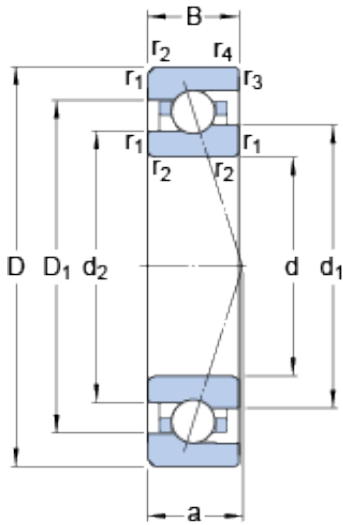




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7014 ACE/P4A SKF High Speed Angular Contact Ball Bearings

Bearing No. 7014 ACE/P4A



7014 ACE/P4A Bearing 2D drawings and 3D CAD models

Size	110x70x20 mm
Bore Diameter	110 mm
Outer Diameter	70 mm
Width	20 mm
d	70 mm
D	110 mm
B	20 mm
d ₁	84.3 mm
d ₂	81.6 mm
D ₁	95.32 mm
r _{1,2} - min.	1.1 mm
r _{3,4} - min.	0.6 mm
a	31.2 mm
d _a - min.	76 mm
d _b - min.	76 mm
D _a - max.	104 mm
D _b - max.	105.8 mm
r _a - max.	1 mm
r _b - max.	0.6 mm
d _n	86.5 mm
Basic dynamic load rating - C	22.5 kN
Basic static load rating - C ₀	17.3 kN
Fatigue load limit - P _u	0.735 kN
Limiting speed for grease	15500 r/min



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Lubrication	
Limiting speed for oil lubrication	24000 mm/min
Ball - D_w	9.525 mm
Ball - z	25
G_{ref}	8.2 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	200 N
Preload class B - G_B	610 N
Preload class C - G_C	1220 N
Calculation factor - f	1.09
Calculation factor - f_1	0.99
Calculation factor - f_{2A}	1
Calculation factor - f_{2B}	1.03
Calculation factor - f_{2C}	1.06
Calculation factor - f_{HC}	1
Preload class A	143 N/micron
Preload class B	215 N/micron
Preload class C	280 N/micron
Category	Precision Ball Bearings
Inventory	0.0
Manufacturer Name	SKF
Minimum Buy Quantity	N/A



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Weight / Kilogram	0.665
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 Inner Ring and Outer Ring
Cage Material	Phenolic
Rolling Element	Ball Bearing
Flush Ground	No
Inch - Metric	Metric
Other Features	Single Row Angular Contact High Precision High Speed
Long Description	70MM Bore; 110MM Outside Diameter; 20MM Width; Open Enclosure; ABEC 7 ISO P4 Precision; Steel Ball Material; 1 (Single) Bearings; 25 Degree Contact Angle; Phenolic Cage Material; 1 Rib Inner Ring an
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
Manufacturer Item Number	7014 ACE/P4A
Weight / LBS	1.466
Bore	2.756 Inch 70 Millimeter
Width	0.787 Inch 20 Millimeter



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Outside Diameter	4.331 Inch 110 Millimeter
d_1	84.3 mm
d_2	81.6 mm
D_1	95.32 mm
$r_{1,2}$ min.	1.1 mm
$r_{3,4}$ min.	0.6 mm
d_a min.	76 mm
d_b min.	76 mm
D_a max.	104 mm
D_b max.	105.8 mm
r_a max.	1 mm
r_b max.	0.6 mm
d_n	86.5 mm
Basic dynamic load rating C	22.5 kN
Basic static load rating C_0	17.3 kN
Fatigue load limit P_u	0.735 kN
Attainable speed for grease lubrication	15500 r/min
Attainable speed for oil-air lubrication	24000 r/min
Ball diameter D_w	9.525 mm
Number of balls z	25
Reference grease quantity G_{ref}	8.2 cm ³
Preload class A G_A	200 N
Static axial stiffness, preload class A	143 N/ μ m
Preload class B G_B	610 N
Static axial stiffness, preload class B	215 N/ μ m
Preload class C G_C	1220 N
Static axial stiffness, preload class C	280 N/ μ m
Calculation factor f	1.09



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Calculation factor f_1	0.99
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.03
Calculation factor f_{2C}	1.06
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	0.61 kg