

# Spindle ball bearings (HY)\* S 6003 C



## Precision class P4 / ABEC7

### Components

Bearing designation:	(HY)* S 6003 C
Bearing design:	S
Series / size:	6003
Ball material:	Steel 100Cr6
Ball material HY :	Ceramic Si3N4
Cage:	TA (TXM available upon request)
Precision:	P4 (HG, UP, P2 upon request)
Main dimensions [d x D x B]:	17 x 35 x 10 mm

### Technical data (Standard bearings)

Static load capacity $C_0$ :	4150
Dynamic load capacity C:	6950
Speed limit $n_{Fett}$ :	48750
Speed limit $n_{Oj}$ :	65000

### Technical data (Hybrid bearings)\*

Static load capacity $C_{0HY}$ :	2950
Dynamic load capacity $C_{HY}$ :	6950
Speed limit $n_{Fett}$ :	60937.5
Speed limit $n_{Oj}$ :	81250

### Pre-tension

Light (L):	35 N
Axial rigidity ( $C_{ax}$ ):	24 N/ $\mu$ m
Medium (M):	105 N
Axial rigidity ( $C_{ax}$ ):	41 N/ $\mu$ m
Heavy (S):	210 N
Axial rigidity ( $C_{ax}$ ):	59 N/ $\mu$ m
Spring preload (Ff):	180 N

The given speed limits apply to individual bearings with spring preload. Correction factors must be considered for all properties which deviate from this.

\* All ball bearings are also available as hybrid ball bearings (HY).