



## Bearing USA CORP.



7205 CD/P4A Bearing 2D drawings and 3D CAD models

25 mm x 52 mm x 15 mm SKF 7205 CD/P4A  
angular contact ball bearings

Bearing No. 7205 CD/P4A

Size	52x25x15 mm
Bore Diameter	52 mm
Outer Diameter	25 mm
Width	15 mm
d	25 mm
D	52 mm
B	15 mm
d <sub>1</sub>	34.1 mm
d <sub>2</sub>	34.1 mm
D <sub>1</sub>	43.7 mm
r <sub>1,2</sub> - min.	1 mm
r <sub>3,4</sub> - min.	0.3 mm
a	12.8 mm
d <sub>a</sub> - min.	30.6 mm
d <sub>b</sub> - min.	30.6 mm
D <sub>a</sub> - max.	46.4 mm
D <sub>b</sub> - max.	49.6 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.3 mm
d <sub>n</sub>	36.1 mm
Basic dynamic load rating - C	13.5 kN
Basic static load rating - C <sub>0</sub>	7.2 kN
Fatigue load limit - P <sub>u</sub>	0.305 kN
Limiting speed for grease	30000 r/min



## Bearing USA CORP.

Lubrication	
Limiting speed for oil lubrication	45000 mm/min
Ball - $D_w$	7.938 mm
Ball - $z$	13
$G_{ref}$	1.872 cm3
Calculation factor - $f_0$	9.1
Preload class A - $G_A$	50 N
Preload class B - $G_B$	100 N
Preload class C - $G_C$	200 N
Preload class D - $G_D$	400 N
Calculation factor - $f$	1.03
Calculation factor - $f$	1
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.01
Calculation factor - $f_{2C}$	1.03
Calculation factor - $f_{2D}$	1.05
Calculation factor - $f_{HC}$	1
Preload class A	29 N/micron
Preload class B	38 N/micron
Preload class C	52 N/micron
Preload class D	72 N/micron
Category	Precision Ball Bearings
Inventory	0.0
Manufacturer Name	SKF
Minimum Buy Quantity	N/A
Weight / Kilogram	0.14
EAN	7316570266900
Product Group	B04270
Enclosure	Open



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Precision Class	ABEC 7   ISO P4
Material - Ball	Steel
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   Super Precision   High Capacity
Long Description	25MM Bore; 52MM Outside Diameter; 15MM Width; Open Enclosure; ABEC 7   ISO P4 Precision; Steel Ball Material; 1 (Single) Bearings; 15 Degree Contact Angle; Phenolic Cage Material; 1 Rib Outer Ring Rac
Category	Precision Ball Bearings
UNSPSC	31171531
Harmonized Tariff Code	8482.10.50.28
Noun	Bearing
Keyword String	Angular Contact Ball
Manufacturer URL	<a href="http://www.skf.com">http://www.skf.com</a>
Manufacturer Item Number	7205 CD/P4A
Weight / LBS	0.298
Width	0.591 Inch   15 Millimeter
Bore	0.984 Inch   25 Millimeter
Outside Diameter	2.047 Inch   52 Millimeter
d <sub>1</sub>	34.1 mm
d <sub>2</sub>	34.1 mm



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$D_1$	43.7 mm
$r_{1,2}$ min.	1 mm
$r_{3,4}$ min.	0.3 mm
$d_a$ min.	30.6 mm
$d_b$ min.	30.6 mm
$D_a$ max.	46.4 mm
$D_b$ max.	49.6 mm
$r_a$ max.	1 mm
$r_b$ max.	0.3 mm
$d_n$	36.1 mm
Basic dynamic load rating C	13.5 kN
Basic static load rating $C_0$	7.2 kN
Fatigue load limit $P_u$	0.305 kN
Attainable speed for grease lubrication	30000 r/min
Attainable speed for oil-air lubrication	45000 r/min
Ball diameter $D_w$	7.938 mm
Number of balls z	13
Reference grease quantity $G_{ref}$	1.872 cm <sup>3</sup>
Preload class A $G_A$	50 N
Static axial stiffness, preload class A	29 N/ $\mu$ m
Preload class B $G_B$	100 N
Static axial stiffness, preload class B	38 N/ $\mu$ m
Preload class C $G_C$	200 N
Static axial stiffness, preload class C	52 N/ $\mu$ m
Preload class D $G_D$	400 N
Static axial stiffness, preload class D	72 N/ $\mu$ m
Calculation factor f	1.03



## Bearing USA CORP.

Calculation factor $f_1$	1
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.01
Calculation factor $f_{2C}$	1.03
Calculation factor $f_{2D}$	1.05
Calculation factor $f_{HC}$	1
Calculation factor $f_0$	9.1
Mass bearing	0.13 kg