

# Spindle ball bearing KH 6016 E TA P4+

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## Components

Bearing designation:	KH 6016 E TA
Bearing design:	KH
Series / size:	6016
Ball material:	Steel 100Cr6
Cage:	TA
Seal:	2RZ optional (with grease)
Precision:	P4+
Main dimensions [d x D x B]:	80 x 125 x 22 mm

## Load data

Static load capacity	$C_{0r}$ : 24700 N
Dynamic load capacity	$C_r$ : 31000 N
Fatigue load limit	$C_U$ : 1279 N
Speed limit	$n_{grease}$ : 14250 1/min
Speed limit	$n_{oil}$ : 19000 1/min
Light preload	L: 260 N
Axial rigidity	$C_{ax}$ : 164 N/ $\mu$ m
Medium preload	M: 790 N
Axial rigidity	$C_{ax}$ : 244 N/ $\mu$ m
Heavy preload	S: 1580 N
Axial rigidity	$C_{ax}$ : 315 N/ $\mu$ m
Spring preload	Ff: 2430 N (for $n_{max}$ )

## Geometrical Data

Bore diameter	d: 80 mm	Oiling nozzle position	$d_7$ : 97.7 mm
Outer diameter	D: 125 mm	Pitch circle diameter	$d_m$ : 100.9 mm
Width of single bearing	B: 22 mm	Inner diameter of outer ring	$D_1$ : 107.5 mm
Ball diameter	$D_w$ : 11.112 mm	Undercut of associated component	$r_{a \max}$ : 1 mm
Number of balls	Z: 24	Undercut of associated component (open side)	$r_{b \max}$ : 0.6 mm
Chamfer (min)	$r_{1,2 \min}$ : 1.1 mm	Abutment diameter inner ring	$d_{a,b \min}$ : 87 mm
Chamfer (min), open side	$r_{3,4 \min}$ : 0.6 mm	Abutment diameter outer ring	$D_{a,b \max}$ : 119.2 mm
Outer diameter of inner ring	$d_1$ : 94.3 mm	Inner diameter of outer ring (open side)	$D_2$ : 112.2 mm
Outer diameter of inner ring (open side)	$d_2$ : 92.6 mm	Bearing weight	m: 0.88 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.