

PKS-PRO-AEA-EC-02 - Servo System



FEATURES

- Updates 1000 Inputs/Outputs of Information
- Rated Torque of 90 oz-in
- Power Ratings up to 200 Watts
- Open Network Based on Ethernet
- 17-bit Absolute Encoder
- Maximum Speed of 4,500 RPM
- Supports Topologies - Line, Tree, and Star Type
- Brake Option Available
- CE Certified



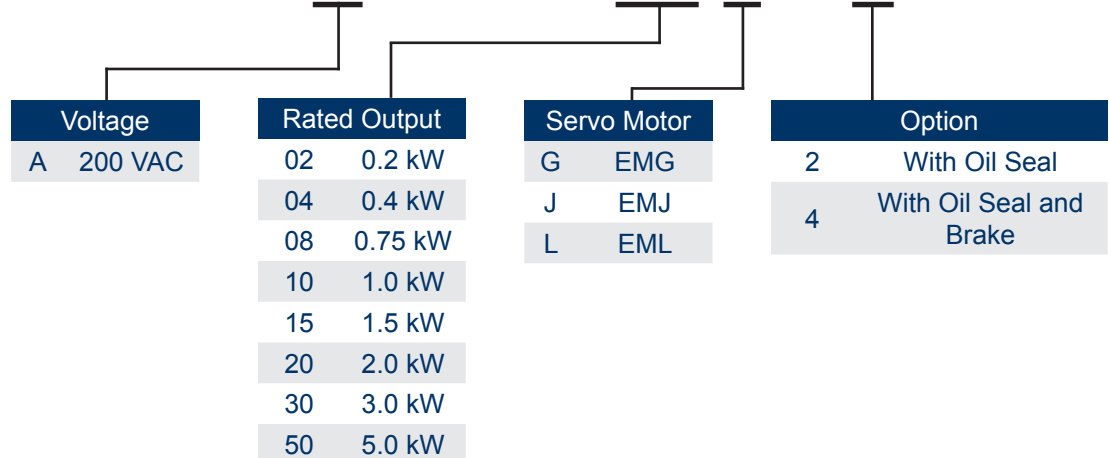
DESCRIPTION

The PKS-PRO-AEA-EC-02 EtherCAT Servo System includes a 200 Watt EMJ-02 Servo Motor operated by the PRONET-02AEA-EC EtherCAT Servo Drive. These packages are ideal for easy start-ups, convenience, and performance. The Servo Motors included in these packages provide up to 90 oz-in of Rated Torque. The PRONET-02AEA-EC Drive offers current forward-feedback control, acceleration forward-feedback control, speed viewer, Ethernet networking, and inertia viewer; providing for improved response performance. Each system includes a 5m Motor Power Cable and a 5m Encoder Cable.

| Item | Rated Voltage (VAC) | Rated Speed (RPM) | Rated Torque (oz-in) | Rated Current (Arms) | Inertia (oz-in-sec ²) | Torque Constant KT (oz-in/A) | Resistance (ohms) | Inductance (mH) | Brake (24VDC) | Motor Length (mm) | Shaft Diameter (mm) |
|------------------------|---------------------|-------------------|----------------------|----------------------|-----------------------------------|------------------------------|-------------------|-----------------|---------------|-------------------|---------------------|
| PKS-PRO-AEA-EC-02-JP22 | 200 | 3000 | 90 | 1.4 | 0.00269 | 79.8 | 11 | 25.5 | No | 124 | 14 |
| PKS-PRO-AEA-EC-02-JP24 | 200 | 3000 | 90 | 1.4 | 0.00325 | 79.8 | 11 | 25.5 | Yes | 164 | 14 |

ORDERING INFORMATION

PKS-PRO-AEA-EC-02-JP22



L011571

EMJ-02 Motor Specifications



FEATURES

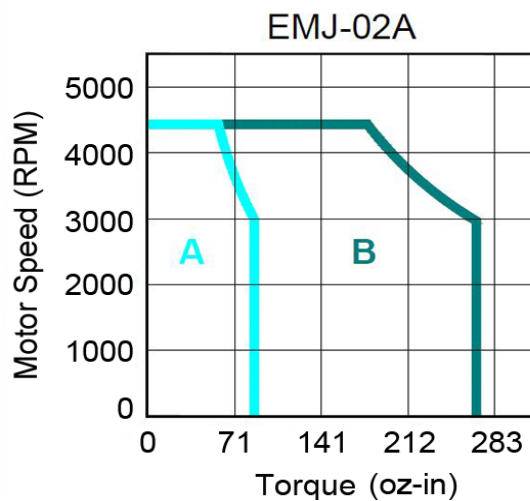
- 220 VAC
- Rated Torque of 90 oz-in
- 200 Watt Power Rating
- Rated Speed 3000 RPM
- Maximum Speed 4500 RPM
- Peak Torque up to 300% of Rated Torque
- Peak Current up to 300% of Rated Current
- 131,072 PPR Absolute Encoder Attached
- Enclosed and Self-Cooled
- Brake Option Available
- CE Certified



SPECIFICATIONS

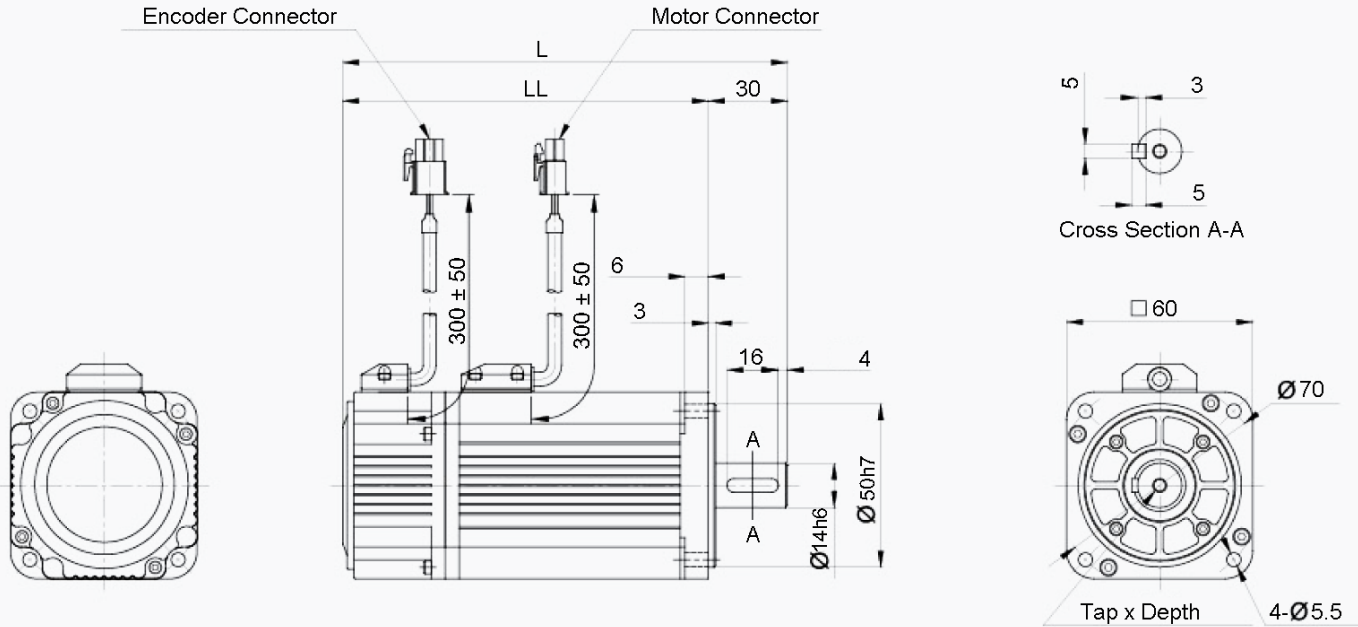
| Model # | Rated Torque (oz-in) | Rated Power (Watts) | Rated Speed (RPM) | Max Speed (RPM) | Rated Current (A rms) | Brake (24VDC) | Inertia (oz-in-sec ²) | Torque Constant K _T (oz-in/A) | Resistance (ohms) | Inductance (mH) | Length (mm) | Weight (lbs) |
|-------------|----------------------|---------------------|-------------------|-----------------|-----------------------|---------------|-----------------------------------|--|-------------------|-----------------|-------------|--------------|
| EMJ-02ASA22 | 90 | 200 | 3000 | 4500 | 1.4 | No | 0.00269 | 79.8 | 11 | 25.5 | 124 | 2.66 |
| EMJ-02ASA24 | 90 | 200 | 3000 | 4500 | 1.4 | Yes | 0.00325 | 79.8 | 11 | 25.5 | 164 | 3.76 |

TORQUE CURVE



A: Continuous Working Area
 B: Repeatedly Working Area

Unit: mm

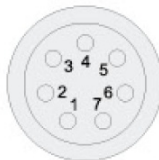


| Model # | L | LL |
|-------------|-----|-----|
| EMJ-02ASA22 | 154 | 124 |
| EMJ-02ASA24 | 194 | 164 |

Note: All Dimensions in millimeters (mm)

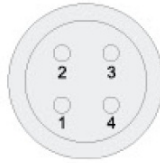
Note: the EMJ-02ASA24 are Servo Motors with holding brakes.

Encoder Connector Specification:



| Pin No. | Signal |
|---------|--------|
| 1 | S+ |
| 2 | S- |
| 3 | BAT+ |
| 4 | BAT- |
| 5 | PG5V |
| 6 | PG0V |
| 7 | FG |

Motor Connector Specification:



| Pin No. | Signal |
|---------|--------|
| 1 | U |
| 2 | V |
| 3 | W |
| 4 | FG |

Brake Connector Specification:



| Pin No. | Signal |
|---------|--------|
| 1 | B1 |
| 2 | B2 |

| | | |
|------------------------------------|---|---|
| Power Requirement: 220VAC | Vibration: 49 m/s ² | Running Air Pressure: 86 to 106 kPa |
| Insulation Class: F | Ambient Temperature: 20% to 80% RH | Insulation Voltage Endurance: AC 1800C, 50Hz, 1 min |
| Ambient Temperature: 0°C to 40°C | Running Humidity: Not More Than 90%, Under 25°C | Insulation Impedance: Not Less Than 50M Under Normal Conditions |
| Running Temperature: -25°C to 40°C | | |

Compatible Driver:

| Part Number | Description |
|-----------------|--------------|
| PRONET-02AEA-EC | Servo Driver |



Compatible Cables:

| Part Number | Description |
|-------------|---------------|
| PDM-JE18-05 | Power Cable |
| PAP-JE24-05 | Encoder Cable |



PRONET-02AEA-EC Driver Specifications

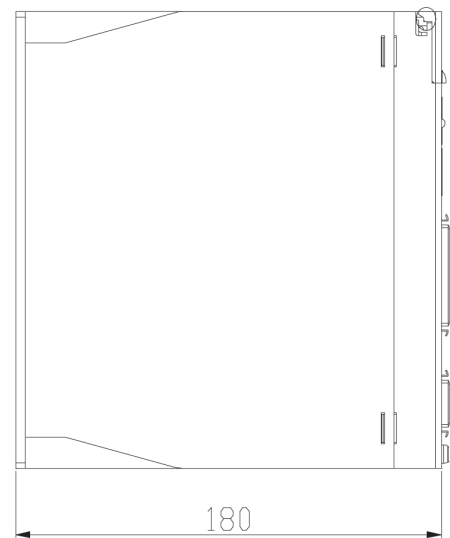
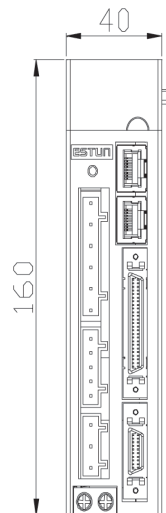
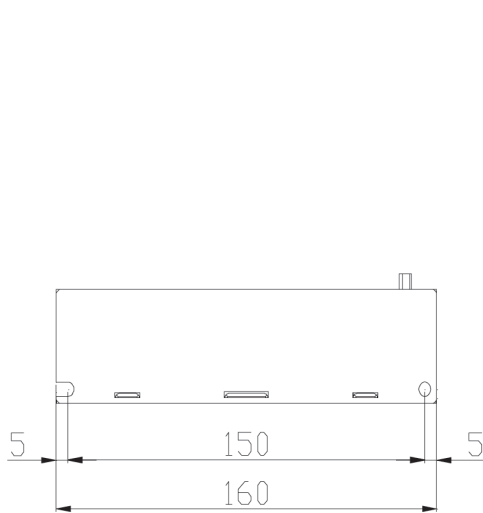


FEATURES

- Power Rating of 200 Watts
- 100 BASE-TXI Twisted-Pair Wire, 100 BASE-FX Fiber, or LVDS (Low Voltage Differential Signaling)
- Supports Topologies - Line Type, Tree Type and Star Type
- Open Network Based on Ethernet
- Capable of Updating the Information of 1000 I/O
- Exchange of Frame as Big as 1486 Bytes
- Distributed Clock Technology



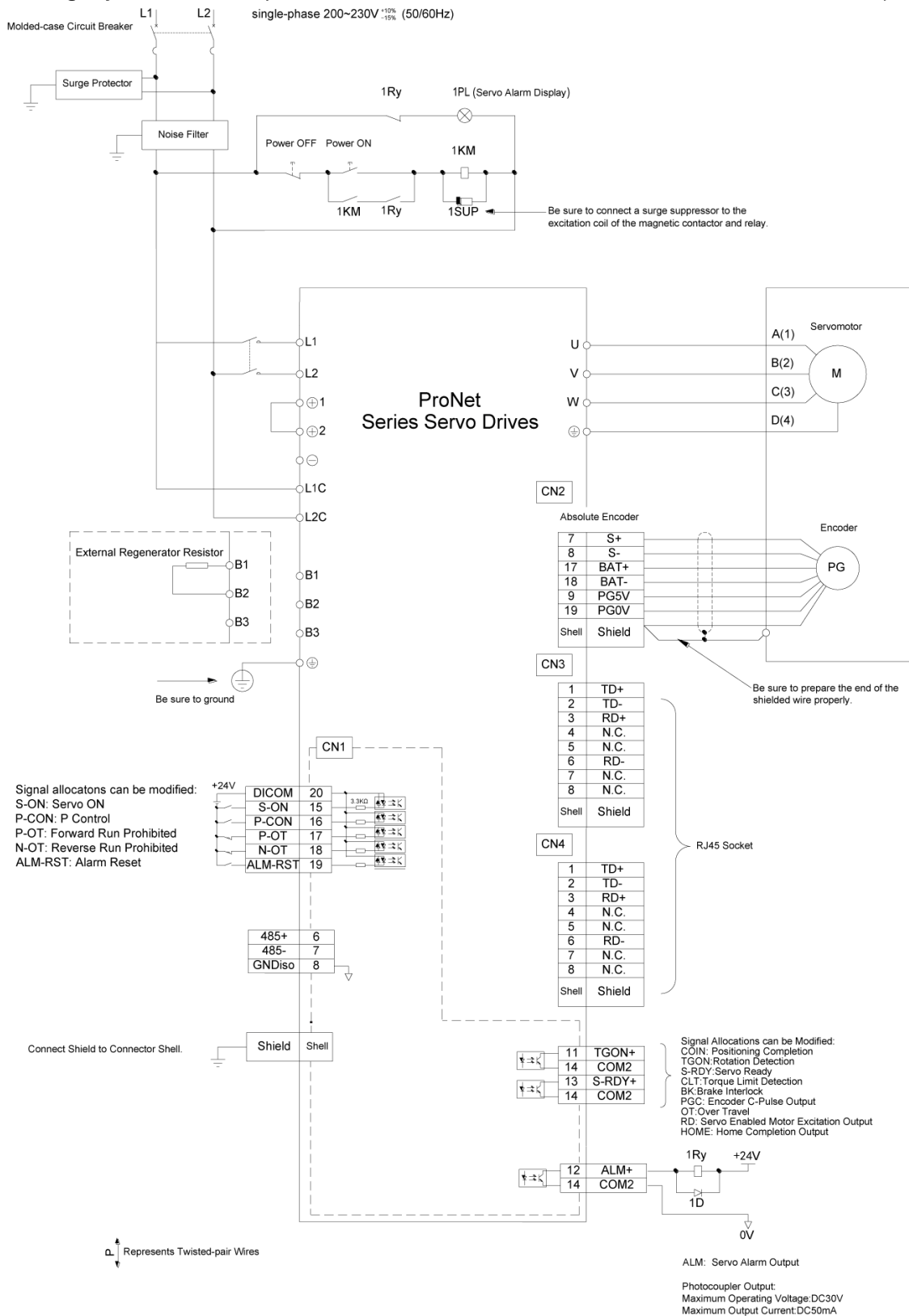
DIMENSIONS



Note: Dimensions are in mm

Dimensions are in mm

| Item | Rated Power (Watts) | Rated Voltage | Drive Control Capabilities | COMM | I/O Signals |
|-----------------|---------------------|---------------|----------------------------|----------|-----------------------|
| PRONET-02AEA-EC | 200 | 200VAC | Position, Speed, Torque | EtherCAT | 5 Inputs 3 Outputs |



Compatible Drivers

| Part Number | Description |
|-----------------|--------------|
| PRONET-02AEA-EC | Servo Driver |



Compatible Motors

| Part Number | Description |
|-------------|-------------|
| EMJ-02ASA22 | Servo Motor |
| EMJ-02ASA24 | Servo Motor |



Compatible Cables

| Part Number | Description |
|-------------|---------------|
| PAP-JE24-05 | Encoder Cable |
| PDM-JE18-05 | Power Cable |

