



BEARING DRIVESHAFT, INC.



25 mm x 42 mm x 9 mm SKF 71905 CD/P4A
angular contact ball bearings

Bearing No. 71905 CD/P4A

71905 CD/P4A Bearing 2D drawings and 3D CAD models

Size	42x25x9 mm
Bore Diameter	42 mm
Outer Diameter	25 mm
Width	9 mm
d	25 mm
D	42 mm
B	9 mm
d ₁	30.6 mm
d ₂	30.6 mm
D ₁	36.4 mm
r _{1,2} - min.	0.3 mm
r _{3,4} - min.	0.2 mm
a	9 mm
d _a - min.	27 mm
d _b - min.	27 mm
D _a - max.	40 mm
D _b - max.	40.6 mm
r _a - max.	0.3 mm
r _b - max.	0.2 mm
d _n	31.8 mm
Basic dynamic load rating - C	6.8 kN
Basic static load rating - C ₀	4 kN
Fatigue load limit - P _u	0.17 kN
Limiting speed for grease	36000 r/min



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Lubrication	
Limiting speed for oil lubrication	53000 mm/min
Ball - D_w	4.762 mm
Ball - z	18
G_{ref}	0.54 cm ³
Calculation factor - f_0	10.2
Preload class A - G_A	25 N
Preload class B - G_B	50 N
Preload class C - G_C	100 N
Preload class D - G_D	200 N
Calculation factor - f	1.07
Calculation factor - f	1
Calculation factor - f_{2A}	1
Calculation factor - f_{2B}	1.04
Calculation factor - f_{2C}	1.09
Calculation factor - f_{2D}	1.15
Calculation factor - f_{HC}	1
Preload class A	24 N/micron
Preload class B	32 N/micron
Preload class C	44 N/micron
Preload class D	62 N/micron
Category	Precision Ball Bearings
Inventory	0.0
Manufacturer Name	SKF
Minimum Buy Quantity	N/A
Weight / Kilogram	0.049
Product Group	B04270
Enclosure	Open
Precision Class	ABEC 7 ISO P4



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Material - Ball	Steel
Number of Bearings	1 (Single)
Contact Angle	15 Degree
Preload	None
Raceway Style	1 Rib Outer Ring
Cage Material	Phenolic
Rolling Element	Ball Bearing
Flush Ground	No
Inch - Metric	Metric
Other Features	Single Row Angular Contact High Precision
Long Description	25MM Bore; 42MM Outside Diameter; 9MM Width; Open Enclosure; ABEC 7 ISO P4 Precision; Steel Ball Material; 1 (Single) Bearings; 15 Degree Contact Angle; Phenolic Cage Material; 1 Rib Outer Ring Race
Category	Precision Ball Bearings
UNSPSC	31171531
Harmonized Tariff Code	8482.10.50.28
Noun	Bearing
Keyword String	Angular Contact Ball
Manufacturer URL	http://www.skf.com
Manufacturer Item Number	71905 CD/P4A
Weight / LBS	0.104
Width	0.354 Inch 9 Millimeter
Outside Diameter	1.654 Inch 42 Millimeter
Bore	0.984 Inch 25 Millimeter
bore diameter:	25 mm
radial static load capacity:	4 kN
outside diameter:	42 mm
maximum rpm (grease):	36000 rpm



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overall width:	9 mm
maximum rpm (oil):	53000 rpm
contact angle:	15 °
bearing material:	Steel
duplex type:	Duplex Universal
cage material:	Cotton Fabric Reinforced Phenolic
closure type:	Open
fillet radius:	0.3 mm
precision rating:	P4
series:	71
operating temperature range:	300 ° F
manufacturer product page:	Click here
radial dynamic load capacity:	6.76 kN
manufacturer upc number:	7316570235760
d_1	30.6 mm
d_2	30.6 mm
D_1	36.4 mm
$r_{1,2}$ min.	0.3 mm
$r_{3,4}$ min.	0.2 mm
d_a min.	27 mm
d_b min.	27 mm
D_a max.	40 mm
D_b max.	40.6 mm
r_a max.	0.3 mm
r_b max.	0.2 mm
d_n	31.8 mm
Basic dynamic load rating C	6.76 kN
Basic static load rating C_0	4 kN
Fatigue load limit P_u	0.17 kN
Attainable speed for grease	36000 r/min



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Lubrication	
Attainable speed for oil-air lubrication	53000 r/min
Ball diameter D_w	4.762 mm
Number of balls z	18
Reference grease quantity G_{ref}	0.54 cm ³
Preload class A G_A	25 N
Static axial stiffness, preload class A	24 N/ μ m
Preload class B G_B	50 N
Static axial stiffness, preload class B	32 N/ μ m
Preload class C G_C	100 N
Static axial stiffness, preload class C	44 N/ μ m
Preload class D G_D	200 N
Static axial stiffness, preload class D	62 N/ μ m
Calculation factor f	1.07
Calculation factor f_1	1
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.04
Calculation factor f_{2C}	1.09
Calculation factor f_{2D}	1.15
Calculation factor f_{HC}	1
Calculation factor f_0	10.2
Mass bearing	0.042 kg