



Bearing No. 7019 ACE/HCP4AH1

K	0.5 mm
a	40.2 mm
d	95 mm
D	145 mm
B	24 mm
Ball - z	26
Size (mm)	145x95x24
Width (mm)	24
Mass bearing	1.08 kg
d_n	115.4 mm
D_1	127.61 mm
d_1	112.38 mm
C_1	7.81 mm
D_1	127.61 mm
d_2	109.2 mm
C_1	7.81 mm
d_1	112.38 mm
d_n	115.4 mm
d_2	109.2 mm
Bearing number	7019 ACE/HCP4AH1
Preload class A	236 N/micron
Preload class B	354 N/micron
Preload class C	466 N/micron
G_{ref}	17 cm ³
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_a - max.	1.5 mm
$r_{3,4}$ min.	1 mm
D_a - max.	138 mm
d_b - min.	102 mm
$r_{1,2}$ min.	1.5 mm
Ball - D_w	12.7 mm
r_b - max.	1 mm
D_b - max.	139.4 mm
Calculation factor f	1.11
Calculation factor e	0.68
d_a - min.	102 mm
Calculation factor - f	1.11
$r_{3,4}$ - min.	1 mm
$r_{1,2}$ - 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 A G_A	380 N
Preload class B G_B	1130 N
Preload class C G_C	2270 N
Basic dynamic load rating - C	41.6 kN
Preload class B - G_B	1130 N
Preload class C - G_C	2270 N
Preload class A - G_A	380 N
Fatigue load limit P_u	1.4 kN
Calculation factor f_1	0.99

Calculation factor f_{2C}	1.06
Calculation factor f_{2B}	1.03
Calculation factor f_{HC}	1.01
Calculation factor f_{2A}	1
Calculation factor - f_1	0.99
Limiting speed for oil lubrication	20500 mm/min
Fatigue load limit - P_u	1.4 kN
Calculation factor - Y_0	0.76
Calculation factor - Y_1	0.92
Calculation factor - X_2	0.67
Calculation factor - Y_2	1.41
Calculation factor - f_{HC}	1.01
Calculation factor - f_{2C}	1.06
Calculation factor - f_{2B}	1.03
Calculation factor - f_{2A}	1
Limiting speed for grease lubrication	13300 r/min
Basic static load rating C_0	36 kN
Static axial stiffness, preload class C	466 N/ μ m
Attainable speed for grease lubrication	13300 r/min
Static axial stiffness, preload class B	354 N/ μ m
Static axial stiffness, preload class A	236 N/ μ m
Attainable speed for oil-air lubrication	20500 r/min
Basic static load rating - C_0	36 kN
Reference grease	17 cm ³

quantity G_{ref}	
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