



Bearing No. 7009 CE/HCP4AH1

Size	75x45x16 mm
Bore Diameter	75 mm
Outer Diameter	45 mm
Width	16 mm
d	45 mm
D	75 mm
B	16 mm
d <sub>1</sub>	55.7 mm
d <sub>2</sub>	53.6 mm
D <sub>1</sub>	64.25 mm
K	0.5 mm
C <sub>1</sub>	5.53 mm
r <sub>1,2</sub> - min.	1 mm
r <sub>3,4</sub> - min.	0.6 mm
a	16.1 mm
d <sub>a</sub> - min.	49.6 mm
d <sub>b</sub> - min.	49.6 mm
D <sub>a</sub> - max.	70.4 mm
D <sub>b</sub> - max.	70.8 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.6 mm
d <sub>n</sub>	57.6 mm
Basic dynamic load rating - C	13 kN
Basic static load rating - C <sub>0</sub>	8.5 kN
Fatigue load limit - P <sub>u</sub>	0.36 kN
Limiting speed for grease lubrication	32000 r/min
Limiting speed for oil	50000 mm/min

Lubrication	
Ball - $D_w$	7.144 mm
Ball - $z$	21
$G_{ref}$	3.4 cm <sup>3</sup>
Calculation factor - $f_0$	8.2
Preload class A - $G_A$	70 N
Preload class B - $G_B$	210 N
Preload class C - $G_C$	410 N
Calculation factor - $f$	1.06
Calculation factor - $f$	1
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.03
Calculation factor - $f_{2C}$	1.05
Calculation factor - $f_{HC}$	1.01
Preload class A	42 N/micron
Preload class B	65 N/micron
Preload class C	88 N/micron
$d_1$	55.7 mm
$d_2$	53.6 mm
$D_1$	64.25 mm
$C_1$	5.53 mm
$r_{1,2}$ min.	1 mm
$r_{3,4}$ min.	0.6 mm
$d_a$ min.	49.6 mm
$d_b$ min.	49.6 mm
$D_a$ max.	70.4 mm
$D_b$ max.	70.8 mm
$r_a$ max.	1 mm
$r_b$ max.	0.6 mm
$d_n$	57.6 mm

Basic dynamic load rating C	13 kN
Basic static load rating $C_0$	8.5 kN
Fatigue load limit $P_u$	0.36 kN
Attainable speed for grease lubrication	32000 r/min
Attainable speed for oil-air lubrication	50000 r/min
Ball diameter $D_w$	7.144 mm
Number of balls z	21
Reference grease quantity $G_{ref}$	3.4 cm <sup>3</sup>
Preload class A $G_A$	70 N
Static axial stiffness, preload class A	42 N/ $\mu$ m
Preload class B $G_B$	210 N
Static axial stiffness, preload class B	65 N/ $\mu$ m
Preload class C $G_C$	410 N
Static axial stiffness, preload class C	88 N/ $\mu$ m
Calculation factor f	1.06
Calculation factor $f_1$	1
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.03
Calculation factor $f_{2C}$	1.05
Calculation factor $f_{HC}$	1.01
Calculation factor $f_0$	8.2
Mass bearing	0.22 kg