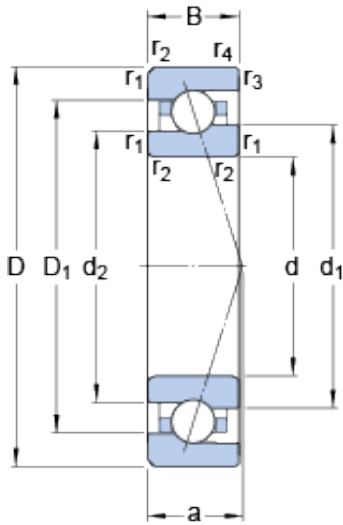




# BEARING CORP.OF AMERICA



7004 CE/HCP4A Bearing 2D drawings and 3D CAD models

20 mm x 42 mm x 12 mm SKF 7004 CE/HCP4A angular contact ball bearings

Bearing No. 7004 CE/HCP4A

Size	42x20x12 mm
Bore Diameter	42 mm
Outer Diameter	20 mm
Width	12 mm
d	20 mm
D	42 mm
B	12 mm
d <sub>1</sub>	26.6 mm
d <sub>2</sub>	24.8 mm
D <sub>1</sub>	34.21 mm
r <sub>1,2</sub> - min.	0.6 mm
r <sub>3,4</sub> - min.	0.3 mm
a	10.2 mm
d <sub>a</sub> - min.	22 mm
d <sub>b</sub> - min.	22 mm
D <sub>a</sub> - max.	40 mm
D <sub>b</sub> - max.	39.6 mm
r <sub>a</sub> - max.	0.6 mm
r <sub>b</sub> - max.	0.3 mm
d <sub>n</sub>	28.1 mm
Basic dynamic load rating - C	7.4 kN
Basic static load rating - C <sub>0</sub>	3.4 kN
Fatigue load limit - P <sub>u</sub>	0.143 kN
Limiting speed for grease	65000 r/min



## BEARING CORP.OF AMERICA

Lubrication	
Limiting speed for oil lubrication	100000 mm/min
Ball - $D_w$	6.35 mm
Ball - z	12
$G_{ref}$	1.1 cm3
Calculation factor - $f_0$	7.2
Preload class A - $G_A$	40 N
Preload class B - $G_B$	120 N
Preload class C - $G_C$	235 N
Calculation factor - f	1.04
Calculation factor - f	1
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.03
Calculation factor - $f_{2C}$	1.05
Calculation factor - $f_{HC}$	1.01
Preload class A	23 N/micron
Preload class B	36 N/micron
Preload class C	49 N/micron
Category	Precision Ball Bearings
Inventory	0.0
Manufacturer Name	SKF
Minimum Buy Quantity	N/A
Weight / Kilogram	0
Product Group	B04270
Enclosure	Open
Precision Class	ABEC 7   ISO P4
Material - Ball	Ceramic
Number of Bearings	1 (Single)
Contact Angle	15 Degree
Preload	None



## BEARING CORP.OF AMERICA

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 Speed E Design
Long Description	20MM Bore; 42MM Outside Diameter; 12MM Width; Open Enclosure; ABEC 7   ISO P4 Precision; Ceramic Ball Material; 1 (Single) Bearing; 15 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	Ball Angular Contact
Manufacturer URL	<a href="http://www.skf.com">http://www.skf.com</a>
Bore	0.787 Inch   20 Millimeter
Outside Diameter	1.654 Inch   42 Millimeter
Width	0.472 Inch   12 Millimeter
d <sub>1</sub>	26.6 mm
d <sub>2</sub>	24.8 mm
D <sub>1</sub>	34.21 mm
r <sub>1,2</sub> min.	0.6 mm
r <sub>3,4</sub> min.	0.3 mm
d <sub>a</sub> min.	22 mm
d <sub>b</sub> min.	22 mm
D <sub>a</sub> max.	40 mm
D <sub>b</sub> max.	39.6 mm



## BEARING CORP.OF AMERICA

$r_a$ max.	0.6 mm
$r_b$ max.	0.3 mm
$d_n$	28.1 mm
Basic dynamic load rating C	7.41 kN
Basic static load rating $C_0$	3.35 kN
Fatigue load limit $P_u$	0.143 kN
Attainable speed for grease lubrication	65000 r/min
Attainable speed for oil-air lubrication	100000 r/min
Ball diameter $D_w$	6.35 mm
Number of balls z	12
Reference grease quantity $G_{ref}$	1.1 cm <sup>3</sup>
Preload class A $G_A$	40 N
Static axial stiffness, preload class A	23 N/ $\mu$ m
Preload class B $G_B$	120 N
Static axial stiffness, preload class B	36 N/ $\mu$ m
Preload class C $G_C$	235 N
Static axial stiffness, preload class C	49 N/ $\mu$ m
Calculation factor f	1.04
Calculation factor $f_1$	1
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.03
Calculation factor $f_{2C}$	1.05
Calculation factor $f_{HC}$	1.01
Calculation factor $f_0$	7.2
Mass bearing	0.056 kg