AC/DC/AC Electronically Commutated Spherical Motor Centrifugal Pumps

Applications
Specifically designed for the following uses:
• Water Circulation
• Chiller Systems
• Ozone Treatment
• Freshwater Aquarium Circulation

Specifications
Pump:
• Max Capacities: 14 GPM
• Max Head: 20’
• Pipe Connections:
  ¾” and 1” Barb Suction and Discharge
  ¾” MPT Suction and Discharge
• Maximum Working Pressure: 50 PSI
• Maximum Temperature: 140° F
• Rotation: counter clockwise when viewed from the motor end

Motor:
• Electronically Commutated AC/DC/AC Spherical Motor
• Canned Spherical Motor Type
• 115 Volt 62 Watts 50/60 Hz, 3100 RPM
• 230 Volt 71 Watts 50/60 Hz, 3200 RPM
• Automatic Overload Protection

Features
Compact Design:
Close coupled, space saving design provides easy installation.

Mounting:
Pump can be mounted horizontally or vertically with motor end down. Thermoplastic integrated pump bracket is adjustable to 4 different discharge angles.

Motor Bracket:
Thermoplastic motor bracket is adjustable to 4 different discharge angles.

Construction:
Available in 316SS fitted thermoplastic.

Ceramic Bearing Ball and Carbon Bearing Cap:
High density ceramic bearing ball and graphite impeller bearing cap designed for high efficiency and long life.

Impeller:
Highly efficient, clog resistant open impeller is dynamically balanced with carbon bearing for smooth ultra quiet operation.

Casing:
Casing is thermoplastic construction.

Mechanical Seal:
Unique patented design has no mechanical seal which is a potential leak path.

Motor:
Highly efficient and ultra quiet spherical motor design. Pump is designed for continuous operation. All ratings are within working limits of the motor.

Electronics:
Embedded microprocessor control is self protected against dry run conditions. Available with variable speed with PWM input or dial control (potentiometer) on the pump.

Noise level:
Whisper quiet, less than 40 db.

Weight:
Lightweight construction weighs less than 4lbs.
Laing Thermotech
E10 Plastic Spec Sheet

Materials of Construction (Wetted Parts)

<table>
<thead>
<tr>
<th>Part</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump Housing</td>
<td>Polyphenylene Oxide (PPO)</td>
</tr>
<tr>
<td>“O” Ring</td>
<td>EPDM or Viton</td>
</tr>
<tr>
<td>Impeller</td>
<td>Polyphenylene Oxide (PPO)</td>
</tr>
<tr>
<td>Bearing</td>
<td>Carbon/Allumina Ceramic</td>
</tr>
<tr>
<td>All Other Wetted Parts</td>
<td>316 Stainless Steel or Plastic</td>
</tr>
</tbody>
</table>

![Diagram of pump housing dimensions]

![Diagram of impeller dimensions]

![Graph of head vs. flow and watts]

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