



Bearing Protection Specification

1.1 Motors

A. General Requirements-Shaft Grounding

1. Electric Motors, especially when operated on variable frequency drives (VFD's) and motors driven by Pulse Width Modulation (PWM) controllers shall be protected from bearing damage due to induced electrical currents. They shall be equipped with a bearing protection kit (BPK) utilizing a high conductivity and low contact resistance silver graphite brush grade K007 and must have a consistent force spring and holder system to maintain positive contact. This assembly will include a holder system/mounting device that will position the silver graphite brush so that optimum contact with the motor shaft during operation is maintained. This installation will create a least resistance path to the ground and cause the induced electrical currents to discharge to ground through the bearing protection device to protect the bearings.
2. Depending on the motor shaft size, multiple kits are recommended for optimal bearing protection.
 - a. Consult manufacturers selection chart and installation guide for exact recommendations.
3. For large motors typically above 100 HP the insulated bearing is usually-installed on the Non-Drive End (NDE) and in such cases the bearing protection kit must be installed on the Drive End (DE) of the shaft. The motor shall be properly grounded to system ground through the motor mounting device to the frame.

Recommended parts:

Helwig Carbon Products, Inc. Bearing Protection Kits (BPK).

Recommended source:

Helwig Carbon Products, Inc., Milwaukee WI, USA

Ph: 800-962-4851

techsquad@helwigcarbon.com

www.helwigcarbon.com/shaft-grounding/