

Spindle ball bearing S 6017 E TA P4+

16.07.2024



Components

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|------------------------------|------------------|
| Bearing designation: | S 6017 E TA |
| Bearing design: | S |
| Series / size: | 6017 |
| Ball material: | Steel 100Cr6 |
| Cage: | TA |
| Seal: | 2RZ upon request |
| Precision: | P4+ |
| Main dimensions [d x D x B]: | 85 x 130 x 22 mm |

Load data

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|-----------------------|-----------------------------|
| Static load capacity | C_{0r} : 59000 N |
| Dynamic load capacity | C_r : 58500 N |
| Fatigue load limit | C_U : 2958 N |
| Speed limit | n_{grease} : 10125 1/min |
| Speed limit | n_{oil} : 13500 1/min |
| Light preload | L: 500 N |
| Axial rigidity | C_{ax} : 241 N/ μ m |
| Medium preload | M: 1500 N |
| Axial rigidity | C_{ax} : 366 N/ μ m |
| Heavy preload | S: 3000 N |
| Axial rigidity | C_{ax} : 486 N/ μ m |
| Spring preload | Ff: 5610 N (for n_{max}) |

Geometrical Data

| | | | |
|--|-------------------------|--|---------------------------|
| Bore diameter | d: 85 mm | Oiling nozzle position | d_f : 103.6 mm |
| Outer diameter | D: 130 mm | Pitch circle diameter | d_m : 107.5 mm |
| Width of single bearing | B: 22 mm | Inner diameter of outer ring | D_1 : 115.7 mm |
| Ball diameter | D_w : 13.494 mm | Undercut of associated component | $r_{a \max}$: 1 mm |
| Number of balls | Z: 21 | Undercut of associated component (open side) | $r_{b \max}$: 0.6 mm |
| Chamfer (min) | $r_{1,2 \min}$: 1.1 mm | Abutment diameter inner ring | $d_{a,b \min}$: 92.6 mm |
| Chamfer (min), open side | $r_{3,4 \min}$: 0.6 mm | Abutment diameter outer ring | $D_{a,b \max}$: 123.6 mm |
| Outer diameter of inner ring | d_1 : 99.3 mm | Inner diameter of outer ring (open side) | D_2 : 121.2 mm |
| Outer diameter of inner ring (open side) | d_2 : - | Bearing weight | m: 0.89 kg |
| | | Contact angle | Alpha 0: 25° |



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