



Bearing No. 7003 ACD/HCP4A

D	35 mm
d	17 mm
B	10 mm
a	11.2 mm
Ball - z	12
Size (mm)	35x17x10
Width (mm)	10
Mass bearing	0.033 kg
d _n	23.7 mm
d _n	23.7 mm
D ₁	29.3 mm
d ₁	22.6 mm
d ₂	22.6 mm
D ₁	29.3 mm
d ₂	22.6 mm
d ₁	22.6 mm
Bearing number	7003 ACD/HCP4A
Preload class B	69 N/micron
Preload class A	53 N/micron
Preload class D	118 N/micron
Preload class C	90 N/micron
G _{ref}	0.54 cm ³
Number of balls z	12
Bore Diameter (mm)	35
r _b max.	0.2 mm
r _a max.	0.3 mm
D _b max.	33.6 mm
D _a max.	33 mm
d _a min.	19 mm

d_b min.	19 mm
Outer Diameter (mm)	17
D_b - max.	33.6 mm
d_b - min.	19 mm
Ball - D_w	5.556 mm
$r_{1,2}$ min.	0.3 mm
$r_{3,4}$ min.	0.2 mm
d_a - min.	19 mm
r_a - max.	0.3 mm
D_a - max.	33 mm
r_b - max.	0.2 mm
Calculation factor f	1.04
Calculation factor e	0.68
$r_{1,2}$ - min.	0.3 mm
$r_{3,4}$ - min.	0.2 mm
Calculation factor - e	0.68
Calculation factor - f	1.04
Ball diameter D_w	5.556 mm
Basic dynamic load rating C	6.5 kN
Preload class C G_C	160 N
Preload class B G_B	80 N
Preload class A G_A	40 N
Preload class D G_D	320 N
Basic dynamic load rating - C	6.5 kN
Preload class B - G_B	80 N
Preload class D - G_D	320 N
Preload class C - G_C	160 N
Preload class A - G_A	40 N
Fatigue load limit P_u	0.132 kN
Calculation factor f_1	0.99

Calculation factor f_{2A}	1
Calculation factor f_{2C}	1.05
Calculation factor f_{2B}	1.02
Calculation factor f_{2D}	1.08
Calculation factor f_{HC}	1.02
Calculation factor - X_2	0.67
Calculation factor - f_1	0.99
Calculation factor - Y_1	0.92
Limiting speed for oil lubrication	85000 mm/min
Calculation factor - Y_0	0.76
Fatigue load limit - P_u	0.132 kN
Calculation factor - Y_2	1.41
Calculation factor - f_{HC}	1.02
Calculation factor - f_{2A}	1
Calculation factor - f_{2C}	1.05
Calculation factor - f_{2B}	1.02
Calculation factor - f_{2D}	1.08
Limiting speed for grease lubrication	56000 r/min
Basic static load rating C_0	3.1 kN
Static axial stiffness, preload class B	69 N/ μ m
Attainable speed for grease lubrication	56000 r/min
Static axial stiffness, preload class D	118 N/ μ m
Static axial stiffness, preload class C	90 N/ μ m
Static axial stiffness, preload class A	53 N/ μ m
Basic static load rating -	3.1 kN

C_0	
Attainable speed for oil-air lubrication	85000 r/min
Reference grease quantity G_{ref}	0.54 cm ³
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-back, face-to-face) X_2	0.67