

Spindle ball bearing SM 61914 C TA P4+

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Components

Bearing designation:	SM 61914 C TA
Bearing design:	SM
Series / size:	61914
Ball material:	Steel 100Cr6
Cage:	TA
Seal:	2RZ upon request
Precision:	P4+
Main dimensions [d x D x B]:	70 x 100 x 16 mm

Load data

Static load capacity	C_{0r} : 13100 N
Dynamic load capacity	C_r : 17300 N
Fatigue load limit	C_U : 682 N
Speed limit	n_{grease} : 17625 1/min
Speed limit	n_{oil} : 23500 1/min
Light preload	L: 90 N
Axial rigidity	C_{ax} : 70 N/ μ m
Medium preload	M: 260 N
Axial rigidity	C_{ax} : 104 N/ μ m
Heavy preload	S: 530 N
Axial rigidity	C_{ax} : 138 N/ μ m
Spring preload	Ff: 950 N (for n_{max})

Geometrical Data

Bore diameter	d: 70 mm	Oiling nozzle position	d_T : 82.6 mm
Outer diameter	D: 100 mm	Pitch circle diameter	d_m : 85 mm
Width of single bearing	B: 16 mm	Inner diameter of outer ring	D_1 : 89.9 mm
Ball diameter	D_w : 7.938 mm	Undercut of associated component	$r_{a \max}$: 1 mm
Number of balls	Z: 24	Undercut of associated component (open side)	$r_{b \max}$: 0.3 mm
Chamfer (min)	$r_{1,2 \min}$: 1 mm	Abutment diameter inner ring	$d_{a,b \min}$: 75.2 mm
Chamfer (min), open side	$r_{3,4 \min}$: 0.3 mm	Abutment diameter outer ring	$D_{a,b \max}$: 95.4 mm
Outer diameter of inner ring	d_1 : 80.1 mm	Inner diameter of outer ring (open side)	D_2 : 93 mm
Outer diameter of inner ring (open side)	d_2 : -	Bearing weight	m: 0.335 kg
		Contact angle	Alpha 0: 19°



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