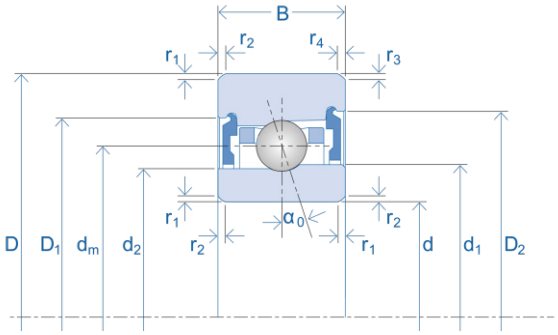
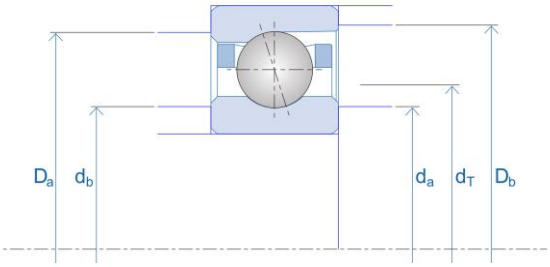
Data Sheet
High Precision Ball Bearings





Part Number	**HY KH 61913 C TA**
Bearing Size	61913

Bearing Series	KH
Hybrid (Si_3N_4 Balls)	Yes

Bearing Dimensions

Bore Diameter	d [mm]	65
Outer Diameter	D [mm]	90
Bearing Width	B [mm]	13
Pitch Circle	d_m [mm]	77.5
Ball Diameter	D_w [mm]	5.556
OD Inner Ring	d_1 [mm]	73.1
OD Inner Ring (Open Side)	d_2 [mm]	71.8
ID Outer Ring	D_1 [mm]	82.9
ID Outer Ring (Open Side)	D_2 [mm]	84.5
Chamfer	$r_{1,2}$ [mm]	1.0
Chamfer (Open Side)	$r_{3,4}$ [mm]	0.3

Bearing Load Ratings

Dynamic Radial Load Rating	C [N]	10,600
Static Radial Load Rating Steel Balls	C_0 [N]	8,600
Static Radial Load Rating Si_3N_4 balls	$C_{0\,HY}$ [N]	6,050

Bearing RPM Ratings

Speed Value with Oil Lubrication	n_{oil} [1/min]	34,375
Speed Value with Grease Lubrication	n_{grease} [1/min]	25,625

Geometrical Data

Number of Balls	Z [Qty.]	34
Contact Angle	α_0 [°]	17
Bearing Weight	m [kg]	0.207

Mating Part Dimensions

Abutment Diameter Inner Ring	$d_{a,b}$ min. [mm]	70.0
Abutment Diameter Outer Ring	$D_{a,b}$ max. [mm]	85.0
Chamfer Associated Component	r_a max. [mm]	0.6
Chamfer Associated Component (Open Side)	r_b max. [mm]	0.3

Bearing Preload Data

Light Pre-Load	Fv [N]	55
Light Axial Rigidity	C_{ax} [N/µm]	56
Medium Pre-Load	F_v [N]	160
Medium Axial Rigidity	C_{ax} [N/µm]	83
Heavy Pre-Load	F_v [N]	320
Heavy Axial Rigidity	C_{ax} [N/µm]	110
Minimum Spring Pre-Load	F_f [N]	380

Notes:

1. Position of the oiling Nozzle (d_T) for bearings with TA cage/ TXM cage upon request
2. The stated load and speed values are given for a spring preloaded single bearing with oil/air or oil mist lubrication. If specific applications differ, please consult correction factors and/or GMN USA engineers.

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