



Bearing No. 7009 ACD/P4A

a	22.1 mm
d	45 mm
D	75 mm
B	16 mm
Bore	1.772 Inch 45 Millimeter
Noun	Bearing
Width	0.63 Inch 16 Millimeter
UNSPSC	31171531
Preload	None
Ball - z	17
Category	Precision Ball Bearings
Size (mm)	75x45x16
Enclosure	Open
Inventory	0.0
Width (mm)	16
Weight / LBS	0.538
Flush Ground	No
Mass bearing	0.23 kg
d ₁	54.2 mm
d ₂	54.2 mm
D ₁	65.8 mm
Inch - Metric	Metric
Cage Material	Phenolic
d _n	56.2 mm
Contact Angle	25 Degree
Product Group	B04270
Raceway Style	1 Rib Outer Ring
d ₁	54.2 mm
d _n	56.2 mm

D ₁	65.8 mm
d ₂	54.2 mm
Bearing number	7009 ACD/P4A
Other Features	Single Row Angular Contact High Precision
Keyword String	Angular Contact Ball
Material - Ball	Steel
Precision Class	ABEC 7 ISO P4
G _{ref}	3.3 cm ³
Preload class D	309 N/micron
Preload class C	229 N/micron
Preload class B	173 N/micron
Preload class A	132 N/micron
Rolling Element	Ball Bearing
Long Description	45MM Bore; 75MM Outside Diameter; 16MM Width; Open Enclosure; ABEC 7 ISO P4 Precision; Steel Ball Material; 1 (Single) Bearings; 25 Degree Contact Angle; Phenolic Cage Material; 1 Rib Outer Ring Rac
Manufacturer URL	http://www.skf.com
Outside Diameter	2.953 Inch 75 Millimeter
Manufacturer Name	SKF
Number of balls z	17
Weight / Kilogram	0.24
Number of Bearings	1 (Single)
Bore Diameter (mm)	75
r _b max.	0.3 mm
r _a max.	1 mm
D _b max.	73 mm

D_a max.	70.4 mm
d_b min.	49.6 mm
d_a min.	49.6 mm
Outer Diameter (mm)	45
$r_{1,2}$ min.	1 mm
D_a - max.	70.4 mm
d_a - min.	49.6 mm
d_b - min.	49.6 mm
Calculation factor f	1.09
$r_{3,4}$ min.	0.3 mm
Calculation factor e	0.68
Ball - D_w	9.525 mm
D_b - max.	73 mm
Minimum Buy Quantity	N/A
r_b - max.	0.3 mm
r_a - max.	1 mm
Calculation factor - e	0.68
Calculation factor - f	1.09
$r_{1,2}$ - min.	1 mm
$r_{3,4}$ - min.	0.3 mm
Harmonized Tariff Code	8482.10.50.28
Manufacturer Item Number	7009 ACD/P4A
Ball diameter D_w	9.525 mm
Basic dynamic load rating C	27.6 kN
Preload class A G_A	170 N
Preload class D G_D	1360 N
Preload class C G_C	680 N
Basic dynamic load rating - C	27.6 kN
Preload class B G_B	340 N
Preload class C - G_C	680 N

Preload class A - G_A	170 N
Preload class D - G_D	1360 N
Preload class B - G_B	340 N
Calculation factor f_1	0.99
Fatigue load limit P_u	0.9 kN
Calculation factor f_{2C}	1.05
Calculation factor f_{HC}	1
Calculation factor f_{2B}	1.02
Calculation factor f_{2D}	1.08
Calculation factor f_{2A}	1
Calculation factor - Y_0	0.76
Calculation factor - Y_2	1.41
Fatigue load limit - P_u	0.9 kN
Limiting speed for oil lubrication	26000 mm/min
Calculation factor - X_2	0.67
Calculation factor - Y_1	0.92
Calculation factor - f_1	0.99
Calculation factor - f_{2D}	1.08
Calculation factor - f_{2A}	1
Calculation factor - f_{2B}	1.02
Calculation factor - f_{2C}	1.05
Calculation factor - f_{HC}	1
Limiting speed for grease lubrication	17000 r/min
Basic static load rating C_0	21.6 kN
Attainable speed for grease lubrication	17000 r/min
Static axial stiffness, preload class D	309 N/ μ m

Static axial stiffness, preload class C	229 N/ μ m
Static axial stiffness, preload class B	173 N/ μ m
Static axial stiffness, preload class A	132 N/ μ m
Attainable speed for oil-air lubrication	26000 r/min
Basic static load rating - C_0	21.6 kN
Reference grease quantity G_{ref}	3.3 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