



Part Number	HY KH 61902 C TA
Bearing Size	61902

Bearing Series	KH
Ball Material	Silicon Nitride (Si3N4)
Ring Material	100 Cr 6 (SAE 52100)

Bearing Dimensions

Bore Diameter	d [mm]	15
Outer Diameter	D [mm]	28
Bearing Width	B [mm]	7
Pitch Circle Diameter	d _m [mm]	21.0
Ball Diameter	D _w [mm]	2.778
OD Inner Ring	d ₁ [mm]	18.7
OD Inner Ring (Open Side)	d ₂ [mm]	18.4
ID Outer Ring	D ₁ [mm]	23.3
ID Outer Ring (Open Side)	D ₂ [mm]	23.9
ID Outer Ring of Contact Surface	D _{1z} [mm]	23.9
ID Outer Ring (Open Side) of Contact Surface	D _{2z} [mm]	24.5
Chamfer	r _s [mm]	0.3
Chamfer (Open Side)	r _{1s} [mm]	0.3

Bearing Load Ratings

Dynamic Radial Load Rating	C _r [N]	2,010
Static Radial Load Rating	C _{0r} [N]	910
Fatigue Load Limit	C _{ur} [N]	34.5

Bearing RPM Ratings

Speed Value with Oil Lubrication	n _{oil} [1/min]	125,000
Speed Value with Grease Lubrication	n _{grease} [1/min]	94,000

Geometrical Data

Number of Balls	Z [Qty.]	16
Contact Angle	α ₀ [°]	17
Bearing Weight	m [kg]	0.015

Mating Part Dimensions

Abutment Diameter Inner Ring	d _{a,b} min. [mm]	16.7
Abutment Diameter Outer Ring	D _a max. [mm]	26.6
Abutment Diameter Outer Ring	D _b max. [mm]	26.6
Chamfer Associated Component	r _a max. [mm]	0.3
Chamfer Associated Component (Open Side)	r _b max. [mm]	0.3
Oil Nozzle Position	d _r [mm]	19.9

Bearing Preload Data

Light Preload	F _v L [N]	10
Light Axial Rigidity	C _{ax} L [N/μm]	17
Medium Preload	F _v M [N]	30
Medium Axial Rigidity	C _{ax} M [N/μm]	26
Heavy Preload	F _v S [N]	60
Heavy Axial Rigidity	C _{ax} S [N/μm]	34
Minimum Spring Preload	F _r [N]	45

Notes:

1. Position of the oiling Nozzle (d_r) for bearings with TXM cage design 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 Bearing USA engineers.