



Bearing No. 7209 ACD/HCP4A

D	85 mm
d	45 mm
B	19 mm
a	24.8 mm
Bore	1.772 Inch 45 Millimeter
Noun	Bearing
Width	0.748 Inch 19 Millimeter
UNSPSC	31171531
Preload	None
Ball - z	14
Category	Precision Ball Bearings
Size (mm)	85x45x19
Enclosure	Open
Inventory	0.0
Width (mm)	19
Flush Ground	No
Mass bearing	0.34 kg
d ₂	57.3 mm
Product Group	B00308
d _n	60.6 mm
d _n	60.6 mm
D ₁	72.7 mm
d ₂	57.3 mm
d ₁	57.3 mm
d ₁	57.3 mm
Inch - Metric	Metric
D ₁	72.7 mm
Cage Material	Phenolic

Raceway Style	1 Rib Outer Ring
Contact Angle	25 Degree
Keyword String	Ball Angular Contact
Other Features	Single Row Angular Contact High Capacity Basic Design
Bearing number	7209 ACD/HCP4A
Material - Ball	Ceramic
G_{ref}	5.922 cm ³
Precision Class	ABEC 7 ISO P4
Rolling Element	Ball Bearing
Preload class D	378 N/micron
Preload class C	280 N/micron
Preload class B	211 N/micron
Preload class A	162 N/micron
Long Description	45MM Bore; 85MM Outside Diameter; 19MM Width; Open Enclosure; ABEC 7 ISO P4 Precision; Ceramic Ball Material; 1 (Single) Bearing; 25 Degree Contact Angle; Phenolic Cage Material; 1 Rib Outer Ring Ra
Manufacturer URL	http://www.skf.com
Outside Diameter	3.346 Inch 85 Millimeter
Number of balls z	14
Weight / Kilogram	0
Manufacturer Name	SKF
Bore Diameter (mm)	85
D_a max.	78 mm
d_b min.	52 mm
r_b max.	0.6 mm
r_a max.	1 mm

Number of Bearings	1 (Single)
D_b max.	80.8 mm
d_a min.	52 mm
Outer Diameter (mm)	45
D_a - max.	78 mm
Ball - D_w	12.7 mm
D_b - max.	80.8 mm
Calculation factor f	1.07
$r_{1,2}$ min.	1.1 mm
Minimum Buy Quantity	N/A
r_a - max.	1 mm
d_b - min.	52 mm
$r_{3,4}$ min.	0.6 mm
Calculation factor e	0.68
r_b - max.	0.6 mm
d_a - min.	52 mm
Calculation factor - e	0.68
Harmonized Tariff Code	8482.10.50.28
Calculation factor - f	1.07
$r_{1,2}$ - min.	1.1 mm
$r_{3,4}$ - min.	0.6 mm
Ball diameter D_w	12.7 mm
Basic dynamic load rating C	41 kN
Preload class B G_B	520 N
Preload class D G_D	2080 N
Preload class A G_A	260 N
Basic dynamic load rating - C	41 kN
Preload class C G_C	1040 N
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
Fatigue load limit P_u	1.25 kN
Calculation factor f_1	0.99
Calculation factor f_{HC}	1.01
Calculation factor f_{2D}	1.06
Calculation factor f_{2C}	1.03
Calculation factor f_{2B}	1.01
Calculation factor f_{2A}	1
Calculation factor - Y_1	0.92
Fatigue load limit - P_u	1.2 kN
Calculation factor - Y_2	1.41
Calculation factor - f_1	0.99
Calculation factor - X_2	0.67
Limiting speed for oil lubrication	28000 mm/min
Calculation factor - Y_0	0.76
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
Limiting speed for grease lubrication	17000 r/min
Basic static load rating C_0	30 kN
Static axial stiffness, preload class C	280 N/ μ m
Static axial stiffness, preload class A	162 N/ μ m
Static axial stiffness, preload class D	378 N/ μ m

Attainable speed for grease lubrication	17000 r/min
Static axial stiffness, preload class B	211 N/ μ m
Basic static load rating - C_0	30 kN
Attainable speed for oil-air lubrication	28000 r/min
Reference grease quantity G_{ref}	5.922 cm ³
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