

Spindle ball bearing KH 6012 C TA P4+

16.07.2024



Components

Bearing designation:	KH 6012 C TA
Bearing design:	KH
Series / size:	6012
Ball material:	Steel 100Cr6
Cage:	TA
Seal:	2RZ optional (with grease)
Precision:	P4+
Main dimensions [d x D x B]:	60 x 95 x 18 mm

Load data

Static load capacity	C_{0r} : 12100 N
Dynamic load capacity	C_r : 17000 N
Fatigue load limit	C_U : 626 N
Speed limit	n_{grease} : 20625 1/min
Speed limit	n_{oil} : 27500 1/min
Light preload	L: 90 N
Axial rigidity	C_{ax} : 58 N/ μ m
Medium preload	M: 260 N
Axial rigidity	C_{ax} : 87 N/ μ m
Heavy preload	S: 510 N
Axial rigidity	C_{ax} : 115 N/ μ m
Spring preload	Ff: 780 N (for n_{max})

Geometrical Data

Bore diameter	d: 60 mm	Oiling nozzle position	d_f : 74.4 mm
Outer diameter	D: 95 mm	Pitch circle diameter	d_m : 76.5 mm
Width of single bearing	B: 18 mm	Inner diameter of outer ring	D_1 : 81.5 mm
Ball diameter	D_w : 7.938 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	$d_{a,b\ min}$: 65.7 mm
Chamfer (min), open side	$r_{3,4\ min}$: 1 mm	Abutment diameter outer ring	$D_{a,b\ max}$: 90.1 mm
Outer diameter of inner ring	d_1 : 71.9 mm	Inner diameter of outer ring (open side)	D_2 : 84.6 mm
Outer diameter of inner ring (open side)	d_2 : 70.7 mm	Bearing weight	m: 0.43 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.