



BTW 80 CTN9/SPD Double direction angular contact thrust ball bearing, super-precision, basic design

Double direction angular contact thrust ball bearing,
super-precision, basic design

Double direction angular contact thrust ball bearings are designed to locate spindle shafts axially in both directions. These bearings are intended for mounting in combination with cylindrical roller bearings, and consist of two single row angular contact thrust ball bearings arranged back-to-back. The large number of balls enables these bearings to accommodate high axial loads in both directions and provides a high degree of system rigidity.

- Accommodate high axial loads in both directions
- Offer maximum load carrying capacity and maximum system rigidity
- Available for shaft diameters from 35 to 200 mm
- Available with either steel or ceramic balls
- Separable

Technical Specification

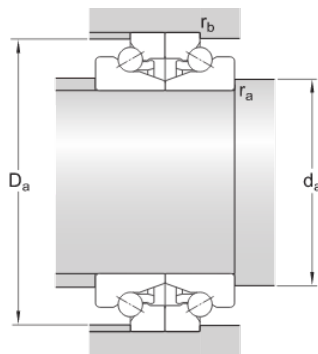


Dimensions

d	80 mm	Bore diameter
D	125 mm	Outside diameter
H	54 mm	Height
d_1	106.2 mm	Shoulder diameter shaft washer (high shoulder)
2C	27 mm	Height of both housing washers
$r_{1,2}$	min. 1.1 mm	Shaft washer chamfer radius
$r_{3,4}$	min. 0.6 mm	Housing washer small chamfer radius

Abutment dimensions

d_a	min. 97 mm	Abutment diameter shaft
D_a	min. 117.3 mm	Abutment diameter shaft
D_a	max. 119 mm	Abutment diameter housing
r_a	max. 1 mm	Fillet radius
r_b	max. 0.6 mm	Fillet radius



Calculation data

Basic dynamic load rating	C	47.5 kN
Basic static load rating	C_0	140 kN
Fatigue load limit	P_u	6.55 kN
Attainable speed for grease lubrication		5 600 r/min
Attainable speed for oil-air lubrication		6 700 r/min
Contact angle	α	60 °
Preload		575 N

Static axial stiffness		735 N/ μ m
Reference grease quantity	G_{ref}	10.6 cm ³

Mass

Mass bearing		1.95 kg
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