



Bearing No. 7003 ACE/P4AH

K	0.5 mm
a	11.2 mm
d	17 mm
D	35 mm
B	10 mm
Ball - z	12
Size (mm)	35x17x10
Width (mm)	10
Mass bearing	0.035 kg
d_n	24.1 mm
D_1	29.3 mm
d_1	22.7 mm
C_1	6.05 mm
D_1	29.3 mm
d_2	21.1 mm
C_1	6.05 mm
d_1	22.7 mm
d_n	24.1 mm
d_2	21.1 mm
Bearing number	7003 ACE/P4AH
Preload class A	46 N/micron
Preload class B	68 N/micron
Preload class C	89 N/micron
G_{ref}	0.68 cm ³
Number of balls z	12
Bore Diameter (mm)	35
r_b max.	0.15 mm
r_a max.	0.3 mm
D_b max.	33.6 mm

D_a max.	33 mm
d_a min.	19 mm
d_b min.	19 mm
Outer Diameter (mm)	17
r_a - max.	0.3 mm
$r_{3,4}$ min.	0.15 mm
D_a - max.	33 mm
d_b - min.	19 mm
$r_{1,2}$ min.	0.3 mm
Ball - D_w	5.556 mm
r_b - max.	0.15 mm
D_b - max.	33.6 mm
Calculation factor f	1.04
Calculation factor e	0.68
d_a - min.	19 mm
Calculation factor - f	1.04
$r_{3,4}$ - min.	0.15 mm
$r_{1,2}$ - min.	0.3 mm
Calculation factor - e	0.68
Ball diameter D_w	5.556 mm
Basic dynamic load rating C	5.59 kN
Preload class A G_A	50 N
Preload class B G_B	150 N
Preload class C G_C	300 N
Basic dynamic load rating - C	5.6 kN
Preload class B - G_B	150 N
Preload class C - G_C	300 N
Preload class A - G_A	50 N
Fatigue load limit P_u	0.104 kN
Calculation factor f_1	0.99

Calculation factor f_{2C}	1.06
Calculation factor f_{2B}	1.03
Calculation factor f_{HC}	1
Calculation factor f_{2A}	1
Calculation factor - f_1	0.99
Limiting speed for oil lubrication	88000 mm/min
Fatigue load limit - P_u	0.104 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
Calculation factor - f_{2C}	1.06
Calculation factor - f_{2B}	1.03
Calculation factor - f_{2A}	1
Limiting speed for grease lubrication	56000 r/min
Basic static load rating C_0	2.45 kN
Static axial stiffness, preload class C	89 N/ μ m
Attainable speed for grease lubrication	56000 r/min
Static axial stiffness, preload class B	68 N/ μ m
Static axial stiffness, preload class A	46 N/ μ m
Attainable speed for oil-air lubrication	88000 r/min
Basic static load rating - C_0	2.4 kN
Reference grease	0.68 cm ³

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