



Part Number	<b>HY SM 605 C TA</b>
Bearing Size	605

Bearing Series	SM
Hybrid (Si <sub>3</sub> N <sub>4</sub> Balls)	Yes

## Bearing Dimensions

Bore Diameter	d [mm]	5
Outer Diameter	D [mm]	14
Bearing Width	B [mm]	5
Pitch Circle	d <sub>m</sub> [mm]	9.5
Ball Diameter	D <sub>w</sub> [mm]	2.381
OD Inner Ring	d <sub>1</sub> [mm]	6.9
ID Outer Ring	D <sub>1</sub> [mm]	10.3
ID Outer Ring (Open Side)	D <sub>2</sub> [mm]	11.0
Chamfer	r <sub>1,2</sub> [mm]	0.2
Chamfer (Open Side)	r <sub>3,4</sub> [mm]	0.2

## Geometrical Data

Number of Balls	Z [Qty.]	8
Contact Angle	$\alpha_0$ [°]	15
Bearing Weight	m [kg]	0.004

### Mating Part Dimensions

Abutment Diameter Inner Ring	d <sub>a</sub> min. [mm]	6.5
Abutment Diameter Outer Ring	D <sub>a</sub> max. [mm]	11.5
Chamfer Associated Component	r <sub>a</sub> max. [mm]	0.2
Chamfer Associated Component (Open Side)	r <sub>b</sub> max. [mm]	0.1

## Bearing Load Ratings

Dynamic Radial Load Rating	C [N]	990
Static Radial Load Rating Steel Balls	C <sub>0</sub> [N]	310
Static Radial Load Rating Si <sub>3</sub> N <sub>4</sub> balls	C <sub>0 HY</sub> [N]	216

## Bearing RPM Ratings

Speed Value with Oil Lubrication	$n_{oil}$ [1/min]	287,500
Speed Value with Grease Lubrication	$n_{grease}$ [1/min]	212,500

### Bearing Preload Data

Light Pre-Load	$F_v$ [N]	5
Light Axial Rigidity	$C_{ax}$ [N/ $\mu$ m]	5
Medium Pre-Load	$F_v$ [N]	14
Medium Axial Rigidity	$C_{ax}$ [N/ $\mu$ m]	9
Heavy Pre-Load	$F_v$ [N]	28
Heavy Axial Rigidity	$C_{ax}$ [N/ $\mu$ m]	13
Minimum Spring Pre-Load	$F_f$ [N]	30

**Notes:**

1. Position of the oiling Nozzle ( $d_7$ ) 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.