



SKF BTW 180 CM/SP

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

These double direction angular contact thrust ball bearings consist of two single row angular contact thrust ball bearings, arranged back-to-back. They accommodate high axial loads in both directions and provide a high degree of system rigidity.

Technical specifications

Dimensions	
Bore diameter	180 mm
Outside diameter	280 mm
Height	120 mm
Shoulder diameter shaft washer (high shoulder)	238.3 mm
Shoulder diameter housing washer (low shoulder)	262.6 mm
Height of both housing washers	60 mm
Shaft washer chamfer radius	2.1 mm
Housing washer small chamfer radius	1 mm
Contact angle	60 °
Abutment dimensions	
Abutment diameter shaft	214 mm
Abutment diameter shaft	262.6 mm
Abutment diameter housing	264 mm
Fillet radius	2 mm
Fillet radius	1 mm
Calculation data	
Basic dynamic load rating	199 kN
Basic static load rating	710 kN
Fatigue load limit	22.4 kN
Attainable speed for grease lubrication	2000 r/min
Attainable speed for oil-air lubrication	2600 r/min
Contact angle	60 °
Ball diameter	20.638 mm
Number of rolling element rows	2
Number of balls (per bearing)	28
Reference grease quantity	117 cm ³
Preload	1290 N
Static axial stiffness	1314 N/μm
Axial stiffness for preload A (sets of two brgs back-to-back or face-to-face)	1314 N/μm
Performance	
Basic dynamic load rating	199 kN
Basic static load rating	710 kN
Attainable speed for grease lubrication	2000 r/min
Attainable speed for oil-air lubrication	2600 r/min
Properties	
Axial load capability	Double-direction
Number of rows	2
Locating feature, bearing outer ring	Without
Design	Basic (BTW series)
Housing washer type (double-row angular contact thrust ball bearings)	Two-piece
Cage	Machined metal

Tolerance class	SP
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without
Indicative carbon footprint for new product	83.2 kg CO ₂ e

Logistics	
Product net weight	23.1 kg
eClass code	23-05-10-02
UNSPSC code	31171531

SKF drawings

