



DEARING OF AMERICA CORP.



55 mm x 90 mm x 18 mm SKF 7011 ACD/P4A
angular contact ball bearings

Bearing No. 7011 ACD/P4A

7011 ACD/P4A Bearing 2D drawings and 3D CAD models

Size	90x55x18 mm
Bore Diameter	90 mm
Outer Diameter	55 mm
Width	18 mm
d	55 mm
D	90 mm
B	18 mm
d ₁	65.8 mm
d ₂	65.8 mm
D ₁	79.2 mm
r _{1,2} - min.	1.1 mm
r _{3,4} - min.	0.6 mm
a	26 mm
d _a - min.	61 mm
d _b - min.	61 mm
D _a - max.	84 mm
D _b - max.	86.8 mm
r _a - max.	1 mm
r _b - max.	0.6 mm
d _n	68.1 mm
Basic dynamic load rating - C	37.1 kN
Basic static load rating - C ₀	31 kN
Fatigue load limit - P _u	1.3 kN
Limiting speed for grease	14000 r/min



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Lubrication	
Limiting speed for oil lubrication	22000 mm/min
Ball - D_w	11.112 mm
Ball - z	18
G_{ref}	5.1 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	230 N
Preload class B - G_B	460 N
Preload class C - G_C	920 N
Preload class D - G_D	1840 N
Calculation factor - f	1.1
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
Preload class A	159 N/micron
Preload class B	207 N/micron
Preload class C	275 N/micron
Preload class D	372 N/micron



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Category	Precision Ball Bearings
Inventory	0.0
Manufacturer Name	SKF
Minimum Buy Quantity	N/A
Weight / Kilogram	0.39
EAN	7316570347944
Product Group	B04270
Enclosure	Open
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
Flush Ground	No
Inch - Metric	Metric
Other Features	Single Row Angular Contact High Precision
Long Description	55MM Bore; 90MM Outside Diameter; 18MM 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
Category	Precision Ball Bearings
UNSPSC	31171531
Harmonized Tariff Code	8482.10.50.28
Noun	Bearing
Keyword String	Angular Contact Ball
Manufacturer URL	http://www.skf.com



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Manufacturer Item Number	7011 ACD/P4A
Weight / LBS	0.858
Width	0.709 Inch 18 Millimeter
Outside Diameter	3.543 Inch 90 Millimeter
Bore	2.165 Inch 55 Millimeter
d_1	65.8 mm
d_2	65.8 mm
D_1	79.2 mm
$r_{1,2}$ min.	1.1 mm
$r_{3,4}$ min.	0.6 mm
d_a min.	61 mm
d_b min.	61 mm
D_a max.	84 mm
D_b max.	86.8 mm
r_a max.	1 mm
r_b max.	0.6 mm
d_n	68.1 mm
Basic dynamic load rating C	37.1 kN
Basic static load rating C_0	31 kN
Fatigue load limit P_u	1.32 kN
Attainable speed for grease lubrication	14000 r/min
Attainable speed for oil-air lubrication	22000 r/min
Ball diameter D_w	11.112 mm
Number of balls z	18
Reference grease quantity G_{ref}	5.1 cm ³
Preload class A G_A	230 N
Static axial stiffness, preload class A	159 N/ μ m
Preload class B G_B	460 N
Static axial stiffness, preload class B	207 N/ μ m



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Preload class C G_C	920 N
Static axial stiffness, preload class C	275 N/ μ m
Preload class D G_D	1840 N
Static axial stiffness, preload class D	372 N/ μ m
Calculation factor f	1.1
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
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	0.38 kg