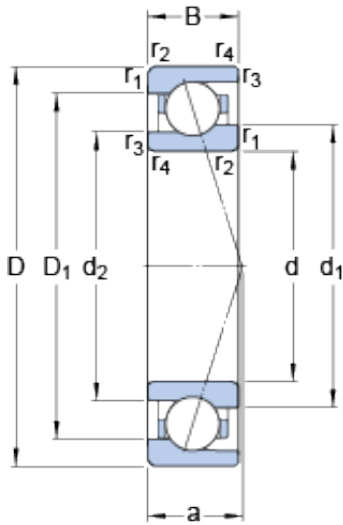




# NTL BEARINGS LTD.

## 71914 ACE/HCP4A SKF High Speed Angular Contact Ball Bearings

Bearing No. 71914 ACE/HCP4A



71914 ACE/HCP4A Bearing 2D drawings and 3D CAD models

Size	100x70x16 mm
Bore Diameter	100 mm
Outer Diameter	70 mm
Width	16 mm
d	70 mm
D	100 mm
B	16 mm
d <sub>1</sub>	79.3 mm
d <sub>2</sub>	76.8 mm
D <sub>1</sub>	90.52 mm
r <sub>1,2</sub> - min.	1 mm
r <sub>3,4</sub> - min.	0.3 mm
a	29.1 mm
d <sub>a</sub> - min.	74.6 mm
d <sub>b</sub> - min.	72 mm
D <sub>a</sub> - max.	95.4 mm
D <sub>b</sub> - max.	98 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.3 mm
d <sub>n</sub>	81.5 mm
Basic dynamic load rating - C	20.8 kN
Basic static load rating - C <sub>0</sub>	15.3 kN
Fatigue load limit - P <sub>u</sub>	0.655 kN
Limiting speed for grease	20000 r/min



## NTL BEARINGS LTD.

Lubrication	
Limiting speed for oil lubrication	31000 mm/min
Ball - $D_w$	9.525 mm
Ball - $z$	22
$G_{ref}$	4.3 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 - $G_A$	190 N
Preload class B - $G_B$	570 N
Preload class C - $G_C$	1130 N
Calculation factor - $f$	1.14
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	145 N/micron
Preload class B	219 N/micron
Preload class C	286 N/micron
Category	Precision Ball Bearings
Inventory	0.0
Manufacturer Name	SKF
Minimum Buy Quantity	N/A



## NTL BEARINGS LTD.

Weight / Kilogram	0
Product Group	B04270
Enclosure	Open
Precision Class	ABEC 7   ISO P4
Material - Ball	Ceramic
Number of Bearings	1 (Single)
Contact Angle	25 Degree
Preload	None
Raceway Style	1 Rib Inner Ring and Outer Ring
Cage Material	Phenolic
Rolling Element	Ball Bearing
Flush Ground	No
Inch - Metric	Metric
Other Features	Single Row   Angular Contact   High Speed E Design
Long Description	70MM Bore; 100MM Outside Diameter; 16MM Width; Open Enclosure; ABEC 7   ISO P4 Precision; Ceramic Ball Material; 1 (Single) Bearing; 25 Degree Contact Angle; Phenolic Cage Material; 1 Rib Inner Ring a
Category	Precision Ball Bearings
UNSPSC	31171531
Harmonized Tariff Code	8482.10.50.28
Noun	Bearing
Keyword String	Ball Angular Contact
Manufacturer URL	<a href="http://www.skf.com">http://www.skf.com</a>
Width	0.63 Inch   16 Millimeter
Bore	2.756 Inch   70 Millimeter
Outside Diameter	3.937 Inch   100 Millimeter
d <sub>1</sub>	79.3 mm



## NTL BEARINGS LTD.

$d_2$	76.8 mm
$D_1$	90.52 mm
$r_{1,2}$ min.	1 mm
$r_{3,4}$ min.	0.3 mm
$d_a$ min.	74.6 mm
$d_b$ min.	72 mm
$D_a$ max.	95.4 mm
$D_b$ max.	98 mm
$r_a$ max.	1 mm
$r_b$ max.	0.3 mm
$d_n$	81.5 mm
Basic dynamic load rating C	20.8 kN
Basic static load rating $C_0$	15.3 kN
Fatigue load limit $P_u$	0.655 kN
Attainable speed for grease lubrication	20000 r/min
Attainable speed for oil-air lubrication	31000 r/min
Ball diameter $D_w$	9.525 mm
Number of balls z	22
Reference grease quantity $G_{ref}$	4.3 cm <sup>3</sup>
Preload class A $G_A$	190 N
Static axial stiffness, preload class A	145 N/ $\mu$ m
Preload class B $G_B$	570 N
Static axial stiffness, preload class B	219 N/ $\mu$ m
Preload class C $G_C$	1130 N
Static axial stiffness, preload class C	286 N/ $\mu$ m
Calculation factor f	1.14
Calculation factor $f_1$	0.98
Calculation factor $f_{2A}$	1



## NTL BEARINGS LTD.

Calculation factor $f_{2B}$	1.04
Calculation factor $f_{2C}$	1.08
Calculation factor $f_{HC}$	1.01
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	0.27 kg