

# Spindle ball bearing KH 6006 E TXM P4+

16.07.2024



## Components

Bearing designation:	KH 6006 E TXM
Bearing design:	KH
Series / size:	6006
Ball material:	Steel 100Cr6
Cage:	TXM
Seal:	2RZ optional (with grease)
Precision:	P4+
Main dimensions [d x D x B]:	30 x 55 x 13 mm

## Load data

Static load capacity	$C_{0r}$ : 4550 N
Dynamic load capacity	$C_r$ : 7800 N
Fatigue load limit	$C_U$ : 236 N
Speed limit	$n_{grease}$ : 34500 1/min
Speed limit	$n_{oil}$ : 46000 1/min
Light preload	L: 65 N
Axial rigidity	$C_{ax}$ : 74 N/ $\mu$ m
Medium preload	M: 200 N
Axial rigidity	$C_{ax}$ : 111 N/ $\mu$ m
Heavy preload	S: 390 N
Axial rigidity	$C_{ax}$ : 143 N/ $\mu$ m
Spring preload	Ff: 450 N (for $n_{max}$ )

## Geometrical Data

Bore diameter	d: 30 mm	Oiling nozzle position	$d_7$ : 40.1 mm
Outer diameter	D: 55 mm	Pitch circle diameter	$d_m$ : 41.7 mm
Width of single bearing	B: 13 mm	Inner diameter of outer ring	$D_1$ : 45.8 mm
Ball diameter	$D_w$ : 5.556 mm	Undercut of associated component	$r_{a \max}$ : 1 mm
Number of balls	Z: 20	Undercut of associated component (open side)	$r_{b \max}$ : 0.6 mm
Chamfer (min)	$r_{1,2 \min}$ : 1 mm	Abutment diameter inner ring	$d_{a,b \min}$ : 34.5 mm
Chamfer (min), open side	$r_{3,4 \min}$ : 0.6 mm	Abutment diameter outer ring	$D_{a,b \max}$ : 51.2 mm
Outer diameter of inner ring	$d_1$ : 38.1 mm	Inner diameter of outer ring (open side)	$D_2$ : 47.4 mm
Outer diameter of inner ring (open side)	$d_2$ : 36.8 mm	Bearing weight	m: 0.12 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.