



SKF BTM 110 ATN9/P4CDBA

Super-precision, high-speed design double direction angular contact thrust ball bearing

These double direction angular contact thrust ball bearings consist of two non-separable single row angular contact ball bearings arranged back-to-back. They accommodate axial loads in both directions and offer maximum speed capability. Compared to bearings in the basic design, BTW series, they have a 25% lower bearing height.

Technical specifications

Dimensions	
Bore diameter	110 mm
Outside diameter	170 mm
Bearing height	54 mm
Shaft washer shoulder diameter (high shoulder)	137.9 mm
Housing washer shoulder diameter (low shoulder)	155 mm
Shaft washer chamfer radius	2 mm
Housing washer small chamfer radius	1 mm
Height	54 mm
Contact angle	30 °
Abutment dimensions	
Shaft abutment diameter	119 mm
Housing abutment diameter	165 mm
Fillet radius	2 mm
Fillet radius	1 mm
Oil nozzle position	134.1 mm
Calculation data	
Basic dynamic load rating	57000 N
Basic static load rating	137000 N
Fatigue load limit	4800 N
Attainable speed for grease lubrication	5600 r/min
Attainable speed for oil-air lubrication	7100 r/min
Contact angle	30 °
Ball diameter	12.7 mm
Number of rows	2
Number of balls (per bearing)	29
Reference grease quantity, set	38 cm ³
Preload	600 N
Axial stiffness	357 N/μm
Performance	
Basic dynamic load rating	57 kN
Basic static load rating	137 kN
Attainable speed for grease lubrication	5600 r/min
Attainable speed for oil-air lubrication	7100 r/min
Properties	
Axial load capability	Double-direction
Number of rows	2
Locating feature, bearing outer ring	Without
Design	High-speed (BTM series)
Housing washer type (double-row angular contact thrust ball bearings)	Two-piece
Cage	Non-metallic
Tolerance class	P4C
Material, bearing	Bearing steel

Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without
Indicative carbon footprint for new product	15 kg CO ₂ e

Logistics	
Product net weight	4.16 kg
eClass code	23-05-10-02
UNSPSC code	31171531

SKF drawings