

Spindle ball bearing S 6018 C TA P4+

08.05.2024



Components

Bearing designation:	S 6018 C TA
Bearing design:	S
Series / size:	6018
Ball material:	Steel 100Cr6
Cage:	TA
Seal:	2RZ optional (with grease)
Precision:	P4+
Main dimensions [d x D x B]:	90 x 140 x 24 mm

Load data

Static load capacity	C_{0r} : 74500 N
Dynamic load capacity	C_r : 74500 N
Fatigue load limit	C_U : 3615 N
Speed limit	n_{grease} : 11250 1/min
Speed limit	n_{oil} : 15000 1/min
Light preload	L: 380 N
Axial rigidity	C_{ax} : 109 N/μm
Medium preload	M: 1130 N
Axial rigidity	C_{ax} : 178 N/μm
Heavy preload	S: 2270 N
Axial rigidity	C_{ax} : 252 N/μm
Spring preload	Ff: 3940 N (for n_{max})

Geometrical Data

Bore diameter	d: 90 mm	Oiling nozzle position	d_T : 110.6 mm
Outer diameter	D: 140 mm	Pitch circle diameter	d_m : 115 mm
Width of single bearing	B: 24 mm	Inner diameter of outer ring	D_1 : 124.2 mm
Ball diameter	D_w : 15.081 mm	Undercut of associated component	$r_{a \max}$: 1.5 mm
Number of balls	Z: 20	Undercut of associated component (open side)	$r_{b \max}$: 0.6 mm
Chamfer (min)	$r_{1,2 \min}$: 1.5 mm	Abutment diameter inner ring	$d_{a,b \min}$: 98.9 mm
Chamfer (min), open side	$r_{3,4 \min}$: 0.6 mm	Abutment diameter outer ring	$D_{a,b \max}$: 132.6 mm
Outer diameter of inner ring	d_1 : 105.8 mm	Inner diameter of outer ring (open side)	D_2 : 130.3 mm
Outer diameter of inner ring (open side)	d_2 : -	Bearing weight	m: 1.15 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.