

Spindle ball bearing S 61906 E TXM P4+

08.05.2024



Components

Bearing designation:	S 61906 E TXM
Bearing design:	S
Series / size:	61906
Ball material:	Steel 100Cr6
Cage:	TXM
Precision:	P4+
Main dimensions [d x D x B]:	30 x 47 x 9 mm

Load data

Static load capacity	C_{0r} : 5600 N
Dynamic load capacity	C_r : 7400 N
Fatigue load limit	C_U : 290 N
Speed limit	n_{grease} : 28500 1/min
Speed limit	n_{oil} : 38000 1/min
Light preload	L: 60 N
Axial rigidity	C_{ax} : 71 N/ μ m
Medium preload	M: 190 N
Axial rigidity	C_{ax} : 110 N/ μ m
Heavy preload	S: 380 N
Axial rigidity	C_{ax} : 146 N/ μ m
Spring preload	Ff: 550 N (for n_{max})

Geometrical Data

Bore diameter	d: 30 mm	Oiling nozzle position	d_T : 36.8 mm
Outer diameter	D: 47 mm	Pitch circle diameter	d_m : 38.5 mm
Width of single bearing	B: 9 mm	Inner diameter of outer ring	D_1 : 41.9 mm
Ball diameter	D_w : 4.762 mm	Undercut of associated component	$r_{a \max}$: 0.3 mm
Number of balls	Z: 18	Undercut of associated component (open side)	$r_{b \max}$: 0.3 mm
Chamfer (min)	$r_{1,2 \min}$: 0.3 mm	Abutment diameter inner ring	$d_{a,b \min}$: 32.3 mm
Chamfer (min), open side	$r_{3,4 \min}$: 0.3 mm	Abutment diameter outer ring	$D_{a,b \max}$: 45.1 mm
Outer diameter of inner ring	d_1 : 35.1 mm	Inner diameter of outer ring (open side)	D_2 : 43.3 mm
Outer diameter of inner ring (open side)	d_2 : -	Bearing weight	m: 0.046 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.