



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

## 7302 BECBP

### Single row angular contact ball bearing

These single row angular contact ball bearings can accommodate radial and axial loads acting simultaneously, where the axial load acts in one direction only. They can operate at high speeds and, depending on the variant, even very high speeds. They are more suitable than deep groove ball bearings for supporting large axial forces acting in one direction.

- High-speed capability
- Accommodate relatively high radial loads and large unilateral axial loads

# Overview

## Dimensions

Bore diameter	15 mm
Outside diameter	42 mm
Width	13 mm
Contact angle	40 °

## Performance

Basic dynamic load rating	13 kN
Basic static load rating	6.7 kN
Reference speed	22 000 r/min
Limiting speed	20 000 r/min

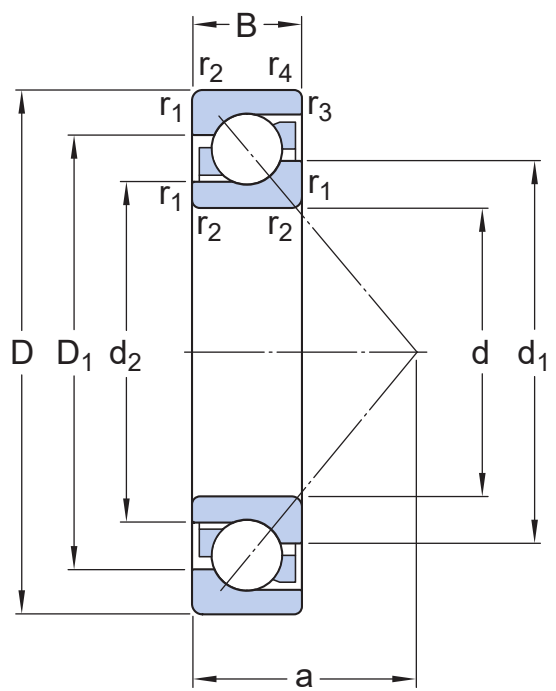
## Properties

Contact type	Normal contact (two-point contact)
Number of rows	1
Locating feature, bearing outer ring	None
Ring type	One-piece inner and outer rings
Cage	Non-metallic
Matched arrangement	No
Universal matching bearing	Yes
Axial internal clearance	Not applicable
Matched condition (axial clearance/ preload)	Axial clearance CB
Tolerance class	Class P6 (P6)
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

## Logistics

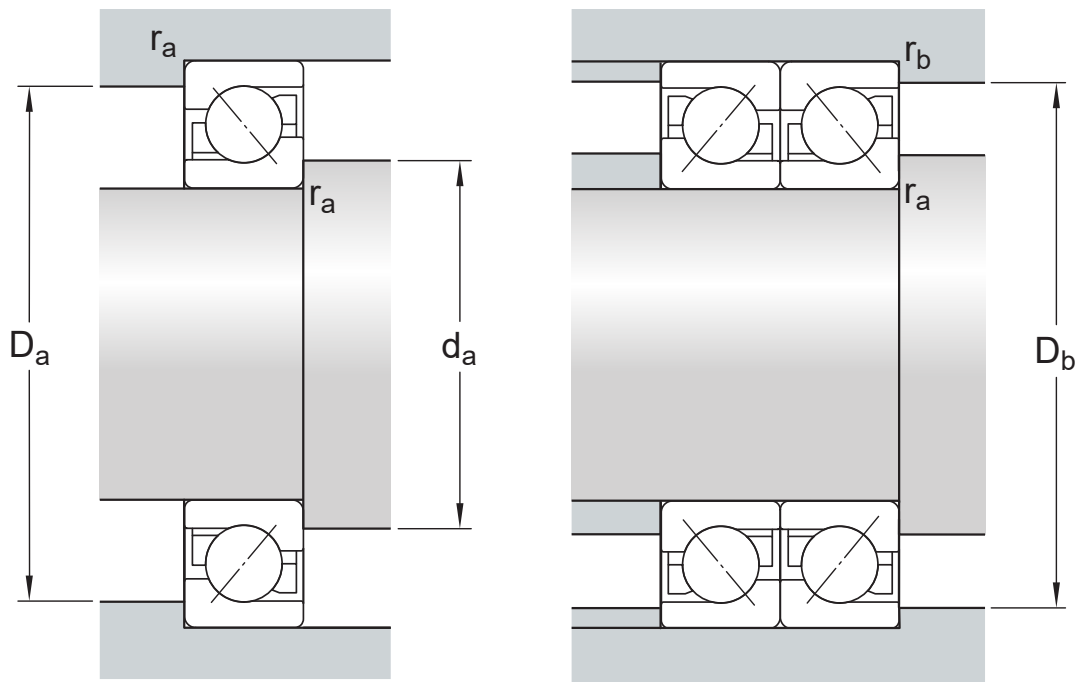
Product net weight	0.081 kg
eClass code	23-05-08-03
UNSPSC code	31171531

Technical specification



Dimensions

d	15 mm	Bore diameter
D	42 mm	Outside diameter
B	13 mm	Width
d <sub>1</sub>	≈ 26 mm	Shoulder diameter of inner ring (large side face)
d <sub>2</sub>	≈ 20.73 mm	Shoulder diameter of inner ring (small side face)
D <sub>1</sub>	≈ 32.6 mm	Shoulder diameter of outer ring (large side face)
a	18.6 mm	Distance side face to pressure point
r <sub>1,2</sub>	min. 1 mm	Chamfer dimension
r <sub>3,4</sub>	min. 0.6 mm	Chamfer dimension



## Abutment dimensions

$d_a$	min. 21 mm	Diameter of shaft abutment
$D_a$	max. 36 mm	Abutment diameter housing
$D_b$	max. 38 mm	Diameter of housing abutment
$r_a$	max. 1 mm	Radius of fillet
$r_b$	max. 0.6 mm	Radius of fillet

## Calculation data

Basic dynamic load rating	C	13 kN
Basic static load rating	$C_0$	6.7 kN
Fatigue load limit	$P_u$	0.28 kN
Reference speed		22 000 r/min
Limiting speed		20 000 r/min
Minimum axial load factor	A	9.07E-4
Minimum radial load factor	$k_r$	0.1
Limiting value	e	1.14

## SINGLE BEARING OR BEARING PAIR ARRANGED IN TANDEM

Calculation factor (single, tandem)	X	0.35
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Calculation factor (single, tandem)	$Y_0$	0.26
Calculation factor (single, tandem)	$Y_2$	0.57

## BEARING PAIR ARRANGED BACK-TO-BACK OR FACE-TO-FACE

Calculation factor (back-to-back, face-to-face)	$X$	0.57
Calculation factor (back-to-back, face-to-face)	$Y_0$	0.52
Calculation factor (back-to-back, face-to-face)	$Y_1$	0.55
Calculation factor (back-to-back, face-to-face)	$Y_2$	0.93

## Tolerances and clearances




### GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal (metric), P6, P5, Normal (inch)
- Internal clearance: CA+CB+CC, G
- Preload: GA+GB+GC

## BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit

# More Information

 Product details	 Engineering information	 Tools
<a href="#">Designs and variants</a>	<a href="#">Principles of rolling bearing selection</a>	<a href="#">SKF Product select</a>
<a href="#">General bearing specifications</a>	<a href="#">General bearing knowledge</a>	<a href="#">SimPro Quick</a>
<a href="#">Loads</a>	<a href="#">Bearing selection process</a>	<a href="#">Bearing Frequency Calculator</a>
<a href="#">Temperature limits</a>	<a href="#">Bearing interfaces</a>	<a href="#">LubeSelect for SKF greases</a>
<a href="#">Permissible speed</a>	<a href="#">Seat tolerances for standard conditions</a>	<a href="#">Heater selection tool</a>
<a href="#">Design considerations</a>	<a href="#">Selecting internal clearance or preload</a>	<a href="#">SKF mounting and dismounting instructions</a>
<a href="#">Designation system</a>	<a href="#">Lubrication</a>	
	<a href="#">Sealing, mounting and dismounting</a>	
	<a href="#">Bearing failure and how to prevent it</a>	

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