



Bearing No. 7203 ACD/HCP4A

D	40 mm
d	17 mm
B	12 mm
a	12.8 mm
Ball - z	10
Size (mm)	40x17x12
Width (mm)	12
Mass bearing	0.054 kg
$d_n$	25.9 mm
$d_n$	25.9 mm
$D_1$	32.8 mm
$d_1$	24.1 mm
$d_2$	24.1 mm
$D_1$	32.8 mm
$d_2$	24.1 mm
$d_1$	24.1 mm
Bearing number	7203 ACD/HCP4A
Preload class B	76 N/micron
Preload class A	59 N/micron
Preload class D	131 N/micron
Preload class C	99 N/micron
$G_{ref}$	1.005 cm <sup>3</sup>
Number of balls z	10
Bore Diameter (mm)	40
$r_b$ max.	0.3 mm
$r_a$ max.	0.6 mm
$D_b$ max.	37.6 mm
$D_a$ max.	35.8 mm
$d_a$ min.	21.2 mm

d <sub>b</sub> min.	21.2 mm
Outer Diameter (mm)	17
D <sub>b</sub> - max.	37.6 mm
d <sub>b</sub> - min.	21.2 mm
Ball - D <sub>w</sub>	7.144 mm
r <sub>1,2</sub> min.	0.6 mm
r <sub>3,4</sub> min.	0.3 mm
d <sub>a</sub> - min.	21.2 mm
r <sub>a</sub> - max.	0.6 mm
D <sub>a</sub> - max.	35.8 mm
r <sub>b</sub> - max.	0.3 mm
Calculation factor f	1.03
Calculation factor e	0.68
r <sub>1,2</sub> - min.	0.6 mm
r <sub>3,4</sub> - min.	0.3 mm
Calculation factor - e	0.68
Calculation factor - f	1.03
Ball diameter D <sub>w</sub>	7.144 mm
Basic dynamic load rating C	8.84 kN
Preload class C G <sub>C</sub>	240 N
Preload class B G <sub>B</sub>	120 N
Preload class A G <sub>A</sub>	60 N
Preload class D G <sub>D</sub>	480 N
Basic dynamic load rating - C	8.8 kN
Preload class B - G <sub>B</sub>	120 N
Preload class D - G <sub>D</sub>	480 N
Preload class C - G <sub>C</sub>	240 N
Preload class A - G <sub>A</sub>	60 N
Fatigue load limit P <sub>u</sub>	0.17 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	67000 mm/min
Calculation factor - $Y_0$	0.76
Fatigue load limit - $P_u$	0.17 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	45000 r/min
Basic static load rating $C_0$	4 kN
Static axial stiffness, preload class B	76 N/ $\mu\text{m}$
Attainable speed for grease lubrication	45000 r/min
Static axial stiffness, preload class D	131 N/ $\mu\text{m}$
Static axial stiffness, preload class C	99 N/ $\mu\text{m}$
Static axial stiffness, preload class A	59 N/ $\mu\text{m}$
Basic static load rating -	4 kN

C <sub>0</sub>	
Attainable speed for oil-air lubrication	67000 r/min
Reference grease quantity G <sub>ref</sub>	1.005 cm <sup>3</sup>
Calculation factor (single, tandem) Y <sub>2</sub>	0.87
Calculation factor (single, tandem) Y <sub>0</sub>	0.38
Calculation factor (single, tandem) X <sub>2</sub>	0.41
Calculation factor (back-to-back, face-to-face) Y <sub>1</sub>	0.92
Calculation factor (back-to-back, face-to-face) Y <sub>2</sub>	1.41
Calculation factor (back-to-back, face-to-face) Y <sub>0</sub>	0.76
Calculation factor (back-to-back, face-to-face) X <sub>2</sub>	0.67