



Part Number	HY S 619/5 C TA
Bearing Size	619/5

Bearing Series	S
Hybrid (Si ₃ N ₄ Balls)	Yes

Bearing Dimensions

Bore Diameter	d [mm]	5
Outer Diameter	D [mm]	13
Bearing Width	B [mm]	4
Pitch Circle	d _m [mm]	9.0
Ball Diameter	D _w [mm]	2.381
OD Inner Ring	d ₁ [mm]	7.1
ID Outer Ring	D ₁ [mm]	10.7
ID Outer Ring (Open Side)	D ₂ [mm]	11.3
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]	0.002

Mating Part Dimensions

Abutment Diameter Inner Ring	d _a min. [mm]	6.8
Abutment Diameter Outer Ring	D _a max. [mm]	11.2
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]	1,200
Static Radial Load Rating Steel Balls	C ₀ [N]	430
Static Radial Load Rating Si ₃ N ₄ balls	C _{0 HY} [N]	300

Bearing Preload Data

Light Pre-Load	F _v [N]	6
Light Axial Rigidity	C _{ax} [N/μm]	7
Medium Pre-Load	F _v [N]	18
Medium Axial Rigidity	C _{ax} [N/μm]	11
Heavy Pre-Load	F _v [N]	36
Heavy Axial Rigidity	C _{ax} [N/μm]	15
Minimum Spring Pre-Load	F _r [N]	35

Bearing RPM Ratings

Speed Value with Oil Lubrication	n _{oil} [1/min]	237,500
Speed Value with Grease Lubrication	n _{grease} [1/min]	175,000

Notes:

1. Position of the oiling Nozzle (dT) 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.