



Bearing No. S7005 ACD/HCP4A

D	47 mm
d	25 mm
B	12 mm
a	14.5 mm
Ball - z	14
Size (mm)	47x25x12
Width (mm)	12
Mass bearing	0.07 kg
D <sub>2</sub>	42.17 mm
d <sub>2</sub>	32.1 mm
d <sub>1</sub>	32.1 mm
d <sub>2</sub>	32.1 mm
D <sub>2</sub>	42.17 mm
d <sub>1</sub>	32.1 mm
Bearing number	S7005 ACD/HCP4A
Preload class B	92 N/micron
Preload class A	71 N/micron
Preload class D	159 N/micron
Preload class C	119 N/micron
Number of balls z	14
r <sub>b</sub> max.	0.3 mm
r <sub>a</sub> max.	0.6 mm
D <sub>b</sub> max.	45 mm
D <sub>a</sub> max.	43.8 mm
d <sub>b</sub> max.	31.6 mm
d <sub>b</sub> min.	28.2 mm
d <sub>a</sub> max.	31.6 mm
Bore Diameter (mm)	47
d <sub>a</sub> min.	28.2 mm
Outer Diameter (mm)	25

d <sub>a</sub> - max.	31.6 mm
d <sub>a</sub> - min.	28.2 mm
Calculation factor e	0.68
Calculation factor f	1.05
d <sub>b</sub> - max.	31.6 mm
D <sub>b</sub> - max.	45 mm
r <sub>a</sub> - max.	0.6 mm
r <sub>b</sub> - max.	0.3 mm
d <sub>b</sub> - min.	28.2 mm
r <sub>3,4</sub> min.	0.3 mm
r <sub>1,2</sub> min.	0.6 mm
Ball - D <sub>w</sub>	6.35 mm
D <sub>a</sub> - max.	43.8 mm
r <sub>3,4</sub> - min.	0.3 mm
r <sub>1,2</sub> - min.	0.6 mm
Calculation factor - f	1.05
Calculation factor - e	0.68
Ball diameter D <sub>w</sub>	6.35 mm
Basic dynamic load rating C	9.23 kN
Preload class A G <sub>A</sub>	60 N
Basic dynamic load rating - C	9.2 kN
Preload class B G <sub>B</sub>	120 N
Preload class C G <sub>C</sub>	240 N
Preload class D G <sub>D</sub>	480 N
Preload class B - G <sub>B</sub>	120 N
Preload class C - G <sub>C</sub>	240 N
Preload class A - G <sub>A</sub>	60 N
Preload class D - G <sub>D</sub>	480 N
Calculation factor f <sub>1</sub>	0.99
Fatigue load limit P <sub>u</sub>	0.212 kN

Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.02
Calculation factor $f_{2C}$	1.05
Calculation factor $f_{2D}$	1.08
Calculation factor $f_{HC}$	1.02
Calculation factor - $X_2$	0.67
Calculation factor - $Y_1$	0.92
Calculation factor - $Y_2$	1.41
Fatigue load limit - $P_u$	0.212 kN
Calculation factor - $Y_0$	0.76
Calculation factor - $f_1$	0.99
Calculation factor - $f_{HC}$	1.02
Calculation factor - $f_{2D}$	1.08
Calculation factor - $f_{2C}$	1.05
Calculation factor - $f_{2B}$	1.02
Calculation factor - $f_{2A}$	1
Limiting speed for grease lubrication	40000 r/min
Basic static load rating $C_0$	5 kN
Static axial stiffness, preload class D	159 N/ $\mu$ m
Attainable speed for grease lubrication	40000 r/min
Static axial stiffness, preload class C	119 N/ $\mu$ m
Static axial stiffness, preload class B	92 N/ $\mu$ m
Static axial stiffness, preload class A	71 N/ $\mu$ m
Basic static load rating - $C_0$	5 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-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