



Bearing No. 7010 CE/HCP4AH1

K	0.5 mm
a	16.8 mm
d	50 mm
D	80 mm
B	16 mm
Ball - z	21
Size (mm)	80x50x16
Width (mm)	16
Mass bearing	0.23 kg
d_n	62.3 mm
D_1	69.75 mm
d_1	60.25 mm
C_1	5.32 mm
D_1	69.75 mm
d_2	57.9 mm
C_1	5.32 mm
d_1	60.25 mm
d_n	62.3 mm
d_2	57.9 mm
Bearing number	7010 CE/HCP4AH1
Preload class B	72 N/micron
Preload class C	98 N/micron
G_{ref}	4.1 cm3
Preload class A	46 N/micron
Number of balls z	21
D_a max.	75.4 mm
d_a min.	54.6 mm
d_b min.	54.6 mm
D_b max.	75.8 mm

r_a max.	1 mm
r_b max.	0.6 mm
Bore Diameter (mm)	80
Outer Diameter (mm)	50
r_b - max.	0.6 mm
$r_{1,2}$ min.	1 mm
d_a - min.	54.6 mm
Calculation factor f	1.08
r_a - max.	1 mm
$r_{3,4}$ min.	0.6 mm
d_b - min.	54.6 mm
Ball - D_w	7.938 mm
D_a - max.	75.4 mm
D_b - max.	75.8 mm
Calculation factor - f	1.08
$r_{3,4}$ - min.	0.6 mm
$r_{1,2}$ - min.	1 mm
Basic dynamic load rating C	15.6 kN
Ball diameter D_w	7.938 mm
Preload class C G_C	500 N
Preload class B G_B	250 N
Preload class A G_A	85 N
Basic dynamic load rating - C	15.6 kN
Preload class C - G_C	500 N
Preload class A - G_A	85 N
Preload class B - G_B	250 N
Calculation factor f_1	1
Calculation factor f_0	8.2
Fatigue load limit P_u	0.45 kN
Calculation factor - f	1

Calculation factor f_{HC}	1.01
Calculation factor f_{2C}	1.05
Calculation factor f_{2B}	1.03
Calculation factor f_{2A}	1
Fatigue load limit - P_u	0.45 kN
Limiting speed for oil lubrication	46000 mm/min
Calculation factor - f_0	8.2
Calculation factor - f_{2C}	1.05
Calculation factor - f_{2B}	1.03
Calculation factor - f_{HC}	1.01
Calculation factor - f_{2A}	1
Limiting speed for grease lubrication	30000 r/min
Basic static load rating C_0	10.6 kN
Static axial stiffness, preload class C	98 N/ μ m
Static axial stiffness, preload class A	46 N/ μ m
Attainable speed for grease lubrication	30000 r/min
Static axial stiffness, preload class B	72 N/ μ m
Basic static load rating - C_0	10.6 kN
Attainable speed for oil-air lubrication	46000 r/min
Reference grease quantity G_{ref}	4.1 cm ³