



Bearing No. S7002 ACE/HCP4A

|                       |                 |
|-----------------------|-----------------|
| D                     | 32 mm           |
| d                     | 15 mm           |
| B                     | 9 mm            |
| a                     | 10.1 mm         |
| Ball - z              | 12              |
| Size (mm)             | 32x15x9         |
| Width (mm)            | 9               |
| Mass bearing          | 0.026 kg        |
| D <sub>2</sub>        | 28.8 mm         |
| d <sub>2</sub>        | 19.5 mm         |
| d <sub>1</sub>        | 20.65 mm        |
| d <sub>2</sub>        | 19.5 mm         |
| D <sub>2</sub>        | 28.8 mm         |
| d <sub>1</sub>        | 20.65 mm        |
| Bearing number        | S7002 ACE/HCP4A |
| Preload class A       | 44 N/micron     |
| Preload class B       | 66 N/micron     |
| Preload class C       | 73 N/micron     |
| Number of balls z     | 12              |
| r <sub>b</sub> max.   | 0.15 mm         |
| r <sub>a</sub> max.   | 0.3 mm          |
| D <sub>b</sub> max.   | 30.6 mm         |
| D <sub>a</sub> max.   | 30 mm           |
| d <sub>b</sub> max.   | 19.1 mm         |
| d <sub>b</sub> min.   | 17 mm           |
| d <sub>a</sub> max.   | 20.3 mm         |
| Bore Diameter (mm)    | 32              |
| d <sub>a</sub> min.   | 17 mm           |
| Outer Diameter (mm)   | 15              |
| d <sub>a</sub> - max. | 20.3 mm         |

|                                    |          |
|------------------------------------|----------|
| d <sub>a</sub> - min.              | 17 mm    |
| Calculation factor e               | 0.68     |
| Calculation factor f               | 1.03     |
| d <sub>b</sub> - max.              | 19.1 mm  |
| D <sub>a</sub> - max.              | 30 mm    |
| r <sub>a</sub> - max.              | 0.3 mm   |
| r <sub>b</sub> - max.              | 0.15 mm  |
| d <sub>b</sub> - min.              | 17 mm    |
| r <sub>3,4</sub> min.              | 0.15 mm  |
| r <sub>1,2</sub> min.              | 0.3 mm   |
| Ball - D <sub>w</sub>              | 4.762 mm |
| D <sub>b</sub> - max.              | 30.6 mm  |
| r <sub>3,4</sub> - min.            | 0.15 mm  |
| Calculation factor - f             | 1.03     |
| Calculation factor - e             | 0.68     |
| r <sub>1,2</sub> - min.            | 0.3 mm   |
| Basic dynamic load rating C        | 4.23 kN  |
| Ball diameter D <sub>w</sub>       | 4.762 mm |
| Preload class A G <sub>A</sub>     | 38 N     |
| Basic dynamic load rating - C      | 4.2 kN   |
| Preload class C G <sub>C</sub>     | 230 N    |
| Preload class B G <sub>B</sub>     | 115 N    |
| Preload class B - G <sub>B</sub>   | 115 N    |
| Preload class A - G <sub>A</sub>   | 38 N     |
| Preload class C - G <sub>C</sub>   | 230 N    |
| Calculation factor f <sub>1</sub>  | 0.99     |
| Fatigue load limit P <sub>u</sub>  | 0.078 kN |
| Calculation factor f <sub>HC</sub> | 1.01     |
| Calculation factor f <sub>2C</sub> | 1.06     |
| Calculation factor f <sub>2B</sub> | 1.03     |

|   |                     |
|---|---------------------|
| Calculation factor $f_{2A}$                           | 1                   |
| Calculation factor - $X_2$                            | 0.67                |
| Calculation factor - $Y_0$                            | 0.76                |
| Calculation factor - $Y_1$                            | 0.92                |
| Calculation factor - $f_1$                            | 0.99                |
| Calculation factor - $Y_2$                            | 1.41                |
| Fatigue load limit - $P_u$                            | 0.078 kN            |
| Calculation factor - $f_{2A}$                         | 1                   |
| Calculation factor - $f_{2B}$                         | 1.03                |
| Calculation factor - $f_{2C}$                         | 1.06                |
| Calculation factor - $f_{HC}$                         | 1.01                |
| Limiting speed for grease lubrication                 | 75000 r/min         |
| Basic static load rating $C_0$                        | 1.83 kN             |
| Static axial stiffness, preload class C               | 73 N/ $\mu\text{m}$ |
| Static axial stiffness, preload class B               | 66 N/ $\mu\text{m}$ |
| Attainable speed for grease lubrication               | 75000 r/min         |
| Static axial stiffness, preload class A               | 44 N/ $\mu\text{m}$ |
| Basic static load rating - $C_0$                      | 1.8 kN              |
| Calculation factor (single, tandem) $Y_2$             | 0.87                |
| Calculation factor (single, tandem) $Y_0$             | 0.38                |
| Calculation factor (single, tandem) $X_2$             | 0.41                |
| Calculation factor (back-to-back, face-to-face) $Y_1$ | 0.92                |
| Calculation factor (back-                             | 1.41                |

|   |      |
|---|------|
| to-back, face-to-face) $Y_2$                          |      |
| Calculation factor (back-to-back, face-to-face) $Y_0$ | 0.76 |
| Calculation factor (back-to-back, face-to-face) $X_2$ | 0.67 |