



Bearing No. 7019 CD/HCP4AL

b	2.2 mm
d	95 mm
a	28.2 mm
B	24 mm
D	145 mm
Ball - z	21
Size (mm)	145x95x24
Width (mm)	24
Mass bearing	1 kg
d <sub>2</sub>	110.4 mm
D <sub>1</sub>	129.6 mm
d <sub>n</sub>	113.7 mm
C <sub>1</sub>	13.4 mm
C <sub>2</sub>	5.2 mm
C <sub>3</sub>	4.3 mm
C <sub>2</sub>	5.2 mm
C <sub>1</sub>	13.4 mm
d <sub>n</sub>	113.7 mm
D <sub>1</sub>	129.6 mm
d <sub>2</sub>	110.4 mm
d <sub>1</sub>	110.4 mm
d <sub>1</sub>	110.4 mm
C <sub>3</sub>	4.3 mm
Bearing number	7019 CD/HCP4AL
Preload class B	164 N/micron
G <sub>ref</sub>	15.6 cm3
Preload class C	231 N/micron
Preload class D	335 N/micron
Preload class A	120 N/micron

Number of balls z	21
$d_a$ min.	102 mm
$D_a$ max.	138 mm
$d_b$ min.	102 mm
$D_b$ max.	141 mm
$r_a$ max.	1.5 mm
$r_b$ max.	1 mm
Bore Diameter (mm)	145
Outer Diameter (mm)	95
$r_{1,2}$ min.	1.5 mm
$d_a$ - min.	102 mm
$d_b$ - min.	102 mm
$D_a$ - max.	138 mm
Calculation factor f	1.15
$r_b$ - max.	1 mm
$r_{3,4}$ min.	1 mm
$D_b$ - max.	141 mm
Ball - $D_w$	15.875 mm
$r_a$ - max.	1.5 mm
Calculation factor - f	1.15
$r_{3,4}$ - min.	1 mm
$r_{1,2}$ - min.	1.5 mm
Ball diameter $D_w$	15.875 mm
Basic dynamic load rating C	81.9 kN
Preload class B $G_B$	620 N
Preload class A $G_A$	310 N
Preload class D $G_D$	2480 N
Preload class C $G_C$	1240 N
Basic dynamic load rating - C	81.9 kN
Preload class B - $G_B$	620 N

Preload class C - $G_C$	1240 N
Preload class D - $G_D$	2480 N
Preload class A - $G_A$	310 N
Calculation factor $f_1$	1
Calculation factor $f_0$	15.7
Fatigue load limit $P_u$	3.1 kN
Calculation factor $f_{HC}$	1.02
Calculation factor $f_{2D}$	1.09
Calculation factor $f_{2B}$	1.02
Calculation factor $f_{2A}$	1
Calculation factor - $f$	1
Calculation factor $f_{2C}$	1.05
Fatigue load limit - $P_u$	3.1 kN
Limiting speed for oil lubrication	17000 mm/min
Calculation factor - $f_0$	15.7
Calculation factor - $f_{HC}$	1.02
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2D}$	1.09
Calculation factor - $f_{2B}$	1.02
Calculation factor - $f_{2C}$	1.05
Limiting speed for grease lubrication	11000 r/min
Basic static load rating $C_0$	80 kN
Static axial stiffness, preload class B	164 N/ $\mu$ m
Static axial stiffness, preload class A	120 N/ $\mu$ m
Static axial stiffness, preload class C	231 N/ $\mu$ m
Static axial stiffness,	335 N/ $\mu$ m

preload class D	
Attainable speed for grease lubrication	11000 r/min
Basic static load rating - $C_0$	80 kN
Attainable speed for oil-air lubrication	17000 r/min
Reference grease quantity $G_{ref}$	15.6 cm <sup>3</sup>