

Spindle ball bearings (HY)* S 6003 E



Precision class P4 / ABEC7

Components

| | |
|------------------------------|---------------------------------|
| Bearing designation: | (HY)* S 6003 E |
| 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 : | 4000 |
| Dynamic load capacity C: | 6650 |
| Speed limit n_{Fett} : | 42000 |
| Speed limit n_{Oj} : | 56000 |

Technical data (Hybrid bearings)*

| | |
|----------------------------------|-------|
| Static load capacity C_{0HY} : | 2800 |
| Dynamic load capacity C_{HY} : | 6650 |
| Speed limit n_{Fett} : | 52500 |
| Speed limit n_{Oj} : | 70000 |

Pre-tension

| | |
|------------------------------|----------------|
| Light (L): | 60 N |
| Axial rigidity (C_{ax}): | 58 N/ μ m |
| Medium (M): | 170 N |
| Axial rigidity (C_{ax}): | 88 N/ μ m |
| Heavy (S): | 340 N |
| Axial rigidity (C_{ax}): | 115 N/ μ m |
| Spring preload (Ff): | 245 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).