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71944 ACD/HCP4A Bearing 2D drawings and 3D CAD models

220 mm x 300 mm x 38 mm SKF 71944 ACD/HCP4A angular contact ball bearings

Bearing No. 71944 ACD/HCP4A

Size	300x220x38 mm
Bore Diameter	300 mm
Outer Diameter	220 mm
Width	38 mm
d	220 mm
D	300 mm
B	38 mm
d ₁	244.7 mm
d ₂	244.7 mm
D ₁	275.3 mm
r _{1,2} - min.	2.1 mm
r _{3,4} - min.	1 mm
a	79.9 mm
d _a - min.	231 mm
d _b - min.	231 mm
D _a - max.	289 mm
D _b - max.	295 mm
r _a - max.	2 mm
r _b - max.	1 mm
d _n	251.4 mm
Basic dynamic load rating - C	208 kN
Basic static load rating - C ₀	285 kN
Fatigue load limit - P _u	7.5 kN
Limiting speed for grease	4500 r/min



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Lubrication	
Limiting speed for oil lubrication	6700 mm/min
Ball - D_w	25.4 mm
Ball - z	29
G_{ref}	84 cm ³
Calculation factor - e	0.68
Calculation factor - Y_2	0.87
Calculation factor - Y_0	0.38
Calculation factor - X_2	0.41
Calculation factor - Y_1	0.92
Calculation factor - Y_2	1.41
Calculation factor - Y_0	0.76
Calculation factor - X_2	0.67
Preload class A - G_A	1300 N
Preload class B - G_B	2600 N
Preload class C - G_C	5200 N
Preload class D - G_D	10400 N
Calculation factor - f	1.28
Calculation factor - f_1	0.98
Calculation factor - f_{2A}	1
Calculation factor - f_{2B}	1.07
Calculation factor - f_{2C}	1.12
Calculation factor - f_{2D}	1.17
Calculation factor - f_{HC}	1.04
Preload class A	591 N/micron
Preload class B	776 N/micron
Preload class C	1036 N/micron
Preload class D	1415 N/micron



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d_1	244.7 mm
d_2	244.7 mm
D_1	275.3 mm
$r_{1,2}$ min.	2.1 mm
$r_{3,4}$ min.	1 mm
d_a min.	231 mm
d_b min.	231 mm
D_a max.	289 mm
D_b max.	295 mm
r_a max.	2 mm
r_b max.	1 mm
d_n	251.4 mm
Basic dynamic load rating C	208 kN
Basic static load rating C_0	285 kN
Fatigue load limit P_u	7.5 kN
Attainable speed for grease lubrication	4500 r/min
Attainable speed for oil-air lubrication	6700 r/min
Ball diameter D_w	25.4 mm
Number of balls z	29
Reference grease quantity G_{ref}	84 cm ³
Preload class A G_A	1300 N
Static axial stiffness, preload class A	591 N/ μ m
Preload class B G_B	2600 N
Static axial stiffness, preload class B	776 N/ μ m
Preload class C G_C	5200 N
Static axial stiffness, preload class C	1036 N/ μ m
Preload class D G_D	10400 N
Static axial stiffness, preload	1415 N/ μ m



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class D	
Calculation factor f	1.28
Calculation factor f_1	0.98
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.07
Calculation factor f_{2C}	1.12
Calculation factor f_{2D}	1.17
Calculation factor f_{HC}	1.04
Calculation factor e	0.68
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
Mass bearing	5.56 kg