

Part Number	KH 6009 C TA
Bearing Size	6009

### **Bearing Dimensions**

Bore Diameter	d [mm]	45
Outer Diameter	D [mm]	75
Bearing Width	B [mm]	16
Pitch Circle	d <sub>m</sub> [mm]	60.0
Ball Diameter	D <sub>w</sub> [mm]	6.35
OD Inner Ring	d₁ [mm]	54.7
OD Inner Ring (Open Side)	d <sub>2</sub> [mm]	53.0
ID Outer Ring	D₁ [mm]	65.6
ID Outer Ring (Open Side)	D <sub>2</sub> [mm]	67.8
Chamfer	r <sub>1,2</sub> [mm]	1.0
Chamfer (Open Side)	r <sub>3,4</sub> [mm]	0.6

# **Bearing Load Ratings**

Dynamic Radial Load Rating	C [N]	10,800
Static Radial Load Rating Steel Balls	C <sub>0</sub> [N]	6,950
Static Radial Load Rating Si <sub>3</sub> N <sub>4</sub> balls	С <sub>0 НҮ</sub> [N]	4,900

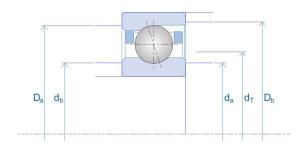
## **Bearing RPM Ratings**

Speed Value with Oil Lubrication	n <sub>oil</sub> [1/min]	36,000
Speed Value with Grease Lubrication	n <sub>grease</sub> [1/min]	27,000

#### 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.



Bearing Series	КН
Hybrid (Si <sub>3</sub> N <sub>4</sub> Balls)	No

#### **Geometrical Data**

Number of Balls	Z [Qty.]	22
Contact Angle	α <sub>0</sub> [°]	17
Bearing Weight	m [kg]	0.238

### Mating Part Dimensions

Abutment Diameter Inner Ring	d <sub>a,b</sub> min. [mm]	51.0
Abutment Diameter Outer Ring	D <sub>a,b</sub> max. [mm]	69.0
Chamfer Associated Component	ra max. [mm]	1.0
Chamfer Associated Component (Open Side)	r <sub>b</sub> max. [mm]	0.3

## **Bearing Preload Data**

Light Pre-Load	Fv [N]	55
Light Axial Rigidity	C <sub>ax</sub> [N/µm]	44
Medium Pre-Load	F <sub>v</sub> [N]	160
Medium Axial Rigidity	C <sub>ax</sub> [N/µm]	65
Heavy Pre-Load	F <sub>v</sub> [N]	330
Heavy Axial Rigidity	C <sub>ax</sub> [N/µm]	88
Minimum Spring Pre-Load	F <sub>f</sub> [N]	390