

Spindle ball bearing KH 6014 C TXM P4+

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Components

Bearing designation:	KH 6014 C TXM
Bearing design:	KH
Series / size:	6014
Ball material:	Steel 100Cr6
Cage:	TXM
Seal:	2RZ optional (with grease)
Precision:	P4+
Main dimensions [d x D x B]:	70 x 110 x 20 mm

Load data

Static load capacity	C_{0r} : 17400 N
Dynamic load capacity	C_r : 23700 N
Fatigue load limit	C_U : 902 N
Speed limit	n_{grease} : 18000 1/min
Speed limit	n_{oil} : 24000 1/min
Light preload	L: 120 N
Axial rigidity	C_{ax} : 68 N/ μ m
Medium preload	M: 360 N
Axial rigidity	C_{ax} : 103 N/ μ m
Heavy preload	S: 720 N
Axial rigidity	C_{ax} : 137 N/ μ m
Spring preload	Ff: 1120 N (for n_{max})

Geometrical Data

Bore diameter	d: 70 mm	Oiling nozzle position	d_7 : 85.7 mm
Outer diameter	D: 110 mm	Pitch circle diameter	d_m : 88.3 mm
Width of single bearing	B: 20 mm	Inner diameter of outer ring	D_1 : 94 mm
Ball diameter	D_w : 9.525 mm	Undercut of associated component	$r_{a max}$: 1 mm
Number of balls	Z: 24	Undercut of associated component (open side)	$r_{b max}$: 1 mm
Chamfer (min)	$r_{1,2 min}$: 1.1 mm	Abutment diameter inner ring	$d_{a,b min}$: 76.3 mm
Chamfer (min), open side	$r_{3,4 min}$: 1 mm	Abutment diameter outer ring	$D_{a,b max}$: 104.6 mm
Outer diameter of inner ring	d_1 : 82.6 mm	Inner diameter of outer ring (open side)	D_2 : 98 mm
Outer diameter of inner ring (open side)	d_2 : 81.1 mm	Bearing weight	m: 0.63 kg
		Contact angle	Alpha 0: 17°



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