

BEAM 050140 C-2RSHD

Double direction angular contact thrust ball bearing for screw drives,

super-precision, for bolt mounting
 Double direction angular contact thrust ball bearing for screw drives, super-precision, 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	50 mm
Outside diameter	140 mm
Height	54 mm
Contact angle	60 °

Performance

Basic dynamic load rating	122 kN
Basic static load rating	270 kN
Attainable speed for grease lubrication	1 700 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

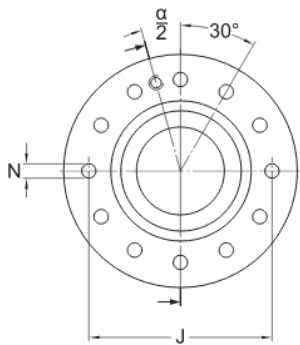
Sealing type	Contact
Lubricant	Grease
Relubrication feature	With

Technical Specification



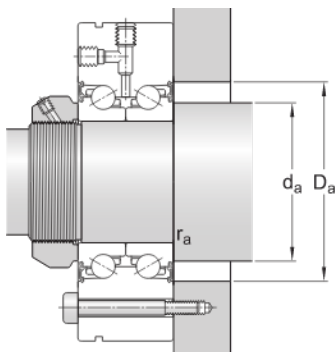
Dimensions

d	50 mm	Bore diameter
D	140 mm	Outside diameter
H	54 mm	Height
d_2	76.1 mm	Inner ring recess diameter
D_2	97.1 mm	Outer ring recess diameter
H_1	45 mm	Extraction groove position
$r_{1,2}$	min. 0.6 mm	Chamfer radius
$r_{3,4}$	min. 0.6 mm	Chamfer radius
a	163 mm	Distance pressure points
J	113 mm	Pitch diameter of holes for bolts
N	11 mm	Through hole for attachment bolts



Abutment dimensions

d_a	min. 63 mm	Abutment diameter shaft
D_a	max. 98 mm	Abutment diameter housing
r_a	max. 0.6 mm	Fillet radius



Calculation data

Basic dynamic load rating	C	122 kN
Basic static load rating	C_0	270 kN
Fatigue load limit	P_u	10 kN
Attainable speed		1 700 r/min
Contact angle	α	60 °
Preload		6 750 N
Frictional moment		2.6 N·m
Axial stiffness for preload A (sets of two brgs back-to-back or face-to-face)		1 480 N/ μ m
Static moment stiffness		1 530 N·m/mrad

Mass

Mass bearing		4.5 kg
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Mounting information

Required attachment bolt size (DIN 912)		M10
Number of attachment bolts		12
Angle between holes in outer ring (Pitch)	α	30 °
Angle between bolts and thread holes	$\alpha/2$	15 °

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