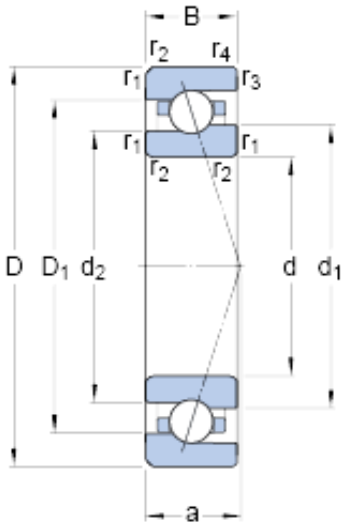




# Timken MANUFACTURING (THAILAND)CO.,LTD.



7018 ACE/HCP4A Bearing 2D drawings and 3D CAD models

## 90 mm x 140 mm x 24 mm SKF 7018 ACE/HCP4A angular contact ball bearings

Bearing No. 7018 ACE/HCP4A

Size	140x90x24 mm
Bore Diameter	140 mm
Outer Diameter	90 mm
Width	24 mm
d	90 mm
D	140 mm
B	24 mm
d <sub>1</sub>	108.33 mm
d <sub>2</sub>	105.5 mm
D <sub>1</sub>	121.66 mm
r <sub>1,2</sub> - min.	1.5 mm
r <sub>3,4</sub> - min.	1 mm
a	39 mm
d <sub>a</sub> - min.	97 mm
d <sub>b</sub> - min.	97 mm
D <sub>a</sub> - max.	133 mm
D <sub>b</sub> - max.	134.4 mm
r <sub>a</sub> - max.	1.5 mm
r <sub>b</sub> - max.	1 mm
d <sub>n</sub>	111 mm
Basic dynamic load rating - C	33.8 kN
Basic static load rating - C <sub>0</sub>	30 kN
Fatigue load limit - P <sub>u</sub>	1.2 kN
Limiting speed for grease	14000 r/min



# Timken MANUFACTURING (THAILAND)CO.,LTD.

Lubrication	
Limiting speed for oil lubrication	22000 mm/min
Ball - $D_w$	11.112 mm
Ball - $z$	28
$G_{ref}$	14 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 - $G_A$	300 N
Preload class B - $G_B$	920 N
Preload class C - $G_C$	1840 N
Calculation factor - $f$	1.1
Calculation factor - $f_1$	0.99
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.03
Calculation factor - $f_{2C}$	1.06
Calculation factor - $f_{HC}$	1.01
Preload class A	218 N/micron
Preload class B	329 N/micron
Preload class C	432 N/micron
$d_1$	108.33 mm
$d_2$	105.5 mm
$D_1$	121.66 mm
$r_{1,2}$ min.	1.5 mm



# Timken MANUFACTURING (THAILAND)CO.,LTD.

$r_{3,4}$ min.	1 mm
$d_a$ min.	97 mm
$d_b$ min.	97 mm
$D_a$ max.	133 mm
$D_b$ max.	134.4 mm
$r_a$ max.	1.5 mm
$r_b$ max.	1 mm
$d_n$	111 mm
Basic dynamic load rating C	33.8 kN
Basic static load rating $C_0$	30 kN
Fatigue load limit $P_u$	1.2 kN
Attainable speed for grease lubrication	14000 r/min
Attainable speed for oil-air lubrication	22000 r/min
Ball diameter $D_w$	11.112 mm
Number of balls z	28
Reference grease quantity $G_{ref}$	14 cm <sup>3</sup>
Preload class A $G_A$	300 N
Static axial stiffness, preload class A	218 N/ $\mu$ m
Preload class B $G_B$	920 N
Static axial stiffness, preload class B	329 N/ $\mu$ m
Preload class C $G_C$	1840 N
Static axial stiffness, preload class C	432 N/ $\mu$ m
Calculation factor f	1.1
Calculation factor $f_1$	0.99
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.03
Calculation factor $f_{2C}$	1.06
Calculation factor $f_{HC}$	1.01



## Timken MANUFACTURING (THAILAND)CO.,LTD.

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	1.11 kg