

# Spindle ball bearing S 6005 C TXM P4+

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## Components

Bearing designation:	S 6005 C TXM
Bearing design:	S
Series / size:	6005
Ball material:	Steel 100Cr6
Cage:	TXM
Precision:	P4+ (UP+ Upon request)

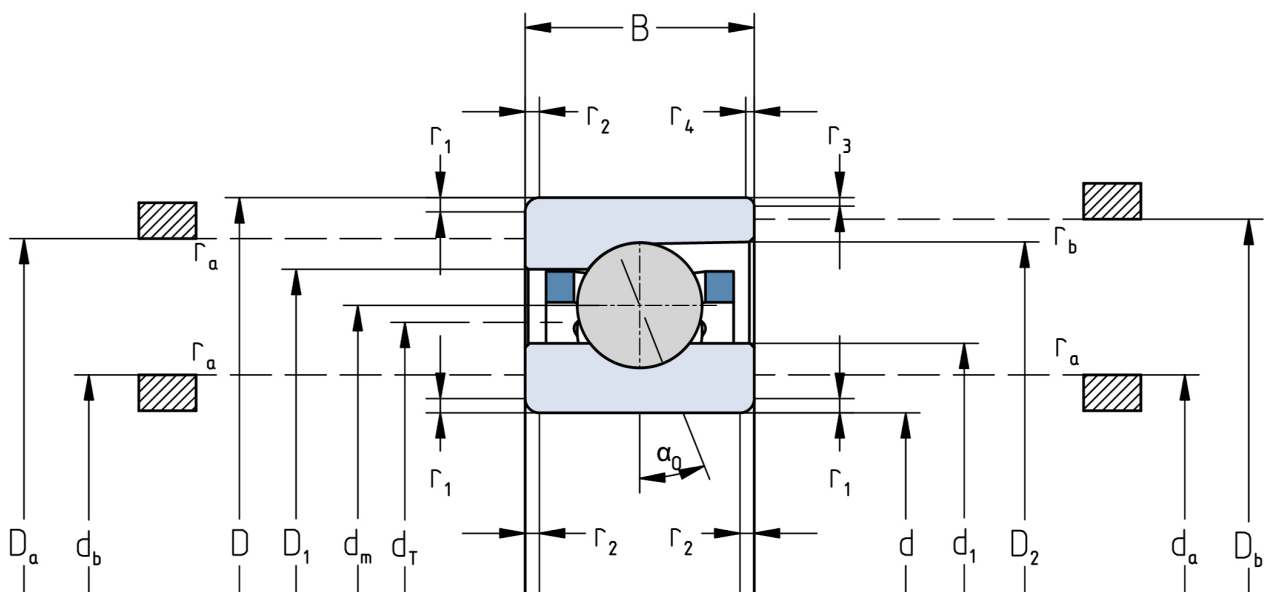
Main dimensions [d x D x B]: 25 x 47 x 12 mm

## Load data

Static load capacity	$C_{0r}$ : 9300 N
Dynamic load capacity	$C_r$ : 13400 N
Fatigue load limit	$C_U$ : 484 N
Speed limit	$n_{grease}$ : 35250 1/min
Speed limit	$n_{oil}$ : 47000 1/min
Light preload	L: 70 N
Axial rigidity	$C_{ax}$ : 39 N/ $\mu$ m
Medium preload	M: 200 N
Axial rigidity	$C_{ax}$ : 64 N/ $\mu$ m
Heavy preload	S: 400 N
Axial rigidity	$C_{ax}$ : 91 N/ $\mu$ m
Spring preload	Ff: 530 N (for $n_{max}$ )

## Geometrical Data

Bore diameter	d: 25 mm	Oiling nozzle position	$d_T$ : 34.3 mm
Outer diameter	D: 47 mm	Pitch circle diameter	$d_m$ : 36 mm
Width of single bearing	B: 12 mm	Inner diameter of outer ring	$D_1$ : 40.1 mm
Ball diameter	$D_w$ : 6.35 mm	Undercut of associated component	$r_{a max}$ : 0.6 mm
Number of balls	Z: 15	Undercut of associated component (open side)	$r_{b max}$ : 0.3 mm
Chamfer (min)	$r_{1,2 min}$ : 0.6 mm	Abutment diameter inner ring	$d_{a,b min}$ : 28.8 mm
Chamfer (min), open side	$r_{3,4 min}$ : 0.3 mm	Abutment diameter outer ring	$D_{a,b max}$ : 44.1 mm
Outer diameter of inner ring	$d_1$ : 32.2 mm	Inner diameter of outer ring (open side)	$D_2$ : 42.5 mm
Outer diameter of inner ring (open side)	$d_2$ : -	Bearing weight	m: 0.078 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.