



Bearing No. S7003 ACD/P4A

|                     |               |
|---------------------|---------------|
| D                   | 35 mm         |
| d                   | 17 mm         |
| B                   | 10 mm         |
| a                   | 11.2 mm       |
| Ball - z            | 12            |
| Size (mm)           | 35x17x10      |
| Width (mm)          | 10            |
| Mass bearing        | 0.038 kg      |
| D <sub>2</sub>      | 32.4 mm       |
| d <sub>2</sub>      | 22.6 mm       |
| d <sub>1</sub>      | 22.6 mm       |
| d <sub>2</sub>      | 22.6 mm       |
| D <sub>2</sub>      | 32.4 mm       |
| d <sub>1</sub>      | 22.6 mm       |
| Bearing number      | S7003 ACD/P4A |
| Preload class B     | 62 N/micron   |
| Preload class A     | 48 N/micron   |
| Preload class D     | 107 N/micron  |
| Preload class C     | 81 N/micron   |
| Number of balls z   | 12            |
| r <sub>b</sub> max. | 0.2 mm        |
| r <sub>a</sub> max. | 0.3 mm        |
| D <sub>b</sub> max. | 33.6 mm       |
| D <sub>a</sub> max. | 33 mm         |
| d <sub>b</sub> max. | 22.2 mm       |
| d <sub>b</sub> min. | 19 mm         |
| d <sub>a</sub> max. | 22.2 mm       |
| Bore Diameter (mm)  | 35            |
| d <sub>a</sub> min. | 19 mm         |
| Outer Diameter (mm) | 17            |

|                               |          |
|-------------------------------|----------|
| $d_a$ - max.                  | 22.2 mm  |
| $d_a$ - min.                  | 19 mm    |
| Calculation factor e          | 0.68     |
| Calculation factor f          | 1.04     |
| $d_b$ - max.                  | 22.2 mm  |
| $D_b$ - max.                  | 33.6 mm  |
| $r_a$ - max.                  | 0.3 mm   |
| $r_b$ - max.                  | 0.2 mm   |
| $d_b$ - min.                  | 19 mm    |
| $r_{3,4}$ min.                | 0.2 mm   |
| $r_{1,2}$ min.                | 0.3 mm   |
| Ball - $D_w$                  | 5.556 mm |
| $D_a$ - max.                  | 33 mm    |
| $r_{3,4}$ - min.              | 0.2 mm   |
| $r_{1,2}$ - min.              | 0.3 mm   |
| Calculation factor - f        | 1.04     |
| Calculation factor - e        | 0.68     |
| Ball diameter $D_w$           | 5.556 mm |
| Basic dynamic load rating C   | 6.5 kN   |
| Preload class A $G_A$         | 40 N     |
| Basic dynamic load rating - C | 6.5 kN   |
| Preload class B $G_B$         | 80 N     |
| Preload class C $G_C$         | 160 N    |
| Preload class D $G_D$         | 320 N    |
| Preload class B - $G_B$       | 80 N     |
| Preload class C - $G_C$       | 160 N    |
| Preload class A - $G_A$       | 40 N     |
| Preload class D - $G_D$       | 320 N    |
| Calculation factor $f_1$      | 0.99     |
| Fatigue load limit $P_u$      | 0.132 kN |

|   |                |
|---|----------------|
| Calculation factor $f_{2A}$             | 1              |
| Calculation factor $f_{2B}$             | 1.02           |
| Calculation factor $f_{2C}$             | 1.05           |
| Calculation factor $f_{2D}$             | 1.08           |
| Calculation factor $f_{HC}$             | 1              |
| Calculation factor - $X_2$              | 0.67           |
| Calculation factor - $Y_1$              | 0.92           |
| Calculation factor - $Y_2$              | 1.41           |
| Fatigue load limit - $P_u$              | 0.132 kN       |
| Calculation factor - $Y_0$              | 0.76           |
| Calculation factor - $f_1$              | 0.99           |
| Calculation factor - $f_{HC}$           | 1              |
| Calculation factor - $f_{2D}$           | 1.08           |
| Calculation factor - $f_{2C}$           | 1.05           |
| Calculation factor - $f_{2B}$           | 1.02           |
| Calculation factor - $f_{2A}$           | 1              |
| Limiting speed for grease lubrication   | 45000 r/min    |
| Basic static load rating $C_0$          | 3.1 kN         |
| Static axial stiffness, preload class D | 107 N/ $\mu$ m |
| Attainable speed for grease lubrication | 45000 r/min    |
| Static axial stiffness, preload class C | 81 N/ $\mu$ m  |
| Static axial stiffness, preload class B | 62 N/ $\mu$ m  |
| Static axial stiffness, preload class A | 48 N/ $\mu$ m  |
| Basic static load rating - $C_0$        | 3.1 kN         |
|   |                |

|   |      |
|---|------|
| Calculation factor<br>(single, tandem) $Y_2$              | 0.87 |
| Calculation factor<br>(single, tandem) $Y_0$              | 0.38 |
| Calculation factor<br>(single, tandem) $X_2$              | 0.41 |
| Calculation factor (back-<br>to-back, face-to-face) $Y_1$ | 0.92 |
| Calculation factor (back-<br>to-back, face-to-face) $Y_2$ | 1.41 |
| Calculation factor (back-<br>to-back, face-to-face) $Y_0$ | 0.76 |
| Calculation factor (back-<br>to-back, face-to-face) $X_2$ | 0.67 |