



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

## 6205/HC5C3

### Hybrid ceramic deep groove ball bearing

Hybrid ceramic single row deep groove ball bearings have rings made of bearing steel and rolling elements made of bearing grade silicon nitride, which make the bearings electrically insulating. Deep groove ball bearings are the most widely used bearing type, especially in electric motors. 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. These characteristics make them suitable for use in difficult conditions and contaminated environments.

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

## Overview

### Dimensions

Bore diameter	25 mm
Outside diameter	52 mm
Width	15 mm

### Performance

Basic dynamic load rating	14 kN
Basic static load rating	7.8 kN
Reference speed	32 000 r/min
Limiting speed	22 000 r/min

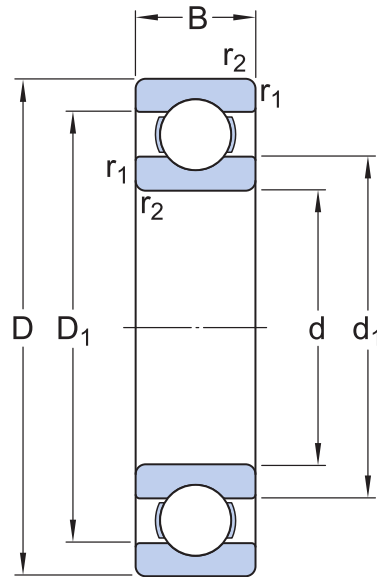
### Properties

Filling slots	Without
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Sheet metal
Matched arrangement	No
Radial internal clearance	C3
Material, bearing	Hybrid (ceramic balls)
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

### Logistics

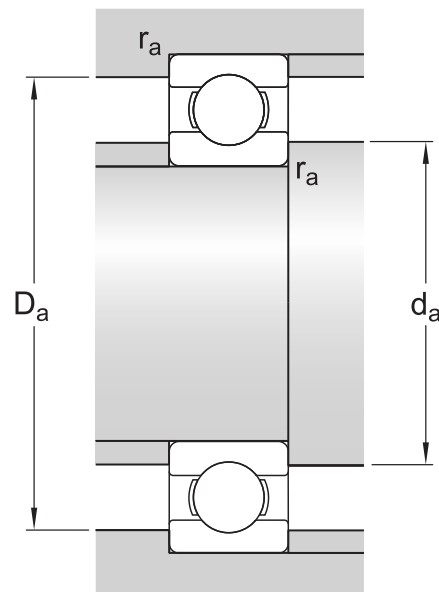
Product net weight	0.114 kg
eClass code	23-05-08-01
UNSPSC code	31171504

## Technical specification



## Dimensions

$d$	25 mm	Bore diameter
$D$	52 mm	Outside diameter
$B$	15 mm	Width
$d_1$	$\approx 34.35$ mm	Shoulder diameter inner ring
$D_1$	$\approx 43.95$ mm	Shoulder diameter outer ring
$D_2$	46.21 mm	Recess diameter outer ring shoulder
$r_{1,2}$	min. 1 mm	Chamfer dimension



## Abutment dimensions

$d_a$	min. 30.6 mm	Abutment diameter shaft
$d_a$	max. 31.5 mm	Abutment diameter shaft
$D_a$	max. 46.4 mm	Abutment diameter housing
$r_a$	max. 1 mm	Fillet radius

## Calculation data

Basic dynamic load rating	C	14 kN
Basic static load rating	$C_0$	7.8 kN
Fatigue load limit	$P_u$	0.245 kN
Reference speed		32 000 r/min
Limiting speed		22 000 r/min
Calculation factor	$k_r$	0.025
Calculation factor	$f_0$	13.9

## Tolerances and clearances




### GENERAL BEARING SPECIFICATIONS

- [Tolerances](#): Normal
- [Radial internal clearance](#): table

## BEARING INTERFACES

- [Seat tolerances for standard conditions](#)
- [Tolerances and resultant fit](#)

## More Information

 <b>Product details</b>	 <b>Engineering information</b>	 <b>Tools</b>
<p><a href="#">Hybrid deep groove ball bearings</a></p> <hr/> <p><a href="#">Hybrid cylindrical roller bearings</a></p> <hr/> <p><a href="#">Selecting bearing size</a></p> <hr/> <p><a href="#">General bearing specifications</a></p> <hr/> <p><a href="#">Loads</a></p> <hr/> <p><a href="#">Temperature limits</a></p> <hr/> <p><a href="#">Permissible speed</a></p> <hr/> <p><a href="#">Designation system</a></p> <hr/>	<p><a href="#">Principles of rolling bearing selection</a></p> <hr/> <p><a href="#">General bearing knowledge</a></p> <hr/> <p><a href="#">Bearing selection process</a></p> <hr/> <p><a href="#">Bearing interfaces</a></p> <hr/> <p><a href="#">Seat tolerances for standard conditions</a></p> <hr/> <p><a href="#">Selecting internal clearance</a></p> <hr/> <p><a href="#">Lubrication</a></p> <hr/> <p><a href="#">External sealing, mounting and dismounting</a></p> <hr/> <p><a href="#">Bearing failure and how to prevent it</a></p> <hr/>	<p><a href="#">SKF Product select</a></p> <hr/> <p><a href="#">Bearing Frequency Calculator</a></p> <hr/> <p><a href="#">SimPro Quick</a></p> <hr/> <p><a href="#">LubeSelect for SKF greases</a></p> <hr/> <p><a href="#">Heater selection tool</a></p> <hr/>



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