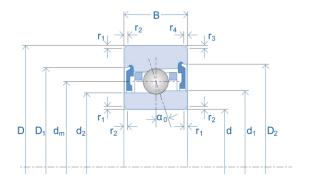


Data Sheet High Precision Ball Bearings





| Part Number | KH 6011 E TA |
|--------------|--------------|
| Bearing Size | 6011 |

Bearing Dimensions

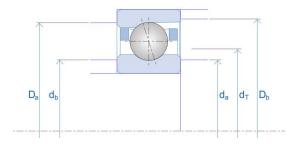
| Bore Diameter | d [mm] | 55 |
|---------------------------|-----------------------|-------|
| Bore Diameter | u [iiiiii] | 33 |
| Outer Diameter | D [mm] | 90 |
| Bearing Width | B [mm] | 18 |
| Pitch Circle | d _m [mm] | 72.5 |
| Ball Diameter | D _w [mm] | 7.938 |
| OD Inner Ring | d ₁ [mm] | 66.8 |
| OD Inner Ring (Open Side) | d ₂ [mm] | 65.6 |
| ID Outer Ring | D ₁ [mm] | 79.2 |
| ID Outer Ring (Open Side) | D ₂ [mm] | 82.4 |
| Chamfer | r _{1,2} [mm] | 1.1 |
| Chamfer (Open Side) | r _{3,4} [mm] | 1.0 |

Bearing Load Ratings

| Dynamic Radial Load Rating | C [N] | 15,900 |
|--|-----------------------|--------|
| Static Radial Load Rating Steel Balls | C ₀ [N] | 10,800 |
| Static Radial Load Rating Si ₃ N ₄ balls | C _{0 HY} [N] | 7,600 |

Bearing RPM Ratings

| Speed Value with Oil Lubrication | n _{oil} [1/min] | 26,500 |
|-------------------------------------|-----------------------------|--------|
| Speed Value with Grease Lubrication | n _{grease} [1/min] | 20,000 |



| Bearing Series | КН |
|---|----|
| Hybrid (Si ₃ N ₄ Balls) | No |

Geometrical Data

| Number of Balls | Z [Qty.] | 23 |
|-----------------|--------------------|-------|
| Contact Angle | α ₀ [°] | 25 |
| Bearing Weight | m [kg] | 0.374 |

Mating Part Dimensions

| Abutment Diameter Inner Ring | d _{a,b} min. [mm] | 62.0 |
|--|----------------------------|------|
| Abutment Diameter Outer Ring | D _{a,b} max. [mm] | 83.0 |
| Chamfer Associated Component | ra max. [mm] | 1.1 |
| Chamfer Associated Component (Open Side) | r _b max. [mm] | 0.6 |

Bearing Preload Data

| Light Pre-Load | Fv [N] | 130 |
|-------------------------|------------------------|-----|
| Light Axial Rigidity | C _{ax} [N/µm] | 115 |
| Medium Pre-Load | F _v [N] | 400 |
| Medium Axial Rigidity | C _{ax} [N/µm] | 172 |
| Heavy Pre-Load | F _v [N] | 800 |
| Heavy Axial Rigidity | C _{ax} [N/µm] | 223 |
| Minimum Spring Pre-Load | F _f [N] | 760 |

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.