



Bearing No. 7018 CD/HCP4A

D	140 mm
d	90 mm
B	24 mm
a	27.5 mm
Noun	Bearing
Bore	3.543 Inch 90 Millimeter
Width	0.945 Inch 24 Millimeter
UNSPSC	31171531
Preload	None
Category	Precision Ball Bearings
Ball - z	20
Inventory	0.0
Enclosure	Open
Size (mm)	140x90x24
Width (mm)	24
Flush Ground	No
Mass bearing	1.01 kg
d ₁	105.4 mm
d ₂	105.4 mm
d _n	108.7 mm
Inch - Metric	Metric
D ₁	124.6 mm
Cage Material	PEEK Resin
Raceway Style	1 Rib Outer Ring
d ₂	105.4 mm
Contact Angle	15 Degree
d ₁	105.4 mm
D ₁	124.6 mm

d _n	108.7 mm
Product Group	B04270
Other Features	Single Row Angular Contact High Capacity Basic Design
Keyword String	Ball Angular Contact
Bearing number	7018 CD/HCP4A
Material - Ball	Ceramic
Preload class A	114 N/micron
Precision Class	ABEC 7 ISO P4
Rolling Element	Ball Bearing
Preload class D	319 N/micron
G _{ref}	15 cm3
Preload class B	156 N/micron
Preload class C	220 N/micron
Manufacturer URL	http://www.skf.com
Long Description	90MM Bore; 140MM Outside Diameter; 24MM Width; Open Enclosure; ABEC 7 ISO P4 Precision; Ceramic Ball Material; 1 (Single) Bearing; 15 Degree Contact Angle; PEEK Resin Cage Material; 1 Rib Outer Ring
Outside Diameter	5.512 Inch 140 Millimeter
Manufacturer Name	SKF
Weight / Kilogram	0
Number of balls z	20
D _a max.	133 mm
D _b max.	136 mm
r _a max.	1.5 mm
r _b max.	1 mm

d_b min.	97 mm
d_a min.	97 mm
Bore Diameter (mm)	140
Number of Bearings	1 (Single)
Outer Diameter (mm)	90
Ball - D_w	15.875 mm
D_a - max.	133 mm
$r_{3,4}$ min.	1 mm
$r_{1,2}$ min.	1.5 mm
d_a - min.	97 mm
d_b - min.	97 mm
Minimum Buy Quantity	N/A
D_b - max.	136 mm
r_a - max.	1.5 mm
r_b - max.	1 mm
Calculation factor f	1.14
Harmonized Tariff Code	8482.10.50.28
Calculation factor - f	1.14
$r_{3,4}$ - min.	1 mm
$r_{1,2}$ - min.	1.5 mm
Basic dynamic load rating C	79.3 kN
Ball diameter D_w	15.875 mm
Preload class A G_A	300 N
Basic dynamic load rating - C	79.3 kN
Preload class B G_B	600 N
Preload class C G_C	1200 N
Preload class D G_D	2400 N
Preload class D - G_D	2400 N
Preload class B - G_B	600 N
Preload class C - G_C	1200 N

Preload class A - G_A	300 N
Calculation factor f_0	15.6
Fatigue load limit P_u	3 kN
Calculation factor f_1	1
Calculation factor f_{HC}	1.02
Calculation factor f_{2D}	1.09
Calculation factor f_{2C}	1.05
Calculation factor f_{2B}	1.02
Calculation factor - f	1
Calculation factor f_{2A}	1
Calculation factor - f_0	15.6
Limiting speed for oil lubrication	18000 mm/min
Fatigue load limit - P_u	3 kN
Calculation factor - f_{HC}	1.02
Calculation factor - f_{2B}	1.02
Calculation factor - f_{2A}	1
Calculation factor - f_{2D}	1.09
Calculation factor - f_{2C}	1.05
Limiting speed for grease lubrication	11000 r/min
Basic static load rating C_0	76.5 kN
Static axial stiffness, preload class B	156 N/ μ m
Static axial stiffness, preload class C	220 N/ μ m
Static axial stiffness, preload class D	319 N/ μ m
Static axial stiffness, preload class A	114 N/ μ m
Attainable speed for grease lubrication	11000 r/min

Attainable speed for oil-air lubrication	18000 r/min
Basic static load rating - C_0	76.5 kN
Reference grease quantity G_{ref}	15 cm ³