PKS-PRO-E-10 - Servo System

• Input Voltage Range of 170-253 VAC
• Rated Torque of 450-1,352 oz-in
• 1.0 kWatt Power Rating
• 2,500 PPR Incremental Encoder
• Fully Enclosed and Self-Cooled
• Oil Seal and Optional Brake
• High Overload Capacity
• MODBUS and CANopen Standard
• RS485 Interface
• Real Time Monitoring and Management
• Position, Speed, and Torque Control

The PKS-PRO-E-10 servo system includes a 1.0 kWatt EMG, EMJ or EML AC Servo Motor operated by the PRONET drive. These packages are ideal for quick and easy start-ups, convenience and performance! The servo motor included in this package provides torque from 450 to 1,352 oz-in. The PRONET 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 3M communication cable.

<table>
<thead>
<tr>
<th>System Specs</th>
<th>Rated Speed (RPM)</th>
<th>Rated Torque (oz-in)</th>
<th>Rated Current (A rms)</th>
<th>Inertia (oz-in-sec²)</th>
<th>Torque Constant KT (oz-in/A)</th>
<th>Resistance (ohms)</th>
<th>Inductance (mH)</th>
<th>Driver Digital Display</th>
<th>Brake (24VDC)</th>
<th>Motor Length (mm)</th>
<th>Shaft Diameter (mm)</th>
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<tbody>
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PKS-PRO - E - 10 - A - J P 2 2

Rated Output 10 1.0 kW
Version A B
Motor G EMG
J EMJ
L EML
Option 2 With Oil Seal
4 With Oil Seal and Brake (DC 24V)

*Note: B Version is only available for EMJ Series.
EMG-10 Motor Specifications

- Rated Torque of 677 oz-in
- 3-Phase, 200VAC
- Medium Inertia to Maximize Torque
- Peak Torque up to 300% of Rated Torque
- Peak Current up to 300% of Rated Current
- Speed of up to 3,000 RPM
- 2,500 PPR Incremental Encoder Attached
- Power Rating up to 1.0 kWatts
- Oil Seal and Optional Brake
- Long Life and Highly Reliable
- Neodymium-Iron-Boron Magnets (NdFeB)
- CE Certified

<table>
<thead>
<tr>
<th>Model #</th>
<th>Rated Torque (oz-in)</th>
<th>Rated Power (Watts)</th>
<th>Rated Speed (rpm)</th>
<th>Rated Current (A rms)</th>
<th>Brake (24VDC)</th>
<th>Inertia (oz-in-sec^2)</th>
<th>Electric Time Constant T_e (ms)</th>
<th>Back EMF Voltage K_e (V/krpm)</th>
<th>Torque Constant K_T (oz-in/A)</th>
<th>Resistance (ohms)</th>
<th>Weight (lbs)</th>
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</table>

Note: All Dimensions in (mm)
EMJ-10 Motor Specifications

• Rated Torque of 450 oz-in
• 3-Phase, 200VAC
• Peak Torque up to 300% of Rated Torque
• Peak Current up to 300% of Rated Current
• Speed of up to 4,500 RPM
• 2,500 PPR Incremental Encoder Attached
• Power Ratings up to 1.0 kWatts
• Optional Brake and Oil Seal
• Long Life and Highly Reliable
• Neodymium-Iron-Boron Magnets (NdFeB)
• CE Certified

<table>
<thead>
<tr>
<th>Model #</th>
<th>Rated Torque (oz-in)</th>
<th>Rated Power (Watts)</th>
<th>Rated Speed (rpm)</th>
<th>Rated Current (A rms)</th>
<th>Brake</th>
<th>Inertia (oz-in-sec²)</th>
<th>Electric Time Constant Tₑ (ms)</th>
<th>Back EMF Voltage Kₑ (V/krpm)</th>
<th>Torque Constant Kₚ (oz-in/A)</th>
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Note: All Dimensions in millimeters (mm)

Note: Part Number EMJ-10BPA24 is with the brake option. The length of ‘L’ includes the motor body length + the length of the brake.
EML-10 Motor Specifications

- Torque Rating of 1,352 oz.-in.
- 3-Phase, 200VAC
- Medium Inertia to Maximize Torque
- Peak Torque up to 300% of Rated Torque
- Peak Current up to 300% of Rated Current
- Speed of up to 1,500 RPM
- 2,500 PPR Incremental Encoder Attached
- Power Rating up to 1.0 kWatts
- Oil Seal, and Optional Brake
- Long Life and Highly Reliable
- Neodymium-Iron-Boron Magnets (NdFeB)
- CE Certified

### SPECIFICATIONS

<table>
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<tr>
<th>Model #</th>
<th>Rated Torque (oz-in)</th>
<th>Rated Power (Watts)</th>
<th>Rated Speed (rpm)</th>
<th>Rated Current (A rms)</th>
<th>Brake (24VDC)</th>
<th>Inertia (oz-in-sec²)</th>
<th>Electric Time Constant Tₑ (ms)</th>
<th>Back EMF Voltage Kₑ (V/krpm)</th>
<th>Torque Constant Kₜ (oz-in/A)</th>
<th>Resistance (ohms)</th>
<th>Weight (lbs)</th>
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Note: All Dimensions in (mm)

- • Torque Rating of 1,352 oz.-in.
- • 3-Phase, 200VAC
- • Medium Inertia to Maximize Torque
- • Peak Torque up to 300% of Rated Torque
- • Peak Current up to 300% of Rated Current
- • Speed of up to 1,500 RPM
- • 2,500 PPR Incremental Encoder Attached
- • Power Rating up to 1.0 kWatts
- • Oil Seal, and Optional Brake
- • Long Life and Highly Reliable
- • Neodymium-Iron-Boron Magnets (NdFeB)
- • CE Certified
PRO-E-10 Driver Specifications

FEATURES

- Input Voltage Range of 170-253 VAC
- Rated Power up to 1.0 kWatts
- Improved Responsiveness Performance
- Enhanced Position Precision
- Low Speed Stability
- Enables Less Debugging
- MODBUS and CANopen Standard
- RS485 Interface
- Position, Speed, and Torque Control
- Homing Function

ProNet DIMENSIONS

Dimensions are in mm

TORQUE CURVE

EMG-10A

A - Continuous Working Area
B - Repeatedly Working Area

Motor Speed (RPM)

Torque (oz-in)

0 566 1133 1699 2266
TORQUE CURVE

EMJ-10A

Motor Speed (RPM)

A - Continuous Working Area
B - Repeatedly Working Area

Torque (oz-in)

EML-10A

Motor Speed (RPM)

A
B

Torque (oz-in)
MAIN CIRCUIT DIAGRAM

ProNet Series Servodrives

Note: The Surge Protector, Noise Filter, Magnetic Contactor, and the Regenerative Resistor are Optional.
### Compatible Drivers

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<td>Servo Driver</td>
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### Compatible Motors

<table>
<thead>
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<th>Description</th>
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<td>Servo Motor</td>
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<td>EMG-10APA24</td>
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<td>Servo Motor</td>
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<tr>
<td>EML-10APA22</td>
<td>Servo Motor</td>
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<tr>
<td>EML-10APA24</td>
<td>Servo Motor</td>
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### Compatible Cables

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
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<td>PDM-GA16-05</td>
<td>Power Cable</td>
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<tr>
<td>BMP-GA24-05</td>
<td>Encoder Cable</td>
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<tr>
<td>PRONET-PSC-CC24-02</td>
<td>Comm. Cable</td>
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