



Bearing No. 7207 ACD/HCP4A

D	72 mm
d	35 mm
B	17 mm
a	21.1 mm
Ball - z	13
Size (mm)	72x35x17
Width (mm)	17
Mass bearing	0.24 kg
$d_n$	49.7 mm
$d_n$	49.7 mm
$D_1$	60.2 mm
$d_1$	46.8 mm
$d_2$	46.8 mm
$D_1$	60.2 mm
$d_2$	46.8 mm
$d_1$	46.8 mm
Bearing number	7207 ACD/HCP4A
Preload class B	171 N/micron
Preload class A	132 N/micron
Preload class D	305 N/micron
Preload class C	227 N/micron
$G_{ref}$	3.903 cm <sup>3</sup>
Number of balls z	13
Bore Diameter (mm)	72
$r_b$ max.	0.3 mm
$r_a$ max.	1 mm
$D_b$ max.	69.6 mm
$D_a$ max.	65 mm
$d_a$ min.	42 mm

d <sub>b</sub> min.	42 mm
Outer Diameter (mm)	35
D <sub>b</sub> - max.	69.6 mm
d <sub>b</sub> - min.	42 mm
Ball - D <sub>w</sub>	11.112 mm
r <sub>1,2</sub> min.	1.1 mm
r <sub>3,4</sub> min.	0.3 mm
d <sub>a</sub> - min.	42 mm
r <sub>a</sub> - max.	1 mm
D <sub>a</sub> - max.	65 mm
r <sub>b</sub> - max.	0.3 mm
Calculation factor f	1.05
Calculation factor e	0.68
r <sub>1,2</sub> - min.	1.1 mm
r <sub>3,4</sub> - min.	0.3 mm
Calculation factor - e	0.68
Calculation factor - f	1.05
Ball diameter D <sub>w</sub>	11.112 mm
Basic dynamic load rating C	30.7 kN
Preload class C G <sub>C</sub>	760 N
Preload class B G <sub>B</sub>	380 N
Preload class A G <sub>A</sub>	190 N
Preload class D G <sub>D</sub>	1520 N
Basic dynamic load rating - C	30.7 kN
Preload class B - G <sub>B</sub>	380 N
Preload class D - G <sub>D</sub>	1520 N
Preload class C - G <sub>C</sub>	760 N
Preload class A - G <sub>A</sub>	190 N
Fatigue load limit P <sub>u</sub>	0.88 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	34000 mm/min
Calculation factor - $Y_0$	0.76
Fatigue load limit - $P_u$	0.88 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	20000 r/min
Basic static load rating $C_0$	20.8 kN
Static axial stiffness, preload class B	171 N/ $\mu\text{m}$
Attainable speed for grease lubrication	20000 r/min
Static axial stiffness, preload class D	305 N/ $\mu\text{m}$
Static axial stiffness, preload class C	227 N/ $\mu\text{m}$
Static axial stiffness, preload class A	132 N/ $\mu\text{m}$
Basic static load rating -	20.8 kN

$C_0$	
Attainable speed for oil-air lubrication	34000 r/min
Reference grease quantity $G_{ref}$	3.903 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