PA-06
Data Sheet

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## Specifications

<table>
<thead>
<tr>
<th>Load (LBS)</th>
<th>No Load Current (A)</th>
<th>Full Load Current (A)</th>
<th>Speed (inch/sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic</td>
<td>12VDC</td>
<td>24VDC</td>
<td>12VDC</td>
</tr>
<tr>
<td>22</td>
<td>0.6</td>
<td>0.3</td>
<td>2.5</td>
</tr>
<tr>
<td>180</td>
<td>0.6</td>
<td>0.3</td>
<td>3.7</td>
</tr>
</tbody>
</table>

- **Stroke**: 2" to 24"
- **Limit Switch**: Internal - Non-Adjustable
- **Limit Switch Feedback**: N/A
- **Screw Type**: Trapezoid Screw
- **Motor Type**: Brushed DC Motor
- **Connector Type**: See Page 5
- **Wire Length**: 59" (customizable)
- **Housing Material**: 6063 Aluminum
- **Rod Material**: 304 Stainless Steel
- **Gear Material**: Polyformaldehyde
- **Color (Shaft)**: Black
- **Color (Motor End)**: Black
- **Noise**: <60dB
- **Duty Cycle**: 10% (2 minutes on, 18 minutes off)
- **Operational Temperature**: -20°C to 60°C (-4°F to 140°F)
- **Protection Class**: IP67M
- **Feedback Options**: Hall Effect (see page 5)
- **Safety Feature**: Over Current Protection Optional (see page 5)
- **Certifications**: CE
- **Mounting Brackets**: See Page 6
- **Mounting Ends**: Customizable
## Dimensions

(Dimensions in inches)

<table>
<thead>
<tr>
<th>Stroke</th>
<th>2</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
<th>14</th>
<th>16</th>
<th>18</th>
<th>20</th>
<th>22</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>9.87</td>
<td>11.87</td>
<td>13.87</td>
<td>15.87</td>
<td>17.87</td>
<td>19.87</td>
<td>21.87</td>
<td>23.87</td>
<td>26.37</td>
<td>28.50</td>
<td>30.50</td>
<td>32.50</td>
</tr>
<tr>
<td>B</td>
<td>11.87</td>
<td>15.87</td>
<td>19.87</td>
<td>23.87</td>
<td>27.87</td>
<td>31.87</td>
<td>35.87</td>
<td>39.87</td>
<td>44.50</td>
<td>48.50</td>
<td>52.50</td>
<td>56.50</td>
</tr>
</tbody>
</table>

### Hole to Hole

For Stroke Length 2”-16”

\[ A = \text{Stroke Length} + 7.87" \]

\[ B = \text{Stroke Length} \times 2 + 7.87" \]

For Stroke Length 18”-24”

\[ A = \text{Stroke Length} + 8.50" \]

\[ B = \text{Stroke Length} \times 2 + 8.50" \]

For All Stroke Lengths with Hall Effect Sensor or Over Current Protection

\[ A = \text{Stroke Length} + 8.65" \]

\[ B = \text{Stroke Length} \times 2 + 8.65" \]
Speed vs Load

![Graph showing Speed vs Load for PA-06 Linear Actuator]

Current vs Load

![Graph showing Current vs Load for PA-06 Linear Actuator]
## Connectors & Feedback

### 2-Pin Connector (Standard)

2-pin connector layout with labels 1 and 2. The pins are labeled M- and M+.

<table>
<thead>
<tr>
<th>Component</th>
<th>Part Name</th>
<th>Part Number</th>
<th>Mating Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>Molex Mini Fit Jr 2-Pin Receptacle</td>
<td>39-01-2025</td>
<td>39-01-3029/39-01-2026</td>
</tr>
</tbody>
</table>

### 6-Pin Hall Effect Connector

*For Stroke Length 2-24*

6-pin Hall Effect Connector with labels 1 to 6.

<table>
<thead>
<tr>
<th>Component</th>
<th>Part Name</th>
<th>Part Number</th>
<th>Mating Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>Molex Mini Fit Jr 6-Pin Receptacle</td>
<td>39-01-2065</td>
<td>39-01-2069/39-01-2066</td>
</tr>
</tbody>
</table>

**Force (lbs)**

<table>
<thead>
<tr>
<th>Force</th>
<th>Resolution Pulses/inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>1,953</td>
</tr>
<tr>
<td>180</td>
<td>5,521</td>
</tr>
</tbody>
</table>

**Over Current Protection**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Cut Off Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>12VDC</td>
<td>5.0A - 5.5A</td>
</tr>
<tr>
<td>24VDC</td>
<td>2.5A - 3.0A</td>
</tr>
</tbody>
</table>

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Front View of the connectors and hall effect sensors.
Mounting Brackets

(Dimensions in inches)

BRK-06