

Spindle ball bearing SM 61924 C TA P4+

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Components

Bearing designation:	SM 61924 C TA
Bearing design:	SM
Series / size:	61924
Ball material:	Steel 100Cr6
Cage:	TA
Seal:	2RZ upon request
Precision:	P4+
Main dimensions [d x D x B]:	120 x 165 x 22 mm

Load data

Static load capacity	C_{0r} : 43500 N
Dynamic load capacity	C_r : 49500 N
Fatigue load limit	C_U : 1896 N
Speed limit	n_{grease} : 10500 1/min
Speed limit	n_{oil} : 14000 1/min
Light preload	L: 250 N
Axial rigidity	C_{ax} : 128 N/ μ m
Medium preload	M: 750 N
Axial rigidity	C_{ax} : 193 N/ μ m
Heavy preload	S: 1500 N
Axial rigidity	C_{ax} : 253 N/ μ m
Spring preload	Ff: 2650 N (for n_{max})

Geometrical Data

Bore diameter	d: 120 mm	Oiling nozzle position	d_T : 138.5 mm
Outer diameter	D: 165 mm	Pitch circle diameter	d_m : 142.5 mm
Width of single bearing	B: 22 mm	Inner diameter of outer ring	D_1 : 150.7 mm
Ball diameter	D_w : 13.494 mm	Undercut of associated component	$r_{a \max}$: 0.6 mm
Number of balls	Z: 27	Undercut of associated component (open side)	$r_{b \max}$: 0.6 mm
Chamfer (min)	$r_{1,2 \min}$: 0.6 mm	Abutment diameter inner ring	$d_{a,b \min}$: 126.3 mm
Chamfer (min), open side	$r_{3,4 \min}$: 0.6 mm	Abutment diameter outer ring	$D_{a,b \max}$: 159.7 mm
Outer diameter of inner ring	d_1 : 134.3 mm	Inner diameter of outer ring (open side)	D_2 : 156.2 mm
Outer diameter of inner ring (open side)	d_2 : -	Bearing weight	m: 1.15 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.