



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

# **7207 ACCBM**

### Single row angular contact ball bearing with 25° contact angle

These single row angular contact ball bearings, with 25° contact angle, accommodate radial and axial loads acting simultaneously, where the axial load acts in one direction only. They have Normal axial internal clearance and are suitable for universal matching, where two bearings can be arranged back-to-back or face-to-face. They have a ball-centred brass cage. They can operate at 20% higher speeds than equivalent bearings with 40° contact angle.

- 25° contact angle
- Brass cage
- Suitable for universal matching
- Can operate at very high speeds
- Accommodate relatively high radial loads and large unilateral axial loads

# Overview

## **Dimensions**

Bore diameter	35 mm
Outside diameter	72 mm
Width	17 mm
Contact angle	25 °

## Performance

Basic dynamic load rating	35.5 kN
Basic static load rating	23.2 kN
Reference speed	12 000 r/min
Limiting speed	19 000 r/min
SKF performance class	SKF Explorer

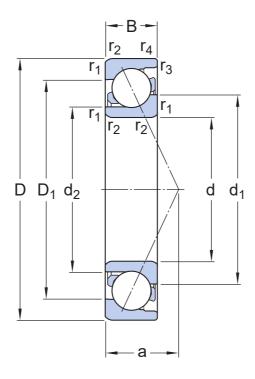
# **Properties**

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	Machined brass
Matched arrangement	No
Universal matching bearing	Yes
Axial internal clearance	Not applicable
Matched condition (axial clearance/ preload)	Axial clearance CB
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

# Logistics

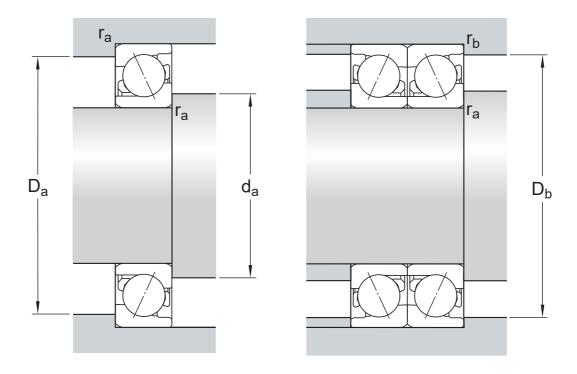
Product net weight	0.301 kg
eClass code	23-05-08-03
UNSPSC code	31171531

# **Technical specification**



# Dimensions

d	35 mm	Bore diameter
D	72 mm	Outside diameter
В	17 mm	Width
$d_1$	≈ 49.44 mm	Shoulder diameter of inner ring (large side face)
$d_2$	≈ 41.92 mm	Shoulder diameter of inner ring (small side face)
$D_1$	≈ 58.24 mm	Shoulder diameter of outer ring (large side face)
a	20 mm	Distance side face to pressure point
r <sub>1,2</sub>	min. 1.1 mm	Chamfer dimension
Г3,4	min. 0.6 mm	Chamfer dimension



## Abutment dimensions

da	min. 42 mm	Diameter of shaft abutment
Da	max. 65 mm	Abutment diameter housing
D <sub>b</sub>	max. 67.8 mm	Diameter of housing abutment
ra	max. 1 mm	Radius of fillet
r <sub>b</sub>	max. 0.6 mm	Radius of fillet

## Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	С	35.5 kN
Basic static load rating	C <sub>0</sub>	23.2 kN
Fatigue load limit	Pu	0.98 kN
Reference speed		12 000 r/min
Limiting speed		19 000 r/min
Minimum axial load factor	A	0.00277
Minimum radial load factor	k <sub>r</sub>	0.095
Limiting value	е	0.68

Calculation factor (single, tandem)	Χ	0.41
Calculation factor (single, tandem)	$Y_0$	0.38
Calculation factor (single, tandem)	Y <sub>2</sub>	0.87

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

Calculation factor (back-to-back, face-to-face)	X	0.67
Calculation factor (back-to-back, face-to-face)	$Y_0$	0.76
Calculation factor (back-to-back, face-to-face)	$Y_1$	0.92
Calculation factor (back-to-back, face-to-face)	Y <sub>2</sub>	1.41

## 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**

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



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