



| | |
|--------------|------------------------|
| Part Number | HY SM 6011 C TA |
| Bearing Size | 6011 |

| | |
|---|-----|
| Bearing Series | SM |
| Hybrid (Si ₃ N ₄ Balls) | Yes |

Bearing Dimensions

| | | |
|---------------------------|-----------------------|-------|
| Bore Diameter | d [mm] | 55 |
| Outer Diameter | D [mm] | 90 |
| Bearing Width | B [mm] | 18 |
| Pitch Circle | d _m [mm] | 72.5 |
| Ball Diameter | D _w [mm] | 9.525 |
| OD Inner Ring | d ₁ [mm] | 66.8 |
| ID Outer Ring | D ₁ [mm] | 78.2 |
| ID Outer Ring (Open Side) | D ₂ [mm] | 81.9 |
| Chamfer | r _{1,2} [mm] | 1.1 |
| Chamfer (Open Side) | r _{3,4} [mm] | 1.0 |

Geometrical Data

| | | |
|-----------------|--------------------|-------|
| Number of Balls | Z [Qty.] | 20 |
| Contact Angle | α ₀ [°] | 15 |
| Bearing Weight | m [kg] | 0.374 |

Mating Part Dimensions

| | | |
|--|--------------------------|------|
| Abutment Diameter Inner Ring | d _a min. [mm] | 62.0 |
| Abutment Diameter Outer Ring | D _a max. [mm] | 83.0 |
| Chamfer Associated Component | r _a max. [mm] | 1.1 |
| Chamfer Associated Component (Open Side) | r _b max. [mm] | 0.6 |

Bearing Load Ratings

| | | |
|--|-----------------------|--------|
| Dynamic Radial Load Rating | C [N] | 23,100 |
| Static Radial Load Rating Steel Balls | C ₀ [N] | 15,500 |
| Static Radial Load Rating Si ₃ N ₄ balls | C _{0 HY} [N] | 10,900 |

Bearing Preload Data

| | | |
|-------------------------|------------------------|-----|
| Light Pre-Load | F _v [N] | 115 |
| Light Axial Rigidity | C _{ax} [N/μm] | 52 |
| Medium Pre-Load | F _v [N] | 350 |
| Medium Axial Rigidity | C _{ax} [N/μm] | 81 |
| Heavy Pre-Load | F _v [N] | 700 |
| Heavy Axial Rigidity | C _{ax} [N/μm] | 110 |
| Minimum Spring Pre-Load | F _r [N] | 695 |

Bearing RPM Ratings

| | | |
|-------------------------------------|-----------------------------|--------|
| Speed Value with Oil Lubrication | n _{oil} [1/min] | 34,375 |
| Speed Value with Grease Lubrication | n _{grease} [1/min] | 25,625 |

Notes:

1. Position of the oiling Nozzle (d_r) 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.