

Spindle ball bearing HY SM 61912 C TA P4+

16.07.2024



Components

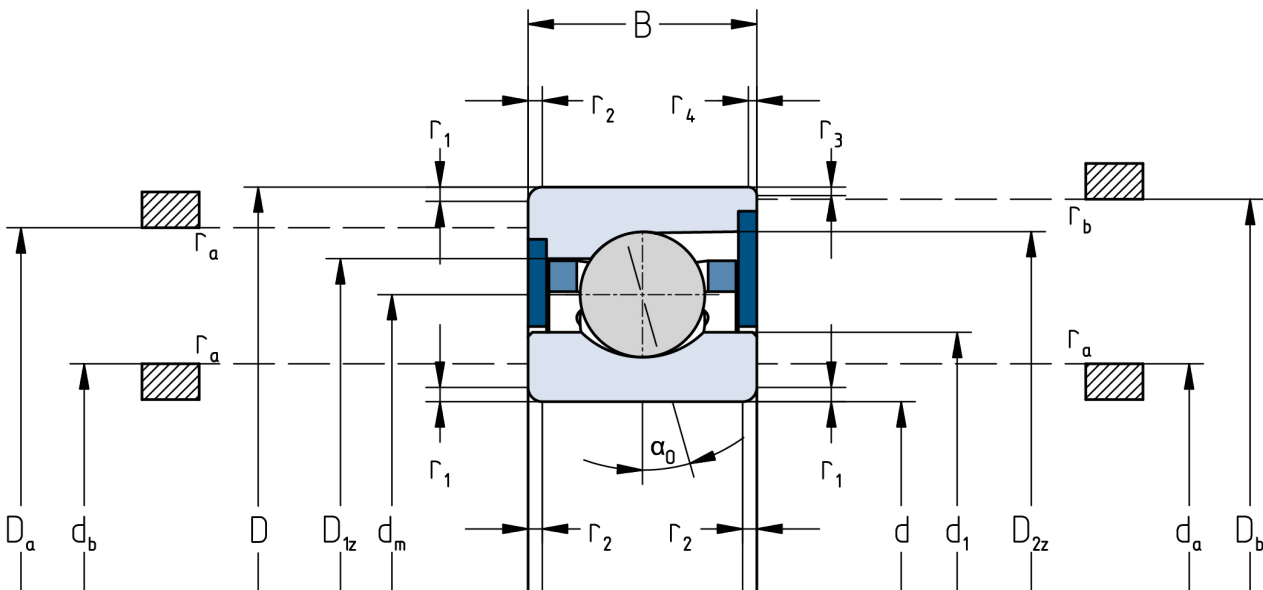
Bearing designation:	HY SM 61912 C TA
Bearing design:	SM
Series / size:	61912
Ball material:	Ceramic
Cage:	TA
Seal:	2RZ upon request
Precision:	P4+
Main dimensions [d x D x B]:	60 x 85 x 13 mm

Load data

Static load capacity	C_{0r} : 9900 N
Dynamic load capacity	C_r : 14100 N
Fatigue load limit	C_U : 375 N
Speed limit	n_{grease} : 25500 1/min
Speed limit	n_{oil} : 34000 1/min
Light preload	L: 70 N
Axial rigidity	C_{ax} : 67 N/ μ m
Medium preload	M: 220 N
Axial rigidity	C_{ax} : 102 N/ μ m
Heavy preload	S: 430 N
Axial rigidity	C_{ax} : 133 N/ μ m
Spring preload	Ff: 520 N (for n_{max})

Geometrical Data

Bore diameter	d: 60 mm	Oiling nozzle position	d_f : 70.4 mm
Outer diameter	D: 85 mm	Pitch circle diameter	d_m : 72.5 mm
Width of single bearing	B: 13 mm	Inner diameter of outer ring	D_1 : 76.9 mm
Ball diameter	D_w : 7.144 mm	Undercut of associated component	$r_{a max}$: 1 mm
Number of balls	Z: 23	Undercut of associated component (open side)	$r_{b max}$: 0.3 mm
Chamfer (min)	$r_{1,2 min}$: 1 mm	Abutment diameter inner ring	$d_{a,b min}$: 64.9 mm
Chamfer (min), open side	$r_{3,4 min}$: 0.3 mm	Abutment diameter outer ring	$D_{a,b max}$: 80.5 mm
Outer diameter of inner ring	d_1 : 68.1 mm	Inner diameter of outer ring (open side)	D_2 : 79.7 mm
Outer diameter of inner ring (open side)	d_2 : -	Bearing weight	m: 0.17 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.