

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

305803 C-2Z

Cam roller (yoke-type track roller) with crowned outside surface, integral sealing and relubrication feature

These cam rollers (yoke-type track rollers) are designed to run on all types of tracks and to be used in cam drives, conveyor systems, etc. They are based on double row angular contact ball bearings. They have a thick-walled outer ring with a crowned running surface prevents edge stresses under skewing. They are supplied greased, sealed and ready-to-mount. A lubrication hole in the inner ring facilitates relubrication.

- High radial load carrying capacity and relatively high speed capability
- Accommodate tilting moments
- Long service life
- Ready to mount
- Integral sealing, for increased reliability, with relubrication feature

Overview

Dimensions

Functional outside diameter	47 mm
Bore diameter	17 mm
Width	17.5 mm

Performance

Basic dynamic load rating	13.8 kN
Basic static load rating	7.65 kN
Limiting speed	11 000 r/min

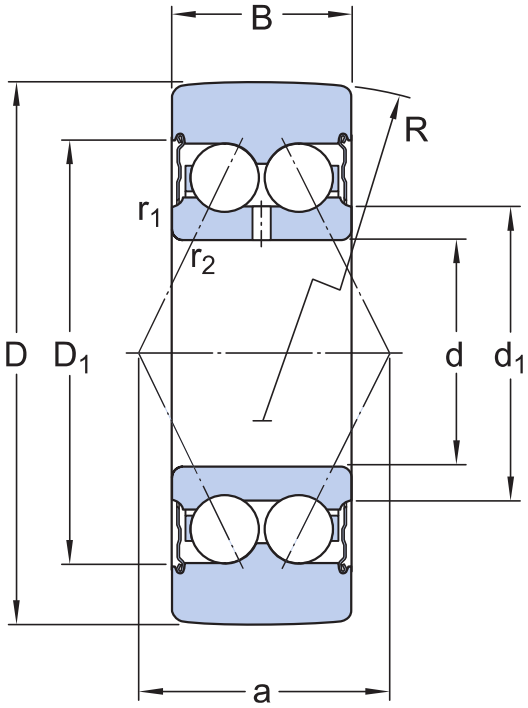
Properties

Bearing part	Complete track roller
Rolling elements	Balls
Number of rows	2
Outer ring profile	Crowned
Axial guidance of outer ring	Yes
Number of flanges, outer ring	0
Cage	With
Radial internal clearance	Not applicable
Axial internal clearance	Normal
Tolerance class	Normal (except crowned running surface)
Material, bearing	Bearing steel
Coating	Without
Sealing	Shield on both sides
Sealing type	Non-contact
Lubricant	Grease
Relubrication feature	With

Logistics

Product net weight	0.161 kg
eClass code	23-05-08-03
UNSPSC code	31171531

Technical specification



Dimensions

D	47 mm	Outside diameter
d	17 mm	Bore diameter
B	17.5 mm	Width
d_1	≈ 23.3 mm	Shoulder/recess diameter inner ring
D_1	≈ 35 mm	Recess diameter outer ring
R	400 mm	Profile running surface (crown) outer ring
$r_{1,2}$	min. 0.6 mm	Chamfer dimension
a	23 mm	Distance pressure points

Calculation data

Basic dynamic load rating	C	13.8 kN
Basic static load rating	C_0	7.65 kN
Fatigue load limit	P_u	0.325 kN
Maximum dynamic radial load	F_r	max. 9.3 kN
Maximum static radial load	F_{0r}	max. 13.4 kN
Limiting speed		11 000 r/min

Tolerances and clearances

GENERAL CAM ROLLER SPECIFICATIONS

- Tolerances: Normal
- Internal clearance: Single row cam rollers, Double row cam rollers

CAM ROLLER INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit

More Information

Product details

- Designs and variants
- General cam roller specifications
- Loads
- Temperature limits
- Speed limits
- Design consideration
- Designation system

Engineering information

- Principles of rolling bearing selection
- General bearing knowledge
- Bearing selection process
- Bearing interfaces
- Lubrication
- External sealing, mounting and dismounting
- Bearing failure and how to prevent it

Tools

- SKF Product select
- Bearing Frequency Calculator
- SimPro Quick
- LubeSelect for SKF greases
- Heater selection tool

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