



Bearing No. 71900 ACE/HCP4A

D	22 mm
d	10 mm
B	6 mm
a	7.2 mm
Ball - z	11
Size (mm)	22x10x6
Width (mm)	6
Mass bearing	0.008 kg
d <sub>n</sub>	14.8 mm
d <sub>n</sub>	14.8 mm
D <sub>1</sub>	17.92 mm
d <sub>1</sub>	14 mm
d <sub>2</sub>	13.26 mm
D <sub>1</sub>	17.92 mm
d <sub>2</sub>	13.26 mm
d <sub>1</sub>	14 mm
Bearing number	71900 ACE/HCP4A
Preload class A	28 N/micron
G <sub>ref</sub>	0.1 cm <sup>3</sup>
Preload class C	54 N/micron
Preload class B	41 N/micron
Number of balls z	11
Bore Diameter (mm)	22
r <sub>b</sub> max.	0.15 mm
r <sub>a</sub> max.	0.3 mm
D <sub>b</sub> max.	21.2 mm
D <sub>a</sub> max.	20 mm
d <sub>a</sub> min.	12 mm
d <sub>b</sub> min.	12 mm

Outer Diameter (mm)	10
D <sub>b</sub> - max.	21.2 mm
d <sub>a</sub> - min.	12 mm
Calculation factor e	0.68
Calculation factor f	1.03
r <sub>b</sub> - max.	0.15 mm
D <sub>a</sub> - max.	20 mm
r <sub>a</sub> - max.	0.3 mm
r <sub>3,4</sub> min.	0.15 mm
r <sub>1,2</sub> min.	0.3 mm
Ball - D <sub>w</sub>	3.175 mm
d <sub>b</sub> - min.	12 mm
r <sub>1,2</sub> - min.	0.3 mm
r <sub>3,4</sub> - min.	0.15 mm
Calculation factor - e	0.68
Calculation factor - f	1.03
Basic dynamic load rating C	1.95 kN
Ball diameter D <sub>w</sub>	3.175 mm
Preload class B G <sub>B</sub>	50 N
Preload class C G <sub>C</sub>	100 N
Basic dynamic load rating - C	2 kN
Preload class A G <sub>A</sub>	17 N
Preload class B - G <sub>B</sub>	50 N
Preload class C - G <sub>C</sub>	100 N
Preload class A - G <sub>A</sub>	17 N
Fatigue load limit P <sub>u</sub>	0.032 kN
Calculation factor f <sub>1</sub>	0.98
Calculation factor f <sub>2C</sub>	1.08
Calculation factor f <sub>2A</sub>	1
Calculation factor f <sub>HC</sub>	1.01

Calculation factor $f_{2B}$	1.04
Limiting speed for oil lubrication	165000 mm/min
Fatigue load limit - $P_u$	0.032 kN
Calculation factor - $f_1$	0.98
Calculation factor - $Y_2$	1.41
Calculation factor - $X_2$	0.67
Calculation factor - $Y_1$	0.92
Calculation factor - $Y_0$	0.76
Calculation factor - $f_{HC}$	1.01
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2C}$	1.08
Calculation factor - $f_{2B}$	1.04
Limiting speed for grease lubrication	109000 r/min
Basic static load rating $C_0$	0.78 kN
Static axial stiffness, preload class B	41 N/ $\mu$ m
Static axial stiffness, preload class A	28 N/ $\mu$ m
Attainable speed for grease lubrication	109000 r/min
Static axial stiffness, preload class C	54 N/ $\mu$ m
Basic static load rating - $C_0$	0.78 kN
Attainable speed for oil-air lubrication	165000 r/min
Reference grease quantity $G_{ref}$	0.1 cm <sup>3</sup>
Calculation factor (single, tandem) $Y_2$	0.87
Calculation factor	0.38

(single, tandem) Y <sub>0</sub>	
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