



Bearing No. S7009 ACE/HCP4A

D	75 mm
d	45 mm
B	16 mm
a	22.2 mm
Ball - z	21
Size (mm)	75x45x16
Width (mm)	16
Mass bearing	0.23 kg
D <sub>2</sub>	66.85 mm
d <sub>2</sub>	53.6 mm
d <sub>1</sub>	55.7 mm
d <sub>2</sub>	53.6 mm
D <sub>2</sub>	66.85 mm
d <sub>1</sub>	55.7 mm
Bearing number	S7009 ACE/HCP4A
Preload class A	104 N/micron
Preload class B	156 N/micron
Preload class C	204 N/micron
Number of balls z	21
r <sub>b</sub> max.	0.6 mm
r <sub>a</sub> max.	1 mm
D <sub>b</sub> max.	70.8 mm
D <sub>a</sub> max.	70.4 mm
d <sub>b</sub> max.	53 mm
d <sub>b</sub> min.	49.6 mm
d <sub>a</sub> max.	55.1 mm
Bore Diameter (mm)	75
d <sub>a</sub> min.	49.6 mm
Outer Diameter (mm)	45
d <sub>a</sub> - max.	55.1 mm

$d_a$ - min.	49.6 mm
Calculation factor e	0.68
Calculation factor f	1.06
$d_b$ - max.	53 mm
$D_a$ - max.	70.4 mm
$r_a$ - max.	1 mm
$r_b$ - max.	0.6 mm
$d_b$ - min.	49.6 mm
$r_{3,4}$ min.	0.6 mm
$r_{1,2}$ min.	1 mm
Ball - $D_w$	7.144 mm
$D_b$ - max.	70.8 mm
$r_{3,4}$ - min.	0.6 mm
Calculation factor - f	1.06
Calculation factor - e	0.68
$r_{1,2}$ - min.	1 mm
Basic dynamic load rating C	12.1 kN
Ball diameter $D_w$	7.144 mm
Preload class A $G_A$	110 N
Basic dynamic load rating - C	12.1 kN
Preload class C $G_C$	660 N
Preload class B $G_B$	330 N
Preload class B - $G_B$	330 N
Preload class A - $G_A$	110 N
Preload class C - $G_C$	660 N
Calculation factor $f_1$	0.99
Fatigue load limit $P_u$	0.345 kN
Calculation factor $f_{HC}$	1.01
Calculation factor $f_{2C}$	1.06
Calculation factor $f_{2B}$	1.03

Calculation factor $f_{2A}$	1
Calculation factor - $X_2$	0.67
Calculation factor - $Y_0$	0.76
Calculation factor - $Y_1$	0.92
Calculation factor - $f_1$	0.99
Calculation factor - $Y_2$	1.41
Fatigue load limit - $P_u$	0.345 kN
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.03
Calculation factor - $f_{2C}$	1.06
Calculation factor - $f_{HC}$	1.01
Limiting speed for grease lubrication	29000 r/min
Basic static load rating $C_0$	8.15 kN
Static axial stiffness, preload class C	204 N/ $\mu$ m
Static axial stiffness, preload class B	156 N/ $\mu$ m
Attainable speed for grease lubrication	29000 r/min
Static axial stiffness, preload class A	104 N/ $\mu$ m
Basic static load rating - $C_0$	8.2 kN
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-	1.41

to-back, face-to-face) $Y_2$	
Calculation factor (back-to-back, face-to-face) $Y_0$	0.76
Calculation factor (back-to-back, face-to-face) $X_2$	0.67