

SKF XL hybrid deep groove ball bearings

feature a unique design and have rings of bearing steel and balls of bearing grade silicon nitride that virtually eliminates generator failure resulting from electrical erosion.



Reduced lifecycle costs

Imagine being able to both increase turbine availability and reduce the cost of each kWh produced. SKF XL hybrid deep groove ball bearings can make it possible. This unique, high performance solution helps reduce total lifecycle costs, while lowering the risk of costly generator repairs and lost production.

With SKF XL hybrid deep groove ball bearings you get the most technically reliable and cost-effective solution to avoid premature bearing failures due to electric erosion. These bearings

combine a fit-for-purpose design, superior material properties and top-class SKF quality control for exceptional, long-term reliability. Not to mention an extended grease life that helps reduce lifecycle costs even more.

No more worries. You can also rely on the global SKF distribution network to provide the right SKF XL hybrid deep groove ball bearing solution for your generator when and where you need it.

Designed for survival

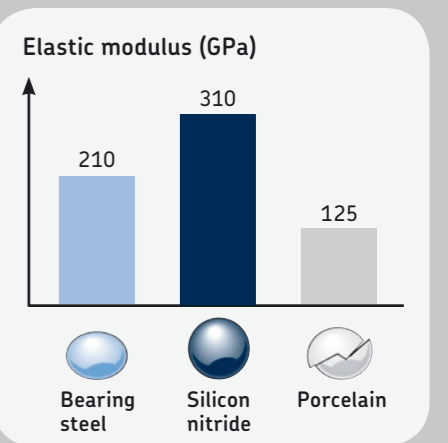
SKF XL hybrid bearings have been engineered using a superior bearing grade silicon nitride material that makes the balls exceptionally durable. Imagine a ball so hard that it can smooth the ridges of most indentations, making the bearing less sensitive to contamination. This is "self-healing" in action. What's more, this unique material is electrically non-conductive, virtually eliminating the risk of premature bearing failures due to electric erosion. SKF has implemented specific quality control processes to verify endurance and bearing life according to specification. Validation tests prove that you can rely on SKF XL hybrid deep groove ball bearings for a long time to come.

Consistent behaviour is reliability in action

SKF XL hybrid deep groove ball bearings maximize the effects of the lubricant to enhance long-term performance when compared with all-steel deep groove ball bearings. In fact, you can count on operational reliability even under poor lubrication conditions, because these bearings are more likely to maintain consistent behaviour and stable operation. In combination with Windlub, the innovative automatic lubrication kit for generator bearings, you can optimize lubrication intervals even further.

An excellent fit made easy

Simply mount them – that's all there is to it. Upgrading installed turbine generators with SKF XL hybrid deep groove ball bearings couldn't be simpler or more reliable. SKF XL hybrid deep groove ball bearings feature standard bearing dimensions for large size generators, so there is no need for redesign, additional components or special tools during installation. And you can rest assured that SKF engineers are never far away to offer technical support and expertise if needed.





Electric erosion:
 Don't let electricity
 get you down



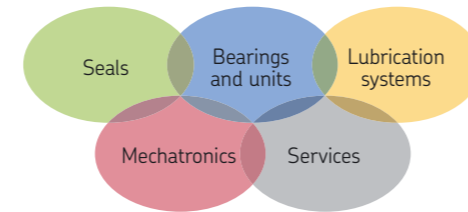
Electricity and bearings don't always go well together, especially in your turbine's generator. Even the smallest stray electric currents can bring your bearings, your turbine and your business to a standstill. Until recently.

Rarely is a threat so clear – and so easily eliminated. The majority of bearing failures in the generators of large wind turbines are directly or indirectly linked to the passage of damaging electric currents through the bearing. So-called electric erosion not only affects the bearing raceways but also the lubricant, and thus the performance of the bearing. Over time, electric erosion can result in pre-

mature bearing failure and worse generator breakdown and extended turbine downtime. Can you afford an unnecessary production loss?

Fortunately for your wind farm, there is a reliable, cost-effective solution that does eliminate the risk of electric erosion – and the huge cost of repairs and lost energy production associated with it.

Designed and developed specifically for large wind turbines, SKF extra large (XL) hybrid deep groove ball bearings provide a highly effective solution for both new and already installed generators. They feature rings of bearing steel and balls of bearing grade silicon nitride. This unique ceramic material insulates against electric currents – while providing high reliability and performance.



The Power of Knowledge Engineering

Drawing on five areas of competence and application-specific expertise amassed over 100 years, SKF brings innovative solutions to OEMs and production facilities in every major industry worldwide.

These five competence areas include bearings and units, seals, lubrication systems, mechatronics (combining mechanical and electronics into intelligent systems), and a wide range of services, from 3D computer modeling to advanced condition monitoring and reliability systems.

A global presence assures SKF customers uniform quality standards and universal product availability.

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Eliminate the problem

