



Bearing No. 7003 ACD/P4A

D	35 mm
a	11.2 mm
B	10 mm
d	17 mm
Noun	Bearing
Bore	0.669 Inch 17 Millimeter
Width	0.394 Inch 10 Millimeter
UNSPSC	31171531
series:	70
Preload	None
Ball - z	12
Category	Precision Ball Bearings
Size (mm)	35x17x10
Enclosure	Open
Inventory	0.0
Width (mm)	10
duplex type:	Duplex Universal
Weight / LBS	0.093
Flush Ground	No
Mass bearing	0.038 kg
d _n	23.7 mm
Product Group	B04270
Raceway Style	1 Rib Outer Ring
Cage Material	Phenolic
Inch - Metric	Metric
D ₁	29.3 mm
d ₂	22.6 mm
d ₁	22.6 mm

Contact Angle	25 Degree
closure type:	Open
d ₁	22.6 mm
d ₂	22.6 mm
D ₁	29.3 mm
d _n	23.7 mm
contact angle:	25 °
cage material:	Cotton Fabric Reinforced Phenolic
bore diameter:	17 mm
fillet radius:	0.3 mm
Keyword String	Angular Contact Ball
Other Features	Single Row Angular Contact High Precision
overall width:	10 mm
Bearing number	7003 ACD/P4A
Precision Class	ABEC 7 ISO P4
Preload class A	48 N/micron
Preload class B	62 N/micron
Preload class C	81 N/micron
Preload class D	107 N/micron
Rolling Element	Ball Bearing
G _{ref}	0.54 cm3
Material - Ball	Steel
Manufacturer URL	http://www.skf.com
Outside Diameter	1.378 Inch 35 Millimeter
Long Description	17MM Bore; 35MM Outside Diameter; 10MM 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 Rac
bearing material:	Steel
precision rating:	P4
outside diameter:	35 mm
Weight / Kilogram	0.042
Manufacturer Name	SKF
Number of balls z	12
d _b min.	19 mm
d _a min.	19 mm
D _b max.	33.6 mm
r _a max.	0.3 mm
maximum rpm (oil):	70000 rpm
r _b max.	0.2 mm
D _a max.	33 mm
Bore Diameter (mm)	35
Number of Bearings	1 (Single)
Outer Diameter (mm)	17
d _b - min.	19 mm
Minimum Buy Quantity	N/A
r _{1,2} min.	0.3 mm
D _b - max.	33.6 mm
r _b - max.	0.2 mm
r _a - max.	0.3 mm
d _a - min.	19 mm
Ball - D _w	5.556 mm
Calculation factor e	0.68
Calculation factor f	1.04
D _a - max.	33 mm
r _{3,4} min.	0.2 mm
maximum rpm (grease):	45000 rpm
r _{1,2} - min.	0.3 mm

Harmonized Tariff Code	8482.10.50.28
Calculation factor - f	1.04
Calculation factor - e	0.68
$r_{3,4}$ - min.	0.2 mm
manufacturer upc number:	7316570721355
Manufacturer Item Number	7003 ACD/P4A
manufacturer product page:	Click here
Basic dynamic load rating C	6.5 kN
Ball diameter D_w	5.556 mm
radial static load capacity:	3.1 kN
operating temperature range:	300 °F
Preload class D G_D	320 N
Preload class A G_A	40 N
Preload class C G_C	160 N
radial dynamic load capacity:	6.5 kN
Preload class B G_B	80 N
Basic dynamic load rating - C	6.5 kN
Preload class C - G_C	160 N
Preload class B - G_B	80 N
Preload class D - G_D	320 N
Preload class A - G_A	40 N
Calculation factor f_1	0.99
Fatigue load limit P_u	0.132 kN
Calculation factor f_{2B}	1.02
Calculation factor f_{2A}	1
Calculation factor f_{2D}	1.08

Calculation factor f_{2C}	1.05
Calculation factor f_{HC}	1
Calculation factor - X_2	0.67
Fatigue load limit - P_u	0.132 kN
Calculation factor - Y_0	0.76
Calculation factor - Y_2	1.41
Calculation factor - Y_1	0.92
Calculation factor - f_1	0.99
Limiting speed for oil lubrication	70000 mm/min
Calculation factor - f_{2B}	1.02
Calculation factor - f_{2C}	1.05
Calculation factor - f_{HC}	1
Calculation factor - f_{2A}	1
Calculation factor - f_{2D}	1.08
Limiting speed for grease lubrication	45000 r/min
Basic static load rating C_0	3.1 kN
Static axial stiffness, preload class D	107 N/ μ m
Attainable speed for grease lubrication	45000 r/min
Static axial stiffness, preload class A	48 N/ μ m
Static axial stiffness, preload class C	81 N/ μ m
Static axial stiffness, preload class B	62 N/ μ m
Attainable speed for oil-air lubrication	70000 r/min
Basic static load rating - C_0	3.1 kN

Reference grease quantity G_{ref}	0.54 cm ³
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