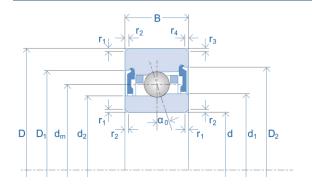


Data Sheet High Precision Ball Bearings





Part Number	HY KH 61904 C TA
Bearing Size	61904

D_a d_b d_a d_T D_b

Bearing Series	КН
Hybrid (Si ₃ N ₄ Balls)	Yes

Bearing Dimensions

Bore Diameter	d [mm]	20
Outer Diameter	D [mm]	37
Bearing Width	B [mm]	9
Pitch Circle	d _m [mm]	28.5
Ball Diameter	D _w [mm]	3.969
OD Inner Ring	d ₁ [mm]	25.1
OD Inner Ring (Open Side)	d ₂ [mm]	24.5
ID Outer Ring	D ₁ [mm]	31.7
ID Outer Ring (Open Side)	D ₂ [mm]	33.0
Chamfer	r _{1,2} [mm]	0.3
Chamfer (Open Side)	r _{3,4} [mm]	0.3

Geometrical Data

Number of Balls	Z [Qty.]	16
Contact Angle	α ₀ [°]	17
Bearing Weight	m [kg]	0.036

Bearing Load Ratings

Dynamic Radial Load Rating	C [N]	3,900
Static Radial Load Rating Steel Balls	C ₀ [N]	1,900
Static Radial Load Rating Si ₃ N ₄ balls	C _{0 HY} [N]	1,340

Mating Part Dimensions

Abutment Diameter Inner Ring	d _{a,b} min. [mm]	23.0
Abutment Diameter Outer Ring	D _{a,b} max. [mm]	33.5
Chamfer Associated Component	ra max. [mm]	0.3
Chamfer Associated Component (Open Side)	r₀ max. [mm]	0.15

Bearing RPM Ratings

Speed Value with Oil Lubrication	n _{oil} [1/min]	93,750
Speed Value with Grease Lubrication	n _{grease} [1/min]	70,000

Bearing Preload Data

Light Pre-Load	Fv [N]	20
Light Axial Rigidity	C _{ax} [N/µm]	21
Medium Pre-Load	F _v [N]	60
Medium Axial Rigidity	C _{ax} [N/µm]	33
Heavy Pre-Load	F _v [N]	120
Heavy Axial Rigidity	C _{ax} [N/µm]	44
Minimum Spring Pre-Load	F _f [N]	140

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.