



Part Number	HY KH 6018 C TA
Bearing Size	6018

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

Bearing Dimensions

Bore Diameter	d [mm]	90
Outer Diameter	D [mm]	140
Bearing Width	B [mm]	24
Pitch Circle Diameter	d _m [mm]	112.9
Ball Diameter	D _w [mm]	11.906
OD Inner Ring	d ₁ [mm]	105.8
OD Inner Ring (Open Side)	d ₂ [mm]	104.1
ID Outer Ring	D ₁ [mm]	120.0
ID Outer Ring (Open Side)	D ₂ [mm]	125.0
ID Outer Ring of Contact Surface	D _{1z} [mm]	123.2
ID Outer Ring (Open Side) of Contact Surface	D _{2z} [mm]	126.3
Chamfer	r _s [mm]	1.5
Chamfer (Open Side)	r _{1s} [mm]	0.6

Geometrical Data

Number of Balls	Z [Qty.]	25
Contact Angle	α ₀ [°]	17
Bearing Weight	m [kg]	1.100

Mating Part Dimensions

Abutment Diameter Inner Ring	d _{a,b} min. [mm]	97.9
Abutment Diameter Outer Ring	D _a max. [mm]	133.3
Abutment Diameter Outer Ring	D _b max. [mm]	134.3
Chamfer Associated Component	r _a max. [mm]	1.5
Chamfer Associated Component (Open Side)	r _b max. [mm]	0.6
Oil Nozzle Position	d _r [mm]	109.5

Bearing Load Ratings

Dynamic Radial Load Rating	C _r [N]	37,500
Static Radial Load Rating	C _{0r} [N]	30,000
Fatigue Load Limit	C _{ur} [N]	1,066.0

Bearing RPM Ratings

Speed Value with Oil Lubrication	n _{oil} [1/min]	23,500
Speed Value with Grease Lubrication	n _{grease} [1/min]	17,500

Bearing Preload Data

Light Preload	F _v L [N]	190
Light Axial Rigidity	C _{ax} L [N/μm]	95
Medium Preload	F _v M [N]	560
Medium Axial Rigidity	C _{ax} M [N/μm]	143
Heavy Preload	F _v S [N]	1120
Heavy Axial Rigidity	C _{ax} S [N/μm]	188
Minimum Spring Preload	F _r [N]	1320

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.