



## SKF 7003 ACD/HCP4AH PRECISION BALL BEARINGS

Bearing No. 7003 ACD/HCP4AH

7003 ACD/HCP4AH Bearing 2D drawings and 3D CAD models

d	17 mm
D	35 mm
B	10 mm
d <sub>1</sub>	22.6 mm
d <sub>2</sub>	22.6 mm
D <sub>1</sub>	29.3 mm
K	0.5 mm
C <sub>1</sub>	6.05 mm
r <sub>1,2</sub> min.	0.3 mm
r <sub>3,4</sub> min.	0.2 mm
a	11.2 mm
d <sub>a</sub> min.	19 mm
d <sub>b</sub> min.	19 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
d <sub>n</sub>	23.7 mm
Basic dynamic load rating C	6.5 kN
Basic static load rating C <sub>0</sub>	3.1 kN
Fatigue load limit P <sub>u</sub>	0.132 kN
Attainable speed for grease lubrication	56000 r/min
Attainable speed for oil-air lubrication	85000 r/min
Ball diameter D <sub>w</sub>	5.556 mm



## Hmg Industriebedarf GmbH

Number of balls z	12
Reference grease quantity $G_{\text{ref}}$	0.54 cm <sup>3</sup>
Preload class A $G_A$	40 N
Static axial stiffness, preload class A	53 N/ $\mu$ m
Preload class B $G_B$	80 N
Static axial stiffness, preload class B	69 N/ $\mu$ m
Preload class C $G_C$	160 N
Static axial stiffness, preload class C	90 N/ $\mu$ m
Preload class D $G_D$	320 N
Static axial stiffness, preload class D	118 N/ $\mu$ m
Calculation factor f	1.04
Calculation factor $f_1$	0.99
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 $f_{HC}$	1.02
Calculation factor e	0.68
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-to- back, face-to-face) $Y_2$	1.41
Calculation factor (back-to- back, face-to-face) $Y_0$	0.76
Calculation factor (back-to-	0.67



## Hmg Industriebedarf GmbH

back, face-to-face) X <sub>2</sub>	
Mass bearing	0.033 kg