

# Spindle ball bearing S 6213 E TXM P4+

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## Components

Bearing designation:	S 6213 E TXM
Bearing design:	S
Series / size:	6213
Ball material:	Steel 100Cr6
Cage:	TXM
Precision:	P4+ (UP+ Upon request)
Main dimensions [d x D x B]:	65 x 120 x 23 mm

## Load data

Static load capacity	$C_{0r}$ : 59500 N
Dynamic load capacity	$C_r$ : 69000 N
Fatigue load limit	$C_U$ : 3083 N
Speed limit	$n_{grease}$ : 11625 1/min
Speed limit	$n_{oil}$ : 15500 1/min
Light preload	L: 590 N
Axial rigidity	$C_{ax}$ : 228 N/ $\mu$ m
Medium preload	M: 1760 N
Axial rigidity	$C_{ax}$ : 347 N/ $\mu$ m
Heavy preload	S: 3520 N
Axial rigidity	$C_{ax}$ : 462 N/ $\mu$ m
Spring preload	Ff: 5840 N (for $n_{max}$ )

## Geometrical Data

Bore diameter	d: 65 mm	Oiling nozzle position	$d_T$ : 88.3 mm
Outer diameter	D: 120 mm	Pitch circle diameter	$d_m$ : 92.5 mm
Width of single bearing	B: 23 mm	Inner diameter of outer ring	$D_1$ : 102.3 mm
Ball diameter	$D_w$ : 15.875 mm	Undercut of associated component	$r_{a max}$ : 1.5 mm
Number of balls	Z: 16	Undercut of associated component (open side)	$r_{b max}$ : 1 mm
Chamfer (min)	$r_{1,2 min}$ : 1.5 mm	Abutment diameter inner ring	$d_{a,b min}$ : 74.5 mm
Chamfer (min), open side	$r_{3,4 min}$ : 1.1 mm	Abutment diameter outer ring	$D_{a,b max}$ : 112.7 mm
Outer diameter of inner ring	$d_1$ : 82.8 mm	Inner diameter of outer ring (open side)	$D_2$ : 108.6 mm
Outer diameter of inner ring (open side)	$d_2$ : -	Bearing weight	m: 1.05 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.