



PRODUCT DATASHEET

Datasheet creation date: 2025/06/02 9:44 (UTC)

MOTION & CONTROL
NSK

50TAC100C

For High-Rigidity Applications (NSKTAC C Series)



Parts Number

50TAC100CSUHPN7C

Boundary Dimensions

d	50	mm	Bore diameter
D	100	mm	Outside diameter
B	20	mm	Width
r(min.)	1	mm	Chamfer Dimension
r1(min.)	0.6	mm	Chamfer Dimension

Basic Load Ratings

Ca(1row)	79.0	kN	Basic Dynamic Load Rating Ca by Number of Rows Sustaining Fa
Ca(2row)	129	kN	Basic Dynamic Load Rating Ca by Number of Rows Sustaining Fa
Ca(3row)	171	kN	Basic Dynamic Load Rating Ca by Number of Rows Sustaining Fa

Speeds

Grease	3000	min-1	Limiting Speed (H-Preload)
Oil (Oil-air)	3900	min-1	Limiting Speed (H-Preload)

Dimensions

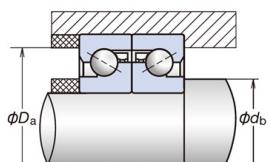
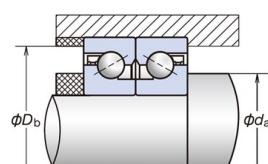
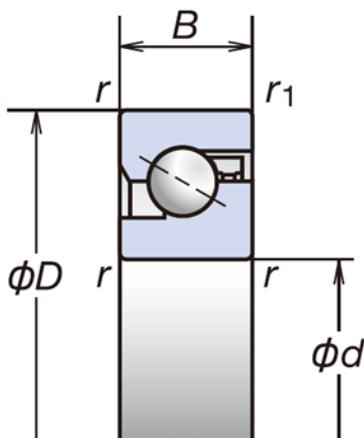
	60°		Contact Angle
db(min.)	60	mm	Diameter of Shaft Abutment

Abutment and Fillet Dimensions

da(min.)	60	mm	Diameter of Shaft Abutment
Da(max.)	91	mm	Diameter of Housing Abutment
Db(max.)	92	mm	Diameter of Housing Abutment

Performance

1row	104	kN	Limiting Static Axial Load by Number of Rows Sustaining Fa
2row	208	kN	Limiting Static Axial Load by Number of Rows Sustaining Fa
3row	310	kN	Limiting Static Axial Load by Number of Rows Sustaining Fa





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Preload, Rigidity(DB and DF arrangement)

	Preload	Axial Rigidity
H	4650N	1410N/μm

Calculation of preload, axial rigidity and starting torque for bearing arrangements.

Multiply by factors in table B.

Table B	DFD	DFF	DFT
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	DBD	DBB	DBT
Preload factor	1.36	2.00	1.57
Axial rigidity	1.49	2.00	1.89
Starting torque	1.35	2.00	1.55

Additional information

H	-19	μm	Measured Axial Clearance(DB and DF arrangement)
H	0.42	N · m	Starting Torque(DB and DF arrangement)
	9.5	g/brg	Recommended Grease Quantities

Mass

	0.778	kg	Mass(approx.)
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