

KBC Rolling Bearings

BEARINGS



KBC Deep Groove Ball Bearings

Standards ◦ Basic Designs ◦ Tolerances ◦ Bearing Clearance ◦ Cages ◦ Alignment

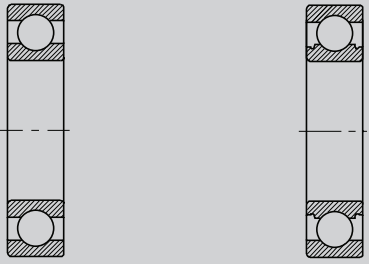
Standards

Single row deep groove ball bearings KS B 2023

Basic Designs

Deep groove ball bearings are available as open design, and sealed design with either non-contact or contact seal. Availability of various KBC designs makes it possible for the customers to choose right kind of bearing suitable for their specific operating and environmental conditions.

Sealed bearings have grooves on inner ring for seals, but open type bearings do not have grooves on them as principle. However, Bearings which are supplied as sealed basic design may have grooves in the outer ring for the seals or shields also as open bearings, due to manufacturing reasons.



Open Deep Groove Ball Bearing Open Deep Groove Ball Bearing with grooves in the inner ring

▼ Existence of Seal Grooves in KBC Open Deep Groove Ball Bearings

With Seal Grooves on Inner Ring	No Seal Grooves on Inner Ring
6000 ~ 5	6006 ~
6200 ~ 4	6205 ~
6300 ~ 3	6304 ~

Tolerances

Single row deep groove ball bearings of basic design have normal tolerances.

Bearings with narrow tolerances are supplied on request.

Tolerances: Refer to Table 7-2 Tolerances of Radial Bearings on Page 68.

Bearing Clearances

Single row deep groove ball bearings of basic design have normal clearances (MC3 Clearance for small-sized bearings.) Bearings with an increased bearing clearance are supplied on request.

Radial Clearances: Refer to Table 9-1 Radial Internal Clearances of Single Row Deep Groove Ball Bearings on Page 92, and Table 9-2 Radial internal Clearances of Small Diameter Deep Groove Ball Bearings on Page 92.

Cages

Basic deep groove ball bearings without cage suffix are fitted with a pressed steel cage. Pressed steel cage specially treated to improve abrasion-resistance and oil-proof quality are available also on request.

polyamide 66 cages can be used at operating temperatures of up to 120°C over extended periods. If the bearings are lubricated with oil, any additives contained in the oil may reduce the cage service life. Also, aged oil may reduce the cage life at higher temperatures; therefore, the oil change intervals have to be strictly observed



Alignment

The self-aligning capacity of deep groove ball bearings is limited; this calls for well aligned bearing seats. Misalignment impairs the smooth running of the balls, induces additional stress in the bearing and consequently reduces the bearing service life.

