



Bearing No. S7003 CD/HCP4A

D	35 mm
d	17 mm
B	10 mm
a	8.5 mm
Ball - z	12
Size (mm)	35x17x10
Width (mm)	10
Mass bearing	0.033 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 CD/HCP4A
Preload class A	22 N/micron
Preload class B	29 N/micron
Preload class D	55 N/micron
Preload class C	39 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>a</sub> max.	22.2 mm
d <sub>a</sub> min.	19 mm
Bore Diameter (mm)	35
d <sub>b</sub> min.	19 mm
Outer Diameter (mm)	17

r <sub>3,4</sub> min.	0.2 mm
d <sub>b</sub> - min.	19 mm
Calculation factor f	1.04
d <sub>a</sub> - max.	22.2 mm
r <sub>1,2</sub> min.	0.3 mm
d <sub>a</sub> - min.	19 mm
d <sub>b</sub> - max.	22.2 mm
D <sub>a</sub> - max.	33 mm
D <sub>b</sub> - max.	33.6 mm
r <sub>a</sub> - max.	0.3 mm
r <sub>b</sub> - max.	0.2 mm
Ball - D <sub>w</sub>	5.556 mm
r <sub>3,4</sub> - min.	0.2 mm
Calculation factor - f	1.04
r <sub>1,2</sub> - min.	0.3 mm
Ball diameter D <sub>w</sub>	5.556 mm
Basic dynamic load rating C	6.76 kN
Preload class A G <sub>A</sub>	25 N
Basic dynamic load rating - C	6.8 kN
Preload class C G <sub>C</sub>	100 N
Preload class D G <sub>D</sub>	200 N
Preload class B G <sub>B</sub>	50 N
Preload class C - G <sub>C</sub>	100 N
Preload class D - G <sub>D</sub>	200 N
Preload class B - G <sub>B</sub>	50 N
Preload class A - G <sub>A</sub>	25 N
Calculation factor f <sub>1</sub>	1
Fatigue load limit P <sub>u</sub>	0.137 kN
Calculation factor f <sub>0</sub>	9.1
Calculation factor f <sub>2D</sub>	1.09

Calculation factor $f_{HC}$	1.02
Calculation factor $f_{2C}$	1.05
Calculation factor $f_{2B}$	1.02
Calculation factor $f_{2A}$	1
Calculation factor - $f$	1
Calculation factor - $f_0$	9.1
Fatigue load limit - $P_u$	0.137 kN
Calculation factor - $f_{2C}$	1.05
Calculation factor - $f_{2D}$	1.09
Calculation factor - $f_{2B}$	1.02
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{HC}$	1.02
Limiting speed for grease lubrication	60000 r/min
Basic static load rating $C_0$	3.25 kN
Static axial stiffness, preload class A	22 N/ $\mu\text{m}$
Static axial stiffness, preload class B	29 N/ $\mu\text{m}$
Static axial stiffness, preload class C	39 N/ $\mu\text{m}$
Static axial stiffness, preload class D	55 N/ $\mu\text{m}$
Attainable speed for grease lubrication	60000 r/min
Basic static load rating - $C_0$	3.2 kN