Highly Dynamic Servo Motors

With a wide range of torque ratings and motor options, PRO servo motors are particularly suitable for highly dynamic applications with strict requirements for high accuracy and stability.

Optimal servo motor solution for high performance motion applications

PRO servo motors combine excellent dynamics and torque accuracy with a compact design and high power density.

- Rated output power range of 100 W to 8.3 kW
- Rated output torque of 0.3 Nm to 40 Nm
- Torque range of up to 40 Nm (rated) and 130 Nm (peak)
- Rated speed of up to 3000 rpm
- Maximum speed of up to 5000 rpm

Broad range of motor options

- 7 frame sizes
- Winding options for 110, 220 and 400 VAC
- Standard feedback options include resolver, 2000LPR RS422 encoder, and absolute multiturn encoder (Hiperface) with 128 sine/cosine per revolution
- Standard and high inertia options (motor sizes 115, 142, 180)
- Temperature protection by KTY84 (except PR-40)
- Up to IP65 protection class
- Scratch-resistant motor body
- Optional holding brake; zero backlash
- 90° round turnable connectors, IP65 (except PR-40)
- Insulation system UL/CSA, Class F (155°C)

Customization options

- Shaft and flange modifications
- Other non-standard feedback devices
- Various connectors
- Optimized motor winding
- Extended temperature range rating
- Special motor housing (such as stainless steel)

Key benefits

- Excellent dynamics and high torque accuracy
- High overload capacity
- Low noise and vibration-free operation
- Low cogging
- Compact design with high power density
- Large selection of feedback, shaft, flange, and brake options
- Up to IP65 protection class
- Maintenance-free
- CE and UL compliance

Matched to Servotronix CDHD servo drives for optimal performance

Current range: 1.5-30 cont. A rms
### Rating

<table>
<thead>
<tr>
<th>Model</th>
<th>Frame Size (mm)</th>
<th>Voltage Options (VAC)</th>
<th>Power Range (W)</th>
<th>Rated Torque (Nm)</th>
<th>Peak Torque (Nm)</th>
<th>Max Speed (rpm)</th>
<th>Rotor Inertia (kg cm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR-40</td>
<td>42</td>
<td>110, 230</td>
<td>100</td>
<td>0.32</td>
<td>0.96</td>
<td>5000</td>
<td>0.05</td>
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<tr>
<td>PR-60</td>
<td>60</td>
<td>110, 230, 400</td>
<td>200–370</td>
<td>0.64–1.18</td>
<td>1.95–3.90</td>
<td>3900–5000</td>
<td>0.13–0.24</td>
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<tr>
<td>PR-80</td>
<td>80</td>
<td>110, 230, 400</td>
<td>480–1068</td>
<td>1.53–3.40</td>
<td>4.50–12.00</td>
<td>3750–5000</td>
<td>0.64–1.58</td>
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<tr>
<td>PR-100</td>
<td>100</td>
<td>230, 400</td>
<td>820–1570</td>
<td>2.61–5.00</td>
<td>11.00–33.00</td>
<td>3900–5000</td>
<td>1.55–4.10</td>
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<tr>
<td>PR-115</td>
<td>115</td>
<td>110, 230, 400</td>
<td>840–2300</td>
<td>2.67–7.32</td>
<td>9.00–33.00</td>
<td>2200–5000</td>
<td>4.70–20.80</td>
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<tr>
<td>PR-142</td>
<td>142</td>
<td>110, 230, 400</td>
<td>2700–5000</td>
<td>8.60–19.99</td>
<td>31.00–65.00</td>
<td>2150–4800</td>
<td>23.00–68.90</td>
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<tr>
<td>PR-180</td>
<td>180</td>
<td>400</td>
<td>4700–8380</td>
<td>15.00–40.00</td>
<td>63.00–130.00</td>
<td>2200–3000</td>
<td>69.50–186.70</td>
</tr>
</tbody>
</table>

### Ordering information

**Pro Series Synchronous Servo Motors**

- Model: PR-40, PR-60, PR-80, PR-100, PR-115, PR-142, PR-180
- Frame Size: 40, 60, 60, 60, 80, 80, 100, 100, 115, 115, 115, 115, 142, 142, 142, 180, 180, 180
- Voltage Options: 110, 230, 400

**Winding**
- Refer to motor datasheet for availability of specific windings for each motor model

**Brake**
- 0: Without brake
- 1: With brake

**Shaft**
- 0: Shaft with key/without oil seal (front flange side IP42)
- 1: Shaft with key/with oil seal (front flange side IP65)
- 2: Shaft without key/without oil seal (front flange side IP42)
- 3: Shaft without key/with oil seal (front flange side IP65)

*Available only for motor models 115, 142, 180

**Feedback Device**
- E: Encoder TTL 2000ppr
- R: Resolver 2p
- A: Absolute Multiturn Encoder SICK/Stegmann Hiperface SKM 36, 128 sine cycle

Contact supplier for non-standard feedback options.