

| 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  |

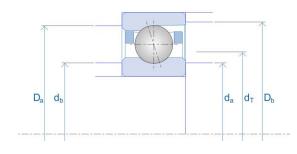
## **Bearing RPM Ratings**

| 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 |