



Part Number	SM 605 C TA
Bearing Size	605

Bearing Series	SM
Hybrid (Si ₃ N ₄ Balls)	No

Bearing Dimensions

Bore Diameter	d [mm]	5
Outer Diameter	D [mm]	14
Bearing Width	B [mm]	5
Pitch Circle	d _m [mm]	9.5
Ball Diameter	D _w [mm]	2.381
OD Inner Ring	d ₁ [mm]	6.9
ID Outer Ring	D ₁ [mm]	10.3
ID Outer Ring (Open Side)	D ₂ [mm]	11.0
Chamfer	r _{1,2} [mm]	0.2
Chamfer (Open Side)	r _{3,4} [mm]	0.2

Geometrical Data

Number of Balls	Z [Qty.]	8
Contact Angle	α ₀ [°]	15
Bearing Weight	m [kg]	0.004

Mating Part Dimensions

Abutment Diameter Inner Ring	d _a min. [mm]	6.5
Abutment Diameter Outer Ring	D _a max. [mm]	11.5
Chamfer Associated Component	r _a max. [mm]	0.2
Chamfer Associated Component (Open Side)	r _b max. [mm]	0.1

Bearing Load Ratings

Dynamic Radial Load Rating	C [N]	990
Static Radial Load Rating Steel Balls	C ₀ [N]	310
Static Radial Load Rating Si ₃ N ₄ balls	C _{0HY} [N]	216

Bearing Preload Data

Light Pre-Load	F _v [N]	5
Light Axial Rigidity	C _{ax} [N/μm]	5
Medium Pre-Load	F _v [N]	14
Medium Axial Rigidity	C _{ax} [N/μm]	9
Heavy Pre-Load	F _v [N]	28
Heavy Axial Rigidity	C _{ax} [N/μm]	13
Minimum Spring Pre-Load	F _r [N]	30

Bearing RPM Ratings

Speed Value with Oil Lubrication	n _{oil} [1/min]	230,000
Speed Value with Grease Lubrication	n _{grease} [1/min]	170,000

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.