



Bearing No. 7004 ACE/HCP4AH1

K	0.5 mm
a	13.2 mm
d	20 mm
D	42 mm
B	12 mm
Ball - z	12
Size (mm)	42x20x12
Width (mm)	12
Mass bearing	0.056 kg
$d_n$	28.1 mm
$D_1$	34.21 mm
$d_1$	26.6 mm
$C_1$	3.67 mm
$D_1$	34.21 mm
$d_2$	24.8 mm
$C_1$	3.67 mm
$d_1$	26.6 mm
$d_n$	28.1 mm
$d_2$	24.8 mm
Bearing number	7004 ACE/HCP4AH1
Preload class A	58 N/micron
Preload class B	86 N/micron
Preload class C	113 N/micron
$G_{ref}$	1.1 cm <sup>3</sup>
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
$r_a$ - max.	0.6 mm
$r_{3,4}$ min.	0.3 mm
$D_a$ - max.	40 mm
$d_b$ - min.	22 mm
$r_{1,2}$ min.	0.6 mm
Ball - $D_w$	6.35 mm
$r_b$ - max.	0.3 mm
$D_b$ - max.	39.6 mm
Calculation factor f	1.04
Calculation factor e	0.68
$d_a$ - min.	22 mm
Calculation factor - f	1.04
$r_{3,4}$ - min.	0.3 mm
$r_{1,2}$ - 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 A $G_A$	64 N
Preload class B $G_B$	193 N
Preload class C $G_C$	390 N
Basic dynamic load rating - C	7.2 kN
Preload class B - $G_B$	193 N
Preload class C - $G_C$	390 N
Preload class A - $G_A$	64 N
Fatigue load limit $P_u$	0.137 kN
Calculation factor $f_1$	0.99

Calculation factor $f_{2C}$	1.06
Calculation factor $f_{2B}$	1.03
Calculation factor $f_{HC}$	1.01
Calculation factor $f_{2A}$	1
Calculation factor - $f_1$	0.99
Limiting speed for oil lubrication	88000 mm/min
Fatigue load limit - $P_u$	0.137 kN
Calculation factor - $Y_0$	0.76
Calculation factor - $Y_1$	0.92
Calculation factor - $X_2$	0.67
Calculation factor - $Y_2$	1.41
Calculation factor - $f_{HC}$	1.01
Calculation factor - $f_{2C}$	1.06
Calculation factor - $f_{2B}$	1.03
Calculation factor - $f_{2A}$	1
Limiting speed for grease lubrication	58000 r/min
Basic static load rating $C_0$	3.25 kN
Static axial stiffness, preload class C	113 N/ $\mu$ m
Attainable speed for grease lubrication	58000 r/min
Static axial stiffness, preload class B	86 N/ $\mu$ m
Static axial stiffness, preload class A	58 N/ $\mu$ m
Attainable speed for oil-air lubrication	88000 r/min
Basic static load rating - $C_0$	3.2 kN
Reference grease	1.1 cm <sup>3</sup>

quantity $G_{ref}$	
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