



# NUP BEARING LTD



71920 ACD/P4A Bearing 2D drawings and 3D CAD models

100 mm x 140 mm x 20 mm skf 71920  
ACD/P4A Super-precision Angular contact ball  
bearings

Bearing No. 71920 ACD/P4A

Size	140x100x20 mm
Bore Diameter	140 mm
Outer Diameter	100 mm
Width	20 mm
d	100 mm
D	140 mm
B	20 mm
d <sub>1</sub>	112.3 mm
d <sub>2</sub>	112.3 mm
D <sub>1</sub>	127.7 mm
r <sub>1,2</sub> - min.	1.1 mm
r <sub>3,4</sub> - min.	0.6 mm
a	38.1 mm
d <sub>a</sub> - min.	106 mm
d <sub>b</sub> - min.	106 mm
D <sub>a</sub> - max.	134 mm
D <sub>b</sub> - max.	136 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.6 mm
d <sub>n</sub>	115.6 mm
Basic dynamic load rating - C	57.2 kN
Basic static load rating - C <sub>0</sub>	63 kN
Fatigue load limit - P <sub>u</sub>	2.4 kN



## NUP BEARING LTD

Limiting speed for grease lubrication	8000 r/min
Limiting speed for oil lubrication	13000 mm/min
Ball - $D_w$	12.7 mm
Ball - $z$	26
$G_{ref}$	10.5 cm <sup>3</sup>
Calculation factor - $e$	0.68
Calculation factor - $Y_2$	0.87
Calculation factor - $Y_0$	0.38
Calculation factor - $X_2$	0.41
Calculation factor - $Y_1$	0.92
Calculation factor - $Y_2$	1.41
Calculation factor - $Y_0$	0.76
Calculation factor - $X_2$	0.67
Preload class A - $G_A$	360 N
Preload class B - $G_B$	720 N
Preload class C - $G_C$	1440 N
Preload class D - $G_D$	2880 N
Calculation factor - $f$	1.23
Calculation factor - $f_1$	0.98
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.04
Calculation factor - $f_{2C}$	1.08
Calculation factor - $f_{2D}$	1.14
Calculation factor - $f_{HC}$	1
Preload class A	255 N/micron
Preload class B	336 N/micron
Preload class C	449 N/micron
Preload class D	613 N/micron



## NUP BEARING LTD

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	Steel
Number of Bearings	1 (Single)
Contact Angle	25 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	100MM Bore; 140MM Outside Diameter; 20MM Width; Open Enclosure; ABEC 7   ISO P4 Precision; Steel Ball Material; 1 (Single) Bearing; 25 Degree Contact Angle; Phenolic Cage Material; 1 Rib Outer Ring Ra
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>



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Outside Diameter	5.512 Inch   140 Millimeter
Bore	3.937 Inch   100 Millimeter
Width	0.787 Inch   20 Millimeter
$d_1$	112.3 mm
$d_2$	112.3 mm
$D_1$	127.7 mm
$r_{1,2}$ min.	1.1 mm
$r_{3,4}$ min.	0.6 mm
$d_a$ min.	106 mm
$d_b$ min.	106 mm
$D_a$ max.	134 mm
$D_b$ max.	136 mm
$r_a$ max.	1 mm
$r_b$ max.	0.6 mm
$d_n$	115.6 mm
Basic dynamic load rating C	57.2 kN
Basic static load rating $C_0$	63 kN
Fatigue load limit $P_u$	2.4 kN
Attainable speed for grease lubrication	8000 r/min
Attainable speed for oil-air lubrication	13000 r/min
Ball diameter $D_w$	12.7 mm
Number of balls z	26
Reference grease quantity $G_{ref}$	10.5 cm <sup>3</sup>
Preload class A $G_A$	360 N
Static axial stiffness, preload class A	255 N/ $\mu$ m
Preload class B $G_B$	720 N
Static axial stiffness, preload class B	336 N/ $\mu$ m
Preload class C $G_C$	1440 N
Static axial stiffness, preload	449 N/ $\mu$ m



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class C	
Preload class D $G_D$	2880 N
Static axial stiffness, preload class D	613 N/ $\mu$ m
Calculation factor $f$	1.23
Calculation factor $f_1$	0.98
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.04
Calculation factor $f_{2C}$	1.08
Calculation factor $f_{2D}$	1.14
Calculation factor $f_{HC}$	1
Calculation factor $e$	0.68
Calculation factor (single, tandem) $Y_2$	0.87
Calculation factor (single, tandem) $Y_0$	0.38
Calculation factor (single, tandem) $X_2$	0.41
Calculation factor (back-to-back, face-to-face) $Y_1$	0.92
Calculation factor (back-to-back, face-to-face) $Y_2$	1.41
Calculation factor (back-to-back, face-to-face) $Y_0$	0.76
Calculation factor (back-to-back, face-to-face) $X_2$	0.67
Mass bearing	0.8 kg