

# Spindle ball bearing S 6212 C TXM P4+

16.07.2024



## Components

Bearing designation:	S 6212 C TXM
Bearing design:	S
Series / size:	6212
Ball material:	Steel 100Cr6
Cage:	TXM
Precision:	P4+ (UP+ Upon request)
Main dimensions [d x D x B]:	60 x 110 x 22 mm

## Load data

Static load capacity	$C_{0r}$ : 57000 N
Dynamic load capacity	$C_r$ : 70000 N
Fatigue load limit	$C_U$ : 2959 N
Speed limit	$n_{grease}$ : 15000 1/min
Speed limit	$n_{oil}$ : 20000 1/min
Light preload	L: 350 N
Axial rigidity	$C_{ax}$ : 90 N/ $\mu$ m
Medium preload	M: 1000 N
Axial rigidity	$C_{ax}$ : 145 N/ $\mu$ m
Heavy preload	S: 2100 N
Axial rigidity	$C_{ax}$ : 211 N/ $\mu$ m
Spring preload	Ff: 3220 N (for $n_{max}$ )

## Geometrical Data

Bore diameter	d: 60 mm	Oiling nozzle position	$d_T$ : 81.5 mm
Outer diameter	D: 110 mm	Pitch circle diameter	$d_m$ : 85.7 mm
Width of single bearing	B: 22 mm	Inner diameter of outer ring	$D_1$ : 95.5 mm
Ball diameter	$D_w$ : 15.875 mm	Undercut of associated component	$r_{a max}$ : 1.5 mm
Number of balls	Z: 15	Undercut of associated component (open side)	$r_{b max}$ : 1 mm
Chamfer (min)	$r_{1,2 min}$ : 1.5 mm	Abutment diameter inner ring	$d_{a,b min}$ : 69.4 mm
Chamfer (min), open side	$r_{3,4 min}$ : 1 mm	Abutment diameter outer ring	$D_{a,b max}$ : 102.6 mm
Outer diameter of inner ring	$d_1$ : 76 mm	Inner diameter of outer ring (open side)	$D_2$ : 101.7 mm
Outer diameter of inner ring (open side)	$d_2$ : -	Bearing weight	m: 0.8 kg
		Contact angle	Alpha 0: 15°



The given speed limits apply to individual bearings with spring preload. Correction factors must be considered for all properties which deviate from this.