



Bearing No. 7004 ACE/P4A

D	42 mm
d	20 mm
B	12 mm
a	13.2 mm
Ball - z	12
Size (mm)	42x20x12
Width (mm)	12
Mass bearing	0.064 kg
d_n	28.1 mm
d_n	28.1 mm
D_1	34.21 mm
d_1	26.6 mm
d_2	24.8 mm
D_1	34.21 mm
d_2	24.8 mm
d_1	26.6 mm
Bearing number	7004 ACE/P4A
Preload class A	52 N/micron
G_{ref}	1.1 cm ³
Preload class C	102 N/micron
Preload class B	78 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
D_b - max.	39.6 mm
d_a - min.	22 mm
Calculation factor e	0.68
Calculation factor f	1.04
r_b - max.	0.3 mm
D_a - max.	40 mm
r_a - max.	0.6 mm
$r_{3,4}$ min.	0.3 mm
$r_{1,2}$ min.	0.6 mm
Ball - D_w	6.35 mm
d_b - min.	22 mm
$r_{1,2}$ - min.	0.6 mm
$r_{3,4}$ - min.	0.3 mm
Calculation factor - e	0.68
Calculation factor - f	1.04
Basic dynamic load rating C	7.15 kN
Ball diameter D_w	6.35 mm
Preload class B G_B	193 N
Preload class C G_C	390 N
Basic dynamic load rating - C	7.2 kN
Preload class A G_A	64 N
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_{2A}	1
Calculation factor f_{HC}	1

Calculation factor f_{2B}	1.03
Limiting speed for oil lubrication	75000 mm/min
Fatigue load limit - P_u	0.137 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
Calculation factor - f_{2A}	1
Calculation factor - f_{2C}	1.06
Calculation factor - f_{2B}	1.03
Limiting speed for grease lubrication	48000 r/min
Basic static load rating C_0	3.25 kN
Static axial stiffness, preload class B	78 N/ μ m
Static axial stiffness, preload class A	52 N/ μ m
Attainable speed for grease lubrication	48000 r/min
Static axial stiffness, preload class C	102 N/ μ m
Basic static load rating - C_0	3.2 kN
Attainable speed for oil-air lubrication	75000 r/min
Reference grease quantity G_{ref}	1.1 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