

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

BEAS 015045 C-2RSH

Super-precision double direction angular contact thrust ball bearing for screw drives

These double direction angular contact thrust ball bearings are well suited for screw drive applications, but are also beneficial in other applications, where reliable radial and axial support is required, together with extremely precise axial guidance of the shaft. The bearings provide a high degree of axial stiffness, high axial load carrying capacity, accommodate high speeds and rapid accelerations, and offer very high running accuracy.

- Accommodate radial loads, and axial loads in both directions
- Greased and sealed as standard
- Ready and easy to mount
- Easy to relubricate

Overview

Dimensions

Bore diameter	15 mm
Outside diameter	45 mm
Height	25 mm
Contact angle	60 °

Performance

Basic dynamic load rating	20.4 kN
Basic static load rating	33.5 kN
Attainable speed for grease lubrication	4 600 r/min

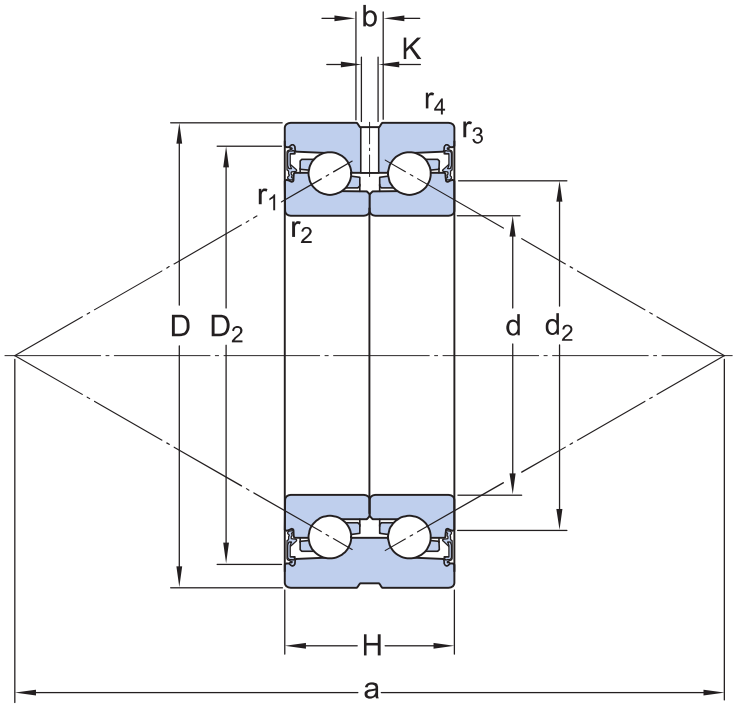
Properties

Axial load capability	Double-direction
Number of rows	2
Locating feature, bearing outer ring	Without
Housing washer type (double-row angular contact thrust ball bearings)	One-piece
Cage	Non-metallic
Single bearing, universally matchable, delivered individually	No
Sealing	Seal on both sides
Sealing type	Contact
Lubricant	Grease
Relubrication feature	With
Indicative carbon footprint for new product	0.82 kg CO_2e

Logistics

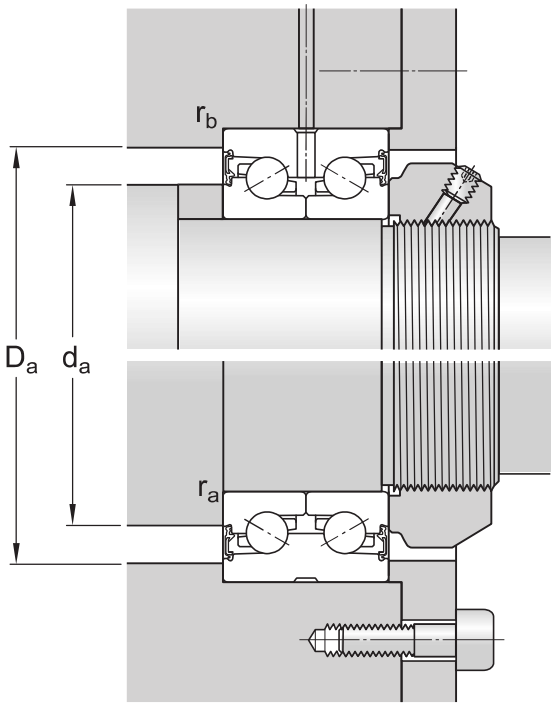
Product net weight	0.221 kg
eClass code	23-05-08-03
UNSPSC code	31171507

Technical specification



Dimensions

d	15 mm	Bore diameter
D	45 mm	Outside diameter
H	25 mm	Height
d_2	26.7 mm	Inner ring recess diameter
D_2	36.1 mm	Outer ring recess diameter
b	4.2 mm	Width of annular groove
K	3 mm	Diameter of lubrication hole
$r_{1,2}$	min. 0.3 mm	Chamfer radius
$r_{3,4}$	min. 0.6 mm	Chamfer radius
a	62 mm	Distance pressure points



Abutment dimensions

d_a	min. 20 mm	Abutment diameter shaft
D_a	max. 35 mm	Abutment diameter housing
r_a	max. 0.3 mm	Fillet radius
r_b	max. 0.6 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	20.4 kN
Basic static load rating	C_0	33.5 kN
Fatigue load limit	P_u	1.3 kN
Attainable speed		4 600 r/min
Contact angle	α	60 °
Preload		650 N
Frictional moment		0.2 N·m
Axial stiffness for preload A (sets of two brgs back-to-back or face-to-face)		430 N/µm
Static moment stiffness		65 N·m/mrad

Tolerances and clearances

PRODUCT DETAILS

- Tolerances: table
- Bearing preload
- Design considerations: shafts, housings

PRINCIPLES OF BEARING SELECTION AND APPLICATION

- Chamfer dimensions
- Speed dependent initial grease fill → Initial grease fill

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