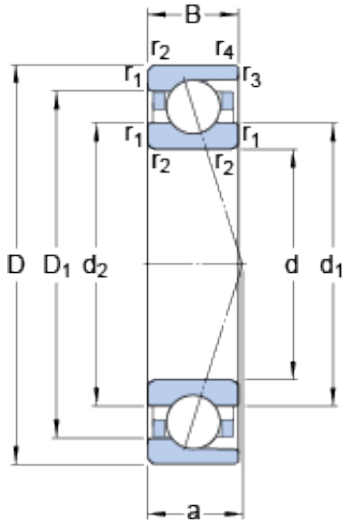




DPA Bearing Sales Corp.



45 mm x 58 mm x 7 mm SKF 71809 ACD/P4 High Speed Main Shaft Spindle Bearings

Bearing No. 71809 ACD/P4

71809 ACD/P4 Bearing 2D drawings and 3D CAD models

Size	58x45x7 mm
Bore Diameter	58 mm
Outer Diameter	45 mm
Width	7 mm
d	45 mm
D	58 mm
B	7 mm
d ₁	49.6 mm
d ₂	49.6 mm
D ₁	53.6 mm
r _{1,2} - min.	0.3 mm
r _{3,4} - min.	0.15 mm
a	15.5 mm
d _a - min.	47 mm
d _b - min.	47 mm
D _a - max.	56 mm
D _b - max.	57.2 mm
r _a - max.	0.3 mm
r _b - max.	0.15 mm
d _n	50 mm
Basic dynamic load rating - C	4.6 kN
Basic static load rating - C ₀	5 kN
Fatigue load limit - P _u	0.212 kN
Limiting speed for grease	20000 r/min



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Lubrication	
Limiting speed for oil lubrication	30000 mm/min
Ball - D_w	3.175 mm
Ball - z	31
G_{ref}	0.36 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	41 N
Preload class B - G_B	125 N
Preload class C - G_C	250 N
Calculation factor - f	1.24
Calculation factor - f_1	0.97
Calculation factor - f_{2A}	1
Calculation factor - f_{2B}	1.08
Calculation factor - f_{2C}	1.15
Calculation factor - f_{HC}	1
Preload class A	87 N/micron
Preload class B	139 N/micron
Preload class C	189 N/micron
d_1	49.6 mm
d_2	49.6 mm
D_1	53.6 mm
$r_{1,2}$ min.	0.3 mm



DPA Bearing Sales Corp.

$r_{3,4}$ min.	0.15 mm
d_a min.	47 mm
d_b min.	47 mm
D_a max.	56 mm
D_b max.	57.2 mm
r_a max.	0.3 mm
r_b max.	0.15 mm
d_n	50 mm
Basic dynamic load rating C	4.62 kN
Basic static load rating C_0	5 kN
Fatigue load limit P_u	0.212 kN
Attainable speed for grease lubrication	20000 r/min
Attainable speed for oil-air lubrication	30000 r/min
Ball diameter D_w	3.175 mm
Number of balls z	31
Reference grease quantity G_{ref}	0.36 cm ³
Preload class A G_A	41 N
Static axial stiffness, preload class A	87 N/ μ m
Preload class B G_B	125 N
Static axial stiffness, preload class B	139 N/ μ m
Preload class C G_C	250 N
Static axial stiffness, preload class C	189 N/ μ m
Calculation factor f	1.24
Calculation factor f_1	0.97
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.08
Calculation factor f_{2C}	1.15
Calculation factor f_{HC}	1



DPA Bearing Sales Corp.

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	0.039 kg