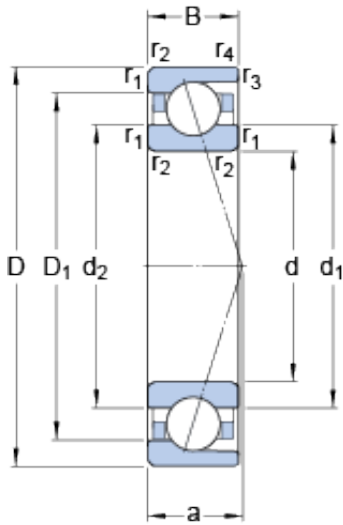




DPA Bearing Sales Corp.



90 mm x 140 mm x 24 mm SKF 7018 CD/HCP4A High Speed Main Shaft Spindle Bearings

Bearing No. 7018 CD/HCP4A

7018 CD/HCP4A Bearing 2D drawings and 3D CAD models

Size	140x90x24 mm
Bore Diameter	140 mm
Outer Diameter	90 mm
Width	24 mm
d	90 mm
D	140 mm
B	24 mm
d ₁	105.4 mm
d ₂	105.4 mm
D ₁	124.6 mm
r _{1,2} - min.	1.5 mm
r _{3,4} - min.	1 mm
a	27.5 mm
d _a - min.	97 mm
d _b - min.	97 mm
D _a - max.	133 mm
D _b - max.	136 mm
r _a - max.	1.5 mm
r _b - max.	1 mm
d _n	108.7 mm
Basic dynamic load rating - C	79.3 kN
Basic static load rating - C ₀	76.5 kN
Fatigue load limit - P _u	3 kN



DPA Bearing Sales Corp.

Limiting speed for grease lubrication	11000 r/min
Limiting speed for oil lubrication	18000 mm/min
Ball - D_w	15.875 mm
Ball - z	20
G_{ref}	15 cm ³
Calculation factor - f_0	15.6
Preload class A - G_A	300 N
Preload class B - G_B	600 N
Preload class C - G_C	1200 N
Preload class D - G_D	2400 N
Calculation factor - f	1.14
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	114 N/micron
Preload class B	156 N/micron
Preload class C	220 N/micron
Preload class D	319 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



DPA Bearing Sales Corp.

Material - Ball	Ceramic
Number of Bearings	1 (Single)
Contact Angle	15 Degree
Preload	None
Raceway Style	1 Rib Outer Ring
Cage Material	PEEK Resin
Rolling Element	Ball Bearing
Flush Ground	No
Inch - Metric	Metric
Other Features	Single Row Angular Contact High Capacity Basic Design
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
Category	Precision Ball Bearings
UNSPSC	31171531
Harmonized Tariff Code	8482.10.50.28
Noun	Bearing
Keyword String	Ball Angular Contact
Manufacturer URL	http://www.skf.com
Bore	3.543 Inch 90 Millimeter
Width	0.945 Inch 24 Millimeter
Outside Diameter	5.512 Inch 140 Millimeter
d ₁	105.4 mm
d ₂	105.4 mm
D ₁	124.6 mm
r _{1,2} min.	1.5 mm
r _{3,4} min.	1 mm



DPA Bearing Sales Corp.

d_a min.	97 mm
d_b min.	97 mm
D_a max.	133 mm
D_b max.	136 mm
r_a max.	1.5 mm
r_b max.	1 mm
d_n	108.7 mm
Basic dynamic load rating C	79.3 kN
Basic static load rating C_0	76.5 kN
Fatigue load limit P_u	3 kN
Attainable speed for grease lubrication	11000 r/min
Attainable speed for oil-air lubrication	18000 r/min
Ball diameter D_w	15.875 mm
Number of balls z	20
Reference grease quantity G_{ref}	15 cm ³
Preload class A G_A	300 N
Static axial stiffness, preload class A	114 N/ μ m
Preload class B G_B	600 N
Static axial stiffness, preload class B	156 N/ μ m
Preload class C G_C	1200 N
Static axial stiffness, preload class C	220 N/ μ m
Preload class D G_D	2400 N
Static axial stiffness, preload class D	319 N/ μ m
Calculation factor f	1.14
Calculation factor f_1	1
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.02



DPA Bearing Sales Corp.

Calculation factor f_{2C}	1.05
Calculation factor f_{2D}	1.09
Calculation factor f_{HC}	1.02
Calculation factor f_0	15.6
Mass bearing	1.01 kg