



Bearing No. S7205 ACD/P4A

D	52 mm
d	25 mm
B	15 mm
a	16.7 mm
Ball - z	13
Size (mm)	52x25x15
Width (mm)	15
Mass bearing	0.13 kg
D <sub>2</sub>	45.9 mm
d <sub>2</sub>	34.1 mm
d <sub>1</sub>	34.1 mm
d <sub>2</sub>	34.1 mm
D <sub>2</sub>	45.9 mm
d <sub>1</sub>	34.1 mm
Bearing number	S7205 ACD/P4A
Preload class B	92 N/micron
Preload class A	71 N/micron
Preload class D	158 N/micron
Preload class C	119 N/micron
Number of balls z	13
r <sub>b</sub> max.	0.3 mm
r <sub>a</sub> max.	1 mm
D <sub>b</sub> max.	49.6 mm
D <sub>a</sub> max.	46.4 mm
d <sub>b</sub> max.	33.5 mm
d <sub>b</sub> min.	30.6 mm
d <sub>a</sub> max.	33.5 mm
Bore Diameter (mm)	52
d <sub>a</sub> min.	30.6 mm
Outer Diameter (mm)	25

d <sub>a</sub> - max.	33.5 mm
d <sub>a</sub> - min.	30.6 mm
Calculation factor e	0.68
Calculation factor f	1.03
d <sub>b</sub> - max.	33.5 mm
D <sub>b</sub> - max.	49.6 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.3 mm
d <sub>b</sub> - min.	30.6 mm
r <sub>3,4</sub> min.	0.3 mm
r <sub>1,2</sub> min.	1 mm
Ball - D <sub>w</sub>	7.938 mm
D <sub>a</sub> - max.	46.4 mm
r <sub>3,4</sub> - min.	0.3 mm
r <sub>1,2</sub> - min.	1 mm
Calculation factor - f	1.03
Calculation factor - e	0.68
Ball diameter D <sub>w</sub>	7.938 mm
Basic dynamic load rating C	13 kN
Preload class A G <sub>A</sub>	80 N
Basic dynamic load rating - C	13 kN
Preload class B G <sub>B</sub>	160 N
Preload class C G <sub>C</sub>	320 N
Preload class D G <sub>D</sub>	640 N
Preload class B - G <sub>B</sub>	160 N
Preload class C - G <sub>C</sub>	320 N
Preload class A - G <sub>A</sub>	80 N
Preload class D - G <sub>D</sub>	640 N
Calculation factor f <sub>1</sub>	0.99
Fatigue load limit P <sub>u</sub>	0.29 kN

Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.01
Calculation factor $f_{2C}$	1.02
Calculation factor $f_{2D}$	1.05
Calculation factor $f_{HC}$	1
Calculation factor - $X_2$	0.67
Calculation factor - $Y_1$	0.92
Calculation factor - $Y_2$	1.41
Fatigue load limit - $P_u$	0.29 kN
Calculation factor - $Y_0$	0.76
Calculation factor - $f_1$	0.99
Calculation factor - $f_{HC}$	1
Calculation factor - $f_{2D}$	1.05
Calculation factor - $f_{2C}$	1.02
Calculation factor - $f_{2B}$	1.01
Calculation factor - $f_{2A}$	1
Limiting speed for grease lubrication	26000 r/min
Basic static load rating $C_0$	6.95 kN
Static axial stiffness, preload class D	158 N/ $\mu$ m
Attainable speed for grease lubrication	26000 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 - $C_0$	7 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