



Insulated Bearings

Choosing the right bearing for applications such as electric motors, which can be affected by stray electrical currents, is of the utmost importance. Electrical continuity can cause damage to raceways and rolling elements. This risk is greater in applications using frequency converters.

Insulated ball bearings offer a cost-effective method of protection against electrical current.

Insulated bearings from HQW Precision are ceramic coated with a very thin layer of up to 200µm to ensure insulation up to 2,000V.

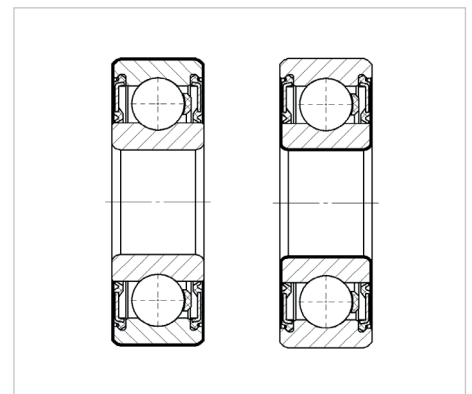
A 100 µm layer ensures insulation up to 1,000 V. The shaft and housing tolerances need not be adjusted compared to non-coated bearings because the ceramic layer thickness is considered in the design.

Bearing Specifications:

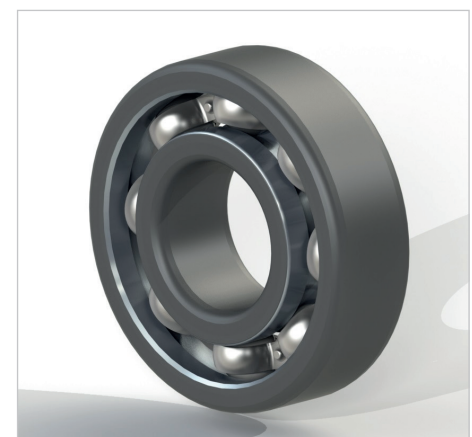
- Ceramic coating on inner or outer ring
- Layer thickness optimised by special coating process
- Performance characteristics (load/ speed) are unchanged

Advantages:

- High electrical resistance
- Cost efficiency due to increased bearing life and reduced maintenance costs
- No special housing or shaft tolerances necessary



Section drawings of coated bearings.
 Left - ceramic coating on outer ring surface.
 Right - ceramic coating on inner ring surface.



Ceramic coated insulated bearing

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