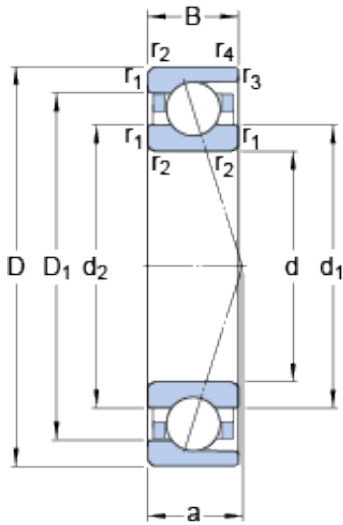




# NTN BEARING-BOWER CORP.



7019 CD/HCP4A Bearing 2D drawings and 3D CAD models

## 95 mm x 145 mm x 24 mm SKF 7019 CD/HCP4A angular contact ball bearings

Bearing No. 7019 CD/HCP4A

Size	145x95x24 mm
Bore Diameter	145 mm
Outer Diameter	95 mm
Width	24 mm
d	95 mm
D	145 mm
B	24 mm
d <sub>1</sub>	110.4 mm
d <sub>2</sub>	110.4 mm
D <sub>1</sub>	129.6 mm
r <sub>1,2</sub> - min.	1.5 mm
r <sub>3,4</sub> - min.	1 mm
a	28.2 mm
d <sub>a</sub> - min.	102 mm
d <sub>b</sub> - min.	102 mm
D <sub>a</sub> - max.	138 mm
D <sub>b</sub> - max.	141 mm
r <sub>a</sub> - max.	1.5 mm
r <sub>b</sub> - max.	1 mm
d <sub>n</sub>	113.7 mm
Basic dynamic load rating - C	81.9 kN
Basic static load rating - C <sub>0</sub>	80 kN
Fatigue load limit - P <sub>u</sub>	3.1 kN
Limiting speed for grease	11000 r/min



## NTN BEARING-BOWER CORP.

Lubrication	
Limiting speed for oil lubrication	17000 mm/min
Ball - $D_w$	15.875 mm
Ball - $z$	21
$G_{ref}$	15.6 cm3
Calculation factor - $f_0$	15.7
Preload class A - $G_A$	310 N
Preload class B - $G_B$	620 N
Preload class C - $G_C$	1240 N
Preload class D - $G_D$	2480 N
Calculation factor - $f$	1.15
Calculation factor - $f$	1
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.02
Calculation factor - $f_{2C}$	1.05
Calculation factor - $f_{2D}$	1.09
Calculation factor - $f_{HC}$	1.02
Preload class A	120 N/micron
Preload class B	164 N/micron
Preload class C	231 N/micron
Preload class D	335 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



## NTN BEARING-BOWER CORP.

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   High Capacity Basic Design
Long Description	95MM Bore; 145MM Outside Diameter; 24MM Width; Open Enclosure; ABEC 7   ISO P4 Precision; Ceramic Ball Material; 1 (Single) Bearing; 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	Ball Angular Contact
Manufacturer URL	<a href="http://www.skf.com">http://www.skf.com</a>
Bore	3.74 Inch   95 Millimeter
Width	0.945 Inch   24 Millimeter
Outside Diameter	5.709 Inch   145 Millimeter
d <sub>1</sub>	110.4 mm
d <sub>2</sub>	110.4 mm
D <sub>1</sub>	129.6 mm
r <sub>1,2</sub> min.	1.5 mm
r <sub>3,4</sub> min.	1 mm



## NTN BEARING-BOWER CORP.

$d_a$ min.	102 mm
$d_b$ min.	102 mm
$D_a$ max.	138 mm
$D_b$ max.	141 mm
$r_a$ max.	1.5 mm
$r_b$ max.	1 mm
$d_n$	113.7 mm
Basic dynamic load rating C	81.9 kN
Basic static load rating $C_0$	80 kN
Fatigue load limit $P_u$	3.1 kN
Attainable speed for grease lubrication	11000 r/min
Attainable speed for oil-air lubrication	17000 r/min
Ball diameter $D_w$	15.875 mm
Number of balls z	21
Reference grease quantity $G_{ref}$	15.6 cm <sup>3</sup>
Preload class A $G_A$	310 N
Static axial stiffness, preload class A	120 N/ $\mu$ m
Preload class B $G_B$	620 N
Static axial stiffness, preload class B	164 N/ $\mu$ m
Preload class C $G_C$	1240 N
Static axial stiffness, preload class C	231 N/ $\mu$ m
Preload class D $G_D$	2480 N
Static axial stiffness, preload class D	335 N/ $\mu$ m
Calculation factor f	1.15
Calculation factor $f_1$	1
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.02



## NTN BEARING-BOWER CORP.

Calculation factor $f_{2C}$	1.05
Calculation factor $f_{2D}$	1.09
Calculation factor $f_{HC}$	1.02
Calculation factor $f_0$	15.7
Mass bearing	1 kg