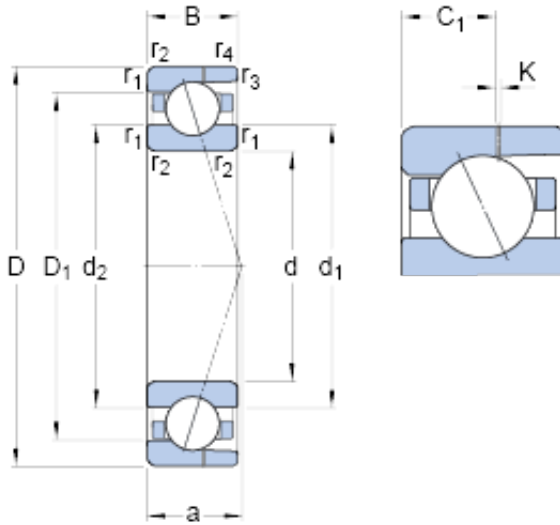




Timken MANUFACTURING (THAILAND)CO.,LTD.



9 mm x 24 mm x 7 mm SKF 709 ACD/HCP4AH angular contact ball bearings

Bearing No. 709 ACD/HCP4AH

709 ACD/HCP4AH Bearing 2D drawings and 3D CAD models

Size	24x9x7 mm
Bore Diameter	24 mm
Outer Diameter	9 mm
Width	7 mm
d	9 mm
D	24 mm
B	7 mm
d ₁	14.1 mm
d ₂	14.1 mm
D ₁	18.9 mm
K	0.5 mm
C ₁	4.25 mm
r _{1,2} - min.	0.3 mm
r _{3,4} - min.	0.2 mm
a	7.4 mm
d _a - min.	11 mm
d _b - min.	11 mm
D _a - max.	22 mm
D _b - max.	22.6 mm
r _a - max.	0.3 mm
r _b - max.	0.2 mm
d _n	15.1 mm
Basic dynamic load rating - C	3.4 kN
Basic static load rating - C ₀	1.5 kN



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Fatigue load limit - P_u	0.064 kN
Limiting speed for grease lubrication	85000 r/min
Limiting speed for oil lubrication	130000 mm/min
Ball - D_w	3.969 mm
Ball - z	10
G_{ref}	0.18 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	20 N
Preload class B - G_B	40 N
Preload class C - G_C	80 N
Preload class D - G_D	160 N
Calculation factor - f	1.02
Calculation factor - f_1	0.99
Calculation factor - f_{2A}	1
Calculation factor - f_{2B}	1.02
Calculation factor - f_{2C}	1.05
Calculation factor - f_{2D}	1.08
Calculation factor - f_{HC}	1.02
Preload class A	34 N/micron
Preload class B	44 N/micron
Preload class C	57 N/micron



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Preload class D	76 N/micron
d_1	14.1 mm
d_2	14.1 mm
D_1	18.9 mm
C_1	4.25 mm
$r_{1,2}$ min.	0.3 mm
$r_{3,4}$ min.	0.2 mm
d_a min.	11 mm
d_b min.	11 mm
D_a max.	22 mm
D_b max.	22.6 mm
r_a max.	0.3 mm
r_b max.	0.2 mm
d_n	15.1 mm
Basic dynamic load rating C	3.45 kN
Basic static load rating C_0	1.53 kN
Fatigue load limit P_u	0.064 kN
Attainable speed for grease lubrication	85000 r/min
Attainable speed for oil-air lubrication	130000 r/min
Ball diameter D_w	3.969 mm
Number of balls z	10
Reference grease quantity G_{ref}	0.18 cm ³
Preload class A G_A	20 N
Static axial stiffness, preload class A	34 N/ μ m
Preload class B G_B	40 N
Static axial stiffness, preload class B	44 N/ μ m
Preload class C G_C	80 N
Static axial stiffness, preload class C	57 N/ μ m



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Preload class D G_D	160 N
Static axial stiffness, preload class D	76 N/ μ m
Calculation factor f	1.02
Calculation factor f_1	0.99
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.02
Calculation factor f_{2C}	1.05
Calculation factor f_{2D}	1.08
Calculation factor f_{HC}	1.02
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	0.013 kg