



# SMOOTH BEARING MFG.CORP.



7414 BCBM Bearing 2D drawings and 3D CAD models

70 mm x 180 mm x 40 mm 70 mm x 180 mm x  
40 mm 70 mm x 180 mm x 40 mm SKF 7414  
BCBM angular contact ball bearings

Bearing No. 7414 BCBM

Size	180x70x40 mm
Bore Diameter	180 mm
Outer Diameter	70 mm
Width	40 mm
d	70 mm
D	180 mm
B	40 mm
d <sub>1</sub>	111.76 mm
d <sub>2</sub>	91.03 mm
D <sub>1</sub>	140.45 mm
a	74 mm
r <sub>1,2</sub> - min.	3 mm
r <sub>3,4</sub> - min.	3 mm
d <sub>a</sub> - min.	84 mm
D <sub>a</sub> - max.	188 mm
D <sub>b</sub> - max.	144.5 mm
r <sub>a</sub> - max.	2 mm
r <sub>b</sub> - max.	2 mm
Basic dynamic load rating - C	159 kN
Basic static load rating - C <sub>0</sub>	127 kN
Fatigue load limit - P <sub>u</sub>	4.8 kN
Reference speed	4500 r/min
Limiting speed	4800 r/min



## SMOOTH BEARING MFG.CORP.

Calculation factor - $k_r$	0.1
Calculation factor - $k_a$	1.6
Calculation factor - e	1.14
Calculation factor - X	0.57
Calculation factor - $Y_0$	0.52
Calculation factor - $Y_1$	0.55
Calculation factor - $Y_2$	0.93
Calculation factor - X	0.35
Calculation factor - $Y_0$	0.26
Calculation factor - $Y_1$	
Calculation factor - $Y_2$	0.57
Category	Angular Contact Ball Bearings
Inventory	2.0
Manufacturer Name	SKF
Minimum Buy Quantity	N/A
Weight / Kilogram	5.61
EAN	7316571267173
Product Group	B00308
Enclosure	Open
Flush Ground	Yes
Rolling Element	Ball Bearing
Number of Rows of Balls	Single Row
Precision Class	ABEC 3   ISO P6
Maximum Capacity / Filling Slot	No
Snap Ring	No
Cage Material	Brass
Contact Angle	40 Degree
Internal Clearance	CB
Number of Bearings	1 (Single)
Mounting Arrangement	Universal



## SMOOTH BEARING MFG.CORP.

Inch - Metric	Metric
Long Description	70MM Bore; 180MM Outside Diameter; 42MM Width; Open; Yes Flush Ground; Ball Bearing; Single Row of Balls; ABEC 3   ISO P6; No Filling Slot; No Snap Ring
Other Features	Normal Axial Internal Clearance
Category	Angular Contact Ball Bearing
UNSPSC	31171531
Harmonized Tariff Code	8482.10.50.28
Noun	Bearing
Keyword String	Angular Contact
Manufacturer URL	<a href="http://www.skf.com">http://www.skf.com</a>
Manufacturer Item Number	7414 BCBM
Weight / LBS	12.346
Outside Diameter	7.087 Inch   180 Millimeter
Width	1.654 Inch   42 Millimeter
Bore	2.756 Inch   70 Millimeter
bore diameter:	70 mm
radial static load capacity:	127 kN
outside diameter:	180 mm
cage material:	Brass
overall width:	42 mm
outer ring width:	42 mm
contact angle:	40 °
maximum rpm:	4800 RPM
row type & fill slot:	Single-Row Non-Fill Slot
finish/coating:	Uncoated
internal clearance:	C0
precision rating:	ABEC 3 (ISO Class 6)



## SMOOTH BEARING MFG.CORP.

closure type:	Open
fillet radius:	2.5 mm
radial dynamic load capacity:	159 kN
series:	74
$d_1$	111.76 mm
$d_2$	91.03 mm
$D_1$	140.45 mm
$r_{1,2}$ min.	3 mm
$r_{3,4}$ min.	3 mm
$d_a$ min.	84 mm
$D_a$ max.	188 mm
$D_b$ max.	144.5 mm
$r_a$ max.	2 mm
$r_b$ max.	2 mm
Basic dynamic load rating C	159 kN
Basic static load rating $C_0$	127 kN
Fatigue load limit $P_u$	4.8 kN
Calculation factor A	0.31
Calculation factor $k_r$	0.1
Calculation factor e	1.14
Calculation factor X	0.35
Calculation factor $Y_0$	0.26
Calculation factor $Y_2$	0.57
Calculation factor X	0.57
Calculation factor $Y_0$	0.52
Calculation factor $Y_1$	0.55
Calculation factor $Y_2$	0.93
Mass bearing	5.8 kg