



Bearing No. 7005 ACD/HCP4AH

K	0.5 mm
a	14.5 mm
d	25 mm
D	47 mm
B	12 mm
Ball - z	14
Size (mm)	47x25x12
Width (mm)	12
Mass bearing	0.07 kg
d_n	33.4 mm
D_1	39.9 mm
d_1	32.1 mm
C_1	7.25 mm
D_1	39.9 mm
d_2	32.1 mm
C_1	7.25 mm
d_1	32.1 mm
d_n	33.4 mm
d_2	32.1 mm
Bearing number	7005 ACD/HCP4AH
Preload class B	92 N/micron
Preload class A	71 N/micron
Preload class D	159 N/micron
G_{ref}	1.02 cm ³
Preload class C	119 N/micron
Number of balls z	14
Bore Diameter (mm)	47
r_b max.	0.3 mm
r_a max.	0.6 mm

D_b max.	45 mm
D_a max.	43.8 mm
d_a min.	28.2 mm
d_b min.	28.2 mm
Outer Diameter (mm)	25
r_a - max.	0.6 mm
D_a - max.	43.8 mm
d_b - min.	28.2 mm
d_a - min.	28.2 mm
$r_{1,2}$ min.	0.6 mm
$r_{3,4}$ min.	0.3 mm
Ball - D_w	6.35 mm
r_b - max.	0.3 mm
D_b - max.	45 mm
Calculation factor f	1.05
Calculation factor e	0.68
Calculation factor - f	1.05
$r_{1,2}$ - min.	0.6 mm
$r_{3,4}$ - min.	0.3 mm
Calculation factor - e	0.68
Ball diameter D_w	6.35 mm
Basic dynamic load rating C	9.23 kN
Preload class A G_A	60 N
Preload class B G_B	120 N
Preload class C G_C	240 N
Basic dynamic load rating - C	9.2 kN
Preload class D G_D	480 N
Preload class B - G_B	120 N
Preload class A - G_A	60 N
Preload class D - G_D	480 N

Preload class C - G_C	240 N
Fatigue load limit P_u	0.212 kN
Calculation factor f_1	0.99
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.02
Calculation factor f_{2C}	1.05
Calculation factor f_{2D}	1.08
Calculation factor f_{HC}	1.02
Calculation factor - Y_1	0.92
Calculation factor - Y_2	1.41
Calculation factor - Y_0	0.76
Calculation factor - X_2	0.67
Calculation factor - f_1	0.99
Limiting speed for oil lubrication	60000 mm/min
Fatigue load limit - P_u	0.212 kN
Calculation factor - f_{2D}	1.08
Calculation factor - f_{HC}	1.02
Calculation factor - f_{2C}	1.05
Calculation factor - f_{2B}	1.02
Calculation factor - f_{2A}	1
Limiting speed for grease lubrication	40000 r/min
Basic static load rating C_0	5 kN
Static axial stiffness, preload class A	71 N/ μ m
Static axial stiffness, preload class D	159 N/ μ m
Static axial stiffness, preload class C	119 N/ μ m
Static axial stiffness,	92 N/ μ m

preload class B	
Attainable speed for grease lubrication	40000 r/min
Basic static load rating - C_0	5 kN
Attainable speed for oil-air lubrication	60000 r/min
Reference grease quantity G_{ref}	1.02 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