

Spindle ball bearing KH 61910 E TA P4+

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Components

Bearing designation:	KH 61910 E TA
Bearing design:	KH
Series / size:	61910
Ball material:	Steel 100Cr6
Cage:	TA
Seal:	2RZ optional (with grease)
Precision:	P4+
Main dimensions [d x D x B]:	50 x 72 x 12 mm

Load data

Static load capacity	C_{0r} : 5350 N
Dynamic load capacity	C_r : 7150 N
Fatigue load limit	C_U : 276 N
Speed limit	n_{grease} : 24000 1/min
Speed limit	n_{oil} : 32000 1/min
Light preload	L: 60 N
Axial rigidity	C_{ax} : 90 N/ μ m
Medium preload	M: 180 N
Axial rigidity	C_{ax} : 132 N/ μ m
Heavy preload	S: 360 N
Axial rigidity	C_{ax} : 171 N/ μ m
Spring preload	Ff: 520 N (for n_{max})

Geometrical Data

Bore diameter	d: 50 mm	Oiling nozzle position	d_7 : 58.3 mm
Outer diameter	D: 72 mm	Pitch circle diameter	d_m : 59.7 mm
Width of single bearing	B: 12 mm	Inner diameter of outer ring	D_1 : 63.1 mm
Ball diameter	D_w : 4.762 mm	Undercut of associated component	$r_{a max}$: 0.6 mm
Number of balls	Z: 30	Undercut of associated component (open side)	$r_{b max}$: 0.3 mm
Chamfer (min)	$r_{1,2 min}$: 0.6 mm	Abutment diameter inner ring	$d_{a,b min}$: 53.3 mm
Chamfer (min), open side	$r_{3,4 min}$: 0.3 mm	Abutment diameter outer ring	$D_{a,b max}$: 69 mm
Outer diameter of inner ring	d_1 : 56.8 mm	Inner diameter of outer ring (open side)	D_2 : 64.6 mm
Outer diameter of inner ring (open side)	d_2 : 55.3 mm	Bearing weight	m: 0.14 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.