

# PKS-PRO-E-02 - Servo System



## FEATURES

- **Input Voltage Range of 85-253VAC**
- **Rated Torque of 91 oz-in**
- **200 Watt Power Rating**
- **No Load Speed of up to 4,500 RPM**
- **2,500 PPR Incremental Encoder**
- **Enclosed and Self-Cooled**
- **Oil Seal and Optional Brake**
- **MODBUS and CANopen Standard**
- **RS485 Interface**
- **Real Time Monitoring and Management**
- **Position, Speed, and Torque Control**
- **CE Certified**



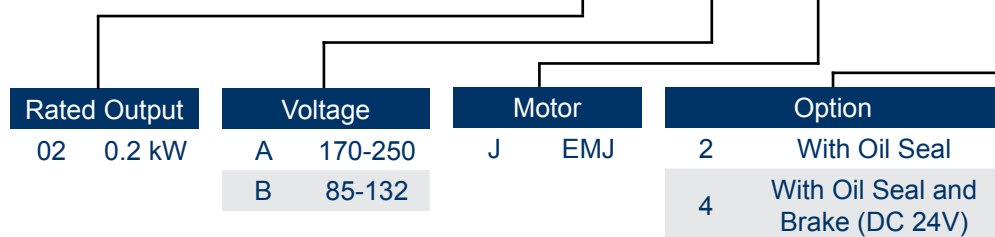
## DESCRIPTION

The PKS-PRO-E-02 servo system includes a 200 Watt EMJ AC Servo Motor operated by the PRONET-E drive. These packages are ideal for quick and easy start-ups, convenience and performance! The servo motor included in this package provides torque from 91 oz-in. The PRONET-E drives offer current forward-feedback control, acceleration forward-feedback control, speed viewer, and inertia viewer; providing for improved response performance. These drives operate standard with MODBUS and CANopen protocol. Each system includes a 5m power cable, 5m encoder cable, and a 2m communication cable.

| System Specs    | Rated Voltage (VAC) | Rated Speed (RPM) | Rated Torque (oz-in) | Rated Current (A rms) | Inertia (oz-in-sec <sup>2</sup> ) | Torque Constant KT (oz-in/A) | Resistance (ohms) | Inductance (mH) | Driver Digital Display | Brake (24VDC) | Motor Length (mm) | Shaft Diameter (mm) |
|-----------------|---------------------|-------------------|----------------------|-----------------------|-----------------------------------|------------------------------|-------------------|-----------------|------------------------|---------------|-------------------|---------------------|
| PRO-E-02-A-JP22 | 170-250             | 3000              | 91                   | 1.3                   | 0.00269                           | 79.9                         | 11.0              | 24.7            | Yes                    | No            | 123               | 14.0                |
| PRO-E-02-A-JP24 | 170-250             | 3000              | 91                   | 1.3                   | 0.00326                           | 79.9                         | 11.0              | 24.7            | Yes                    | Yes           | 163               | 14.0                |
| PRO-E-02-B-JP24 | 85-132              | 3000              | 91                   | 2.7                   | 0.00326                           | 40.9                         | 2.689             | 8.01            | Yes                    | No            | 123               | 14.0                |

## ORDERING INFORMATION

# PKS - PRO - E - 02 - A - J P 2 2



L010953

# EMJ-02 Motor Specifications



## FEATURES

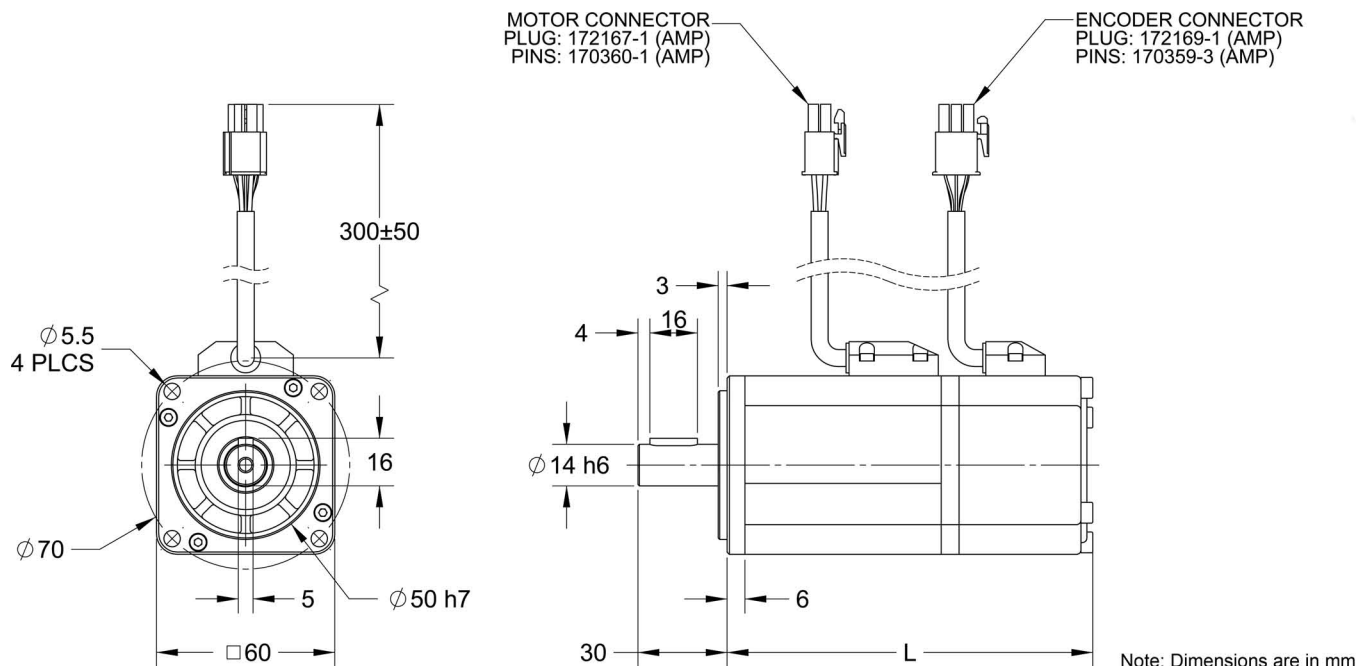
- Rated Torque of 91 oz-in
- Rated Power up to 200 Watts
- Peak Torque up to 300% of Rated Torque
- Peak Current up to 300% of Rated Current
- No Load Speed of up to 4,500 RPM
- 2,500 PPR Incremental Encoder Attached
- Fully Enclosed and Self-Cooled
- Neodymium-Iron-Boron Magnets (NdFeB)
- Optional Brake Available
- CE Certified



## SPECIFICATIONS

| Motor Specifications | Rated Voltage (VAC) | Rated Power (Watts) | Rated Speed (RPM) | Rated Torque (oz-in) | Rated Current (A rms) | Max Current (A rms) | Brake (24VDC) | Resistance (ohms) | Inertia (oz-in-sec <sup>2</sup> ) | Electric Time Constant T <sub>E</sub> (ms) | Back EMF Voltage K <sub>E</sub> (V/kRPM) | Torque Constant K <sub>T</sub> (oz-in/A) | Max Length L (mm) | Weight (lbs) |
|----------------------|---------------------|---------------------|-------------------|----------------------|-----------------------|---------------------|---------------|-------------------|-----------------------------------|--------------------------------------------|------------------------------------------|------------------------------------------|-------------------|--------------|
| EMJ-02APA22          | 170-253             | 200                 | 3000              | 91                   | 1.3                   | 3.9                 | No            | 11.0              | 0.00269                           | 2.391                                      | 31.91                                    | 79.9                                     | 123               | 4.41         |
| EMJ-02APA24          | 170-253             | 200                 | 3000              | 91                   | 1.3                   | 3.9                 | Yes           | 11.0              | 0.00326                           | 2.391                                      | 31.91                                    | 79.9                                     | 163               | 4.41         |
| EMJ-02BPA22          | 85-132              | 200                 | 3000              | 91                   | 2.7                   | 8.1                 | No            | 2.689             | 0.00326                           | 2.980                                      | 17.60                                    | 40.9                                     | 123               | 4.41         |

## DIMENSIONS



Note: Part Number EMJ-02APA24 is with the brake option. Brake option not shown in above dimensions.

Dimensions are in mm

# PRO-E-02A Driver Specifications



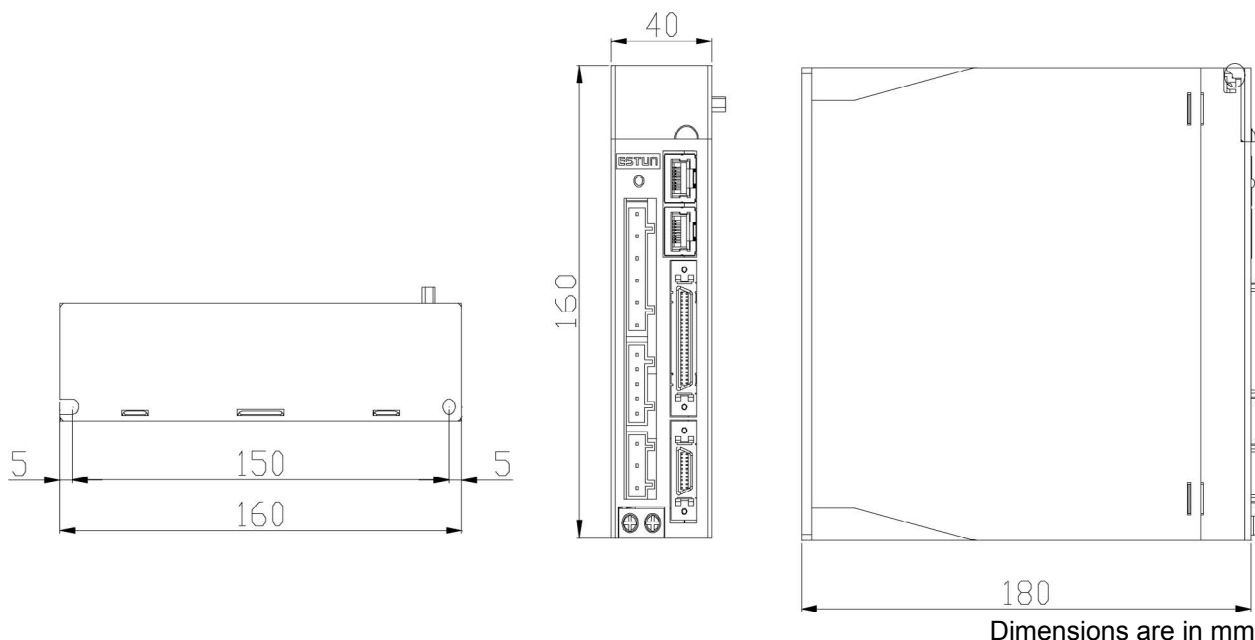
## FEATURES

- Input Voltage Range of 170-253VAC
- Rated Power up to 200 Watts
- Improved Responsiveness Performance
- Enhanced Position Precision
- Low Speed Stability
- Enables Less Debugging
- MODBUS and CANopen Standard
- RS485 Communication Interface
- Position, Speed, and Torque Control
- Homing Function
- CE Certified

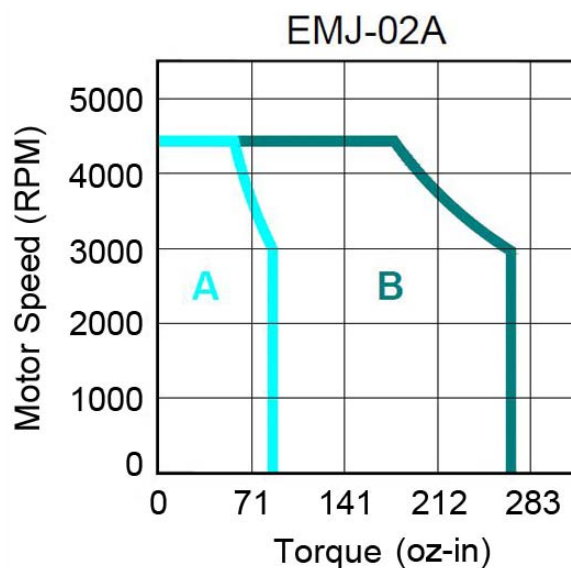


PRONET-E-02A

## EDC DIMENSIONS



## TORQUE CURVE



A - Continuous Working Area  
B - Repeatedly Working Area

# PRO-E-02B Driver Specifications



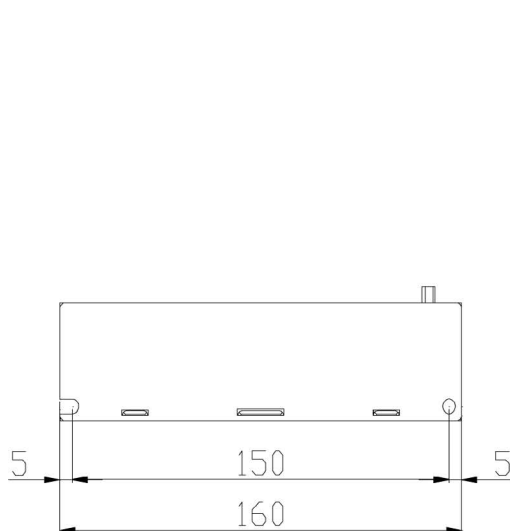
## FEATURES

- Input Voltage Range of 85-132VAC
- Rated Power up to 200 Watts
- Improved Responsiveness Performance
- Enhanced Position Precision
- Low Speed Stability
- Enables Less Debugging
- MODBUS and CANopen Standard
- RS485 Communication Interface
- Position, Speed, and Torque Control
- Homing Function
- CE Certified

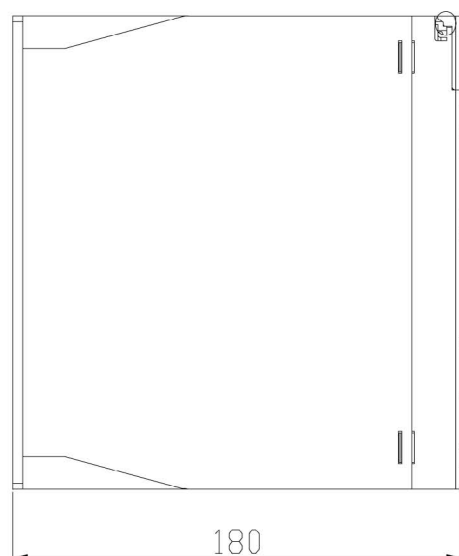
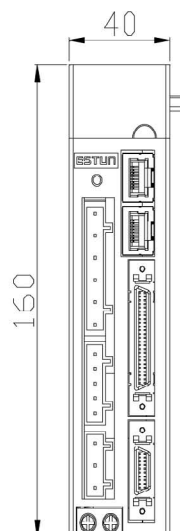


PRONET-E-02B

## EDC DIMENSIONS



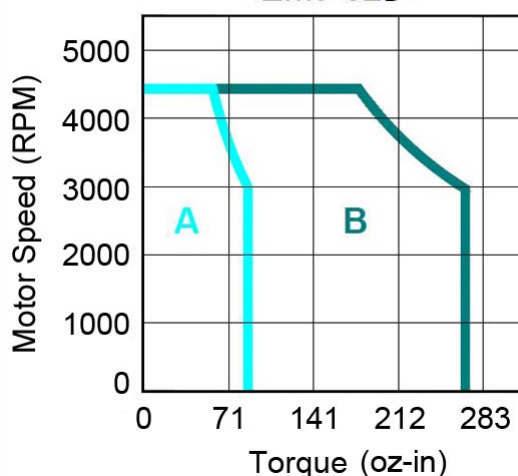
Note: Dimensions are in mm



Dimensions are in mm

## TORQUE CURVE

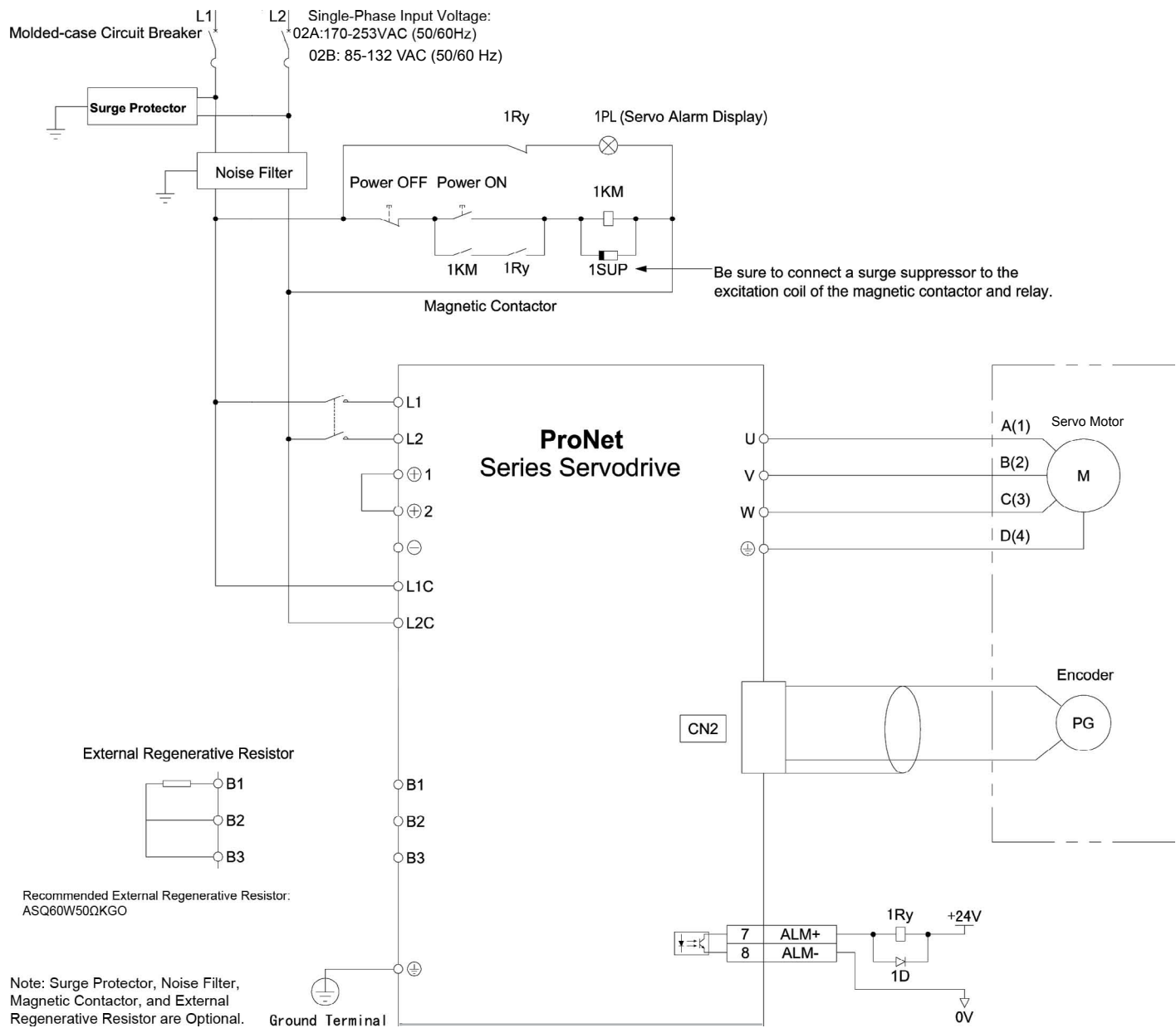
EMJ-02B

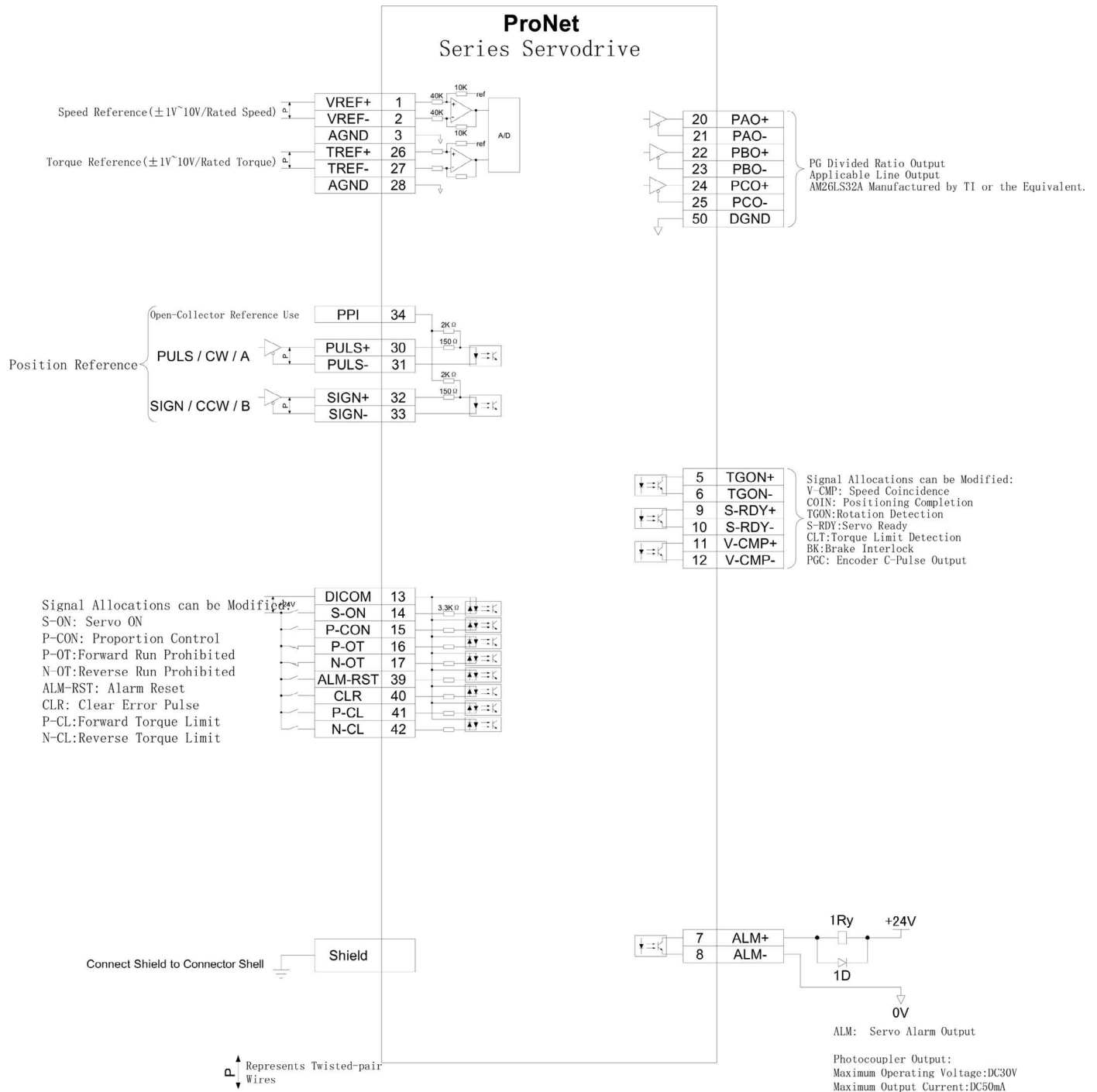


A - Continuous Working Area

B - Repeatedly Working Area









### Compatible Drivers

| Part Number  | Description  |
|--------------|--------------|
| PRONET-E-02A | Servo Driver |



### Compatible Motors

| Part Number | Description |
|-------------|-------------|
| EMJ-02APA22 | Servo Motor |
| EMJ-02APA24 | Servo Motor |
| EMJ-02BPA22 | Servo Motor |



### Compatible Cables

| Part Number        | Description   |
|--------------------|---------------|
| PDM-JB18-05        | Power Cable   |
| BMP-JB26-05        | Encoder Cable |
| PRONET-PSC-CC24-02 | Comm. Cable   |

