



Bearing No. 71940 ACD/P4A

a	75.2 mm
d	200 mm
D	280 mm
B	38 mm
Bore	7.874 Inch   200 Millimeter
Noun	Bearing
Width	1.496 Inch   38 Millimeter
UNSPSC	31171531
Preload	None
Ball - z	26
Category	Precision Ball Bearings
Size (mm)	280x200x38
Enclosure	Open
Inventory	0.0
Width (mm)	38
Weight / LBS	15.499
Flush Ground	No
Mass bearing	6.1 kg
d <sub>1</sub>	224.7 mm
d <sub>2</sub>	224.7 mm
D <sub>1</sub>	255.3 mm
Inch - Metric	Metric
Cage Material	Phenolic
d <sub>n</sub>	231.4 mm
Contact Angle	25 Degree
Product Group	B04270
Raceway Style	1 Rib Outer Ring
d <sub>1</sub>	224.7 mm
d	231.4 mm

n	
D <sub>1</sub>	255.3 mm
d <sub>2</sub>	224.7 mm
Bearing number	71940 ACD/P4A
Other Features	Single Row   Angular Contact   High Precision
Keyword String	Angular Contact Ball
Material - Ball	Steel
Precision Class	ABEC 7   ISO P4
G <sub>ref</sub>	81 cm <sup>3</sup>
Preload class D	1148 N/micron
Preload class C	845 N/micron
Preload class B	635 N/micron
Preload class A	484 N/micron
Rolling Element	Ball Bearing
Outside Diameter	11.024 Inch   280 Millimeter
Long Description	200MM Bore; 280MM Outside Diameter; 38MM Width; Open Enclosure; ABEC 7   ISO P4 Precision; Steel Ball Material; 1 (Single) Bearings; 25 Degree Contact Angle; Phenolic Cage Material; 1 Rib Outer Ring R
Manufacturer URL	<a href="http://www.skf.com">http://www.skf.com</a>
Weight / Kilogram	7.037
Manufacturer Name	SKF
Number of balls z	26
r <sub>b</sub> max.	1 mm
Bore Diameter (mm)	280
D <sub>a</sub> max.	271 mm
D <sub>b</sub> max.	275 mm

$d_a$ min.	209 mm
$r_a$ max.	2 mm
Number of Bearings	1 (Single)
$d_b$ min.	209 mm
Outer Diameter (mm)	200
$d_a$ - min.	209 mm
$r_{1,2}$ min.	2.1 mm
$d_b$ - min.	209 mm
Calculation factor f	1.23
$r_{3,4}$ min.	1 mm
Calculation factor e	0.68
$D_a$ - max.	271 mm
Ball - $D_w$	25.4 mm
$D_b$ - max.	275 mm
Minimum Buy Quantity	N/A
$r_b$ - max.	1 mm
$r_a$ - max.	2 mm
Calculation factor - e	0.68
Calculation factor - f	1.23
$r_{1,2}$ - min.	2.1 mm
$r_{3,4}$ - min.	1 mm
Harmonized Tariff Code	8482.10.50.28
Manufacturer Item Number	71940 ACD/P4A
Ball diameter $D_w$	25.4 mm
Basic dynamic load rating C	199 kN
Preload class A $G_A$	1250 N
Preload class D $G_D$	10000 N
Preload class C $G_C$	5000 N
Basic dynamic load rating - C	199 kN
Preload class B $G_B$	2500 N

Preload class C - $G_C$	5000 N
Preload class A - $G_A$	1250 N
Preload class D - $G_D$	10000 N
Preload class B - $G_B$	2500 N
Calculation factor $f_1$	0.98
Fatigue load limit $P_u$	6.8 kN
Calculation factor $f_{2C}$	1.08
Calculation factor $f_{HC}$	1
Calculation factor $f_{2B}$	1.04
Calculation factor $f_{2D}$	1.14
Calculation factor $f_{2A}$	1
Calculation factor - $Y_0$	0.76
Calculation factor - $Y_2$	1.41
Limiting speed for oil lubrication	6300 mm/min
Fatigue load limit - $P_u$	6.8 kN
Calculation factor - $X_2$	0.67
Calculation factor - $Y_1$	0.92
Calculation factor - $f_1$	0.98
Calculation factor - $f_{2D}$	1.14
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.04
Calculation factor - $f_{2C}$	1.08
Calculation factor - $f_{HC}$	1
Limiting speed for grease lubrication	4300 r/min
Basic static load rating $C_0$	250 kN
Attainable speed for grease lubrication	4300 r/min
Static axial stiffness,	1148 N/ $\mu$ m

preload class D	
Static axial stiffness, preload class C	845 N/ $\mu$ m
Static axial stiffness, preload class B	635 N/ $\mu$ m
Static axial stiffness, preload class A	484 N/ $\mu$ m
Attainable speed for oil-air lubrication	6300 r/min
Basic static load rating - $C_0$	250 kN
Reference grease quantity $G_{ref}$	81 cm <sup>3</sup>
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