



Bearing No. 7220 ACD/HCP4A

D	180 mm
d	100 mm
B	34 mm
a	49.9 mm
Ball - z	15
Size (mm)	180x100x34
Width (mm)	34
Mass bearing	2.64 kg
d_n	131.4 mm
d_n	131.4 mm
D_1	155.3 mm
d_1	124.7 mm
d_2	124.7 mm
D_1	155.3 mm
d_2	124.7 mm
d_1	124.7 mm
Bearing number	7220 ACD/HCP4A
Preload class B	430 N/micron
Preload class A	329 N/micron
Preload class D	760 N/micron
Preload class C	565 N/micron
G_{ref}	40.899 cm ³
Number of balls z	15
Bore Diameter (mm)	180
r_b max.	1 mm
r_a max.	2 mm
D_b max.	173 mm
D_a max.	168 mm
d_a min.	112 mm

d_b min.	112 mm
Outer Diameter (mm)	100
D_b - max.	173 mm
d_b - min.	112 mm
Ball - D_w	25.4 mm
$r_{1,2}$ min.	2.1 mm
$r_{3,4}$ min.	1.1 mm
d_a - min.	112 mm
r_a - max.	2 mm
D_a - max.	168 mm
r_b - max.	1 mm
Calculation factor f	1.09
Calculation factor e	0.68
$r_{1,2}$ - min.	2.1 mm
$r_{3,4}$ - min.	1.1 mm
Calculation factor - e	0.68
Calculation factor - f	1.09
Ball diameter D_w	25.4 mm
Basic dynamic load rating C	148 kN
Preload class C G_C	3800 N
Preload class B G_B	1900 N
Preload class A G_A	950 N
Preload class D G_D	7600 N
Basic dynamic load rating - C	148 kN
Preload class B - G_B	1900 N
Preload class D - G_D	7600 N
Preload class C - G_C	3800 N
Preload class A - G_A	950 N
Fatigue load limit P_u	4.65 kN
Calculation factor f_1	0.99

Calculation factor f_{2A}	1
Calculation factor f_{2C}	1.03
Calculation factor f_{2B}	1.01
Calculation factor f_{2D}	1.06
Calculation factor f_{HC}	1.01
Calculation factor - X_2	0.67
Calculation factor - f_1	0.99
Calculation factor - Y_1	0.92
Limiting speed for oil lubrication	13000 mm/min
Calculation factor - Y_0	0.76
Fatigue load limit - P_u	4.6 kN
Calculation factor - Y_2	1.41
Calculation factor - f_{HC}	1.01
Calculation factor - f_{2A}	1
Calculation factor - f_{2C}	1.03
Calculation factor - f_{2B}	1.01
Calculation factor - f_{2D}	1.06
Limiting speed for grease lubrication	8000 r/min
Basic static load rating C_0	129 kN
Static axial stiffness, preload class B	430 N/ μ m
Attainable speed for grease lubrication	8000 r/min
Static axial stiffness, preload class D	760 N/ μ m
Static axial stiffness, preload class C	565 N/ μ m
Static axial stiffness, preload class A	329 N/ μ m
Basic static load rating -	129 kN

C_0	
Attainable speed for oil-air lubrication	13000 r/min
Reference grease quantity G_{ref}	40.899 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