

Spindle ball bearing S 61916 C TA P4+

16.07.2024



Components

Bearing designation:	S 61916 C TA
Bearing design:	S
Series / size:	61916
Ball material:	Steel 100Cr6
Cage:	TA
Seal:	2RZ upon request
Precision:	P4+
Main dimensions [d x D x B]:	80 x 110 x 16 mm

Load data

Static load capacity	C_{0r} : 38500 N
Dynamic load capacity	C_r : 35500 N
Fatigue load limit	C_U : 2002 N
Speed limit	n_{grease} : 13500 1/min
Speed limit	n_{oil} : 18000 1/min
Light preload	L: 180 N
Axial rigidity	C_{ax} : 83 N/ μ m
Medium preload	M: 540 N
Axial rigidity	C_{ax} : 136 N/ μ m
Heavy preload	S: 1080 N
Axial rigidity	C_{ax} : 191 N/ μ m
Spring preload	Ff: 2180 N (for n_{max})

Geometrical Data

Bore diameter	d: 80 mm	Oiling nozzle position	d_f : 92.3 mm
Outer diameter	D: 110 mm	Pitch circle diameter	d_m : 95 mm
Width of single bearing	B: 16 mm	Inner diameter of outer ring	D_1 : 100.8 mm
Ball diameter	D_w : 9.525 mm	Undercut of associated component	$r_{a \max}$: 0.6 mm
Number of balls	Z: 25	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	$d_{a,b \min}$: 84.9 mm
Chamfer (min), open side	$r_{3,4 \min}$: 0.3 mm	Abutment diameter outer ring	$D_{a,b \max}$: 105.7 mm
Outer diameter of inner ring	d_1 : 89.4 mm	Inner diameter of outer ring (open side)	D_2 : 104.6 mm
Outer diameter of inner ring (open side)	d_2 : -	Bearing weight	m: 0.365 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.