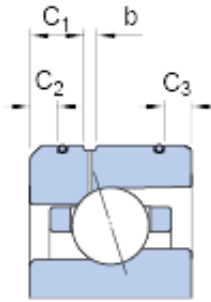
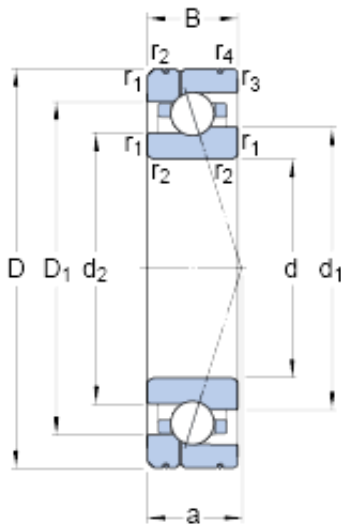




Timken BEARINGS INDUSTRY



25 mm x 47 mm x 12 mm SKF 7005
ACE/P4AL1 angular contact ball bearings

Bearing No. 7005 ACE/P4AL1

7005 ACE/P4AL1 Bearing 2D drawings and 3D CAD models

Size	47x25x12 mm
Bore Diameter	47 mm
Outer Diameter	25 mm
Width	12 mm
d	25 mm
D	47 mm
B	12 mm
d ₁	31.6 mm
d ₂	29.8 mm
D ₁	39.21 mm
b	1.4 mm
C ₁	3.2 mm
C ₂	1.45 mm
C ₃	1.9 mm
r _{1,2} - min.	0.6 mm
r _{3,4} - min.	0.3 mm
a	14.4 mm
d _a - min.	28.2 mm
d _b - min.	28.2 mm
D _a - max.	43.8 mm
D _b - max.	44.6 mm
r _a - max.	0.6 mm
r _b - max.	0.3 mm
d _n	33.1 mm



Timken BEARINGS INDUSTRY

Basic dynamic load rating - C	7.9 kN
Basic static load rating - C ₀	3.9 kN
Fatigue load limit - P _u	0.166 kN
Limiting speed for grease lubrication	42000 r/min
Limiting speed for oil lubrication	63000 mm/min
Ball - D _w	6.35 mm
Ball - z	14
G _{ref}	1.3 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	70 N
Preload class B - G _B	210 N
Preload class C - G _C	430 N
Calculation factor - f	1.05
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	59 N/micron
Preload class B	89 N/micron



Timken BEARINGS INDUSTRY

Preload class C	117 N/micron
d_1	31.6 mm
d_2	29.8 mm
D_1	39.21 mm
C_1	3.2 mm
C_2	1.45 mm
C_3	1.9 mm
$r_{1,2}$ min.	0.6 mm
$r_{3,4}$ min.	0.3 mm
d_a min.	28.2 mm
d_b min.	28.2 mm
D_a max.	43.8 mm
D_b max.	44.6 mm
r_a max.	0.6 mm
r_b max.	0.3 mm
d_n	33.1 mm
Basic dynamic load rating C	7.93 kN
Basic static load rating C_0	3.9 kN
Fatigue load limit P_u	0.166 kN
Attainable speed for grease lubrication	42000 r/min
Attainable speed for oil-air lubrication	63000 r/min
Ball diameter D_w	6.35 mm
Number of balls z	14
Reference grease quantity G_{ref}	1.3 cm ³
Preload class A G_A	70 N
Static axial stiffness, preload class A	59 N/ μ m
Preload class B G_B	210 N
Static axial stiffness, preload class B	89 N/ μ m
Preload class C G_C	430 N



Timken BEARINGS INDUSTRY

Static axial stiffness, preload class C	117 N/ μ m
Calculation factor f	1.05
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	0.074 kg