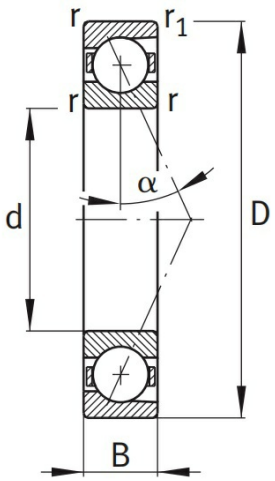
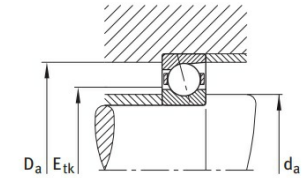
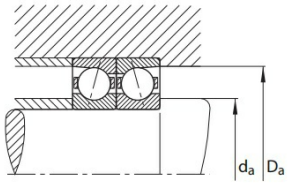
B7232C.T.P4S

Super Precision Angular Contact Ball Bearing





Mounting dimensions



Mounting dimensions

Technical sheet of B7232C.T.P4S

Type :		Precision Bearings
Model :		B7232C.T.P4S
Old Code :		B7232CTP4S
Main demensions :	160 mm × 290 mm × 48 mm	Bore Dia × Outside Dia × Width Dia
M kg:	12.9	Mass
HS Code :	8482103000	Bearing customs code
d mm:	160	inner ring diameter
D mm:	290	Outer ring diameter
B(T) mm:	48	Overall Width
Cr kN:	6.364	Radial dynamic load rating
C0r kN:	1.34	Radial static load rating
Grease r/min:	99954	Reference speed
Oil r/min:	169960	Limiting speed

Detailed parameters and installation dimensions:

Part Number	B7232C.T.P4S

Design Type	B = Standard bearing, Lager balls, Steel balls
Series	B72..-C.T.P4S
Contact angle - α	(C) 15 °
Dimension series	72 (Heavy series)
Reference From	FAG B7232C.T.P4S
Dimension Inside - d φ (mm)	160
Dimension Outside - D Φ (mm)	290
Dimension Width - B (mm)	48
Accuracy class	P4S
Dimension - r(min.)	3 mm | 0.118 inch
Dimension - r_1(min.)	3 mm | 0.118 inch
Seal	Open
Reference speed (grease) - n_B	99954 min^{-1}
Limiting speed (oil) - n_G	169960 min^{-1}
Mounting dimensions - d_a(h12)	191 mm | 7.520 inch
Mounting dimensions - D_a(H12)	259 mm | 10.197 inch
Bearing Type	Super Precision Angular Contact Ball Bearing
Row No.	One
Bore Type	Z = Cylindrical bore
Mounting dimensions - E_{tk}(nom.)	216.9 mm | 8.539 inch
Dimension Inside - d φ (inch)	6.299
Dimension Outside - D Φ (inch)	11.417
Dimension Width - B (inch)	1.890
Manufacturer Part Code	B7232CTP4S , B7232C-T-P4S
Temperature - T(min)	-30°C
Temperature - T(max)	+100°C
Units	Metric
Radial Dynamic Capacity - C_r	6364 N | 1430 lbf
Bearing Mass - m	12.9 kg | 28.439 lb
Cage	T = Laminated fabric, guidance on outer ring
Radial static Capacity - C_{0r}	1340 N | 301 lbf
Preload force - F_v L	1504 N | 338 lbf
Preload force - F_v M	4684 N | 1052 lbf
Preload force - F_v H	9290 N | 2088 lbf
Ball Material	GCr15SiMn
Axial rigidity - c_a L	172 N/µm
Axial rigidity - c_a M	281 N/µm
Axial rigidity - c_a H	400 N/µm
Ring Material	GCr15SiMn
Lift-off force - K_{aE} L	4621 N | 1038 lbf
Lift-off force - K_{aE} M	15329 N | 3445 lbf

Lift-off force - K_{aE} H	32402 N | 7283 lbf

B7232C.T.P4S features:

with solid outer and inner rings, ball and cage assemblies and solid window cages.
Ultimate Pursuit of Rotational Accuracy, High-Speed Performance, Rigidity, and Operational Stability
Rotational Accuracy and Low Runout: Dimensional and geometrical tolerances (such as roundness and parallelism) of the inner and outer rings and rolling elements are achieved at the sub-micron level (typically conforming to ISO P4, P2, or higher, or ABEC 7, 9 standards), ensuring extremely low radial and axial runout of the spindle or shaft system, which is the foundation for achieving high machining/measurement accuracy.
Optimized High-Speed Performance: Utilizing lightweight, high-precision ceramic balls (Si?N?) or top-grade steel balls reduces centrifugal force, lowering temperature rise and wear at high speeds; special cage designs (such as phenolic resin, special polymer, or machined brass cages) provide excellent guiding performance, low friction, and suitability for high speeds; internal geometry (contact angle, channel curvature) is optimized to balance temperature rise, rigidity, and lifespan at high speeds.
Superior Rigidity and Preload Stability: Typically supplied or installed in a "preloaded" state. Preload eliminates internal clearance, significantly improving the axial and radial stiffness of the system, raising the natural frequency, and suppressing vibration.
Excellent thermal stability and material properties: Utilizing specialized bearing steel (such as carburized steel) or high-temperature stainless steel, and undergoing special heat treatment, ensures dimensional stability and resists deformation caused by frictional heat or ambient heat.

B7232C.T.P4S application:

CNC machine tool spindles (machining center spindles, milling machine spindles, precision grinding machine spindles, turning-milling composite machine tool spindles), PCB drilling machines, precision engraving and milling machines, integrated spindle motor units, turbomolecular pumps, helicopter transmission systems, aero-engine accessories, gyroscopes, radar rotary mechanisms, precision rotary tables, precision reducers (such as RV reducers) and articulated spindles for industrial robots, high-performance turbochargers, racing car gearboxes.

Tradebearing(TBS): https://en.tradebearings.com/

Email: admin@tradebearings.com
Whatsapp/Mob.: +86 15906428604