SCR DC Speed Control
Model OC-2 1/8 thru 5 hp

Polyspeede Model OC-2 is the OEM speed control with built-in features that are added options in most controls. Standardized construction holds costs low and deliveries short. The heavy duty circuit and components are designed for reliability and lasting accuracy on tough industrial jobs.
Model OC-2

Dimensions in inches

<table>
<thead>
<tr>
<th>Motor HP</th>
<th>1/8</th>
<th>1/4</th>
<th>1/2</th>
<th>3/4</th>
<th>1</th>
<th>1-1/2</th>
<th>2</th>
<th>3</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input VAC</td>
<td>115</td>
<td>115</td>
<td>115</td>
<td>230</td>
<td>115</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
</tr>
<tr>
<td>Code</td>
<td>-12</td>
<td>-16</td>
<td>-25</td>
<td>-33</td>
<td>-50</td>
<td>-51</td>
<td>-75</td>
<td>-76</td>
<td>-100</td>
</tr>
</tbody>
</table>

Sample catalog number: OC-10 (1 hp, 230 VAC input)

Adjustments
- Acceleration: Linear, 0.5 to 15 seconds
- Torque (current) limit: 50% to + 150% of motor rating
- Minimum speed: -5% to +10%
- Maximum speed: 70% to 110% *
- IR: 0 to 10% boost

Operating Conditions
- Line voltage variation: ±10 volts (115 volt models) ±20 volts (230 volt models)
- Ambient temperature: 0-40°C or 100°C max. power stage baseplate temperature
- Altitude (standard): 1000 meters

Ratings
- Horsepower range: Models for 1/8 thru 5 hp
- Power source: 115 or 230 VAC, single phase, 50 or 60 Hertz
- Output voltage (115 VAC input, 1/8 thru 1 hp): Armature: 0 to 90 VDC Field: 100 VDC
- Output voltage (230 VAC input, 1/4 thru 5 hp): Armature: 0 to 180 VDC Field: 200 VDC
- Duty: Continuous
- Overload capacity: 150% for one minute

Performance Characteristics
- Controlled speed range: 30:1 with PM DC motors 20:1 with shunt motors
- Speed regulation (percent of base speed): 1.0% (armature feedback) 0.1% (DC tachometer feedback)

Design Features
- NEMA K (full wave with freewheeling diode). Power conversion stage sized for continuous full load operation with any DC motor designated for Type K service.
- Short circuit protection by sub-cycle line fuses.
- Voltage transient protection: RC snubber across AC line. MOV across power stage AC input and across motor field terminals on 230 volt models. Diode clipper on speed command input.
- Independent, simultaneously operating torque and speed loops with sharp, smooth transition provide optimum speed regulation and precise torque limit cut-in regardless of speed setting.
- External torque limit program terminals.
- Screw type input-output connections.
- Moisture barrier on printed circuit paths. Conservatively rated components. 100% inspection and final testing.
- Includes speed potentiometer, knob and dial plate.

Type SC Systems Control
for Expanded Functions

The highly versatile Polyspede Type SC Systems Control is designed around the fundamental OC-2 SCR DC drive.

For greatly expanded operating functions, with many combinations of options, a Type SC should be selected. In it are available the basic optional functions of Dynamic Braking, Adjustable Jog and Contractor Automatic Reversing. It is also offered with additional options chosen from three major groups: Tachometer Feedback, External Speed Control and Multiple Preset Speeds.

Ask for the Type SC brochure.

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