

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

BEAM 030100 C-2RSH

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

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 BEAM series bearings have an outer ring that is much thicker than with the BEAS series, and they are equipped with through holes for attachment bolts, which makes the mounting process simple.

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

Overview

Dimensions

Bore diameter	30 mm
Outside diameter	100 mm
Height	38 mm
Contact angle	60 °

Performance

Basic dynamic load rating	64 kN
Basic static load rating	118 kN
Attainable speed for grease lubrication	2 600 r/min

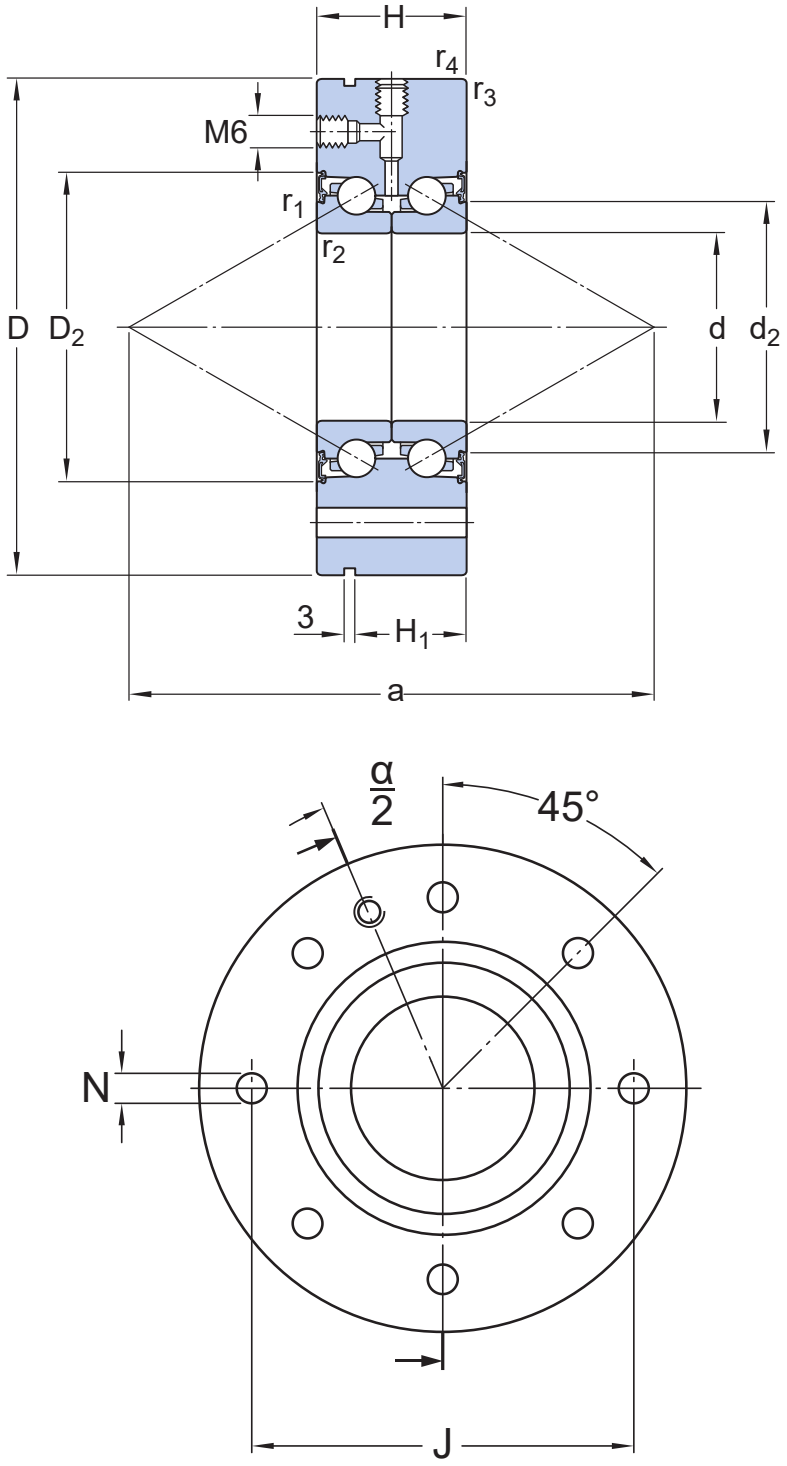
Properties

Axial load capability	Double-direction
Number of rows	2
Locating feature, bearing outer ring	Bolt holes
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	6.3 kg CO_2e

Logistics

Product net weight	1.71 kg
eClass code	23-05-08-03
UNSPSC code	31171507

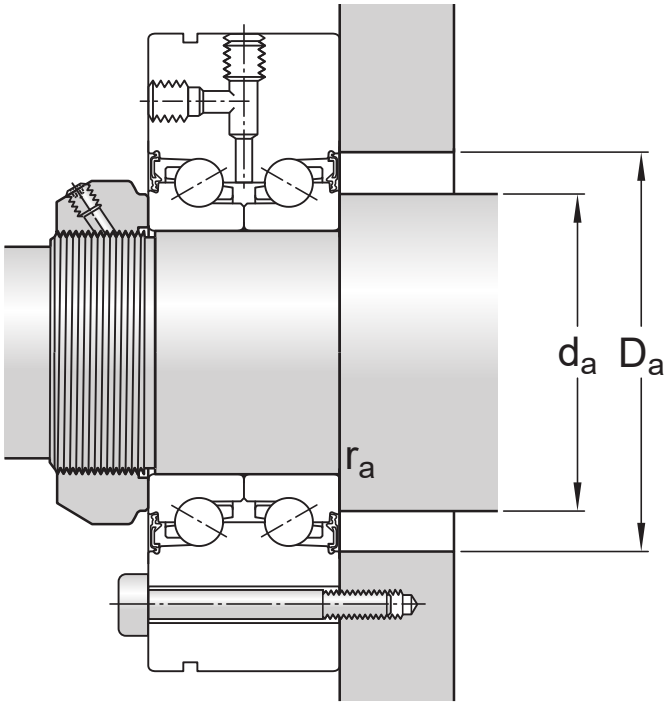
Technical specification



Dimensions

d	30 mm	Bore diameter
D	100 mm	Outside diameter
H	38 mm	Height

d_2	48.7 mm	Inner ring recess diameter
D_2	64.7 mm	Outer ring recess diameter
H_1	30 mm	Extraction groove position
$r_{1,2}$	min. 0.3 mm	Chamfer radius
$r_{3,4}$	min. 0.6 mm	Chamfer radius
a	105 mm	Distance pressure points
J	80 mm	Pitch diameter of holes for bolts
N	8.8 mm	Through hole for attachment bolts



Abutment dimensions

d_a	min. 47 mm	Abutment diameter shaft
D_a	max. 64 mm	Abutment diameter housing
r_a	max. 0.3 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	64 kN
Basic static load rating	C_0	118 kN
Fatigue load limit	P_u	4.3 kN
Attainable speed		2 600 r/min
Contact angle	α	60 °

Preload	3 710 N
Frictional moment	0.8 N·m
Axial stiffness for preload A (sets of two brgs back-to-back or face-to-face)	940 N/µm
Static moment stiffness	400 N·m/mrad

Mounting information

Required attachment bolt size (DIN 912)		M8
Number of attachment bolts		8
Angle between holes in outer ring (Pitch)	α	45 °
Angle between bolts and thread holes	α/2	22.5 °

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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