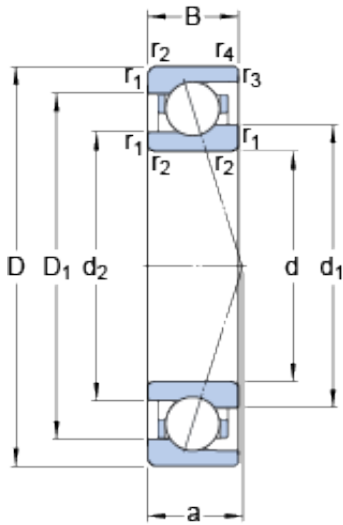




# BEARING CORP.OF AMERICA



## 12 mm x 24 mm x 6 mm SKF 71901 ACE/HCP4A angular contact ball bearings

Bearing No. 71901 ACE/HCP4A

71901 ACE/HCP4A Bearing 2D drawings and 3D CAD models

Size	24x12x6 mm
Bore Diameter	12 mm
Outer Diameter	24 mm
Width	6 mm
d	12 mm
D	24 mm
B	6 mm
d <sub>1</sub>	16 mm
d <sub>2</sub>	15.26 mm
D <sub>1</sub>	19.95 mm
r <sub>1,2</sub> - min.	0.3 mm
r <sub>3,4</sub> - min.	0.15 mm
a	7.7 mm
d <sub>a</sub> - min.	14 mm
d <sub>b</sub> - min.	14 mm
D <sub>a</sub> - max.	22 mm
D <sub>b</sub> - max.	23.2 mm
r <sub>a</sub> - max.	0.3 mm
r <sub>b</sub> - max.	0.15 mm
d <sub>n</sub>	16.8 mm
Basic dynamic load rating - C	2 kN
Basic static load rating - C <sub>0</sub>	0.865 kN
Fatigue load limit - P <sub>u</sub>	0.036 kN
Limiting speed for grease	98000 r/min



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Lubrication	
Limiting speed for oil lubrication	150000 mm/min
Ball - $D_w$	3.175 mm
Ball - $z$	12
$G_{ref}$	0.1 cm <sup>3</sup>
Calculation factor - $e$	0.68
Calculation factor - $Y_2$	0.87
Calculation factor - $Y_0$	0.38
Calculation factor - $X_2$	0.41
Calculation factor - $Y_1$	0.92
Calculation factor - $Y_2$	1.41
Calculation factor - $Y_0$	0.76
Calculation factor - $X_2$	0.67
Preload class A - $G_A$	18 N
Preload class B - $G_B$	55 N
Preload class C - $G_C$	110 N
Calculation factor - $f$	1.04
Calculation factor - $f_1$	0.98
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.04
Calculation factor - $f_{2C}$	1.08
Calculation factor - $f_{HC}$	1.01
Preload class A	30 N/micron
Preload class B	45 N/micron
Preload class C	59 N/micron
$d_1$	16 mm
$d_2$	15.26 mm
$D_1$	19.95 mm
$r_{1,2}$ min.	0.3 mm



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$r_{3,4}$ min.	0.15 mm
$d_a$ min.	14 mm
$d_b$ min.	14 mm
$D_a$ max.	22 mm
$D_b$ max.	23.2 mm
$r_a$ max.	0.3 mm
$r_b$ max.	0.15 mm
$d_n$	16.8 mm
Basic dynamic load rating C	2.03 kN
Basic static load rating $C_0$	0.865 kN
Fatigue load limit $P_u$	0.036 kN
Attainable speed for grease lubrication	98000 r/min
Attainable speed for oil-air lubrication	150000 r/min
Ball diameter $D_w$	3.175 mm
Number of balls z	12
Reference grease quantity $G_{ref}$	0.1 cm <sup>3</sup>
Preload class A $G_A$	18 N
Static axial stiffness, preload class A	30 N/ $\mu$ m
Preload class B $G_B$	55 N
Static axial stiffness, preload class B	45 N/ $\mu$ m
Preload class C $G_C$	110 N
Static axial stiffness, preload class C	59 N/ $\mu$ m
Calculation factor f	1.04
Calculation factor $f_1$	0.98
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.04
Calculation factor $f_{2C}$	1.08
Calculation factor $f_{HC}$	1.01



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Calculation factor e	0.68
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
Mass bearing	0.009 kg