



45 mm x 68 mm x 12 mm SKF 71909 ACE/P4AL Angular contact ball bearing

Bearing No. 71909 ACE/P4AL

71909 ACE/P4AL Bearing 2D drawings and 3D CAD models

Size	68x45x12 mm
Bore Diameter	68 mm
Outer Diameter	45 mm
Width	12 mm
d	45 mm
D	68 mm
B	12 mm
d ₁	52.7 mm
d ₂	51 mm
D ₁	60.3 mm
b	2 mm
C ₁	5.9 mm
C ₂	2.3 mm
C ₃	1.8 mm
r _{1,2} - min.	0.6 mm
r _{3,4} - min.	0.3 mm
a	20 mm
d _a - min.	48.2 mm
d _b - min.	47 mm
D _a - max.	64.8 mm
D _b - max.	66 mm
r _a - max.	0.6 mm
r _b - max.	0.3 mm
d _n	54.2 mm

Basic dynamic load rating - C	9.8 kN
Basic static load rating - C ₀	6.6 kN
Fatigue load limit - P _u	0.275 kN
Limiting speed for grease lubrication	25000 r/min
Limiting speed for oil lubrication	39000 mm/min
Ball - D _w	6.35 mm
Ball - z	21
G _{ref}	1.5 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	88 N
Preload class B - G _B	265 N
Preload class C - G _C	529 N
Calculation factor - f	1.09
Calculation factor - f ₁	0.99
Calculation factor - f _{2A}	1
Calculation factor - f _{2B}	1.04
Calculation factor - f _{2C}	1.07
Calculation factor - f _{HC}	1
Preload class A	85 N/micron
Preload class B	127 N/micron

Preload class C	166 N/micron
d_1	52.7 mm
d_2	51 mm
D_1	60.3 mm
C_1	5.9 mm
C_2	2.3 mm
C_3	1.8 mm
$r_{1,2}$ min.	0.6 mm
$r_{3,4}$ min.	0.3 mm
d_a min.	48.2 mm
d_b min.	47 mm
D_a max.	64.8 mm
D_b max.	66 mm
r_a max.	0.6 mm
r_b max.	0.3 mm
d_n	54.2 mm
Basic dynamic load rating C	9.75 kN
Basic static load rating C_0	6.55 kN
Fatigue load limit P_u	0.275 kN
Attainable speed for grease lubrication	25000 r/min
Attainable speed for oil-air lubrication	39000 r/min
Ball diameter D_w	6.35 mm
Number of balls z	21
Reference grease quantity G_{ref}	1.5 cm ³
Preload class A G_A	88 N
Static axial stiffness, preload class A	85 N/ μ m
Preload class B G_B	265 N
Static axial stiffness, preload class B	127 N/ μ m
Preload class C G_C	529 N

Static axial stiffness, preload class C	166 N/ μ m
Calculation factor f	1.09
Calculation factor f_1	0.99
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.04
Calculation factor f_{2C}	1.07
Calculation factor f_{HC}	1
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	0.13 kg