



Bearing No. 7010 CE/HCP4A

a	16.8 mm
d	50 mm
D	80 mm
B	16 mm
Bore	1.969 Inch   50 Millimeter
Noun	Bearing
Width	0.63 Inch   16 Millimeter
UNSPSC	31171531
Preload	None
Ball - z	21
Category	Precision Ball Bearings
Size (mm)	80x50x16
Enclosure	Open
Inventory	0.0
Width (mm)	16
Weight / LBS	0.50706
Flush Ground	No
Mass bearing	0.23 kg
d <sub>1</sub>	60.25 mm
d <sub>2</sub>	57.9 mm
D <sub>1</sub>	69.75 mm
Inch - Metric	Metric
Cage Material	Phenolic
Raceway Style	1 Rib Inner Ring and Outer Ring
d <sub>n</sub>	62.3 mm
Product Group	B04270
Contact Angle	15 Degree
d <sub>1</sub>	60.25 mm
d	57.9 mm

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D <sub>1</sub>	69.75 mm
d <sub>n</sub>	62.3 mm
Bearing number	7010 CE/HCP4A
Keyword String	Ball Angular Contact
Other Features	Single Row   Angular Contact   High Speed E Design
Precision Class	ABEC 7   ISO P4
G <sub>ref</sub>	4.1 cm <sup>3</sup>
Rolling Element	Ball Bearing
Preload class A	46 N/micron
Preload class B	72 N/micron
Preload class C	98 N/micron
Material - Ball	Ceramic
Outside Diameter	3.15 Inch   80 Millimeter
Long Description	50MM Bore; 80MM Outside Diameter; 16MM Width; Open Enclosure; ABEC 7   ISO P4 Precision; Ceramic Ball Material; 1 (Single) Bearing; 15 Degree Contact Angle; Phenolic Cage Material; 1 Rib Inner Ring an
Manufacturer URL	<a href="http://www.skf.com">http://www.skf.com</a>
Manufacturer Name	SKF
Weight / Kilogram	0
Number of balls z	21
Bore Diameter (mm)	80
r <sub>b</sub> max.	0.6 mm
Number of Bearings	1 (Single)
r <sub>a</sub> max.	1 mm
D <sub>b</sub> max.	75.8 mm

$D_a$ max.	75.4 mm
$d_b$ min.	54.6 mm
$d_a$ min.	54.6 mm
Outer Diameter (mm)	50
$d_a$ - min.	54.6 mm
Calculation factor f	1.08
Minimum Buy Quantity	N/A
$r_{1,2}$ min.	1 mm
$r_{3,4}$ min.	0.6 mm
$d_b$ - min.	54.6 mm
$D_a$ - max.	75.4 mm
$r_b$ - max.	0.6 mm
$r_a$ - max.	1 mm
$D_b$ - max.	75.8 mm
Ball - $D_w$	7.938 mm
$r_{1,2}$ - min.	1 mm
$r_{3,4}$ - min.	0.6 mm
Harmonized Tariff Code	8482.10.50.28
Calculation factor - f	1.08
Ball diameter $D_w$	7.938 mm
Basic dynamic load rating C	15.6 kN
Basic dynamic load rating - C	15.6 kN
Preload class C $G_C$	500 N
Preload class B $G_B$	250 N
Preload class A $G_A$	85 N
Preload class C - $G_C$	500 N
Preload class A - $G_A$	85 N
Preload class B - $G_B$	250 N
Fatigue load limit $P_u$	0.45 kN
Calculation factor $f_1$	1

Calculation factor $f_0$	8.2
Calculation factor $f_{HC}$	1.01
Calculation factor $f_{2A}$	1
Calculation factor - f	1
Calculation factor $f_{2B}$	1.03
Calculation factor $f_{2C}$	1.05
Fatigue load limit - $P_u$	0.45 kN
Calculation factor - $f_0$	8.2
Limiting speed for oil lubrication	46000 mm/min
Calculation factor - $f_{HC}$	1.01
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2C}$	1.05
Calculation factor - $f_{2B}$	1.03
Limiting speed for grease lubrication	30000 r/min
Basic static load rating $C_0$	10.6 kN
Attainable speed for grease lubrication	30000 r/min
Static axial stiffness, preload class C	98 N/ $\mu$ m
Static axial stiffness, preload class B	72 N/ $\mu$ m
Static axial stiffness, preload class A	46 N/ $\mu$ m
Attainable speed for oil-air lubrication	46000 r/min
Basic static load rating - $C_0$	10.6 kN
Reference grease quantity $G_{ref}$	4.1 cm <sup>3</sup>