



# W 6005 Stainless steel deep groove ball bearing

## Stainless steel deep groove ball bearing

Stainless steel single row deep groove ball bearings provide greater chemical and corrosion resistance. As with deep groove ball bearings generally, they are particularly versatile, have low friction and are optimized for low noise and low vibration, which enables high rotational speeds. They accommodate radial and axial loads in both directions, are easy to mount, and require less maintenance than many other bearing types.

- Greater chemical and corrosion resistance
- Simple, versatile and robust design
- Low friction and high-speed capability
- Accommodate radial and axial loads in both directions
- Require little maintenance

## Overview

### Dimensions

Bore diameter	25 mm
Outside diameter	47 mm
Width	12 mm

## Performance

Basic dynamic load rating	8.71 kN
Basic static load rating	5.85 kN
Reference speed	32 000 r/min
Limiting speed	20 000 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	CN
Tolerance class	Normal
Material, bearing	Stainless steel
Coating	Without
Sealing	Without
Lubricant	None

Relubrication feature

Without

## Technical Specification



### Dimensions

d	25 mm	Bore diameter
D	47 mm	Outside diameter
B	12 mm	Width
$d_1$	≈ 31.7 mm	Shoulder diameter
$D_2$	≈ 42.73 mm	Recess diameter
$r_{1,2}$	min. 0.6 mm	Chamfer dimension

### Abutment dimensions

$d_a$	min. 29 mm	Diameter of shaft abutment
$D_a$	max. 44.5 mm	Diameter of housing abutment
$r_a$	max. 0.6 mm	Radius of shaft or housing fillet



### Calculation data

Basic dynamic load rating	C	8.71 kN
Basic static load rating	$C_0$	5.85 kN
Fatigue load limit	$P_u$	0.25 kN
Reference speed		32 000 r/min
Limiting speed		20 000 r/min
Minimum load factor	$k_r$	0.03
Calculation factor	$f_0$	14.5

## Mass

Mass bearing	0.071 kg
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## Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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