



Bearing No. 7004 ACD/HCP4A

D	42 mm
d	20 mm
B	12 mm
a	13.3 mm
Ball - z	12
Size (mm)	42x20x12
Width (mm)	12
Mass bearing	0.06 kg
d_n	28.4 mm
d_n	28.4 mm
D_1	34.8 mm
d_1	27.1 mm
d_2	27.1 mm
D_1	34.8 mm
d_2	27.1 mm
d_1	27.1 mm
Bearing number	7004 ACD/HCP4A
Preload class B	77 N/micron
Preload class A	60 N/micron
Preload class D	133 N/micron
Preload class C	100 N/micron
G_{ref}	0.9 cm ³
Number of balls z	12
Bore Diameter (mm)	42
r_b max.	0.3 mm
r_a max.	0.6 mm
D_b max.	40 mm
D_a max.	38.8 mm
d_a min.	23.2 mm

d_b min.	23.2 mm
Outer Diameter (mm)	20
D_b - max.	40 mm
d_b - min.	23.2 mm
Ball - D_w	6.35 mm
$r_{1,2}$ min.	0.6 mm
$r_{3,4}$ min.	0.3 mm
d_a - min.	23.2 mm
r_a - max.	0.6 mm
D_a - max.	38.8 mm
r_b - max.	0.3 mm
Calculation factor f	1.03
Calculation factor e	0.68
$r_{1,2}$ - min.	0.6 mm
$r_{3,4}$ - min.	0.3 mm
Calculation factor - e	0.68
Calculation factor - f	1.03
Ball diameter D_w	6.35 mm
Basic dynamic load rating C	8.32 kN
Preload class C G_C	200 N
Preload class B G_B	100 N
Preload class A G_A	50 N
Preload class D G_D	400 N
Basic dynamic load rating - C	8.3 kN
Preload class B - G_B	100 N
Preload class D - G_D	400 N
Preload class C - G_C	200 N
Preload class A - G_A	50 N
Fatigue load limit P_u	0.173 kN
Calculation factor f_1	0.99

Calculation factor f_{2A}	1
Calculation factor f_{2C}	1.05
Calculation factor f_{2B}	1.02
Calculation factor f_{2D}	1.08
Calculation factor f_{HC}	1.02
Calculation factor - X_2	0.67
Calculation factor - f_1	0.99
Calculation factor - Y_1	0.92
Limiting speed for oil lubrication	70000 mm/min
Calculation factor - Y_0	0.76
Fatigue load limit - P_u	0.173 kN
Calculation factor - Y_2	1.41
Calculation factor - f_{HC}	1.02
Calculation factor - f_{2A}	1
Calculation factor - f_{2C}	1.05
Calculation factor - f_{2B}	1.02
Calculation factor - f_{2D}	1.08
Limiting speed for grease lubrication	45000 r/min
Basic static load rating C_0	4.15 kN
Static axial stiffness, preload class B	77 N/ μ m
Attainable speed for grease lubrication	45000 r/min
Static axial stiffness, preload class D	133 N/ μ m
Static axial stiffness, preload class C	100 N/ μ m
Static axial stiffness, preload class A	60 N/ μ m
Basic static load rating -	4.2 kN

C_0	
Attainable speed for oil-air lubrication	70000 r/min
Reference grease quantity G_{ref}	0.9 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