

61848

- Popular item

Deep groove ball bearings

Bearing data

Tolerances,

Normal (metric), P6, P5, Normal (inch),

Radial internal clearance,

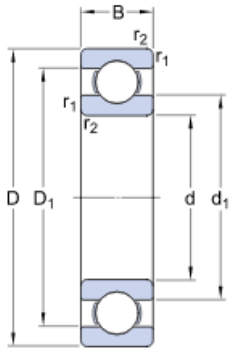
Matched bearing pairs, Stainless steel
d < 10 mm, Other bearings

Bearing interfaces

Seat tolerances for standard conditions,

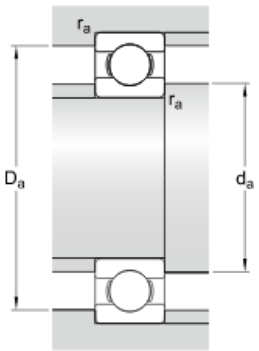
Tolerances and resultant fits

Technical specification



DIMENSIONS

d	240 mm	Bore diameter
D	300 mm	Outside diameter
B	28 mm	Width
d1	≈259 mm	Shoulder diameter
D1	≈281 mm	Shoulder diameter
r1,2	min.2 mm	Chamfer dimension



ABUTMENT DIMENSIONS

da	min.249 mm	Diameter of shaft abutment
Da	max.291 mm	Diameter of housing abutment
ra	max.2 mm	Radius of shaft or housing fillet

CALCULATION DATA

Basic dynamic load rating	C	108 kN
Basic static load rating	C_0	150 kN
Fatigue load limit	P_u	3.8 kN
Reference speed		4 000 r/min
Limiting speed		2 600 r/min
Minimum load factor	k_r	0.015
Calculation factor	f_0	17.2

MASS

Mass bearing	3.88 kg

TOLERANCE CLASS

Dimensional tolerances	Normal
Radial run-out	Normal

Designation system

The designations of most SKF rolling bearings follow a system that may consist of a basic designation with or without one or more prefixes and/or suffixes (Basic bearing designation system).

An example and the applicable options for SKF deep groove ball bearings are given below.

1	2	3	4	5	/	6.1	6.2	6.3	6.4	6.5	6.6

Example

W 619/6 X-2RS1 where

W = 1

619/6 = 2

X = 4

-2RS1 = 4

Applicable options

1 Prefixes

D/W	Stainless steel, inch dimensions
ICOS-	Oil sealed bearing unit
W	Stainless steel, metric dimensions
WBB1	Stainless steel, metric dimensions, not in accordance with ISO dimension series

2 Basic designation

Listed in table 1

2..	Single row bearing with filling slots in the 02 dimension series
3..	Single row bearing with filling slots in the 03 dimension series
EE, EEB, R, RLS, RMS	Inch bearing

Bearing size for inch bearings

2	(/8) 1/4 in. *(6,35 mm)* bore diameter
to	
40	(/8) 5 in. *(127 mm)* bore diameter

3 Suffixes - Internal design

A, AA, C, D	Deviating or modified internal design

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Designation system

Feedback

E	Reinforced ball set

4	Suffixes - External design (seals, snap ring groove, etc.)
N	Snap ring groove in the outer ring
NR	Snap ring groove in the outer ring, with snap ring
N1	One locating slot (notch) in one outer ring side face
R	Flanged outer ring
-RS1, -2RS1	Contact seal, NBR, on one or both sides
-RS2, -2RS2	Contact seal, FKM, on one or both sides
-RSH, -2RSH	Contact seal, NBR, on one or both sides
-RSH2, -2RSH2	Contact seal, FKM, on one or both sides
-RSL, -2RSL	Low-friction seal, NBR, on one or both sides
-RST, -2RST	Low-friction seal, NBR, on one or both sides
-RZ, -2RZ	Non-contact seal, NBR, on one or both sides
-Z, -2Z	Shield on one or both sides
-ZNBR	Shield on one side, snap ring groove in the outer ring, with snap ring on the same side as the shield
-ZNR	Shield on one side, snap ring groove in the outer ring, with snap ring on the opposite side of the shield
-2ZNR	Shield on both sides, snap ring groove in the outer ring, with snap ring
-2ZS	Shield on both sides, held in place by a retaining ring
X	Boundary dimensions not in accordance with ISO dimension series

5	Suffixes - Cage design
–	• For stainless steel bearings: stamped stainless steel cage, ball centred • For other bearings: stamped steel cage, ball centred
M	Machined brass cage, ball centred; different designs or material grades are identified by a number following the M, e.g. M2
MA(S)	Machined brass cage, outer ring centred. The 'S' indicates a lubrication groove in the guiding surface.
MB(S)	Machined brass cage, inner ring centred. The 'S' indicates a lubrication groove in the guiding surface.
TN	PA66 cage, ball centred
TN9	Glass fibre reinforced PA66 cage, ball centred
TN9/VG1561	Glass fibre reinforced PA46 cage, ball centred
TNH	Glass fibre reinforced PEEK cage, ball centred

6.1	Suffixes - Materials, heat treatment

Feedback

HA1	Case-hardened inner and outer rings

6.2 Suffixes - Accuracy, clearance, preload, quiet running

P5	Dimensional and geometrical tolerances to class P5
P6	Dimensional and geometrical tolerances to class P6
P52	P5 + C2
P62	P6 + C2
P63	P6 + C3
CN	Normal radial internal clearance; only used together with an additional letter that identifies a reduced or displaced clearance range • H = Reduced clearance range corresponding to the upper half of the actual clearance range • L = Reduced clearance range corresponding to the lower half of the actual clearance range • P = Displaced clearance range comprising the upper half of the actual clearance range plus the lower half of the next larger clearance range The above letters are also used together with the clearance classes C2, C3, C4 and C5, e.g. C2H
C1	Radial internal clearance smaller than C2
C2	Radial internal clearance smaller than Normal
C3	Radial internal clearance greater than Normal
C4	Radial internal clearance greater than C3
C5	Radial internal clearance greater than C4
CA	Matched bearing set with small axial internal clearance
GA	Matched bearing set with light preload

6.3 Suffixes - Bearing sets, matched bearings

DB	Two bearings matched for mounting back-to-back
DF	Two bearings matched for mounting face-to-face
DT	Two bearings matched for mounting in tandem

6.4 Suffixes - Stabilization

S0	Bearing rings heat stabilized for operating temperatures ≤ 150 °C *(300 °F)*
S1	Bearing rings heat stabilized for operating temperatures ≤ 200 °C *(390 °F)*

6.5 Suffixes - Lubrication

Feedback

GE2	Grease suffixes (table 2)
GFJ	
GJN	
HT	
LHT23	
LT	
LT10	
MT33	
MT47	
VT378	
WT	

6.6 Suffixes - Other variants

VP311	SKF Food Line bearing: Blue contact seal made of FDA and EC approved NBR and lubricant (GFJ) registered by NSF as category H1
VQ658	Quiet running properties

Feedback

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More information

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- SimPro Quick
- Engineering Calculator
- LubeSelect for SKF greases
- Heater selection tool
- Rolling bearings mounting and dismounting instructions

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