



Bearing No. 7004 ACE/HCP4AL

b	1.9 mm
d	20 mm
a	13.2 mm
B	12 mm
D	42 mm
Ball - z	12
Size (mm)	42x20x12
Width (mm)	12
Mass bearing	0.056 kg
d ₂	24.8 mm
D ₁	34.21 mm
d _n	28.1 mm
C ₁	5.9 mm
C ₂	1.8 mm
C ₃	1.9 mm
C ₂	1.8 mm
C ₁	5.9 mm
d _n	28.1 mm
D ₁	34.21 mm
d ₂	24.8 mm
d ₁	26.6 mm
d ₁	26.6 mm
C ₃	1.9 mm
Bearing number	7004 ACE/HCP4AL
Preload class A	58 N/micron
Preload class B	86 N/micron
G _{ref}	1.1 cm ³
Preload class C	113 N/micron
Number of balls z	12

Bore Diameter (mm)	42
r_b max.	0.3 mm
r_a max.	0.6 mm
D_b max.	39.6 mm
D_a max.	40 mm
d_a min.	22 mm
d_b min.	22 mm
Outer Diameter (mm)	20
r_b - max.	0.3 mm
$r_{3,4}$ min.	0.3 mm
d_b - min.	22 mm
D_a - max.	40 mm
D_b - max.	39.6 mm
$r_{1,2}$ min.	0.6 mm
d_a - min.	22 mm
r_a - max.	0.6 mm
Ball - D_w	6.35 mm
Calculation factor f	1.04
Calculation factor e	0.68
$r_{3,4}$ - min.	0.3 mm
Calculation factor - f	1.04
$r_{1,2}$ - min.	0.6 mm
Calculation factor - e	0.68
Ball diameter D_w	6.35 mm
Basic dynamic load rating C	7.15 kN
Preload class C G_C	390 N
Basic dynamic load rating - C	7.2 kN
Preload class B G_B	193 N
Preload class A G_A	64 N
Preload class C - G_C	390 N

Preload class A - G_A	64 N
Preload class B - G_B	193 N
Calculation factor f_1	0.99
Fatigue load limit P_u	0.137 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	88000 mm/min
Calculation factor - Y_1	0.92
Fatigue load limit - P_u	0.137 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	58000 r/min
Basic static load rating C_0	3.25 kN
Static axial stiffness, preload class A	58 N/ μ m
Static axial stiffness, preload class C	113 N/ μ m
Static axial stiffness, preload class B	86 N/ μ m
Attainable speed for grease lubrication	58000 r/min

Basic static load rating - C_0	3.2 kN
Attainable speed for oil-air lubrication	88000 r/min
Reference grease quantity G_{ref}	1.1 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