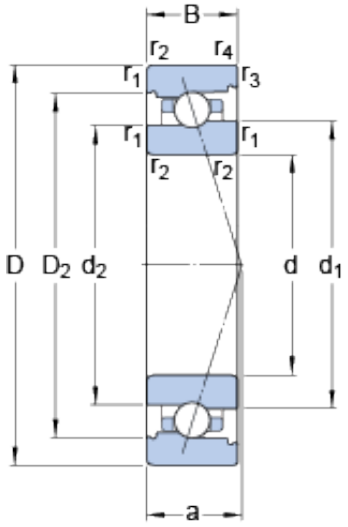
Loyal | 7010 ACB/HCP4A



Bearing No. 7010 ACB/HCP4A

D	80 mm
d	50 mm
B	16 mm
a	23.2 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 ACB/HCP4A
Preload class A	97 N/micron
G_{ref}	3.11 cm3
Preload class C	183 N/micron
Preload class B	122 N/micron
Number of balls z	27
Bore Diameter (mm)	80
r_b max.	0.6 mm
r_a max.	1 mm
D_b max.	76.8 mm
D_a max.	75.4 mm
d_a min.	54.6 mm
d_b min.	54.6 mm

Outer Diameter (mm)	50
D_b - max.	76.8 mm
d_a - min.	54.6 mm
Calculation factor e	0.68
Calculation factor f	1.06
r_b - max.	0.6 mm
D_a - max.	75.4 mm
r_a - max.	1 mm
$r_{3,4}$ min.	0.6 mm
$r_{1,2}$ min.	1 mm
Ball - D_w	5.556 mm
d_b - min.	54.6 mm
$r_{1,2}$ - min.	1 mm
$r_{3,4}$ - min.	0.6 mm
Calculation factor - e	0.68
Calculation factor - f	1.06
Basic dynamic load rating C	12.5 kN
Ball diameter D_w	5.556 mm
Preload class B G_B	110 N
Preload class C G_C	330 N
Basic dynamic load rating - C	9.4 kN
Preload class A G_A	56 N
Preload class B - G_B	110 N
Preload class C - G_C	330 N
Preload class A - G_A	56 N
Fatigue load limit P_u	0.31 kN
Calculation factor f_1	0.99
Calculation factor f_{2C}	1.05
Calculation factor f_{2A}	1
Calculation factor f_{HC}	1.01

Calculation factor f_{2B}	1.02
Limiting speed for oil lubrication	40000 mm/min
Fatigue load limit - P_u	0.31 kN
Calculation factor - f_1	0.99
Calculation factor - Y_2	1.41
Calculation factor - X_2	0.67
Calculation factor - Y_1	0.92
Calculation factor - Y_0	0.76
Calculation factor - f_{HC}	1.01
Calculation factor - f_{2A}	1
Calculation factor - f_{2C}	1.05
Calculation factor - f_{2B}	1.02
Limiting speed for grease lubrication	26000 r/min
Basic static load rating C_0	12.2 kN
Static axial stiffness, preload class B	122 N/µm
Static axial stiffness, preload class A	97 N/µm
Attainable speed for grease lubrication	26000 r/min
Static axial stiffness, preload class C	183 N/µm
Basic static load rating - C_0	7.4 kN
Attainable speed for oil-air lubrication	40000 r/min
Reference grease quantity G_{ref}	3.11 cm³
Calculation factor (single, tandem) Y_2	0.87
Calculation factor	0.38

(single, tandem) Y_0	
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