



San Driveshaft Co., Ltd.



7221 ACD/P4A Bearing 2D drawings and 3D CAD models

105 mm x 190 mm x 36 mm SKF 7221
ACD/P4A Interchangeable with open TAC serie
Precision Bearings

Bearing No. 7221 ACD/P4A

Size	190x105x36 mm
Bore Diameter	190 mm
Outer Diameter	105 mm
Width	36 mm
d	105 mm
D	190 mm
B	36 mm
d ₁	131.2 mm
d ₂	131.2 mm
D ₁	163.8 mm
r _{1,2} - min.	2.1 mm
r _{3,4} - min.	1.1 mm
a	52.6 mm
d _a - min.	117 mm
d _b - min.	117 mm
D _a - max.	178 mm
D _b - max.	183 mm
r _a - max.	2 mm
r _b - max.	1 mm
d _n	138.4 mm
Basic dynamic load rating - C	163 kN
Basic static load rating - C ₀	146 kN
Fatigue load limit - P _u	5.1 kN



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Limiting speed for grease lubrication	6700 r/min
Limiting speed for oil lubrication	10000 mm/min
Ball - D_w	26.988 mm
Ball - z	15
G_{ref}	48.333 cm ³
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	1000 N
Preload class B - G_B	2000 N
Preload class C - G_C	4000 N
Preload class D - G_D	8000 N
Calculation factor - f	1.08
Calculation factor - f_1	0.99
Calculation factor - f_{2A}	1
Calculation factor - f_{2B}	1.01
Calculation factor - f_{2C}	1.02
Calculation factor - f_{2D}	1.05
Calculation factor - f_{HC}	1
Preload class A	308 N/micron
Preload class B	399 N/micron
Preload class C	527 N/micron
Preload class D	708 N/micron



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Category	Precision Ball Bearings
Inventory	0.0
Manufacturer Name	SKF
Minimum Buy Quantity	N/A
Weight / Kilogram	4.2
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 Super Precision High Capacity
Long Description	105MM Bore; 190MM Outside Diameter; 36MM Width; Open Enclosure; ABEC 7 ISO P4 Precision; Steel Ball Material; 1 (Single) Bearings; 25 Degree Contact Angle; Phenolic Cage Material; 1 Rib Outer Ring R
Category	Precision Ball Bearings
UNSPSC	31171531
Harmonized Tariff Code	8482.10.50.28
Noun	Bearing
Keyword String	Angular Contact Ball
Manufacturer URL	http://www.skf.com



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Manufacturer Item Number	7221 ACD/P4A
Weight / LBS	9.259
Bore	4.134 Inch 105 Millimeter
Outside Diameter	7.48 Inch 190 Millimeter
Width	1.417 Inch 36 Millimeter
d_1	131.2 mm
d_2	131.2 mm
D_1	163.8 mm
$r_{1,2}$ min.	2.1 mm
$r_{3,4}$ min.	1.1 mm
d_a min.	117 mm
d_b min.	117 mm
D_a max.	178 mm
D_b max.	183 mm
r_a max.	2 mm
r_b max.	1 mm
d_n	138.4 mm
Basic dynamic load rating C	163 kN
Basic static load rating C_0	146 kN
Fatigue load limit P_u	5.1 kN
Attainable speed for grease lubrication	6700 r/min
Attainable speed for oil-air lubrication	10000 r/min
Ball diameter D_w	26.988 mm
Number of balls z	15
Reference grease quantity G_{ref}	48.333 cm ³
Preload class A G_A	1000 N
Static axial stiffness, preload class A	308 N/ μ m
Preload class B G_B	2000 N
Static axial stiffness, preload class B	399 N/ μ m



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Preload class C G_C	4000 N
Static axial stiffness, preload class C	527 N/ μ m
Preload class D G_D	8000 N
Static axial stiffness, preload class D	708 N/ μ m
Calculation factor f	1.08
Calculation factor f_1	0.99
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.01
Calculation factor f_{2C}	1.02
Calculation factor f_{2D}	1.05
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	3.87 kg