

Spindle ball bearing SM 606 C TA P4+

16.07.2024



Components

Bearing designation:	SM 606 C TA
Bearing design:	SM
Series / size:	606
Ball material:	Steel 100Cr6
Cage:	TA
Precision:	P4+ (UP+ Upon request)
Main dimensions [d x D x B]:	6 x 17 x 6 mm

Load data

Static load capacity	C_{0r} : 375 N
Dynamic load capacity	C_r : 1100 N
Fatigue load limit	C_U : 19 N
Speed limit	n_{grease} : 150000 1/min
Speed limit	n_{oil} : 200000 1/min
Light preload	L: 6 N
Axial rigidity	C_{ax} : 7 N/ μ m
Medium preload	M: 18 N
Axial rigidity	C_{ax} : 11 N/ μ m
Heavy preload	S: 32 N
Axial rigidity	C_{ax} : 15 N/ μ m
Spring preload	Ff: 20 N (for n_{max})

Geometrical Data

Bore diameter	d: 6 mm	Oiling nozzle position	d_T : 9.2 mm
Outer diameter	D: 17 mm	Pitch circle diameter	d_m : 10 mm
Width of single bearing	B: 6 mm	Inner diameter of outer ring	D_1 : 11.7 mm
Ball diameter	D_w : 2.381 mm	Undercut of associated component	$r_{a \max}$: 0.3 mm
Number of balls	Z: 9	Undercut of associated component (open side)	$r_{b \max}$: 0.3 mm
Chamfer (min)	$r_{1,2 \min}$: 0.3 mm	Abutment diameter inner ring	$d_{a,b \min}$: 7.5 mm
Chamfer (min), open side	$r_{3,4 \min}$: 0.3 mm	Abutment diameter outer ring	$D_{a,b \max}$: 15.8 mm
Outer diameter of inner ring	d_1 : 8.3 mm	Inner diameter of outer ring (open side)	D_2 : 12.5 mm
Outer diameter of inner ring (open side)	d_2 : -	Bearing weight	m: 0.007 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.