



Bearing No. 7205 ACD/HCP4A

D	52 mm
d	25 mm
B	15 mm
a	16.7 mm
Bore	0.984 Inch   25 Millimeter
Noun	Bearing
Width	0.591 Inch   15 Millimeter
UNSPSC	31171531
Preload	None
Ball - z	13
Category	Precision Ball Bearings
Size (mm)	52x25x15
Enclosure	Open
Inventory	0.0
Width (mm)	15
Flush Ground	No
Mass bearing	0.11 kg
d <sub>2</sub>	34.1 mm
Product Group	B04270
d <sub>n</sub>	36.1 mm
d <sub>n</sub>	36.1 mm
D <sub>1</sub>	43.7 mm
d <sub>2</sub>	34.1 mm
d <sub>1</sub>	34.1 mm
d <sub>1</sub>	34.1 mm
Inch - Metric	Metric
D <sub>1</sub>	43.7 mm
Cage Material	Phenolic

Raceway Style	1 Rib Outer Ring
Contact Angle	25 Degree
Keyword String	Ball Angular Contact
Other Features	Single Row   Angular Contact   High Capacity Basic Design
Bearing number	7205 ACD/HCP4A
Material - Ball	Ceramic
$G_{ref}$	1.872 cm <sup>3</sup>
Precision Class	ABEC 7   ISO P4
Rolling Element	Ball Bearing
Preload class D	175 N/micron
Preload class C	133 N/micron
Preload class B	102 N/micron
Preload class A	79 N/micron
Long Description	25MM Bore; 52MM Outside Diameter; 15MM Width; Open Enclosure; ABEC 7   ISO P4 Precision; Ceramic Ball Material; 1 (Single) Bearing; 25 Degree Contact Angle; Phenolic Cage Material; 1 Rib Outer Ring Ra
Manufacturer URL	<a href="http://www.skf.com">http://www.skf.com</a>
Outside Diameter	2.047 Inch   52 Millimeter
Number of balls z	13
Weight / Kilogram	0
Manufacturer Name	SKF
Bore Diameter (mm)	52
$D_a$ max.	46.4 mm
$d_b$ min.	30.6 mm
$r_b$ max.	0.3 mm
$r_a$ max.	1 mm

Number of Bearings	1 (Single)
$D_b$ max.	49.6 mm
$d_a$ min.	30.6 mm
Outer Diameter (mm)	25
$D_a$ - max.	46.4 mm
Ball - $D_w$	7.938 mm
$D_b$ - max.	49.6 mm
Calculation factor f	1.03
$r_{1,2}$ min.	1 mm
Minimum Buy Quantity	N/A
$r_a$ - max.	1 mm
$d_b$ - min.	30.6 mm
$r_{3,4}$ min.	0.3 mm
Calculation factor e	0.68
$r_b$ - max.	0.3 mm
$d_a$ - min.	30.6 mm
Calculation factor - e	0.68
Harmonized Tariff Code	8482.10.50.28
Calculation factor - f	1.03
$r_{1,2}$ - min.	1 mm
$r_{3,4}$ - min.	0.3 mm
Ball diameter $D_w$	7.938 mm
Basic dynamic load rating C	13 kN
Preload class B $G_B$	160 N
Preload class D $G_D$	640 N
Preload class A $G_A$	80 N
Basic dynamic load rating - C	13 kN
Preload class C $G_C$	320 N
Preload class A - $G_A$	80 N
Preload class B - $G_B$	160 N

Preload class C - $G_C$	320 N
Preload class D - $G_D$	640 N
Fatigue load limit $P_u$	0.29 kN
Calculation factor $f_1$	0.99
Calculation factor $f_{HC}$	1.01
Calculation factor $f_{2D}$	1.06
Calculation factor $f_{2C}$	1.03
Calculation factor $f_{2B}$	1.01
Calculation factor $f_{2A}$	1
Calculation factor - $Y_1$	0.92
Fatigue load limit - $P_u$	0.29 kN
Calculation factor - $Y_2$	1.41
Calculation factor - $f_1$	0.99
Calculation factor - $X_2$	0.67
Limiting speed for oil lubrication	48000 mm/min
Calculation factor - $Y_0$	0.76
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.01
Calculation factor - $f_{2C}$	1.03
Calculation factor - $f_{2D}$	1.06
Calculation factor - $f_{HC}$	1.01
Limiting speed for grease lubrication	32000 r/min
Basic static load rating $C_0$	6.95 kN
Static axial stiffness, preload class C	133 N/ $\mu$ m
Static axial stiffness, preload class A	79 N/ $\mu$ m
Static axial stiffness, preload class D	175 N/ $\mu$ m

Attainable speed for grease lubrication	32000 r/min
Static axial stiffness, preload class B	102 N/ $\mu$ m
Basic static load rating - $C_0$	7 kN
Attainable speed for oil-air lubrication	48000 r/min
Reference grease quantity $G_{ref}$	1.872 cm <sup>3</sup>
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