



Part Number	KH 6016 E TA
Bearing Size	6016

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

Bearing Dimensions

Bore Diameter	d [mm]	80
Outer Diameter	D [mm]	125
Bearing Width	B [mm]	22
Pitch Circle Diameter	d _m [mm]	100.9
Ball Diameter	D _w [mm]	11.112
OD Inner Ring	d ₁ [mm]	94.3
OD Inner Ring (Open Side)	d ₂ [mm]	92.6
ID Outer Ring	D ₁ [mm]	107.5
ID Outer Ring (Open Side)	D ₂ [mm]	112.2
ID Outer Ring of Contact Surface	D _{1z} [mm]	113.5
ID Outer Ring (Open Side) of Contact Surface	D _{2z} [mm]	113.5
Chamfer	r _s [mm]	1.1
Chamfer (Open Side)	r _{1s} [mm]	0.6

Bearing Load Ratings

Dynamic Radial Load Rating	C _r [N]	31,000
Static Radial Load Rating	C _{0r} [N]	24,700
Fatigue Load Limit	C _{ur} [N]	1,279.0

Bearing RPM Ratings

Speed Value with Oil Lubrication	n _{oil} [1/min]	19,000
Speed Value with Grease Lubrication	n _{grease} [1/min]	14,000

Geometrical Data

Number of Balls	Z [Qty.]	24
Contact Angle	α ₀ [°]	25
Bearing Weight	m [kg]	0.880

Mating Part Dimensions

Abutment Diameter Inner Ring	d _{a,b} min. [mm]	87.0
Abutment Diameter Outer Ring	D _a max. [mm]	119.2
Abutment Diameter Outer Ring	D _b max. [mm]	119.9
Chamfer Associated Component	r _a max. [mm]	1.0
Chamfer Associated Component (Open Side)	r _b max. [mm]	0.6
Oil Nozzle Position	d _r [mm]	97.7

Bearing Preload Data

Light Preload	F _v L [N]	260
Light Axial Rigidity	C _{ax} L [N/μm]	164
Medium Preload	F _v M [N]	790
Medium Axial Rigidity	C _{ax} M [N/μm]	244
Heavy Preload	F _v S [N]	1580
Heavy Axial Rigidity	C _{ax} S [N/μm]	315
Minimum Spring Preload	F _r [N]	2430

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.