



NTN BEARUNG DRIVESHAFT, INC.



45 mm x 85 mm x 19 mm SKF S7209 CD/HCP4A angular contact ball bearings

Bearing No. S7209 CD/HCP4A

S7209 CD/HCP4A Bearing 2D drawings and 3D CAD models

Size	85x45x19 mm
Bore Diameter	85 mm
Outer Diameter	45 mm
Width	19 mm
d	45 mm
D	85 mm
B	19 mm
d ₁	57.3 mm
d ₂	57.3 mm
D ₂	75.7 mm
r _{1,2} - min.	1.1 mm
r _{3,4} - min.	0.6 mm
a	18.3 mm
d _a - min.	52 mm
d _a - max.	56.5 mm
d _b - min.	52 mm
d _b - max.	56.5 mm
D _a - max.	78 mm
D _b - max.	80.8 mm
r _a - max.	1 mm
r _b - max.	0.6 mm
Basic dynamic load rating - C	42.3 kN
Basic static load rating - C ₀	31 kN
Fatigue load limit - P _u	1.3 kN



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Limiting speed for grease lubrication	20000 r/min
Ball - D_w	12.7 mm
Ball - z	14
Calculation factor - f_0	14.2
Preload class A - G_A	160 N
Preload class B - G_B	320 N
Preload class C - G_C	640 N
Preload class D - G_D	1280 N
Calculation factor - f	1.07
Calculation factor - f	1
Calculation factor - f_{2A}	1
Calculation factor - f_{2B}	1.01
Calculation factor - f_{2C}	1.03
Calculation factor - f_{2D}	1.06
Calculation factor - f_{HC}	1.01
Preload class A	67 N/micron
Preload class B	92 N/micron
Preload class C	128 N/micron
Preload class D	185 N/micron
d_1	57.3 mm
d_2	57.3 mm
D_2	75.7 mm
$r_{1,2}$ min.	1.1 mm
$r_{3,4}$ min.	0.6 mm
d_a min.	52 mm
d_a max.	56.5 mm
d_b min.	52 mm
d_b max.	56.5 mm
D_a max.	78 mm
D_b max.	80.8 mm



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r_a max.	1 mm
r_b max.	0.6 mm
Basic dynamic load rating C	42.3 kN
Basic static load rating C_0	31 kN
Fatigue load limit P_u	1.32 kN
Attainable speed for grease lubrication	20000 r/min
Ball diameter D_w	12.7 mm
Number of balls z	14
Preload class A G_A	160 N
Static axial stiffness, preload class A	67 N/ μ m
Preload class B G_B	320 N
Static axial stiffness, preload class B	92 N/ μ m
Preload class C G_C	640 N
Static axial stiffness, preload class C	128 N/ μ m
Preload class D G_D	1280 N
Static axial stiffness, preload class D	185 N/ μ m
Calculation factor f	1.07
Calculation factor f_1	1
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.01
Calculation factor f_{2C}	1.03
Calculation factor f_{2D}	1.06
Calculation factor f_{HC}	1.01
Calculation factor f_0	14.2
Mass bearing	0.35 kg