

# Spindle ball bearing HY KH 61913 E TA P4+

16.07.2024



## Components

Bearing designation:	HY KH 61913 E TA
Bearing design:	KH
Series / size:	61913
Ball material:	Ceramic
Cage:	TA
Seal:	2RZ optional (with grease)
Precision:	P4+
Main dimensions [d x D x B]:	65 x 90 x 13 mm

## Load data

Static load capacity	$C_{0r}$ : 8000 N
Dynamic load capacity	$C_r$ : 10100 N
Fatigue load limit	$C_U$ : 300 N
Speed limit	$n_{grease}$ : 23250 1/min
Speed limit	$n_{oil}$ : 31000 1/min
Light preload	L: 80 N
Axial rigidity	$C_{ax}$ : 125 N/ $\mu$ m
Medium preload	M: 250 N
Axial rigidity	$C_{ax}$ : 187 N/ $\mu$ m
Heavy preload	S: 500 N
Axial rigidity	$C_{ax}$ : 241 N/ $\mu$ m
Spring preload	Ff: 570 N (for $n_{max}$ )

## Geometrical Data

Bore diameter	d: 65 mm	Oiling nozzle position	$d_f$ : 75 mm
Outer diameter	D: 90 mm	Pitch circle diameter	$d_m$ : 76.7 mm
Width of single bearing	B: 13 mm	Inner diameter of outer ring	$D_1$ : 80.8 mm
Ball diameter	$D_w$ : 5.556 mm	Undercut of associated component	$r_{a max}$ : 1 mm
Number of balls	Z: 34	Undercut of associated component (open side)	$r_{b max}$ : 0.3 mm
Chamfer (min)	$r_{1,2 min}$ : 1 mm	Abutment diameter inner ring	$d_{a,b min}$ : 69.5 mm
Chamfer (min), open side	$r_{3,4 min}$ : 0.3 mm	Abutment diameter outer ring	$D_{a,b max}$ : 85.8 mm
Outer diameter of inner ring	$d_1$ : 73.1 mm	Inner diameter of outer ring (open side)	$D_2$ : 82.4 mm
Outer diameter of inner ring (open side)	$d_2$ : 71.8 mm	Bearing weight	m: 0.2 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.