



Bearing No. 7007 ACE/HCP4AL

b	1.7 mm
d	35 mm
a	18.4 mm
B	14 mm
D	62 mm
Ball - z	17
Size (mm)	62x35x14
Width (mm)	14
Mass bearing	0.13 kg
$d_2$	41.6 mm
$D_1$	52.25 mm
$d_n$	45.6 mm
$C_1$	7.3 mm
$C_2$	2.2 mm
$C_3$	2.8 mm
$C_2$	2.2 mm
$C_1$	7.3 mm
$d_n$	45.6 mm
$D_1$	52.25 mm
$d_2$	41.6 mm
$d_1$	43.7 mm
$d_1$	43.7 mm
$C_3$	2.8 mm
Bearing number	7007 ACE/HCP4AL
Preload class A	88 N/micron
Preload class B	132 N/micron
$G_{ref}$	2.4 cm <sup>3</sup>
Preload class C	171 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
$r_b$ - max.	0.6 mm
$r_{3,4}$ min.	0.6 mm
$d_b$ - min.	39.6 mm
$D_a$ - max.	57.4 mm
$D_b$ - max.	57.8 mm
$r_{1,2}$ min.	1 mm
$d_a$ - min.	39.6 mm
$r_a$ - max.	1 mm
Ball - $D_w$	7.144 mm
Calculation factor f	1.06
Calculation factor e	0.68
$r_{3,4}$ - min.	0.6 mm
Calculation factor - f	1.06
$r_{1,2}$ - min.	1 mm
Calculation factor - e	0.68
Ball diameter $D_w$	7.144 mm
Basic dynamic load rating C	11.1 kN
Preload class C $G_C$	590 N
Basic dynamic load rating - C	11.1 kN
Preload class B $G_B$	300 N
Preload class A $G_A$	100 N
Preload class C - $G_C$	590 N

Preload class A - $G_A$	100 N
Preload class B - $G_B$	300 N
Calculation factor $f_1$	0.99
Fatigue load limit $P_u$	0.265 kN
Calculation factor $f_{HC}$	1.01
Calculation factor $f_{2C}$	1.06
Calculation factor $f_{2B}$	1.03
Calculation factor $f_{2A}$	1
Calculation factor - $Y_2$	1.41
Calculation factor - $Y_0$	0.76
Calculation factor - $X_2$	0.67
Limiting speed for oil lubrication	56000 mm/min
Calculation factor - $Y_1$	0.92
Fatigue load limit - $P_u$	0.265 kN
Calculation factor - $f_1$	0.99
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{HC}$	1.01
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 A	88 N/ $\mu$ m
Static axial stiffness, preload class C	171 N/ $\mu$ m
Static axial stiffness, preload class B	132 N/ $\mu$ m
Attainable speed for grease lubrication	36000 r/min

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 <sup>3</sup>
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