

Image may differ from product. See technical specification for details.

6308-2RZTN9/HC5C3WT

Hybrid ceramic deep groove ball bearing with seals on both sides

Hybrid ceramic single row deep groove ball bearings with seals on both sides have rings made of bearing steel and rolling elements made of bearing grade silicon nitride, which make the bearings electrically insulating. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out. The ceramic rolling elements not only provide protection from electric current damage but also, when compared to same-sized bearings with steel rolling elements, provide enhanced bearing performance, extended bearing service life, higher speed capability, high wear-resistance, high bearing stiffness, reduced risk of smearing and false brinelling, and less sensitivity to temperature gradients, making them suitable for use in dificult conditions and contaminated environments. Also available on request with special sized bore and/or outside diameters, suitable for reworked shafts and housings.

- Protected against electric current damage
- Integral sealing prolongs bearing service life
- Especially suited for use in difficult conditions and contaminated environments
- Typical benefits of single row deep groove ball bearings

Overview

Dimensions

Bore diameter	40 mm
Outside diameter	90 mm
Width	23 mm

Performance

Basic dynamic load rating	41 kN
Basic static load rating	24 kN
Reference speed	20 000 r/min
Limiting speed	11 000 r/min

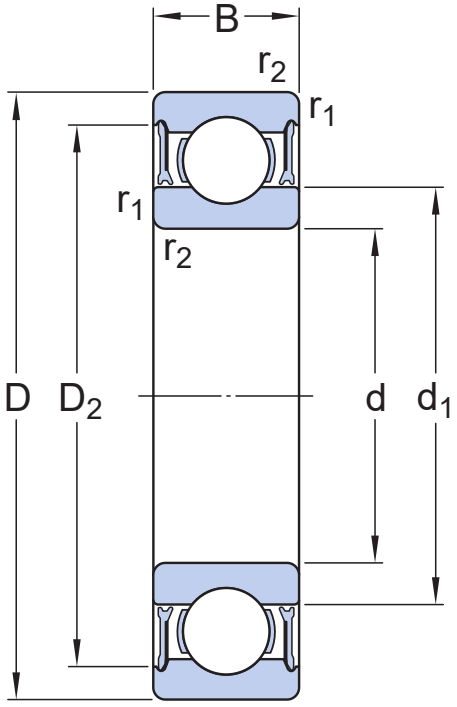
Properties

Filling slots	Without
Number of rows	1
Locating feature, bearing outer ring	Without
Bore type	Cylindrical
Cage	Non-metallic
Matched arrangement	No
Radial internal clearance	C3
Material, bearing	Hybrid (ceramic balls)
Coating	Without
Sealing	Seal on both sides
Sealing type	Non-contact
Lubricant	Grease
Relubrication feature	Without
Indicative carbon footprint for new product	2.1 kg CO_2e

Logistics

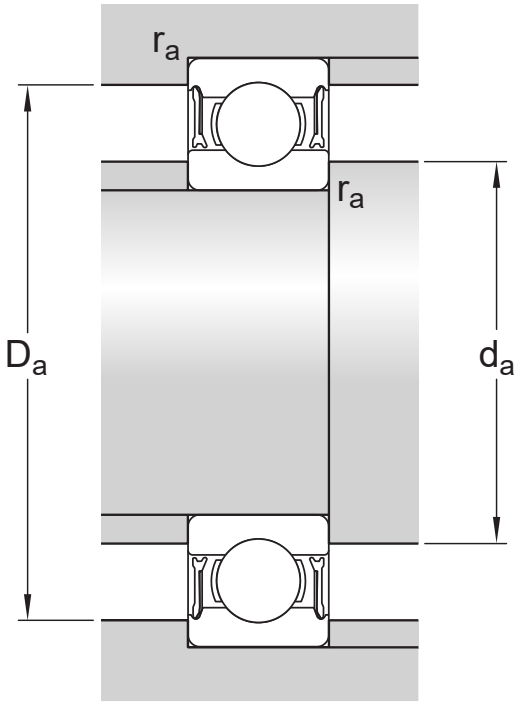
Product net weight	0.565 kg
eClass code	23-05-08-01
UNSPSC code	31171504

Technical specification



Dimensions

d	40 mm	Bore diameter
D	90 mm	Outside diameter
B	23 mm	Width
d_1	≈ 56.11 mm	Shoulder diameter inner ring
D_2	77.7 mm	Recess diameter outer ring shoulder
$r_{1,2}$	min. 1.5 mm	Chamfer dimension



Abutment dimensions

d_a	min. 52 mm	Abutment diameter shaft
D_a	max. 78 mm	Abutment diameter housing
r_a	max. 1.5 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	41 kN
Basic static load rating	C_0	24 kN
Fatigue load limit	P_u	0.75 kN
Reference speed		20 000 r/min
Limiting speed		11 000 r/min
Calculation factor	k_r	0.03
Calculation factor	f_0	13.2

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal (metric), P6, P5, Normal (inch)
- Radial internal clearance: Classes C2 to C5

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fits

Compatible products

Mounting tool

Bearing fitting tool kit	TMFT 36
Bearing fitting tool kit, PRO version	TMFT 36/PRO

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