



**Bearing No. 71809 ACD/HCP4**

D	58 mm
d	45 mm
B	7 mm
a	15.5 mm
Ball - z	31
Size (mm)	58x45x7
Width (mm)	7
Mass bearing	0.037 kg
$d_n$	50 mm
$d_n$	50 mm
$D_1$	53.6 mm
$d_1$	49.6 mm
$d_2$	49.6 mm
$D_1$	53.6 mm
$d_2$	49.6 mm
$d_1$	49.6 mm
Bearing number	71809 ACD/HCP4
Preload class A	97 N/micron
$G_{ref}$	0.36 cm <sup>3</sup>
Preload class C	210 N/micron
Preload class B	154 N/micron
Number of balls z	31
Bore Diameter (mm)	58
$r_b$ max.	0.15 mm
$r_a$ max.	0.3 mm
$D_b$ max.	57.2 mm
$D_a$ max.	56 mm
$d_a$ min.	47 mm
$d_b$ min.	47 mm

Outer Diameter (mm)	45
$D_b$ - max.	57.2 mm
$d_a$ - min.	47 mm
Calculation factor e	0.68
Calculation factor f	1.24
$r_b$ - max.	0.15 mm
$D_a$ - max.	56 mm
$r_a$ - max.	0.3 mm
$r_{3,4}$ min.	0.15 mm
$r_{1,2}$ min.	0.3 mm
Ball - $D_w$	3.175 mm
$d_b$ - min.	47 mm
$r_{1,2}$ - min.	0.3 mm
$r_{3,4}$ - min.	0.15 mm
Calculation factor - e	0.68
Calculation factor - f	1.24
Basic dynamic load rating C	4.62 kN
Ball diameter $D_w$	3.175 mm
Preload class B $G_B$	125 N
Preload class C $G_C$	250 N
Basic dynamic load rating - C	4.6 kN
Preload class A $G_A$	41 N
Preload class B - $G_B$	125 N
Preload class C - $G_C$	250 N
Preload class A - $G_A$	41 N
Fatigue load limit $P_u$	0.212 kN
Calculation factor $f_1$	0.97
Calculation factor $f_{2C}$	1.17
Calculation factor $f_{2A}$	1
Calculation factor $f_{HC}$	1.02

Calculation factor $f_{2B}$	1.09
Limiting speed for oil lubrication	38000 mm/min
Fatigue load limit - $P_u$	0.212 kN
Calculation factor - $f_1$	0.97
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 - $f_{HC}$	1.02
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2C}$	1.17
Calculation factor - $f_{2B}$	1.09
Limiting speed for grease lubrication	24000 r/min
Basic static load rating $C_0$	5 kN
Static axial stiffness, preload class B	154 N/ $\mu$ m
Static axial stiffness, preload class A	97 N/ $\mu$ m
Attainable speed for grease lubrication	24000 r/min
Static axial stiffness, preload class C	210 N/ $\mu$ m
Basic static load rating - $C_0$	5 kN
Attainable speed for oil-air lubrication	38000 r/min
Reference grease quantity $G_{ref}$	0.36 cm <sup>3</sup>
Calculation factor (single, tandem) $Y_2$	0.87
Calculation factor	0.38

(single, tandem) $Y_0$	
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