

Spindle ball bearing KH 6010 E TXM P4+

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Components

Bearing designation:	KH 6010 E TXM
Bearing design:	KH
Series / size:	6010
Ball material:	Steel 100Cr6
Cage:	TXM
Seal:	2RZ optional (with grease)
Precision:	P4+
Main dimensions [d x D x B]:	50 x 80 x 16 mm

Load data

Static load capacity	C_{0r} : 7700 N
Dynamic load capacity	C_r : 11100 N
Fatigue load limit	C_U : 400 N
Speed limit	n_{grease} : 22500 1/min
Speed limit	n_{oil} : 30000 1/min
Light preload	L: 90 N
Axial rigidity	C_{ax} : 100 N/μm
Medium preload	M: 280 N
Axial rigidity	C_{ax} : 150 N/μm
Heavy preload	S: 560 N
Axial rigidity	C_{ax} : 194 N/μm
Spring preload	Ff: 760 N (for n_{max})

Geometrical Data

Bore diameter	d: 50 mm	Oiling nozzle position	d_T : 61.9 mm
Outer diameter	D: 80 mm	Pitch circle diameter	d_m : 63.8 mm
Width of single bearing	B: 16 mm	Inner diameter of outer ring	D_1 : 68 mm
Ball diameter	D_w : 6.35 mm	Undercut of associated component	$r_{a \max}$: 1 mm
Number of balls	Z: 25	Undercut of associated component (open side)	$r_{b \max}$: 0.6 mm
Chamfer (min)	$r_{1,2 \min}$: 1 mm	Abutment diameter inner ring	$d_{a,b \min}$: 54.6 mm
Chamfer (min), open side	$r_{3,4 \min}$: 0.6 mm	Abutment diameter outer ring	$D_{a,b \max}$: 76 mm
Outer diameter of inner ring	d_1 : 59.7 mm	Inner diameter of outer ring (open side)	D_2 : 70.3 mm
Outer diameter of inner ring (open side)	d_2 : 58 mm	Bearing weight	m: 0.27 kg
		Contact angle	Alpha 0: 25°



The given speed limits apply to individual bearings with spring preload. Correction factors must be considered for all properties which deviate from this.