

Spindle ball bearing S 6204 C TA P4+

08.05.2024



Components

Bearing designation:	S 6204 C TA
Bearing design:	S
Series / size:	6204
Ball material:	Steel 100Cr6
Cage:	TA
Seal:	2RZ upon request
Precision:	P4+ (UP+ Upon request)
Main dimensions [d x D x B]:	20 x 47 x 14 mm

Load data

Static load capacity	C_{0r} : 10100 N
Dynamic load capacity	C_r : 16900 N
Fatigue load limit	C_U : 526 N
Speed limit	n_{grease} : 38250 1/min
Speed limit	n_{oil} : 51000 1/min
Light preload	L: 85 N
Axial rigidity	C_{ax} : 39 N/ μ m
Medium preload	M: 260 N
Axial rigidity	C_{ax} : 66 N/ μ m
Heavy preload	S: 500 N
Axial rigidity	C_{ax} : 93 N/ μ m
Spring preload	Ff: 570 N (for n_{max})

Geometrical Data

Bore diameter	d: 20 mm	Oiling nozzle position	d_T : 31.4 mm
Outer diameter	D: 47 mm	Pitch circle diameter	d_m : 33.5 mm
Width of single bearing	B: 14 mm	Inner diameter of outer ring	D_1 : 38.6 mm
Ball diameter	D_w : 7.938 mm	Undercut of associated component	$r_{a \max}$: 1 mm
Number of balls	Z: 11	Undercut of associated component (open side)	$r_{b \max}$: 0.6 mm
Chamfer (min)	$r_{1,2 \min}$: 1 mm	Abutment diameter inner ring	$d_{a,b \min}$: 25.1 mm
Chamfer (min), open side	$r_{3,4 \min}$: 0.6 mm	Abutment diameter outer ring	$D_{a,b \max}$: 43.1 mm
Outer diameter of inner ring	d_1 : 28.5 mm	Inner diameter of outer ring (open side)	D_2 : 41.6 mm
Outer diameter of inner ring (open side)	d_2 : -	Bearing weight	m: 0.105 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.