



NTN Bearing Manufacturing



45 mm x 85 mm x 19 mm SKF S7209 ACD/P4A angular contact ball bearings

Bearing No. S7209 ACD/P4A

S7209 ACD/P4A 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	24.8 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	41 kN
Basic static load rating - C ₀	30 kN
Fatigue load limit - P _u	1.2 kN



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Limiting speed for grease lubrication	15000 r/min
Ball - D_w	12.7 mm
Ball - z	14
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	260 N
Preload class B - G_B	520 N
Preload class C - G_C	1040 N
Preload class D - G_D	2080 N
Calculation factor - f	1.07
Calculation factor - f_1	0.99
Calculation factor - f_{2A}	1
Calculation factor - f_{2B}	1.01
Calculation factor - f_{2C}	1.02
Calculation factor - f_{2D}	1.05
Calculation factor - f_{HC}	1
Preload class A	146 N/micron
Preload class B	190 N/micron
Preload class C	252 N/micron
Preload class D	341 N/micron
Category	Precision Ball Bearings
Inventory	0.0
Manufacturer Name	SKF



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Minimum Buy Quantity	N/A
Weight / Kilogram	0.46
EAN	7316575955397
Product Group	B04270
Enclosure	2 Seals
Precision Class	ABEC 7 ISO P4
Material - Ball	Steel
Number of Bearings	1 (Single)
Contact Angle	25 Degree
Preload	None
Raceway Style	1 Rib Outer Ring
Cage Material	Phenolic
Rolling Element	Ball Bearing
Enclosure Type	Non Contact Seal
Flush Ground	No
Inch - Metric	Metric
Other Features	Single Row Angular Contact Super Precision
Long Description	45MM Bore; 85MM Outside Diameter; 19MM Width; 2 Seals; ISO P4; Single; Phenolic Cage
Category	Precision Ball Bearings
UNSPSC	31171531
Harmonized Tariff Code	8482.10.50.28
Noun	Bearing
Keyword String	Ball Angular Contact
Manufacturer URL	http://www.skf.com
Manufacturer Item Number	S7209 ACD/P4A
Weight / LBS	0.926
Width	0.748 Inch 19 Millimeter
Bore	1.772 Inch 45 Millimeter
Outside Diameter	3.346 Inch 85 Millimeter



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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
r_a max.	1 mm
r_b max.	0.6 mm
Basic dynamic load rating C	41 kN
Basic static load rating C_0	30 kN
Fatigue load limit P_u	1.25 kN
Attainable speed for grease lubrication	15000 r/min
Ball diameter D_w	12.7 mm
Number of balls z	14
Preload class A G_A	260 N
Static axial stiffness, preload class A	146 N/ μ m
Preload class B G_B	520 N
Static axial stiffness, preload class B	190 N/ μ m
Preload class C G_C	1040 N
Static axial stiffness, preload class C	252 N/ μ m
Preload class D G_D	2080 N
Static axial stiffness, preload class D	341 N/ μ m
Calculation factor f	1.07
Calculation factor f_1	0.99



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Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.01
Calculation factor f_{2C}	1.02
Calculation factor f_{2D}	1.05
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	0.42 kg