



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

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

Insulated bearings from CW Bearing are deep groove ball bearings and cylindrical roller bearings which are ceramic coated with a very thin layer of up to 200 µm to ensure insulation up to 2,000 V.

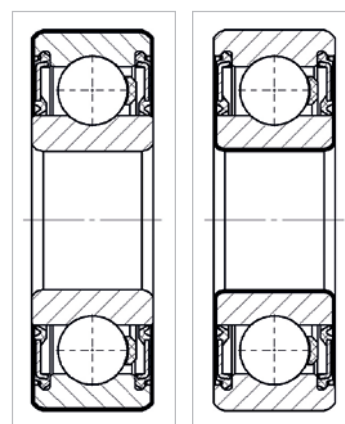
A 100 µm layer ensures insulation up to 1,000 V. The shaft and housing tolerances need not be adjusted compared to non-coated bearings because the ceramic layer thickness is considered in the design.



Ceramic coated insulated bearing.

Bearing Specifications:

- Ceramic coating on inner or outer ring.
- Layer thickness optimised by special coating process.
- Available with almost every bearing type.
- Performance characteristics (load/speed) are unchanged.



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

Advantages:

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

About CW Bearing

CW Bearing is a global company with production sites in the US, China and Germany. It's largest subsidiary, CW Bearing GmbH, is headquartered in Hamburg and is a leading manufacturer of high precision ball bearings. CW Bearing operates across Europe and South America, providing engineering, manufacturing, sales, logistics and technical service from multiple locations. State-of-the-art production and testing facilities are based in the company's 'Quick Centre' in Kürnach, Germany.

For more information on our products or to discuss your bearing requirements, please contact our experienced Sales & Engineering Specialists.

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