CHARACTERISTICS

- Single or three phase
- 60, 50 or 50/60 Hz
- 2 or 4 pole
- Totally enclosed construction
- Low to medium starting torque
- Low starting current
- Maintains speed over range of torque
- Low maintenance
- 20,000+ hours of life

CONSIDERATIONS

- Suitable for speed control
- Low power levels for size
- Single phase requires capacitor to start
- 3-phase has more starting torque than single phase
gearbox specifications

<table>
<thead>
<tr>
<th>PARALLEL SHAFT</th>
<th>PLANETARY</th>
<th>RIGHT ANGLE</th>
<th>RIGHT ANGLE PLANETARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEARS</td>
<td>spur and helical</td>
<td>spur and helical</td>
<td>worm</td>
</tr>
<tr>
<td>MAX INPUT SPEED</td>
<td>4000 rpm</td>
<td>4000 rpm</td>
<td>2800 rpm</td>
</tr>
<tr>
<td>MAX OUTPUT TORQUE</td>
<td>322 in-lb</td>
<td>1062 in-lb</td>
<td>708 in-lb</td>
</tr>
<tr>
<td>MAX EFFICIENCY</td>
<td>90%</td>
<td>95%</td>
<td>80%</td>
</tr>
<tr>
<td>BACK DRIVABILITY</td>
<td>yes</td>
<td>yes</td>
<td>yes (below 30:1 ratio)</td>
</tr>
</tbody>
</table>

*Numbers based on optimal gear life at continuous duty

Induction motors can operate with or without a control, depending on if speed regulation is important. Groschopp AC controls are strategically designed to reduce slip when paired with our motors.

**motor only specifications**

![Induction motor image]

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Phase</th>
<th>Poles</th>
<th>Hz</th>
<th>Speed (RPM)</th>
<th>Power (hp)</th>
<th>Torque (lb-in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>115</td>
<td>1</td>
<td>2</td>
<td>50 &amp; 60</td>
<td>2500 - 3300</td>
<td>0.08 - 0.25</td>
<td>1.8 - 5.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>50 &amp; 60</td>
<td>1300 - 1600</td>
<td>0.08 - 0.16</td>
<td>2.4 - 7.8</td>
</tr>
<tr>
<td>230</td>
<td>1</td>
<td>2</td>
<td>50 &amp; 60</td>
<td>2500 - 3300</td>
<td>0.08 - 0.25</td>
<td>1.8 - 5.7</td>
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<tr>
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<td></td>
<td>4</td>
<td>50 &amp; 60</td>
<td>1250 - 1600</td>
<td>0.05 - 0.18</td>
<td>2.4 - 7.5</td>
</tr>
<tr>
<td>230</td>
<td>3</td>
<td>2</td>
<td>50 &amp; 60</td>
<td>2500 - 3300</td>
<td>0.15 - 0.46</td>
<td>3.4 - 9.1</td>
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<tr>
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<td></td>
<td>4</td>
<td>50 &amp; 60</td>
<td>1300 - 1700</td>
<td>0.07 - 0.22</td>
<td>3.4 - 9.9</td>
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</tbody>
</table>

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<tr>
<td>115</td>
<td>1</td>
<td>2</td>
<td>50 &amp; 60</td>
<td>2500 - 3400</td>
<td>0.17 - 0.38</td>
<td>3.7 - 6.6</td>
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<tr>
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<td></td>
<td>4</td>
<td>50 &amp; 60</td>
<td>1250 - 1700</td>
<td>0.08 - 0.23</td>
<td>3.1 - 8.8</td>
</tr>
<tr>
<td>230</td>
<td>1</td>
<td>2</td>
<td>50 &amp; 60</td>
<td>2600 - 3400</td>
<td>0.16 - 0.36</td>
<td>3.3 - 6.6</td>
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<tr>
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<td>4</td>
<td>50 &amp; 60</td>
<td>1300 - 1700</td>
<td>0.07 - 0.14</td>
<td>3.6 - 8.3</td>
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<tr>
<td>230</td>
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<tr>
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<td>50 &amp; 60</td>
<td>1300 - 1700</td>
<td>0.12 - 0.30</td>
<td>4.9 - 11.6</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Voltage</th>
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<th>Poles</th>
<th>Hz</th>
<th>Speed (RPM)</th>
<th>Power (hp)</th>
<th>Torque (lb-in)</th>
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</thead>
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<tr>
<td>115</td>
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<td>50 &amp; 60</td>
<td>2500 - 3300</td>
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<tr>
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<td>0.16 - 0.40</td>
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<tr>
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<td>50 &amp; 60</td>
<td>2500 - 3300</td>
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<td>1200 - 1650</td>
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<td>6.1 - 16.7</td>
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<tr>
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<td>2500 - 3300</td>
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<tr>
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<td>50 &amp; 60</td>
<td>1250 - 1600</td>
<td>0.20 - 0.60</td>
<td>8.6 - 23.1</td>
</tr>
</tbody>
</table>

Groschopp AC controls are designed to reduce speed regulation.