



# NTN Bearing Manufacturing



## 70 mm x 110 mm x 20 mm SKF S7014 ACD/P4A angular contact ball bearings

Bearing No. S7014 ACD/P4A

S7014 ACD/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 <sub>1</sub>	82.3 mm
d <sub>2</sub>	82.3 mm
D <sub>2</sub>	100.64 mm
r <sub>1,2</sub> - min.	1.1 mm
r <sub>3,4</sub> - min.	0.6 mm
a	31.1 mm
d <sub>a</sub> - min.	76 mm
d <sub>a</sub> - max.	81.7 mm
d <sub>b</sub> - min.	76 mm
d <sub>b</sub> - max.	81.7 mm
D <sub>a</sub> - max.	104 mm
D <sub>b</sub> - max.	106 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.6 mm
Basic dynamic load rating - C	48.8 kN
Basic static load rating - C <sub>0</sub>	44 kN
Fatigue load limit - P <sub>u</sub>	1.9 kN



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Limiting speed for grease lubrication	11000 r/min
Ball - $D_w$	12.7 mm
Ball - z	19
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 - $G_A$	300 N
Preload class B - $G_B$	600 N
Preload class C - $G_C$	1200 N
Preload class D - $G_D$	2400 N
Calculation factor - f	1.12
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	191 N/micron
Preload class B	249 N/micron
Preload class C	330 N/micron
Preload class D	447 N/micron
Category	Precision Ball Bearings
Inventory	0.0
Manufacturer Name	SKF



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Minimum Buy Quantity	N/A
Weight / Kilogram	0.591
EAN	7316571883984
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	70MM Bore; 110MM Outside Diameter; 20MM 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	<a href="http://www.skf.com">http://www.skf.com</a>
Manufacturer Item Number	S7014 ACD/P4A
Weight / LBS	1.301
Bore	2.756 Inch   70 Millimeter
Width	0.787 Inch   20 Millimeter
Outside Diameter	4.331 Inch   110 Millimeter



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$d_1$	82.3 mm
$d_2$	82.3 mm
$D_2$	100.64 mm
$r_{1,2}$ min.	1.1 mm
$r_{3,4}$ min.	0.6 mm
$d_a$ min.	76 mm
$d_a$ max.	81.7 mm
$d_b$ min.	76 mm
$d_b$ max.	81.7 mm
$D_a$ max.	104 mm
$D_b$ max.	106 mm
$r_a$ max.	1 mm
$r_b$ max.	0.6 mm
Basic dynamic load rating C	48.8 kN
Basic static load rating $C_0$	44 kN
Fatigue load limit $P_u$	1.86 kN
Attainable speed for grease lubrication	11000 r/min
Ball diameter $D_w$	12.7 mm
Number of balls z	19
Preload class A $G_A$	300 N
Static axial stiffness, preload class A	191 N/ $\mu$ m
Preload class B $G_B$	600 N
Static axial stiffness, preload class B	249 N/ $\mu$ m
Preload class C $G_C$	1200 N
Static axial stiffness, preload class C	330 N/ $\mu$ m
Preload class D $G_D$	2400 N
Static axial stiffness, preload class D	447 N/ $\mu$ m
Calculation factor f	1.12
Calculation factor $f_1$	0.99



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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	0.61 kg