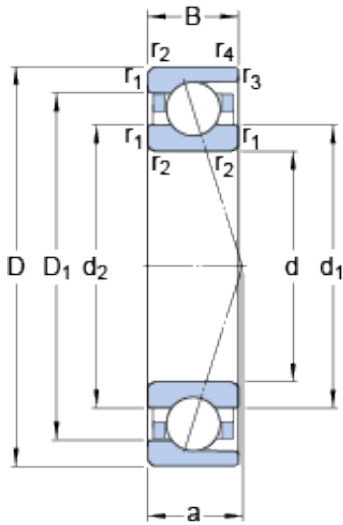




# KRS Guide Wheel Bearing Co., Ltd



7204 CD/HCP4A Bearing 2D drawings and 3D CAD models

## 20 mm x 47 mm x 14 mm SKF 7204 CD/HCP4A angular contact ball bearings

Bearing No. 7204 CD/HCP4A

Size	47x20x14 mm
Bore Diameter	47 mm
Outer Diameter	20 mm
Width	14 mm
d	20 mm
D	47 mm
B	14 mm
d <sub>1</sub>	29.1 mm
d <sub>2</sub>	29.1 mm
D <sub>1</sub>	38.7 mm
r <sub>1,2</sub> - min.	1 mm
r <sub>3,4</sub> - min.	0.3 mm
a	11.6 mm
d <sub>a</sub> - min.	25.6 mm
d <sub>b</sub> - min.	25.6 mm
D <sub>a</sub> - max.	41.4 mm
D <sub>b</sub> - max.	44.6 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.3 mm
d <sub>n</sub>	31.1 mm
Basic dynamic load rating - C	11.9 kN
Basic static load rating - C <sub>0</sub>	5.8 kN
Fatigue load limit - P <sub>u</sub>	0.245 kN
Limiting speed for grease	43000 r/min



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Lubrication	
Limiting speed for oil lubrication	60000 mm/min
Ball - $D_w$	7.938 mm
Ball - $z$	11
$G_{ref}$	1.539 cm <sup>3</sup>
Calculation factor - $f_0$	8.7
Preload class A - $G_A$	45 N
Preload class B - $G_B$	90 N
Preload class C - $G_C$	180 N
Preload class D - $G_D$	360 N
Calculation factor - $f$	1.03
Calculation factor - $f$	1
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
Preload class A	28 N/micron
Preload class B	37 N/micron
Preload class C	50 N/micron
Preload class D	70 N/micron
Category	Precision Ball Bearings
Inventory	0.0
Manufacturer Name	SKF
Minimum Buy Quantity	N/A
Weight / Kilogram	0.094
Product Group	B04270
Enclosure	Open
Precision Class	ABEC 7   ISO P4



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Material - Ball	Ceramic
Number of Bearings	1 (Single)
Contact Angle	15 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   Super Precision   High Capacity   Hybrid   Corrosion Resistant Ball
Long Description	20MM Bore; 47MM Outside Diameter; 14MM Width; Open Enclosure; ABEC 7   ISO P4 Precision; Ceramic Ball Material; 1 (Single) Bearings; 15 Degree Contact Angle; Phenolic Cage Material; 1 Rib Outer Ring R
Category	Precision Ball Bearings
UNSPSC	31171531
Harmonized Tariff Code	8482.10.50.28
Noun	Bearing
Keyword String	Angular Contact Ball
Manufacturer URL	<a href="http://www.skf.com">http://www.skf.com</a>
Manufacturer Item Number	7204 CD/HCP4A
Weight / LBS	0.208
Bore	0.787 Inch   20 Millimeter
Outside Diameter	1.85 Inch   47 Millimeter
Width	0.551 Inch   14 Millimeter
d <sub>1</sub>	29.1 mm
d <sub>2</sub>	29.1 mm
D <sub>1</sub>	38.7 mm



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$r_{1,2}$ min.	1 mm
$r_{3,4}$ min.	0.3 mm
$d_a$ min.	25.6 mm
$d_b$ min.	25.6 mm
$D_a$ max.	41.4 mm
$D_b$ max.	44.6 mm
$r_a$ max.	1 mm
$r_b$ max.	0.3 mm
$d_n$	31.1 mm
Basic dynamic load rating C	11.9 kN
Basic static load rating $C_0$	5.85 kN
Fatigue load limit $P_u$	0.245 kN
Attainable speed for grease lubrication	43000 r/min
Attainable speed for oil-air lubrication	60000 r/min
Ball diameter $D_w$	7.938 mm
Number of balls z	11
Reference grease quantity $G_{ref}$	1.539 cm <sup>3</sup>
Preload class A $G_A$	45 N
Static axial stiffness, preload class A	28 N/ $\mu$ m
Preload class B $G_B$	90 N
Static axial stiffness, preload class B	37 N/ $\mu$ m
Preload class C $G_C$	180 N
Static axial stiffness, preload class C	50 N/ $\mu$ m
Preload class D $G_D$	360 N
Static axial stiffness, preload class D	70 N/ $\mu$ m
Calculation factor f	1.03
Calculation factor $f_1$	1



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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
Calculation factor $f_0$	8.7
Mass bearing	0.09 kg