



Bearing No. 7019 ACE/P4AL

b	2.2 mm
d	95 mm
a	40.2 mm
B	24 mm
D	145 mm
Ball - z	26
Size (mm)	145x95x24
Width (mm)	24
Mass bearing	1.21 kg
$d_2$	109.2 mm
$D_1$	127.61 mm
$d_n$	115.4 mm
$C_1$	13.4 mm
$C_2$	4.3 mm
$C_3$	4.3 mm
$C_2$	4.3 mm
$C_1$	13.4 mm
$d_n$	115.4 mm
$D_1$	127.61 mm
$d_2$	109.2 mm
$d_1$	112.38 mm
$d_1$	112.38 mm
$C_3$	4.3 mm
Bearing number	7019 ACE/P4AL
Preload class A	212 N/micron
Preload class B	319 N/micron
$G_{ref}$	17 cm <sup>3</sup>
Preload class C	420 N/micron
Number of balls z	26

Bore Diameter (mm)	145
$r_b$ max.	1 mm
$r_a$ max.	1.5 mm
$D_b$ max.	139.4 mm
$D_a$ max.	138 mm
$d_a$ min.	102 mm
$d_b$ min.	102 mm
Outer Diameter (mm)	95
$r_b$ - max.	1 mm
$r_{3,4}$ min.	1 mm
$d_b$ - min.	102 mm
$D_a$ - max.	138 mm
$D_b$ - max.	139.4 mm
$r_{1,2}$ min.	1.5 mm
$d_a$ - min.	102 mm
$r_a$ - max.	1.5 mm
Ball - $D_w$	12.7 mm
Calculation factor f	1.11
Calculation factor e	0.68
$r_{3,4}$ - min.	1 mm
Calculation factor - f	1.11
$r_{1,2}$ - min.	1.5 mm
Calculation factor - e	0.68
Ball diameter $D_w$	12.7 mm
Basic dynamic load rating C	41.6 kN
Preload class C $G_C$	2270 N
Basic dynamic load rating - C	41.6 kN
Preload class B $G_B$	1130 N
Preload class A $G_A$	380 N
Preload class C - $G_C$	2270 N

Preload class A - $G_A$	380 N
Preload class B - $G_B$	1130 N
Calculation factor $f_1$	0.99
Fatigue load limit $P_u$	1.4 kN
Calculation factor $f_{HC}$	1
Calculation factor $f_{2C}$	1.06
Calculation factor $f_{2B}$	1.03
Calculation factor $f_{2A}$	1
Calculation factor - $Y_2$	1.41
Calculation factor - $Y_0$	0.76
Calculation factor - $X_2$	0.67
Limiting speed for oil lubrication	18000 mm/min
Calculation factor - $Y_1$	0.92
Fatigue load limit - $P_u$	1.4 kN
Calculation factor - $f_1$	0.99
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{HC}$	1
Calculation factor - $f_{2C}$	1.06
Calculation factor - $f_{2B}$	1.03
Limiting speed for grease lubrication	11500 r/min
Basic static load rating $C_0$	36 kN
Static axial stiffness, preload class A	212 N/ $\mu$ m
Static axial stiffness, preload class C	420 N/ $\mu$ m
Static axial stiffness, preload class B	319 N/ $\mu$ m
Attainable speed for grease lubrication	11500 r/min

Basic static load rating - $C_0$	36 kN
Attainable speed for oil-air lubrication	18000 r/min
Reference grease quantity $G_{ref}$	17 cm <sup>3</sup>
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