



**65 mm x 100 mm x 18 mm SKF 7013
ACE/P4AL1 angular contact ball bearings**

Bearing No. 7013 ACE/P4AL1

7013 ACE/P4AL1 Bearing 2D drawings and 3D CAD models

Size	100x65x18 mm
Bore Diameter	100 mm
Outer Diameter	65 mm
Width	18 mm
d	65 mm
D	100 mm
B	18 mm
d ₁	77.26 mm
d ₂	74.9 mm
D ₁	87.72 mm
b	1.6 mm
C ₁	5.3 mm
C ₂	3.3 mm
C ₃	3.3 mm
r _{1,2} - min.	1.1 mm
r _{3,4} - min.	0.6 mm
a	28.4 mm
d _a - min.	71 mm
d _b - min.	71 mm
D _a - max.	94 mm
D _b - max.	95.8 mm
r _a - max.	1 mm
r _b - max.	0.6 mm
d _n	79.3 mm



BEARING MANUFACTURING DE MEXICO,S.A.D...

Basic dynamic load rating - C	19.5 kN
Basic static load rating - C ₀	14.6 kN
Fatigue load limit - P _u	0.62 kN
Limiting speed for grease lubrication	17000 r/min
Limiting speed for oil lubrication	26000 mm/min
Ball - D _w	8.731 mm
Ball - z	25
G _{ref}	6.2 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	170 N
Preload class B - G _B	520 N
Preload class C - G _C	1040 N
Calculation factor - f	1.09
Calculation factor - f ₁	0.99
Calculation factor - f _{2A}	1
Calculation factor - f _{2B}	1.03
Calculation factor - f _{2C}	1.06
Calculation factor - f _{HC}	1
Preload class A	132 N/micron
Preload class B	198 N/micron



BEARING MANUFACTURING DE MEXICO,S.A.D...

Preload class C	259 N/micron
d_1	77.26 mm
d_2	74.9 mm
D_1	87.72 mm
C_1	5.3 mm
C_2	3.3 mm
C_3	3.3 mm
$r_{1,2}$ min.	1.1 mm
$r_{3,4}$ min.	0.6 mm
d_a min.	71 mm
d_b min.	71 mm
D_a max.	94 mm
D_b max.	95.8 mm
r_a max.	1 mm
r_b max.	0.6 mm
d_n	79.3 mm
Basic dynamic load rating C	19.5 kN
Basic static load rating C_0	14.6 kN
Fatigue load limit P_u	0.62 kN
Attainable speed for grease lubrication	17000 r/min
Attainable speed for oil-air lubrication	26000 r/min
Ball diameter D_w	8.731 mm
Number of balls z	25
Reference grease quantity G_{ref}	6.2 cm ³
Preload class A G_A	170 N
Static axial stiffness, preload class A	132 N/ μ m
Preload class B G_B	520 N
Static axial stiffness, preload class B	198 N/ μ m
Preload class C G_C	1040 N



BEARING MANUFACTURING DE MEXICO,S.A.D...

Static axial stiffness, preload class C	259 N/ μ m
Calculation factor f	1.09
Calculation factor f_1	0.99
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.03
Calculation factor f_{2C}	1.06
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	0.43 kg