



Bearing No. 7010 CB/HCP4A

D	80 mm
d	50 mm
B	16 mm
a	16.7 mm
Ball - z	27
Size (mm)	80x50x16
Width (mm)	16
Mass bearing	0.28 kg
d_n	61.8 mm
d_n	61.8 mm
D_2	70.7 mm
d_1	61.44 mm
d_2	59.65 mm
D_2	70.7 mm
d_2	59.65 mm
d_1	61.44 mm
Bearing number	7010 CB/HCP4A
Preload class A	37 N/micron
Preload class B	48 N/micron
Preload class C	76 N/micron
G_{ref}	3.11 cm ³
Number of balls z	27
D_a max.	75.4 mm
d_a min.	54.6 mm
d_b min.	54.6 mm
D_b max.	76.8 mm
r_a max.	1 mm
r_b max.	0.6 mm
Bore Diameter (mm)	80

Outer Diameter (mm)	50
d_a - min.	54.6 mm
r_a - max.	1 mm
$r_{1,2}$ min.	1 mm
Calculation factor f	1.06
D_b - max.	76.8 mm
$r_{3,4}$ min.	0.6 mm
r_b - max.	0.6 mm
D_a - max.	75.4 mm
Ball - D_w	5.556 mm
d_b - min.	54.6 mm
Calculation factor - f	1.06
$r_{3,4}$ - min.	0.6 mm
$r_{1,2}$ - min.	1 mm
Basic dynamic load rating C	13.5 kN
Ball diameter D_w	5.556 mm
Preload class B G_B	66 N
Preload class A G_A	33 N
Basic dynamic load rating - C	10 kN
Preload class C G_C	200 N
Preload class A - G_A	33 N
Preload class C - G_C	200 N
Preload class B - G_B	66 N
Calculation factor f_1	1
Fatigue load limit P_u	0.335 kN
Calculation factor f_0	9.7
Calculation factor f_{2C}	1.05
Calculation factor f_{2B}	1.02
Calculation factor f_{2A}	1
Calculation factor f_{HC}	1.01

Calculation factor - f	1
Fatigue load limit - P_u	0.335 kN
Calculation factor - f_0	9.7
Limiting speed for oil lubrication	45000 mm/min
Calculation factor - f_{2B}	1.02
Calculation factor - f_{2A}	1
Calculation factor - f_{2C}	1.05
Calculation factor - f_{HC}	1.01
Limiting speed for grease lubrication	28000 r/min
Basic static load rating C_0	13.2 kN
Static axial stiffness, preload class A	37 N/ μ m
Static axial stiffness, preload class B	48 N/ μ m
Static axial stiffness, preload class C	76 N/ μ m
Attainable speed for grease lubrication	28000 r/min
Attainable speed for oil-air lubrication	45000 r/min
Basic static load rating - C_0	7.8 kN
Reference grease quantity G_{ref}	3.11 cm ³