Self-Grounding ProTech™ Bearing Isolators
Extends service life for electric motors

Provides 100% exclusion plus dissipates shaft voltages

Parker’s self-grounding ProTech “SG” profile provides two types of bearing protection on electric motors. It excludes 100% of the contaminants and dissipates electrical shaft voltages caused by variable frequency drives (VFD). Utilizing its easily replaceable carbon brush assembly, the ProTech SG design is engineered to quickly and effectively transfer the “transient” shaft voltages to the conductive PTFE bearing isolator body, then to motor ground.

Contact us to learn more.

Contact Information:
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www.parker.com/eps

Product Features:
• Carbon brush assembly dissipates electrical shaft voltages caused by variable frequency drives
• Extends service life by dissipating stray current
• UL tested to IEEE 841* and API 610
• Non-contact sealing means seal will not wear out
• Unitized, two-piece construction enables easy single cartridge installation
• Economical upgrade on NEMA motors that require expensive isolator bearings

Product Features

Best Solution for Electric Motor Shaft Voltage
The ProTech SG’s unique design and superior performance make it an excellent solution for electric motor applications. The seal adds value by facilitating grounding which decreases downtime due to bearing pitting / fluting damage from stray current. In addition, ProTech utilizes labyrinth technology to keep contaminants out - preventing bearing damage common with contamination intrusion. Both of these design features are incorporated into one bearing isolator.

Features of the ProTech SG
• Reduces shaft voltage that causes bearing pitting / fluting damage
• Non-contact sealing design means seal will not wear out
• Carbon brush assembly can be easily replaced in the field via an external set screw port
• Unitized construction of two-piece rotor and stator provides press-fit, single cartridge installation utilizing FKM O-ring on ID of seal rotor
• Proprietary labyrinth design outperforms and outlasts isolators that rely on a single internal o-ring for sealing
• Economical upgrade on NEMA motors that require expensive isolator bearings
• Constructed from proprietary conductive PTFE material with documented test results
• First isolator U.L. tested to IEEE 841, meets or exceeds IP55, IP56, IP66, IP69 and API 610
• CNC machined, no tooling charges

Standard Operating Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Total Eccentricity</td>
<td>.002&quot; (.51 mm)</td>
</tr>
<tr>
<td>Shaft Speed</td>
<td>Up to 5,000 fpm (25 m/s)</td>
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<tr>
<td>Pressure</td>
<td>0 psi</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-40°F to 250°F (-40°C to 121°C)</td>
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<tr>
<td>Axial Movement</td>
<td>.020&quot; (0.51 mm) Special designs up to .070&quot; (1.78 mm)</td>
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<tr>
<td>Standard Seal Material</td>
<td>Proprietary conductive PTFE</td>
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<td>Standard O-ring Material</td>
<td>FKM</td>
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<tr>
<td>Retain</td>
<td>Grease and oil splash (oil level must be below shaft)</td>
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<tr>
<td>Exclude</td>
<td>Water spray &amp; dry contaminants from bearing cavity - IP66 rating</td>
</tr>
<tr>
<td>Equipment</td>
<td>IEEE 841 &amp; NEMA electric motors. Any application that requires a reduction of shaft voltage from rotating equipment.</td>
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ProTech Materials
ProTech’s standard reinforced PTFE construction provides a wide range of operating capabilities including reliable performance in high or low temperatures and extreme chemical environments. The addition of other PTFE fillers extends the capability to special designs and services with enhanced physical properties. For example, we offer a PTFE blend for high temperature stability in large diameter seals, and for the SG design, we utilize a proprietary electrically conductive PTFE material.

Contact Us
Our experienced application engineers are your link to technical support for all of your sealing needs. They can help you optimize an existing seal design or explore innovative design alternatives.

Call 800-233-3900 for technical assistance.