

Spindle ball bearing HY SM 61906 C TA P4+

16.07.2024



Components

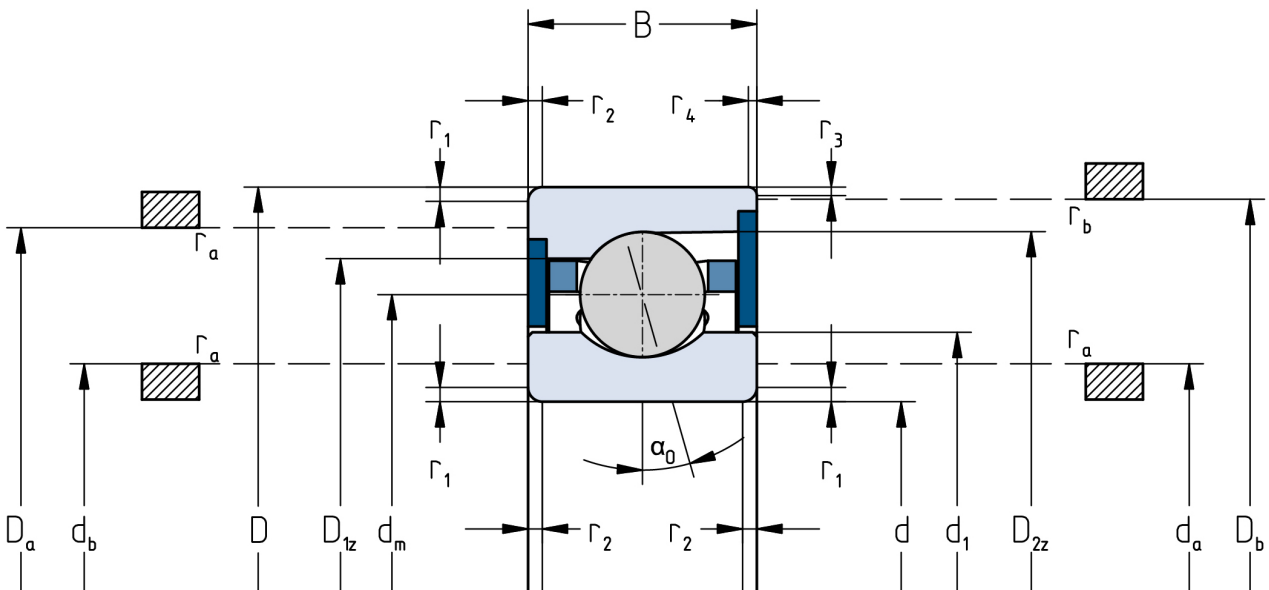
Bearing designation:	HY SM 61906 C TA
Bearing design:	SM
Series / size:	61906
Ball material:	Ceramic
Cage:	TA
Seal:	2RZ optional (with grease)
Precision:	P4+
Main dimensions [d x D x B]:	30 x 47 x 9 mm

Load data

Static load capacity	C_{0r} : 3300 N
Dynamic load capacity	C_r : 5950 N
Fatigue load limit	C_U : 124 N
Speed limit	n_{grease} : 48750 1/min
Speed limit	n_{oil} : 65000 1/min
Light preload	L: 30 N
Axial rigidity	C_{ax} : 26 N/ μ m
Medium preload	M: 90 N
Axial rigidity	C_{ax} : 40 N/ μ m
Heavy preload	S: 180 N
Axial rigidity	C_{ax} : 54 N/ μ m
Spring preload	Ff: 130 N (for n_{max})

Geometrical Data

Bore diameter	d: 30 mm	Oiling nozzle position	d_f : 36.8 mm
Outer diameter	D: 47 mm	Pitch circle diameter	d_m : 38.5 mm
Width of single bearing	B: 9 mm	Inner diameter of outer ring	D_1 : 41.9 mm
Ball diameter	D_w : 4.762 mm	Undercut of associated component	$r_{a max}$: 0.3 mm
Number of balls	Z: 18	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	$d_{a,b min}$: 32.3 mm
Chamfer (min), open side	$r_{3,4 min}$: 0.3 mm	Abutment diameter outer ring	$D_{a,b max}$: 45.1 mm
Outer diameter of inner ring	d_1 : 35.1 mm	Inner diameter of outer ring (open side)	D_2 : 43.3 mm
Outer diameter of inner ring (open side)	d_2 : -	Bearing weight	m: 0.041 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.