



Bearing No. 7007 ACE/HCP4A

D	62 mm
d	35 mm
B	14 mm
a	18.4 mm
Ball - z	17
Size (mm)	62x35x14
Width (mm)	14
Mass bearing	0.13 kg
d_n	45.6 mm
d_n	45.6 mm
D_1	52.25 mm
d_1	43.7 mm
d_2	41.6 mm
D_1	52.25 mm
d_2	41.6 mm
d_1	43.7 mm
Bearing number	7007 ACE/HCP4A
Preload class A	88 N/micron
G_{ref}	2.4 cm ³
Preload class C	171 N/micron
Preload class B	132 N/micron
Number of balls z	17
Bore Diameter (mm)	62
r_b max.	0.6 mm
r_a max.	1 mm
D_b max.	57.8 mm
D_a max.	57.4 mm
d_a min.	39.6 mm
d_b min.	39.6 mm

Outer Diameter (mm)	35
D _b - max.	57.8 mm
d _a - min.	39.6 mm
Calculation factor e	0.68
Calculation factor f	1.06
r _b - max.	0.6 mm
D _a - max.	57.4 mm
r _a - max.	1 mm
r _{3,4} min.	0.6 mm
r _{1,2} min.	1 mm
Ball - D _w	7.144 mm
d _b - min.	39.6 mm
r _{1,2} - min.	1 mm
r _{3,4} - min.	0.6 mm
Calculation factor - e	0.68
Calculation factor - f	1.06
Basic dynamic load rating C	11.1 kN
Ball diameter D _w	7.144 mm
Preload class B G _B	300 N
Preload class C G _C	590 N
Basic dynamic load rating - C	11.1 kN
Preload class A G _A	100 N
Preload class B - G _B	300 N
Preload class C - G _C	590 N
Preload class A - G _A	100 N
Fatigue load limit P _u	0.265 kN
Calculation factor f ₁	0.99
Calculation factor f _{2C}	1.06
Calculation factor f _{2A}	1
Calculation factor f _{HC}	1.01

Calculation factor f_{2B}	1.03
Limiting speed for oil lubrication	56000 mm/min
Fatigue load limit - P_u	0.265 kN
Calculation factor - f_1	0.99
Calculation factor - Y_2	1.41
Calculation factor - X_2	0.67
Calculation factor - Y_1	0.92
Calculation factor - Y_0	0.76
Calculation factor - f_{HC}	1.01
Calculation factor - f_{2A}	1
Calculation factor - f_{2C}	1.06
Calculation factor - f_{2B}	1.03
Limiting speed for grease lubrication	36000 r/min
Basic static load rating C_0	6.3 kN
Static axial stiffness, preload class B	132 N/ μ m
Static axial stiffness, preload class A	88 N/ μ m
Attainable speed for grease lubrication	36000 r/min
Static axial stiffness, preload class C	171 N/ μ m
Basic static load rating - C_0	6.3 kN
Attainable speed for oil-air lubrication	56000 r/min
Reference grease quantity G_{ref}	2.4 cm ³
Calculation factor (single, tandem) Y_2	0.87
Calculation factor	0.38

(single, tandem) Y ₀	
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