



Bearing No. 7001 ACE/P4A

D	28 mm
d	12 mm
B	8 mm
a	8.8 mm
Ball - z	12
Size (mm)	28x12x8
Width (mm)	8
Mass bearing	0.021 kg
$d_n$	18.5 mm
$d_n$	18.5 mm
$D_1$	22.45 mm
$d_1$	17.5 mm
$d_2$	16.5 mm
$D_2$	22.45 mm
$d_2$	16.5 mm
$d_1$	17.5 mm
Bearing number	7001 ACE/P4A
Preload class A	34 N/micron
$G_{ref}$	0.31 cm <sup>3</sup>
Preload class C	66 N/micron
Preload class B	50 N/micron
Number of balls z	12
Bore Diameter (mm)	28
$r_b$ max.	0.15 mm
$r_a$ max.	0.3 mm
$D_b$ max.	26.6 mm
$D_a$ max.	26 mm
$d_a$ min.	14 mm
$d_b$ min.	14 mm

Outer Diameter (mm)	12
D <sub>b</sub> - max.	26.6 mm
d <sub>a</sub> - min.	14 mm
Calculation factor e	0.68
Calculation factor f	1.02
r <sub>b</sub> - max.	0.15 mm
D <sub>a</sub> - max.	26 mm
r <sub>a</sub> - max.	0.3 mm
r <sub>3,4</sub> min.	0.15 mm
r <sub>1,2</sub> min.	0.3 mm
Ball - D <sub>w</sub>	3.969 mm
d <sub>b</sub> - min.	14 mm
r <sub>1,2</sub> - min.	0.3 mm
r <sub>3,4</sub> - min.	0.15 mm
Calculation factor - e	0.68
Calculation factor - f	1.02
Basic dynamic load rating C	3.07 kN
Ball diameter D <sub>w</sub>	3.969 mm
Preload class B G <sub>B</sub>	85 N
Preload class C G <sub>C</sub>	170 N
Basic dynamic load rating - C	3.1 kN
Preload class A G <sub>A</sub>	28 N
Preload class B - G <sub>B</sub>	85 N
Preload class C - G <sub>C</sub>	170 N
Preload class A - G <sub>A</sub>	28 N
Fatigue load limit P <sub>u</sub>	0.054 kN
Calculation factor f <sub>1</sub>	0.99
Calculation factor f <sub>2C</sub>	1.06
Calculation factor f <sub>2A</sub>	1
Calculation factor f <sub>HC</sub>	1

Calculation factor $f_{2B}$	1.03
Limiting speed for oil lubrication	112000 mm/min
Fatigue load limit - $P_u$	0.054 kN
Calculation factor - $f_1$	0.99
Calculation factor - $Y_2$	1.41
Calculation factor - $X_2$	0.67
Calculation factor - $Y_1$	0.92
Calculation factor - $Y_0$	0.76
Calculation factor - $f_{HC}$	1
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2C}$	1.06
Calculation factor - $f_{2B}$	1.03
Limiting speed for grease lubrication	73000 r/min
Basic static load rating $C_0$	1.27 kN
Static axial stiffness, preload class B	50 N/ $\mu$ m
Static axial stiffness, preload class A	34 N/ $\mu$ m
Attainable speed for grease lubrication	73000 r/min
Static axial stiffness, preload class C	66 N/ $\mu$ m
Basic static load rating - $C_0$	1.3 kN
Attainable speed for oil-air lubrication	112000 r/min
Reference grease quantity $G_{ref}$	0.31 cm <sup>3</sup>
Calculation factor (single, tandem) $Y_2$	0.87
Calculation factor	0.38

(single, tandem) $Y_0$	
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