

Spindle ball bearing SM 6024 C TA P4+

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Components

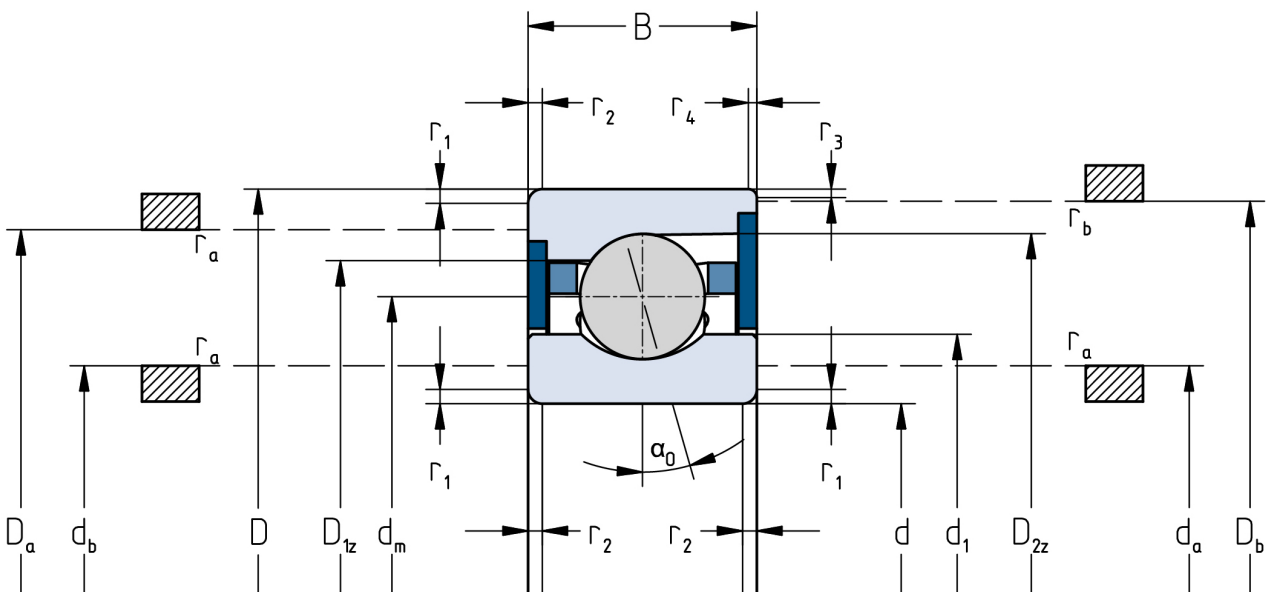
Bearing designation:	SM 6024 C TA
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Series / size:	6024
Ball material:	Steel 100Cr6
Cage:	TA
Seal:	2RZ upon request
Precision:	P4+
Main dimensions [d x D x B]:	120 x 180 x 28 mm

Load data

Static load capacity	C_{0r} : 61500 N
Dynamic load capacity	C_r : 74000 N
Fatigue load limit	C_U : 2615 N
Speed limit	n_{grease} : 10125 1/min
Speed limit	n_{oil} : 13500 1/min
Light preload	L: 380 N
Axial rigidity	C_{ax} : 123 N/ μ m
Medium preload	M: 1130 N
Axial rigidity	C_{ax} : 187 N/ μ m
Heavy preload	S: 2250 N
Axial rigidity	C_{ax} : 249 N/ μ m
Spring preload	Ff: 3250 N (for n_{max})

Geometrical Data

Bore diameter	d: 120 mm	Oiling nozzle position	d_f : 144.9 mm
Outer diameter	D: 180 mm	Pitch circle diameter	d_m : 150 mm
Width of single bearing	B: 28 mm	Inner diameter of outer ring	D_1 : 160.6 mm
Ball diameter	D_w : 17.462 mm	Undercut of associated component	$r_{a \max}$: 2 mm
Number of balls	Z: 23	Undercut of associated component (open side)	$r_{b \max}$: 1 mm
Chamfer (min)	$r_{1,2 \min}$: 2 mm	Abutment diameter inner ring	$d_{a,b \min}$: 131.4 mm
Chamfer (min), open side	$r_{3,4 \min}$: 1 mm	Abutment diameter outer ring	$D_{a,b \max}$: 170.1 mm
Outer diameter of inner ring	d_1 : 139.4 mm	Inner diameter of outer ring (open side)	D_2 : 167.7 mm
Outer diameter of inner ring (open side)	d_2 : -	Bearing weight	m: 2.15 kg
		Contact angle	Alpha 0: 17°



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