



Bearing No. 7219 ACD/HCP4A

D	170 mm
d	95 mm
B	32 mm
a	47.1 mm
Ball - z	15
Size (mm)	170x95x32
Width (mm)	32
Mass bearing	2.2 kg
$d_n$	124.4 mm
$d_n$	124.4 mm
$D_1$	146.9 mm
$d_1$	118.1 mm
$d_2$	118.1 mm
$D_1$	146.9 mm
$d_2$	118.1 mm
$d_1$	118.1 mm
Bearing number	7219 ACD/HCP4A
Preload class B	405 N/micron
Preload class A	310 N/micron
Preload class D	721 N/micron
Preload class C	535 N/micron
$G_{ref}$	34.314 cm <sup>3</sup>
Number of balls z	15
Bore Diameter (mm)	170
$r_b$ max.	1 mm
$r_a$ max.	2 mm
$D_b$ max.	163 mm
$D_a$ max.	158 mm
$d_a$ min.	107 mm

d <sub>b</sub> min.	107 mm
Outer Diameter (mm)	95
D <sub>b</sub> - max.	163 mm
d <sub>b</sub> - min.	107 mm
Ball - D <sub>w</sub>	23.812 mm
r <sub>1,2</sub> min.	2.1 mm
r <sub>3,4</sub> min.	1.1 mm
d <sub>a</sub> - min.	107 mm
r <sub>a</sub> - max.	2 mm
D <sub>a</sub> - max.	158 mm
r <sub>b</sub> - max.	1 mm
Calculation factor f	1.09
Calculation factor e	0.68
r <sub>1,2</sub> - min.	2.1 mm
r <sub>3,4</sub> - min.	1.1 mm
Calculation factor - e	0.68
Calculation factor - f	1.09
Ball diameter D <sub>w</sub>	23.812 mm
Basic dynamic load rating C	133 kN
Preload class C G <sub>C</sub>	3400 N
Preload class B G <sub>B</sub>	1700 N
Preload class A G <sub>A</sub>	850 N
Preload class D G <sub>D</sub>	6800 N
Basic dynamic load rating - C	133 kN
Preload class B - G <sub>B</sub>	1700 N
Preload class D - G <sub>D</sub>	6800 N
Preload class C - G <sub>C</sub>	3400 N
Preload class A - G <sub>A</sub>	850 N
Fatigue load limit P <sub>u</sub>	4.25 kN
Calculation factor f <sub>1</sub>	0.99

Calculation factor $f_{2A}$	1
Calculation factor $f_{2C}$	1.03
Calculation factor $f_{2B}$	1.01
Calculation factor $f_{2D}$	1.06
Calculation factor $f_{HC}$	1.01
Calculation factor - $X_2$	0.67
Calculation factor - $f_1$	0.99
Calculation factor - $Y_1$	0.92
Limiting speed for oil lubrication	14000 mm/min
Calculation factor - $Y_0$	0.76
Fatigue load limit - $P_u$	4.2 kN
Calculation factor - $Y_2$	1.41
Calculation factor - $f_{HC}$	1.01
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2C}$	1.03
Calculation factor - $f_{2B}$	1.01
Calculation factor - $f_{2D}$	1.06
Limiting speed for grease lubrication	8500 r/min
Basic static load rating $C_0$	114 kN
Static axial stiffness, preload class B	405 N/ $\mu\text{m}$
Attainable speed for grease lubrication	8500 r/min
Static axial stiffness, preload class D	721 N/ $\mu\text{m}$
Static axial stiffness, preload class C	535 N/ $\mu\text{m}$
Static axial stiffness, preload class A	310 N/ $\mu\text{m}$
Basic static load rating -	114 kN

$C_0$	
Attainable speed for oil-air lubrication	14000 r/min
Reference grease quantity $G_{ref}$	34.314 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