



Bearing No. 7004 CE/HCP4A

D	42 mm
d	20 mm
B	12 mm
a	10.2 mm
Noun	Bearing
Bore	0.787 Inch   20 Millimeter
Width	0.472 Inch   12 Millimeter
UNSPSC	31171531
Preload	None
Category	Precision Ball Bearings
Ball - z	12
Inventory	0.0
Enclosure	Open
Size (mm)	42x20x12
Width (mm)	12
Flush Ground	No
Mass bearing	0.056 kg
d <sub>1</sub>	26.6 mm
d <sub>2</sub>	24.8 mm
d <sub>n</sub>	28.1 mm
Inch - Metric	Metric
D <sub>1</sub>	34.21 mm
Cage Material	Phenolic
Raceway Style	1 Rib Inner Ring and Outer Ring
d <sub>2</sub>	24.8 mm
Contact Angle	15 Degree
d <sub>1</sub>	26.6 mm

D <sub>1</sub>	34.21 mm
d <sub>n</sub>	28.1 mm
Product Group	B04270
Other Features	Single Row   Angular Contact   High Speed E Design
Keyword String	Ball Angular Contact
Bearing number	7004 CE/HCP4A
Preload class A	23 N/micron
Rolling Element	Ball Bearing
Preload class B	36 N/micron
Preload class C	49 N/micron
G <sub>ref</sub>	1.1 cm <sup>3</sup>
Material - Ball	Ceramic
Precision Class	ABEC 7   ISO P4
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
Manufacturer URL	<a href="http://www.skf.com">http://www.skf.com</a>
Outside Diameter	1.654 Inch   42 Millimeter
Number of balls z	12
Manufacturer Name	SKF
Weight / Kilogram	0
d <sub>a</sub> min.	22 mm
Number of Bearings	1 (Single)
D <sub>a</sub> max.	40 mm
D <sub>b</sub> max.	39.6 mm
r <sub>a</sub> max.	0.6 mm

$r_b$ max.	0.3 mm
Bore Diameter (mm)	42
$d_b$ min.	22 mm
Outer Diameter (mm)	20
$D_b$ - max.	39.6 mm
$r_{3,4}$ min.	0.3 mm
$r_{1,2}$ min.	0.6 mm
$d_b$ - min.	22 mm
Calculation factor f	1.04
$D_a$ - max.	40 mm
$d_a$ - min.	22 mm
$r_b$ - max.	0.3 mm
$r_a$ - max.	0.6 mm
Minimum Buy Quantity	N/A
Ball - $D_w$	6.35 mm
Harmonized Tariff Code	8482.10.50.28
$r_{1,2}$ - min.	0.6 mm
Calculation factor - f	1.04
$r_{3,4}$ - min.	0.3 mm
Basic dynamic load rating C	7.41 kN
Ball diameter $D_w$	6.35 mm
Preload class C $G_C$	235 N
Preload class A $G_A$	40 N
Preload class B $G_B$	120 N
Basic dynamic load rating - C	7.4 kN
Preload class A - $G_A$	40 N
Preload class B - $G_B$	120 N
Preload class C - $G_C$	235 N
Fatigue load limit $P_u$	0.143 kN
Calculation factor $f_0$	7.2

Calculation factor $f_1$	1
Calculation factor - $f$	1
Calculation factor $f_{2B}$	1.03
Calculation factor $f_{2A}$	1
Calculation factor $f_{2C}$	1.05
Calculation factor $f_{HC}$	1.01
Fatigue load limit - $P_u$	0.143 kN
Calculation factor - $f_0$	7.2
Limiting speed for oil lubrication	100000 mm/min
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.03
Calculation factor - $f_{HC}$	1.01
Calculation factor - $f_{2C}$	1.05
Limiting speed for grease lubrication	65000 r/min
Basic static load rating $C_0$	3.35 kN
Static axial stiffness, preload class B	36 N/ $\mu$ m
Static axial stiffness, preload class A	23 N/ $\mu$ m
Static axial stiffness, preload class C	49 N/ $\mu$ m
Attainable speed for grease lubrication	65000 r/min
Attainable speed for oil-air lubrication	100000 r/min
Basic static load rating - $C_0$	3.4 kN
Reference grease quantity $G_{ref}$	1.1 cm <sup>3</sup>