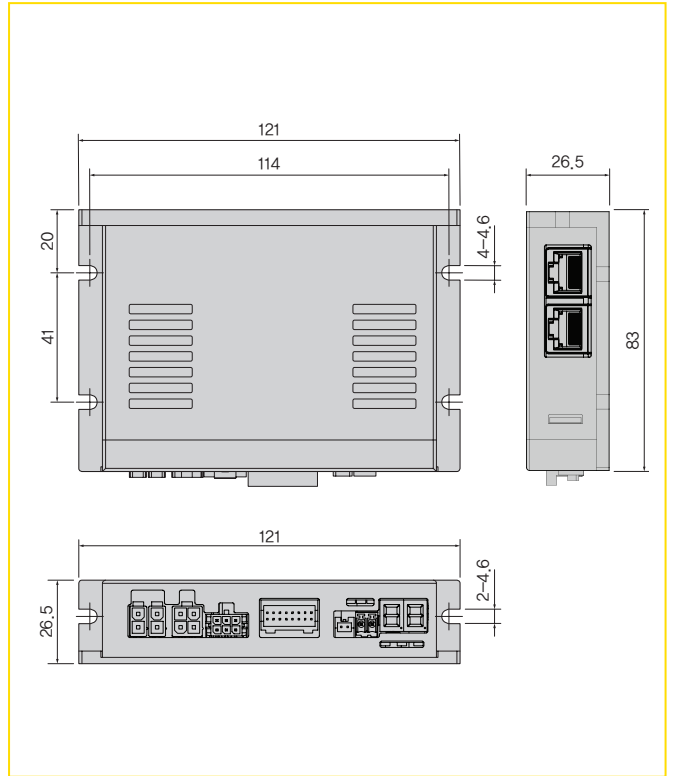
Specifications

| Model | | Ezi-SPEED-PD-A2H |
|----------------------------------|------------------------|--|
| Power Supply | | DC 12 ~ 48 V |
| Input Current (continuous / max) | | ~7 A / 10 A (< 60 s) |
| Output Power (continuous / max) | | ~200 W / 350 W (< 60 s) |
| PWM Rated Frequency | | 25 kHz or 50 kHz |
| Current Control Sampling Rate | | 25 kHz (40 us) |
| Speed Control Rated Frequency | | 2.5 kHz (400us) |
| Speed Control Range | | 50 ~ 4,000 r/min |
| Position Sensor | | Hall Sensor: H1, H2, H3 |
| Digital Input | | 5 programmable inputs |
| Digital Output | | 3 programmable outputs |
| Torque-OFF Function | | 2 inputs (TQOFF1, TQOFF2) |
| Additional I/O | Brake | Dedicated connector for external brake |
| | Regeneration | Dedicated connector for external regenerative resistor |
| PROFINET PROFIdrive | Communication Protocol | RT(Realtime) & IRT(Isochronous Realtime) |
| | Operation Mode | PROFIdrive Motion Control : AC1 (Application Class 1) |

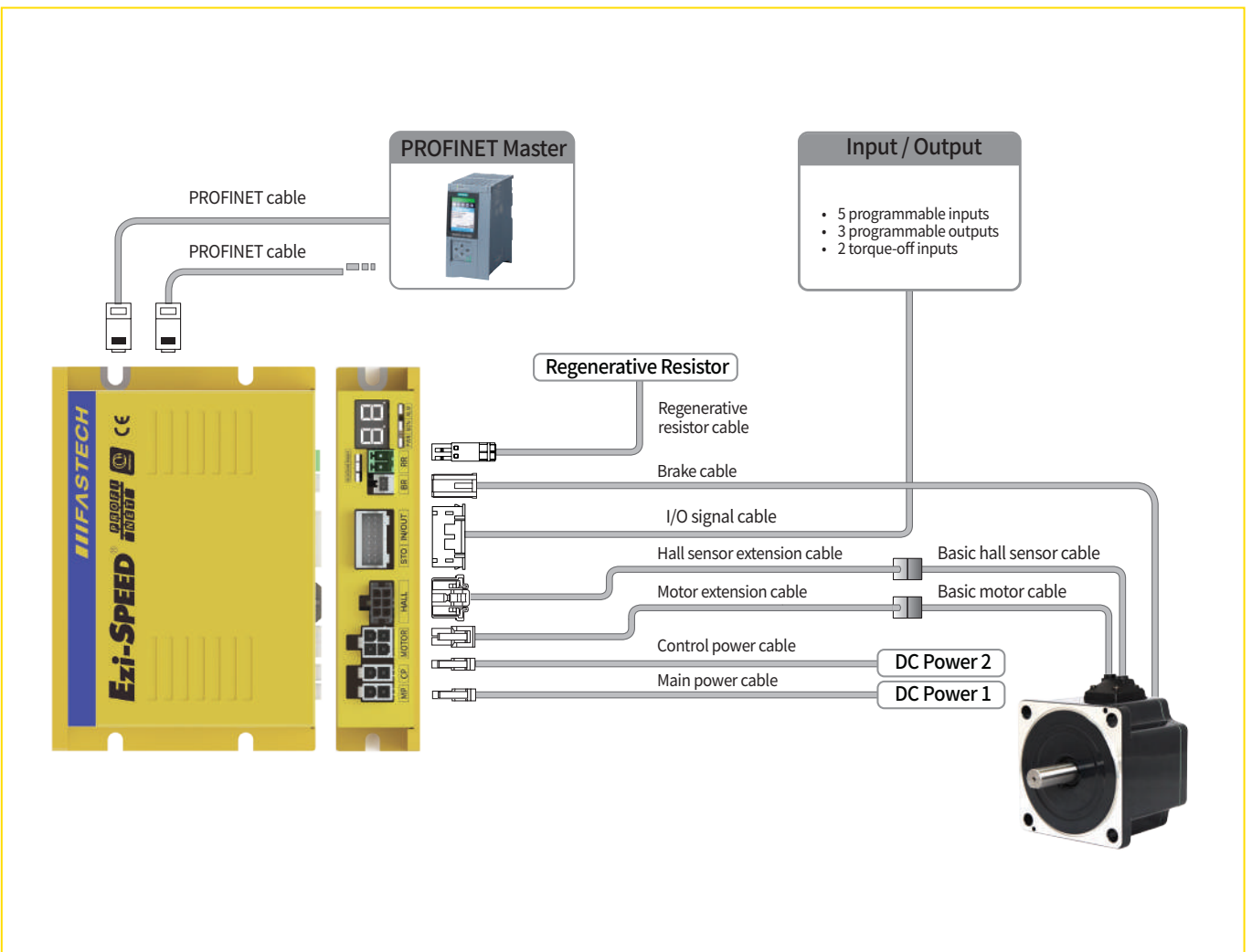
Module Overview



Dimension



System Configuration



Motors & Gearboxes for

Ezi-SPEED[®] AC
BLDC Motor Speed Control System

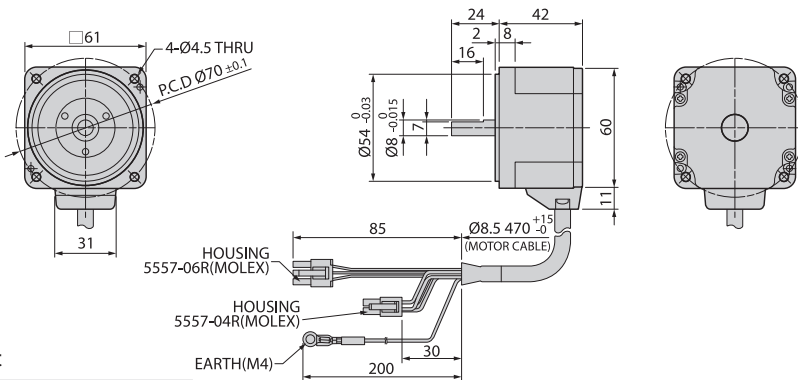
Ezi-SPEED[®] DC
BLDC Motor Speed Control System



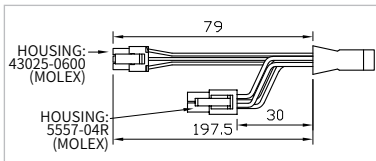
Dimensions of Motors [mm]

30 w

ESM-60-S-30(AC)
ESMD-60-S-30(DC)

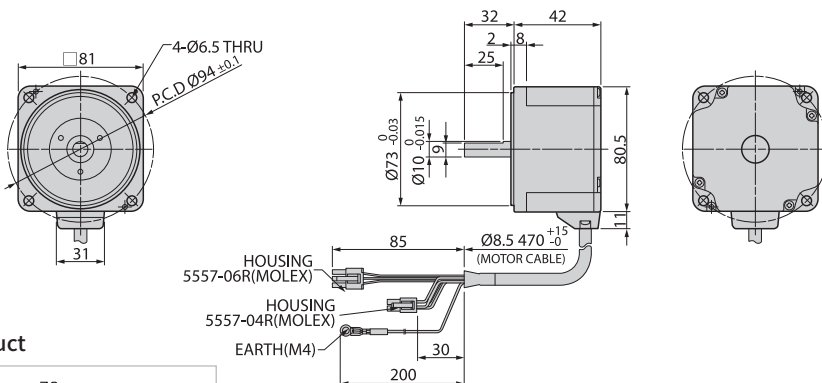


DC power product

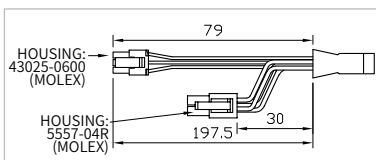


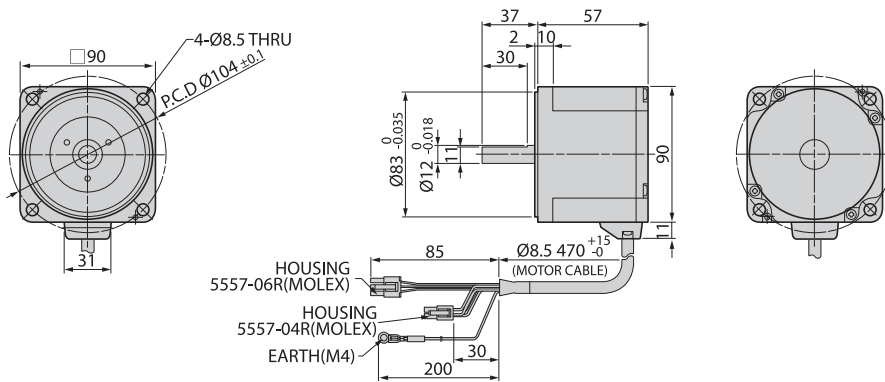
60 w

ESM-80-S-60(AC)
ESMD-80-S-60(DC)



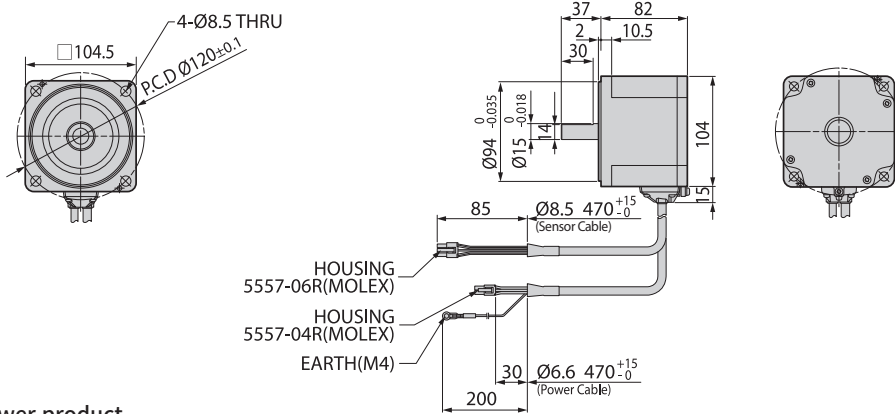
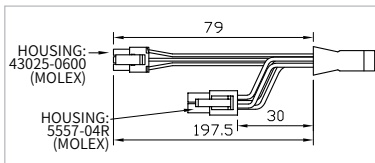
DC power product





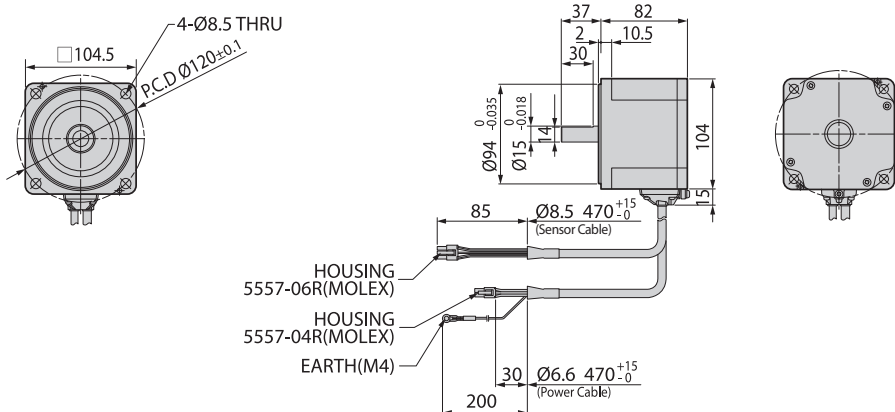
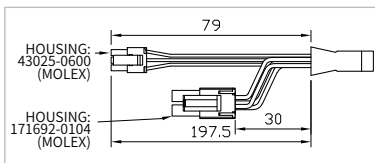
120_W
 ESM-90-S-120(AC)
 ESMD-90-S-120(DC)

DC power product



200_W
 ESM-104-S-200(AC)
 ESMD-104-S-200(DC)

DC power product

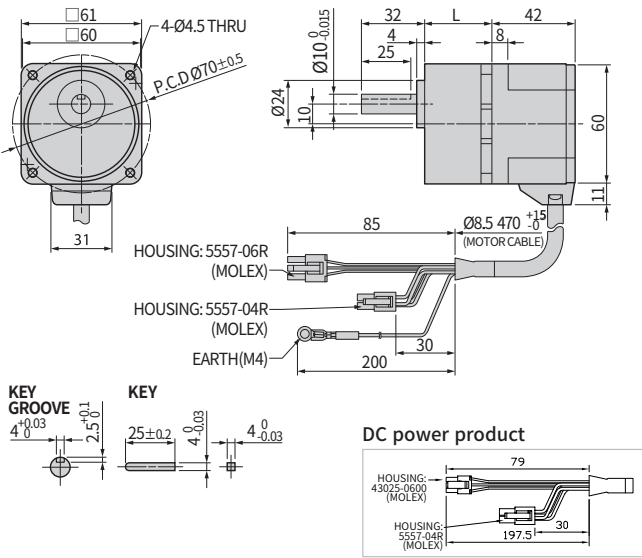


400_W
 ESM-104-S-400(AC)

Dimensions of Motors & Parallel Gearboxes [mm]

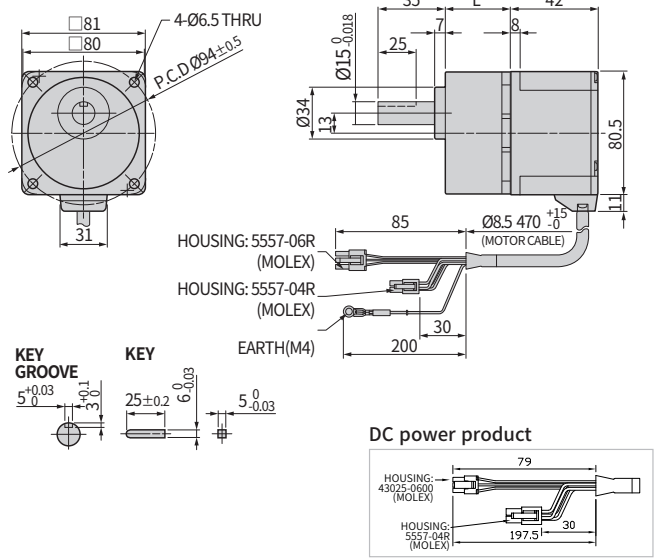
30 W

| Gearbox Part Number | □ Gear Ratio | Mounting Bolt | L [mm] |
|---------------------|---------------|---------------|--------|
| ESG-60-H-R□-P | 5, 10, 15, 20 | M4×50 | 34 |
| | 30, 50, 100 | M4×55 | 38 |
| | 200 | M4×60 | 43 |



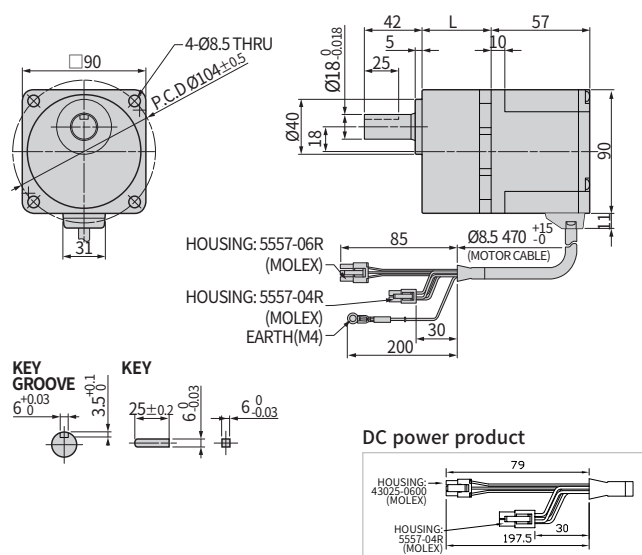
60 W

| Gearbox Part Number | □ Gear Ratio | Mounting Bolt | L [mm] |
|---------------------|---------------|---------------|--------|
| ESG-80-H-R□-P | 5, 10, 15, 20 | M4×65 | 41 |
| | 30, 50, 100 | M4×70 | 46 |
| | 200 | M4×75 | 51 |



120 W

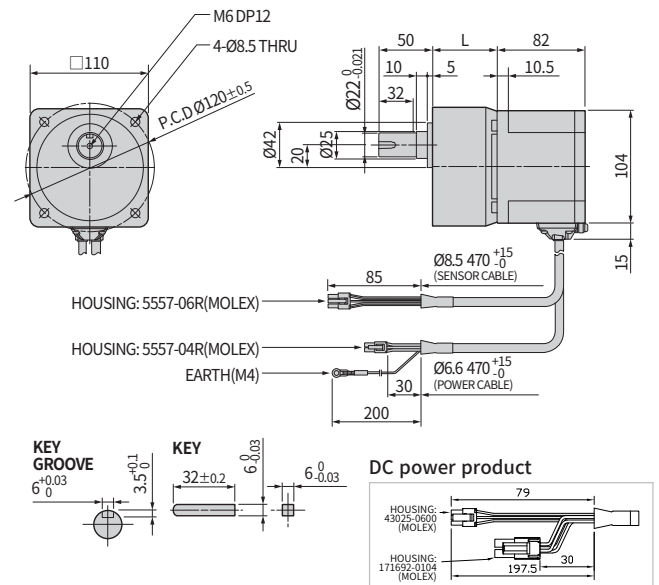
| Gearbox Part Number | □ Gear Ratio | Mounting Bolt | L [mm] |
|---------------------|---------------|---------------|--------|
| ESG-90-H-R□-P | 5, 10, 15, 20 | M8×75 | 45 |
| | 30, 50, 100 | M8×90 | 58 |
| | 200 | M8×95 | 64 |



200 W 400 W

| Gearbox Part Number | □ Gear Ratio | Mounting Bolt | L [mm] |
|---------------------|---------------|---------------|--------|
| ESG-104-H-R□-P | 5, 10, 15, 20 | M8×95 | 60 |
| | 30, 50 | M8×110 | 72 |
| | 100, 200 | M8×120 | 86 |

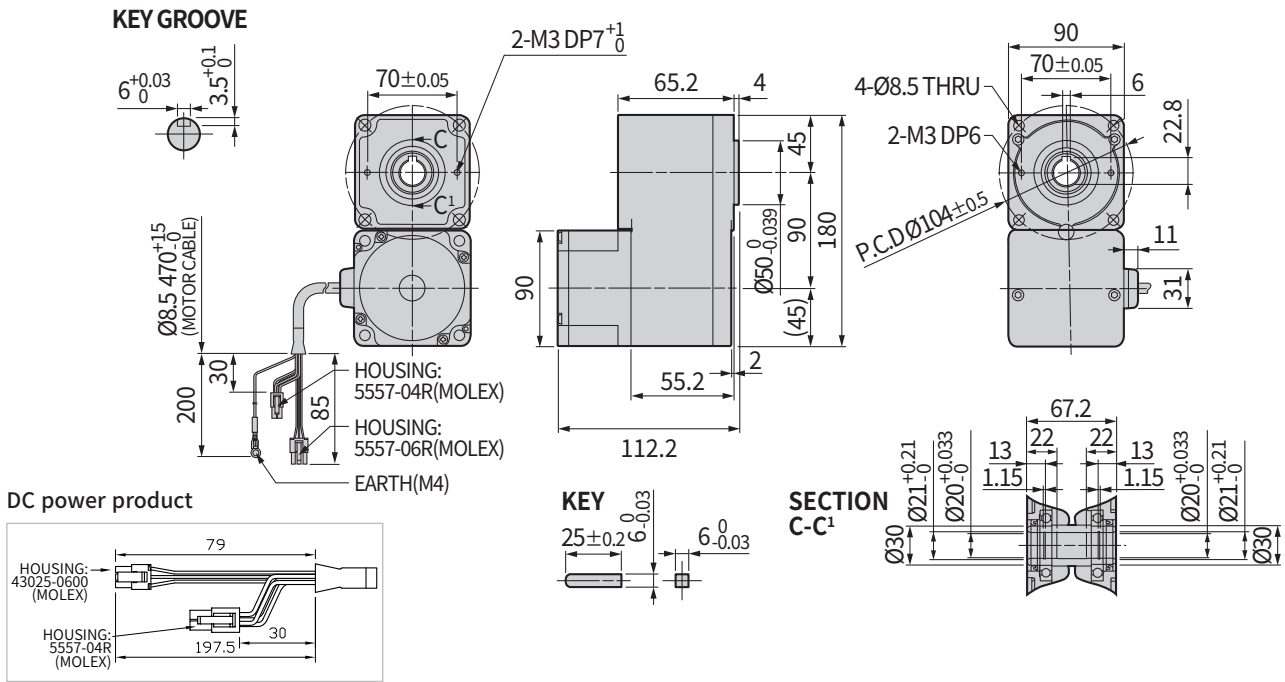
* DC power product : 200 W only



Dimensions of Motors & Hollow Flat Gearboxes [mm]

120 W

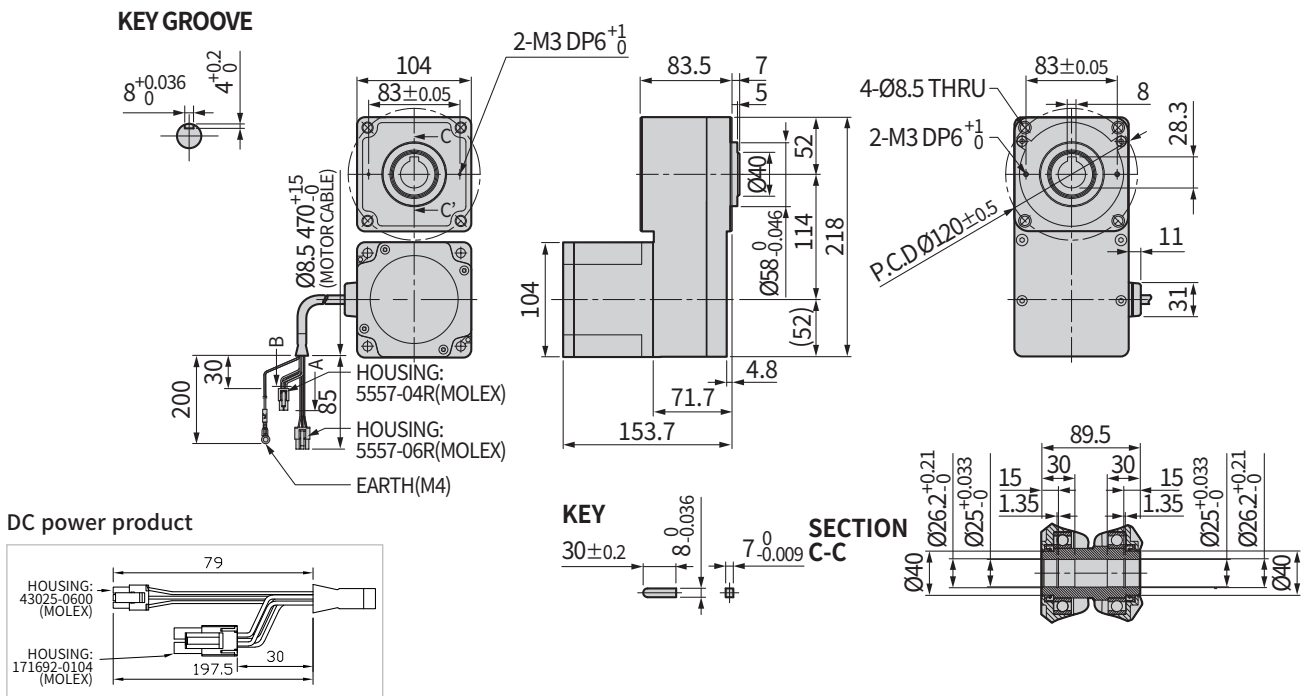
| Gearbox Part Number | Gear Ratio | Mounting Bolt |
|---------------------|---------------------------------|---------------|
| ESG-80-H-R□-H | 5, 10, 15, 20, 30, 50, 100, 200 | M6×70 |



200 W 400 W

| Gearbox Part Number | Gear Ratio | Mounting Bolt |
|---------------------|---------------------------------|---------------|
| ESG-80-H-R□-H | 5, 10, 15, 20, 30, 50, 100, 200 | M6×70 |

* DC power product : 200 W only



MEMO



Fast Accurate Smooth Motion

FASTECH Co., Ltd.

(Postal Code:14502) Rm#1202, 401-dong, Bucheon Techno-Park, 655, Pyeongcheon-ro Bucheon-si Gyeonggi-do, Republic of Korea
TEL : +82-32-234-6317 FAX : +82-32-234-6302 E-mail : sales@fastech-motions.com
Homepage : www.fastech-motions.com

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