

Double row cylindrical roller bearings

With a wide range of executions of double row cylindrical roller bearings, RKB is able to fulfil any requirement in demanding applications such as large size gearboxes, machine tools, grinding mills and crushers.

To ensure superior performance, RKB double row cylindrical roller bearings are manufactured from high quality special steels, heat treated in optimized automatic lines.

With improved internal geometry and profile, double row cylindrical roller bearings can withstand high radial loads within a narrow cross section.

Internal clearance

Generally RKB double row cylindrical roller bearings are manufactured with normal radial clearance CN, but they can also feature C2, C3, C4 or C5 radial clearance in accordance to ISO 5753:2009. The radial internal clearance values are reported in the **Tab. 1 page 127** and **Tab. 2 page 128** and they are valid only for bearing unmounted and unloaded.



Double row cylindrical roller bearings

Axial displacement

NNU and NN bearing can accommodate axial displacement between shaft and housing within certain limits. And can be used as non-locating bearings, supporting radial loads only. As a consequence of the fact that the axial displacement takes between the inner ring and outer ring and not between the inner ring and shaft and outer ring and housing, there is no additional friction during the bearing rotation.

Misalignment

Any misalignment between shaft and seat of the double row cylindrical roller bearing creates a moment load inside the bearing. The bearing life will be obviously affected.

Minimum load

A minimum radial load is requested for a double row cylindrical roller bearings to allow the correct functioning, especially in critical working conditions like: high speed, high acceleration and sudden changes of rotating direction. In these operating conditions, a skidding between the rollers and raceways can be generated by the inertial forces, influencing negatively the bearing life. Minimum radial load can be theoretically estimated using the following formula:

$$F_{rm} > \frac{C_{0r}}{50}$$

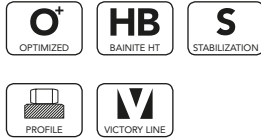
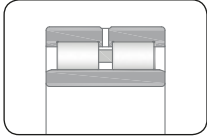
Where:

- F_{rm} minimum radial load, [kN];
- C_{0r} basic static load rating, [kN] .

Usually, the minimum radial load is reached or surpassed by the weight of the components supported by the bearing together with the loads acting on it, otherwise supplementary radial load must be applied on the double row cylindrical roller bearing.

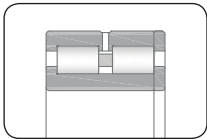
Designs and variants

Type NNU



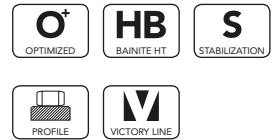
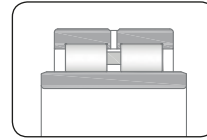
- Outer ring with three integral ribs
- Ribless inner ring
- One-piece double pronged machined brass or steel cage
- Annular groove and lubrication holes in outer ring
- Optimized raceway geometry and roller profile
- Available with cylindrical and tapered bore
- Available with locating slots in outer ring, lubrication holes in inner ring, lubrication grooves in side faces of inner and outer rings
- Available with steel pin-type cage and pierced roller design

Type NNUP



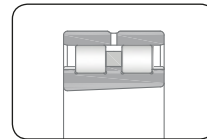
- Outer ring with two integral ribs and one loose rib
- Inner ring with one integral side rib and one loose rib
- One-piece double pronged machined brass or steel cage
- Annular groove and lubrication holes in outer ring
- Optimized raceway geometry and roller profile
- Available with locating slots in outer ring, lubrication holes in inner ring, lubrication grooves in side faces of inner and outer rings
- Available with steel pin-type cage and pierced roller design

Type NNUB



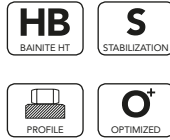
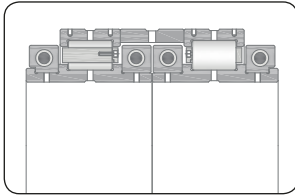
- Outer ring with three integral ribs
- Wider ribless inner ring
- One-piece double pronged machined brass or steel cage
- Annular groove and lubrication holes in outer ring
- Optimized raceway geometry and roller profile
- Available with locating slots in outer ring, lubrication holes in inner ring, lubrication grooves in side faces of inner and outer rings
- Available with steel pin-type cage and pierced roller design

Type NN



- Ribless outer ring
- Inner ring with three integral ribs
- One-piece double pronged machined brass cage
- Annular groove and lubrication holes in outer ring
- Optimized raceway geometry and roller profile
- Available with tapered and cylindrical bore
- Available with steel pin-type cage and pierced roller design

Split type 2ROW SCRB



- Design used for medium and large size bearings
- Two wider inner ring with integral side ribs
- Two-piece window type for each bearing row
- Engineered for hard-to-reach positions (e.g. universal joint drive shaft supporting)
- Design for easy mounting, dismounting and maintenance to reduced machine downtime
- Available in locating and non-locating configuration

Prefixes

L	In a separable bearing: separate inner ring
R	In a separable bearing: outer ring with roller and cage assembly
SCRB	Out of standard double row cylindrical roller bearing followed by drawing number
2CRB	Out of standard double row cylindrical roller bearing followed by drawing number

Suffixes**Internal Design**

OD	Special outer diameter. The number immediately following the OD gives the outer diameter in mm
B	Special bearing width. The number immediately following the B gives the width in mm
SP	Special or non-standard bearing
ZB	Optimized roller profile for improved load distribution. It is not necessarily stated in the bearing code

Suffixes**Cage**

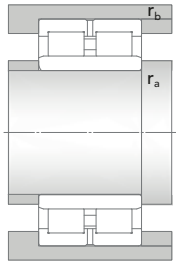
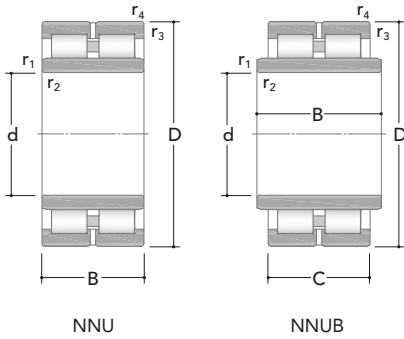
M	Machined brass cage guided on rolling elements
MA	Machined brass cage guided on outer ring
MF	Machined steel cage
AVH	Machined brass cage with round or square integral rivets guided on outer ring (MA), inner ring (MB) or rollers (M)

Suffixes**Lubrication**

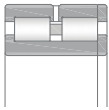
G	Helical groove in inner ring bore (not necessarily stated)
ISR3	Annular groove and three lubrication holes in inner ring
W33	Annular groove and three lubrication holes in outer ring
W33X	Annular groove and more than three lubrication holes in outer ring
W77X	Annular groove and more than three plugged lubrication holes in outer ring
W	Lubrication grooves in the side faces of inner and outer rings (not necessarily stated)
WI	Lubrication grooves in the side face of inner ring (not necessarily stated)
WO	Lubrication grooves in the side face of outer ring (not necessarily stated)

Suffixes**External design**

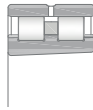
K	Tapered bore, taper 1:12
K30	Tapered bore, taper 1:30



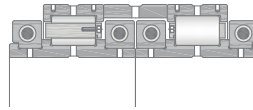
Main dimensions				Basic load ratings		Fatigue load limit	Speed ratings	Designation
d	D	B	C	Dynamic C	Static C ₀	C _u	Reference	Standard design
[mm]				[kN]			[rpm]	
100	140	40	-	126	252	29	6700	NNU 4920
	140	70	40	128	253	29	5100	NNUB 315033
	140	80	40	128	251	29	5100	NNUB 319114
	150	37	-	152	248	29	6400	NN 3020
	165	65	-	356	563	70	3800	NNU 4120
105	145	40	-	130	258	29	6400	NNU 4921
	160	41	-	191	303	36	5900	NN 3021
	175	69	-	415	668	80	3600	NNU 4121
110	150	40	-	130	268	30	6300	NNU 4922
	170	45	-	220	359	41,4	5600	NN 3022
	180	69	-	423	702	82	3400	NNU 4122
120	165	45	-	176	339	37,4	5600	NNU 4924
	165	45	-	201	373	43	4200	319826
	180	46	-	228	389	44	5300	NN 3024
	200	80	-	518	861	100	3200	NNU 4124
	215	130	100	705	1110	129	2300	NNUB 322978
127	174,65	75,41	-	315	651	76	3800	315643
130	180	50	-	186	383	40,8	5100	NNU 4926
	200	52	-	287	467	52	4800	NN 3026
	210	80	-	553	955	109	3000	NNU 4126
140	190	50	-	192	395	41	4800	NNU 4928
	210	53	-	294	517	56	4600	NN 3028
	225	85	-	634	1030	117	2800	NNU 4128
150	190	40	-	192	445	42	4800	NN 4830
	210	60	-	331	647	70	4600	NNU 4930
	225	56	-	334	566	62	4200	NN 3030



NNUP

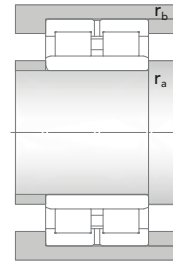
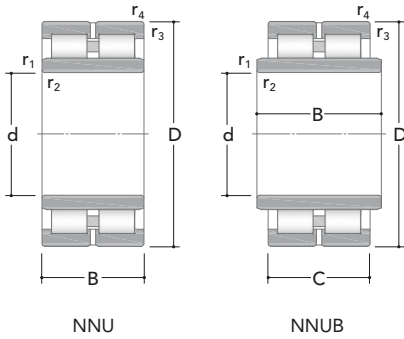


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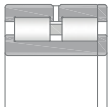


2ROW SCRB

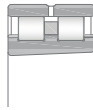
Dimensions					Mass	Designation	
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Cylindrical bore	Tapered bore
[mm]					[kg]		
100	1,1	1,1	1	1	1,9	NNU 4920	NNU 4920 K
	1,1	1,1	1	1	2,5	NNUB 315033	-
	1,1	1,1	1	1	2,65	NNUB 319114	-
	1,5	1,5	1,5	1,5	2,2	NN 3020	NN 3020 K
	1,1	2	1	2	5,5	NNU 4120	NNU 4120 K30
105	1,1	1,1	1	1	2	NNU 4921	NNU 4921 K
	2	2	2	2	2,8	NN 3021	NN 3021 K
	1,1	2	1	2	6,7	NNU 4121	NNU 4121 K30
110	1,1	1,1	1	1	2,05	NNU 4922	NNU 4922 K
	2	2	2	2	3,55	NN 3022	NN 3022 K
	1,1	2	1	2	6,95	NNU 4122	NNU 4122 K30
120	1,1	1,1	1	1	2,8	NNU 4924	NNU 4924 K
	1	1	1	1	2,8	319826	-
	2	2	2	2	3,85	NN 3024	NN 3024 K
	1,1	2	1	2	11	NNU 4124	NNU 4124 K30
	2x60°	1,1	2	1	15,5	NNUB 322978	-
127	1,1	1,5	1	1,5	5,3	315643	-
130	1,5	1,5	1,5	1,5	3,85	NNU 4926	NNU 4926 K
	1,1	2	2	2	5,75	NN 3026	NN 3026 K
	2	1,1	1	2	10,5	NNU 4126	NNU 4126 K30
140	1,5	1,5	1,5	1,5	4,1	NNU 4928	NNU 4928 K
	2	2	2	2	6,2	NN 3028	NN 3028 K
	2,1	2,1	2	2	13	NNU 4128	NNU 4128 K30
150	1,1	1,1	1	1	2,75	NN 4830	NN 4830 K
	2	2	2	2	6,25	NNU 4930	NNU 4930 K
	2,1	2,1	2	2	7,5	NN 3030	NN 3030 K



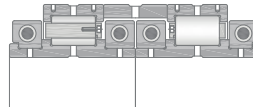
Main dimensions				Basic load ratings		Fatigue load limit	Speed ratings	Designation
d	D	B	C	Dynamic C	Static C ₀	C _u	Reference	Standard design
[mm]				[kN]			[rpm]	
150	250	100	-	748	1270	141	2500	NNU 4130
(cont.)								
155	220	60	-	330	676	72	3200	314781
160	220	60	-	328	673	71	4200	NNU 4932
	240	60	-	371	650	69	4000	NN 3032
	265	120	-	1009	1770	190	2300	320160
	270	109	-	945	1510	164	2300	NNU 4132
165,1	225,45	84,15	-	507	1100	118	2960	315642
170	230	60	-	338	682	72,1	4000	NNU 4934
	230	80	-	554	1170	126	3000	322340
	260	67	-	457	802	84	3600	NN 3034
	260	115	112,5	827	1630	173	2500	NNUB 320687
	280	109	-	957	1600	170	2100	NNU 4134
180	250	69	-	401	842	87	3600	NNU 4936
	280	74	-	568	995	101	3400	NN 3036
	300	118	-	1077	1820	189	2000	NNU 4136
190	260	69	-	394	879	90	3400	NNU 4938
	290	75	-	594	1070	107	3200	NN3038
	320	128	-	1337	2160	224	1900	NNU 4138
200	250	50	-	246	593	49	2500	NNU 4840
	280	80	-	480	1020	104	3200	NNU 4940
	310	82	-	637	1120	116	3000	NN 3040
	310	115	-	1003	1830	190	2100	313639
	333,98	174,6	-	1808	2791	274	1800	322185
	340	140	-	1458	2520	257	1800	NNU 4140
210	320	195	115	1018	2050	209	2000	NNUB 322459



NNUP

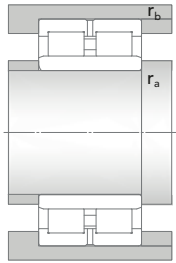
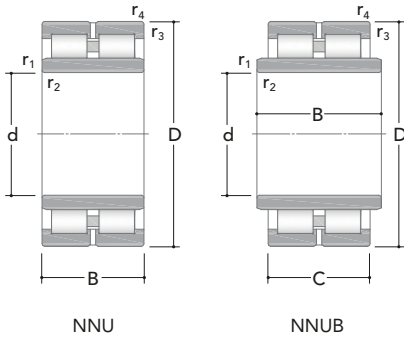


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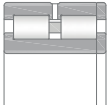


2ROW SCRB

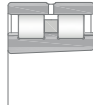
Dimensions					Mass	Designation	
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Cylindrical bore	Tapered bore
[mm]					[kg]		
150	2,1	2,1	2	2	18	NNU 4130	NNU 4130 K30
(cont.)							
155	1	2	1	2	7,6	-	314781 K
160	2	2	2	2	6,6	NNU 4932	NNU 4932 K
	2,1	2,1	2	2	9,1	-	NN 3032 K
	3	3	2,5	2,5	27	320160	-
	2,1	2,1	2	2	25	NNU 4132	NNU 4132 K30
165,1	1,5	1,5	1,5	1,5	10	315642	-
170	2	2	2	2	6,95	NNU 4934	NNU 4934 K
	2	2	2	2	9,55	322340	-
	2,1	2,1	2	2	12,5	-	NN 3034 K
	2,1	2,1	2	2	22	NNUB 320687	-
	2,1	2,1	2	2	26	NNU 4134	NNU 4134 K30
180	2	2	2	2	10,5	NNU 4936	NNU 4936 K
	2,1	2,1	2	2	16,5	-	NN 3036 K
	3	3	2,5	2,5	32,5	NNU 4136	NNU 4136 K30
190	2	2	2	2	11	NNU 4938	NNU 4938 K
	2,1	2,1	2	2	17	-	NN 3038 K
	3	3	2,5	2,5	41	NNU 4138	NNU 4138 K30
200	1,1	1,5	1	1,5	5,75	NNU 4840	NNU 4840 K
	2,1	2,1	2	2	15	NNU 4940	NNU 4940 K
	2,1	2,1	2	2	22	-	NN 3040 K
	2,1	2,1	2	2	31,5	313639	-
	7x45°	7x45°	7	7	69,5	322185	-
	3	3	2,5	2,5	51	NNU 4140	NNU 4140 K30
210	2,1	2,1	2	2	40,5	NNUB 322459	-



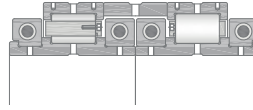
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d	D	B	C	Dynamic C	Static C ₀	C _u	Reference	Standard design
[mm]				[kN]			[rpm]	
220	300	80	-	519	1120	112	3000	NNU 4944
(cont.)	300	100	-	890	1941	194	2300	322341
	330	115	-	1012	1930	197	1900	314889
	340	90	-	806	1440	141	2800	NN 3044
	370	150	-	1665	2890	284	1600	NNU 4144
240	300	60	-	363	924	81	2300	NNU 4848
	320	80	-	526	1210	117	2800	NNU 4948
	320	100	-	868	1950	192	1500	326257
	360	92	-	847	1540	151	2500	NN 3048
	400	160	-	1960	3580	348	1500	NNU 4148
260	360	100	-	747	1680	161	2500	NNU 4952
	360	102	-	981	2190	211	1900	314997
	370	110	-	1172	2320	228	1800	316028
	400	104	-	1028	1943	184	2300	NN 3052
	400	140	-	1641	3100	300	1600	NNU 4052
	440	180	-	2195	3870	362	1400	NNU 4152
	480	260	-	3184	5830	508	1100	313621
280	350	69	-	457	1197	100	1800	NNU 4856
	380	100	-	768	1808	171	2300	NNU 4956
	380	100	-	768	1808	171	2300	NNUP 4956
	400	142,5	-	1553	3710	351	1500	314070
	410	150	-	1759	3740	364	1500	314897
	420	106	-	1081	2040	192	2100	NN 3056
	420	140	-	1670	3090	299	1500	NNU 4056
	460	180	-	2587	4670	433	1300	NNU 4156
	470	200	-	2934	5550	515	1100	315976
300	380	80	-	580	1540	127	1700	NNU 4860
	420	118	-	1009	2330	221	2100	NNU 4960
	420	150	-	1886	4420	417	1700	326805



NNUP

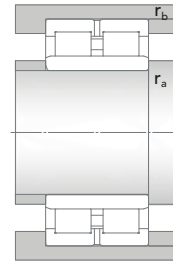
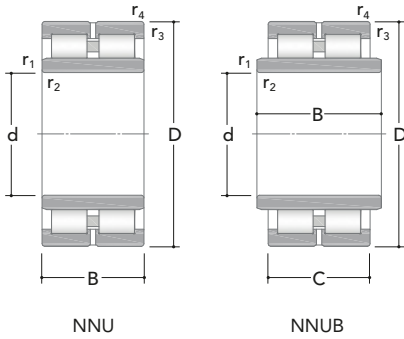


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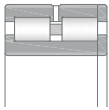


2ROW SCRB

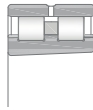
Dimensions					Mass	Designation	
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Cylindrical bore	Tapered bore
[mm]					[kg]		
220	2,1	2,1	2	2	16,5	NNU 4944	NNU 4944 K
(cont.)	2,1	2,1	2	2	20,5	322341	-
	2,1	2,1	2	2	34,5	314889	-
	3	3	2,5	2,5	28,5	-	NN 3044 K
	4	4	3	3	65	NNU 4144	NNU 4144 K30
240	1,1	2	1	2	9,9	NNU 4848	NNU 4848 K
	2,1	2,1	2	2	17,5	NNU 4948	NNU 4948 K
	2,1	2,1	2	2	22,5	326257	-
	3	3	2,5	2,5	32	NN 3048	NN 3048 K
	4	4	3	3	85	NNU 4148	NNU 4148 K30
260	2,1	2,1	2	2	30,5	NNU 4952	NNU 4952 K
	9x20°	2,1	-	2	32	314997	-
	3	3	2	2	38,5	316028	-
	4	4	3	3	46	-	NN 3052 K
	4	4	3	3	63,5	NNU 4052	NNU 4052 K
	4	4	3	3	110	NNU 4152	NNU 4152 K30
	5	5	4	4	205	313621	-
280	1,1	2	1	2	15,5	NNU 4856	NNU 4856 K
	2,1	2,1	2	2	32,5	NNU 4956	NNU 4956 K
	2,1	2,1	2	2	33,5	NNUP 4956	-
	3	3	2,5	2,5	60	314070	-
	4	4	3	3	61	314897	-
	4	4	3	3	49,5	-	NN 3056 K
	4	4	3	3	66,5	NNU 4056	NNU 4056 K
	5	5	4	4	120	NNU 4156	NNU 4156 K30
	3	5	2,5	4	150	315976	-
300	1,5	2,1	1,5	2	22	NNU 4860	NNU 4860 K
	3	3	2,5	2,5	50	NNU 4960	NNU 4960 K
	6,4x20°	1,5	6	1,5	55,5	326805	-



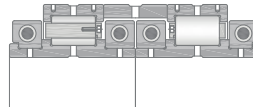
Main dimensions				Basic load ratings		Fatigue load limit	Speed ratings	Designation
d	D	B	C	Dynamic C	Static C ₀	C _u	Reference	Standard design
[mm]				[kN]			[rpm]	
300	460	118	-	1247	2360	224	2000	NN 3060
(cont.)	460	160	-	2025	3990	374	1400	NNU 4060
	460	180	-	2569	5430	484	1100	320119
	500	200	-	2881	5270	452	1200	NNU 4160
320	400	80	-	771	2050	171	1600	NNU 4864
	440	118	-	1070	2450	237	2000	NNU 4964
	440	118	-	1070	2450	237	2000	NNUP 4964
	460	120	-	1741	3590	334	1000	322216
	480	121	-	1303	2550	235	1900	NN 3064
	480	160	-	2107	4290	399	1300	NNU 4064
	480	175	-	2486	5336	504	1000	315583
	540	218	-	3404	6170	527	1100	NNU 4164
340	420	80	-	642	1800	141	1480	NNU 4868
	420	80	-	642	1800	141	1480	NNUP 4868
	460	118	-	1112	2610	241	1810	NNU 4968
	520	133	-	1629	3190	285	1690	NN 3068
	520	180	-	2528	5070	452	1170	NNU 4068
	520	305	200	3287	7060	607	950	NNUB 320118
	580	243	-	4020	7390	611	1010	NNU 4168
350	500	190	-	2482	5600	511	1000	314563
	520	150	-	2116	4470	397	900	319878
355,59	558,8	279,4	-	4400	8330	706	1000	322186
360	480	118	-	1120	2770	247	1800	NNU 4972
	500	125	-	1787	3635	334	1270	320075
	500	125	-	2080	4280	358	1000	322217
	510	190	-	2573	6020	543	950	320299
	540	134	-	1721	3420	307	1590	NN 3072
	540	180	-	2815	5660	506	1170	NNU 4072



NNUP

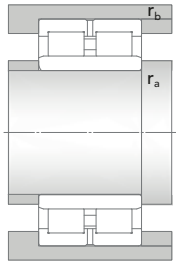
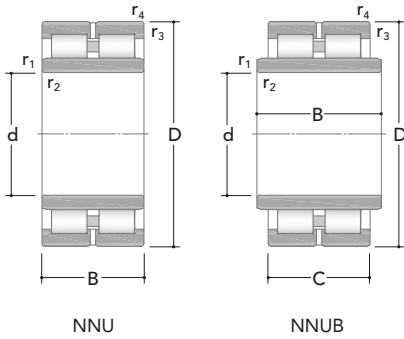


NN

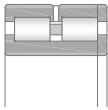
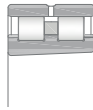
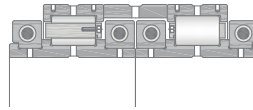


2ROW SCR

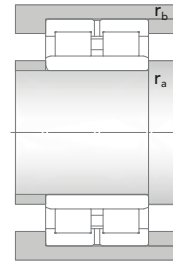
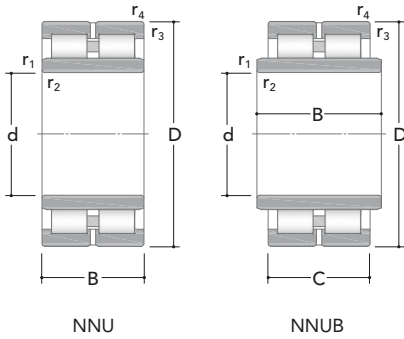
Dimensions					Mass	Designation	
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Cylindrical bore	Tapered bore
[mm]					[kg]		
300	4	4	3	3	68,5	-	NN 3060 K
(cont.)	4	4	3	3	96	NNU 4060	NNU 4060 K
	4	4	3	3	118	320119	-
	5	5	4	4	155	NNU 4160	NNU 4160 K30
320	1,5	2,1	1,5	2	23,5	NNU 4864	NNU 4864 K
	3	3	2,5	2,5	53	NNU 4964	NNU 4964 K
	3	3	2,5	2,5	55,5	NNUP 4964	-
	3	3	2,5	2,5	70	322216	-
	4	4	3	3	74	-	NN 3064 K
	4	4	3	3	100	NNU 4064	NNU 4064 K
	4	1,5	3	1,5	115	315583	-
	5	5	4	4	200	NNU 4164	NNU 4164 K30
340	1,5	2,1	1,5	2	25	NNU 4868	NNU 4868 K
	2,1	2,1	2	2	24,5	NNUP 4868	-
	3	3	2,5	2,5	56	NNU 4968	NNU 4968 K
	5	5	4	4	97,5	-	NN 3068 K
	5	5	4	4	140	NNU 4068	NNU 4068 K
	5	5	4	4	185	NNUB 320118	-
	5	5	4	4	260	NNU 4168	NNU 4168 K30
350	5	5	4	4	115	314563	-
	5	5	4	4	110	319878	-
355,59	10,5x45°	3x45°	10	3	270	322186	-
360	3	3	2,5	2,5	58,5	NNU 4972	NNU 4972 K
	3	3	2,5	2,5	72	320075	-
	3	3	2,5	2,5	80	322217	-
	5	5	4	4	120	320299	-
	5	5	4	4	105	-	NN 3072 K
	5	5	4	4	140	NNU 4072	NNU 4072 K



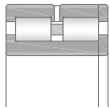
Main dimensions				Basic load ratings		Fatigue load limit	Speed ratings	Designation
d	D	B	C	Dynamic C	Static C ₀	C _u	Reference	Standard design
[mm]				[kN]			[rpm]	
360	600	243	-	4239	8420	688	950	NNU 4172
(cont.)								
370	520	220	193	2762	6680	568	900	NNUB 319961
380	480	100	-	945	2530	210	1300	NNU 4876
	520	140	-	1456	3530	208	1300	NNU 4976
	540	130	-	2034	4270	377	900	326131
	540	150	-	2533	5450	476	900	316062
	540	200	-	3141	6890	593	800	320041
	560	135	-	1699	3410	301	1600	NN 3076
	560	180	-	2894	5940	525	1100	NNU 4076
	620	243	-	4320	8380	670	900	NNU 4176
400	500	100	-	961	2733	207	1200	NNU 4880
	500	100	-	961	2733	207	1200	NNUP 4880
	540	140	-	1679	4479	331	1600	NNU 4980
	560	205	-	3179	7740	650	800	314987
	590	220	-	3650	8190	686	800	315802
	600	148	-	2129	4450	376	1500	NN 3080
	600	200	-	3503	7060	588	1000	NNU 4080
	600,19	200	-	3477	7130	594	1000	326880
	600,19	200	-	3492	7120	593	800	326363
	650	250	-	4720	9340	737	800	NNU 4180
406,4	647,7	342,8	-	6355	12290	983	800	322187
410	600	140	-	3829	8570	713	800	316019
420	520	100	-	997	2810	193	1200	NNU 4884
	560	140	-	1523	3980	343	1500	NNU 4984
	580	130	-	2306	4710	407	1100	320074
	580	130	-	2522	5280	463	800	326137
	580	160	-	2316	5300	466	900	313555

**NNUP****NN****2ROW SCR**

Dimensions					Mass	Designation	
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Cylindrical bore	Tapered bore
[mm]					[kg]		
360	5	5	4	4	275	NNU 4172	NNU 4172 K30
(cont.)							
370	13,7x20°	1,5	-	1,5	130	NNUB 319961	-
380	1,5	2,1	1,5	2	44	NNU 4876	NNU 4876 K
	4	4	3	3	87,5	NNU 4976	NNU 4976 K
	4	4	3	3	100	326131	-
	8,5x20°	2	-	2	110	316062	-
	5	2	4	2	145	320041	-
	5	5	4	4	110	-	NN 3076 K
	5	5	4	4	150	NNU 4076	NNU 4076 K
	5	5	4	4	285	NNU 4176	NNU 4176 K30
400	1,5	2,1	1,5	2	46	NNU 4880	NNU 4880 K
	2,1	2,1	2	2	45,5	NNUP 4880	-
	4	4	3	3	91,5	NNU 4980	NNU 4980 K
	5	2	4	2	160	314987	-
	5	5	4	4	210	315802	-
	5	5	4	4	140	-	NN 3080 K
	5	5	4	4	205	NNU 4080	NNU 4080 K
	5	5	4	4	200	326880	-
	5	5	4	4	205	326363	-
	6	6	5	5	325	NNU 4180	NNU 4180 K30
406,4	13x45°	5x45°	12	5	435	322187	-
410	5	5	4	4	215	316019	-
420	1,5	2,1	1,5	2	48	NNU 4884	NNU 4884 K
	4	4	3	3	95,5	NNU 4984	NNU 4984 K
	4	4	3	3	110	320074	-
	4	4	3	3	110	326137	-
	4	4	3	3	125	313555	-



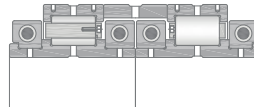
Main dimensions				Basic load ratings		Fatigue load limit	Speed ratings	Designation
d	D	B	C	Dynamic C	Static C ₀	C _u	Reference	Standard design
[mm]				[kN]			[rpm]	
420	600	220	-	3609	8710	713	800	314982
(cont.)	620	150	-	2122	4480	378	1400	NN 3084
	620	200	-	3508	7460	607	1000	NNU 4084
	620	200	-	3494	7660	643	700	314391
	620	260	-	4340	10080	870	900	614844
	700	280	-	5457	11310	893	800	NNU 4184
440	540	100	-	1016	3399	216	1100	NNU 4888
	600	160	-	2072	5120	443	1400	NNU 4988
	620	225	-	3870	9670	789	700	316077
	640	230	-	4596	9790	779	900	316521
	650	157	-	2426	5020	418	1300	NN 3088
	650	212	-	3920	8250	666	900	NNU 4088
	720	280	-	5768	11660	889	700	NNU 4188
457,2	660,4	228,6	203,2	3651	7990	627	700	NNUB 322969
460	580	118	-	1199	3190	220	1100	NNU 4892
	620	160	-	2111	5390	456	1300	NNU 4992
	650	235	-	4429	11040	887	700	316739
	680	163	-	2585	5410	448	1300	NN 3092
	680	218	-	4267	8860	709	800	NNU 4092
	760	300	-	6496	13020	989	700	NNU 4192
480	650	170	-	2349	6010	502	1300	NNU 4996
	700	165	-	2668	5790	475	1200	NN 3096
	700	218	-	4353	9490	738	800	NNU 4096
	700	260	-	5352	12380	941	600	316189
	790	308	-	7090	14090	1064	700	NNU 4196
487,98	637	175	-	3040	7530	6044	700	326196
490	694	174	-	3733	8890	741	700	316639



NNUP

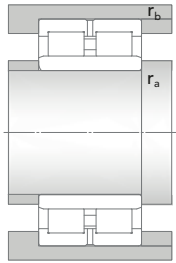
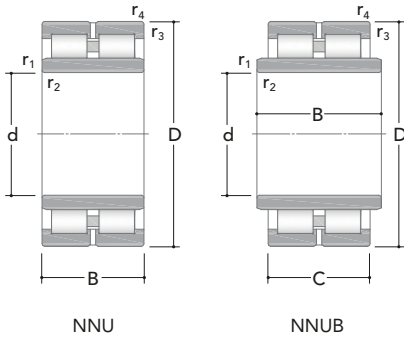


NN

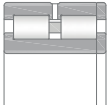


2ROW SCRB

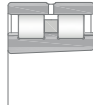
Dimensions					Mass	Designation	
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Cylindrical bore	Tapered bore
[mm]					[kg]		
420	2	2	2	2	205	314982	-
(cont.)	5	5	4	4	145	-	NN 3084 K
	5	5	4	4	183	NNU 4084	NNU 4084 K
	4	4	3	3	220	314391	-
	6	6	5	5	280	614844	-
	6	6	5	5	440	NNU 4184	NNU 4184 K30
440	1,5	2,1	1,5	2	50	NNU 4888	NNU 4888 K
	4	4	3	3	130	NNU 4988	NNU 4988 K
	12x20°	2	-	2	220	316077	-
	6	6	5	5	250	316521	-
	6	6	5	5	170	-	NN 3088 K
	6	6	5	5	215	NNU 4088	NNU 4088 K
	6	6	5	5	450	NNU 4188	NNU 4188 K30
457,2	6	6	5	5	235	NNUB 322969	-
460	3	3	2,5	2,5	75	NNU 4892	NNU 4892 K
	4	4	3	3	135	NNU 4992	NNU 4992 K
	12x20°	3	-	2,5	260	316739	-
	6	6	5	5	195	-	NN 3092 K
	6	6	5	5	240	NNU 4092	NNU 4092 K
	7,5	7,5	6	6	535	NNU 4192	NNU 4192 K30
480	5	5	4	4	160	NNU 4996	NNU 4996 K
	6	6	5	5	200	NN 3096	NN 3096 K
	6	6	5	5	275	NNU 4096	NNU 4096 K
	6	6	5	5	345	316189	-
	7,5	7,5	6	6	590	NNU 4196	NNU 4196 K30
487,98	10x20°	4	-	3	170	326196	-
490	16x20°	5	-	4	215	316639	-



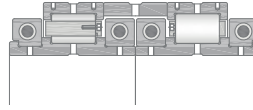
Main dimensions				Basic load ratings		Fatigue load limit	Speed ratings	Designation
d	D	B	C	Dynamic C	Static C ₀	C _u	Reference	Standard design
[mm]				[kN]			[rpm]	
500	650	130	-	2035	5050	421	700	319254
	670	170	-	2295	6050	506	1200	NNU 49/500
	680	225	-	4166	10880	870	600	314990
	700	170	-	2688	5360	402	850	320570
	720	167	-	2705	5780	474	1200	NN 30/500
	720	218	-	4407	9800	750	800	NNU 40/500
	720	218	-	4668	10740	810	600	314419
	830	325	-	7446	14910	1113	600	NNU 41/500
510	760	400	275	5987	13180	998	600	NNUB 320996
529,91	870	335		7809	16570	1218	500	312844
530	710	180	-	2828	7770	638	1060	NNU 49/530
	760	260	-	5888	14090	1044	600	316536
	780	185	-	3340	7100	523	1060	NN 30/530
	780	225	-	4456	9410	688	600	326064
	780	250	-	4736	10000	750	600	315040
	780	250	-	5481	12150	896	700	NNU 40/530
	780	475	285	7222	17220	1284	600	NNUB 320117
	870	335	-	7721	15990	1159	600	NNU 41/530
546,05	698,5	215,9	-	3586	7620	583	700	464787
550	800	260	-	5834	13146,5	961	600	316115
560	735	170	-	2951	6930	559	800	326061
	740	180	-	2674	7220	560	640	313191
	750	190	-	3189	8500	683	1010	NNU 49/560
	820	195	-	3744	7860	575	950	NN 30/560
	820	258	-	5681	12840	946	670	NNU 40/560
	920	355	-	8844	18160	1310	560	NNU 41/560



NNUP

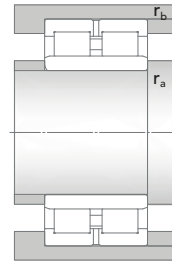
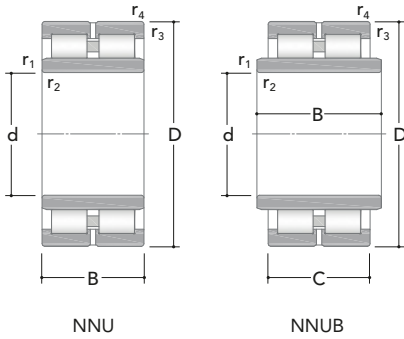


NN

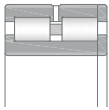


2ROW SCRB

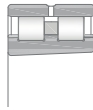
Dimensions					Mass	Designation	
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Cylindrical bore	Tapered bore
[mm]					[kg]		
500	5	5	4	4	120	319254	-
	5	5	4	4	165	NNU 49/500	NNU 49/500 K
	5	2	4	2	250	314990	-
	5	5	4	4	210	320570	-
	6	6	5	5	210	NN 30/500	NN 30/500 K
	6	6	5	5	285	NNU 40/500	NNU 40/500 K
	13,5x20°	6	-	5	310	314419	-
	7,5	7,5	6	6	710	NNU 41/500	NNU 41/500 K30
510	6	3	5	2,5	485	NNUB 320996	-
529,91	7,5	7,5	6	6	830	312844	-
530	5	5	4	4	200	NNU 49/530	NNU 49/530 K
	12x20°	5	-	4	510	316536	-
	6	6	5	5	270	NN 30/530	NN 30/530 K
	20x20°	6	-	5	370	326064	-
	6	6	5	5	400	315040	-
	6	6	5	5	420	NNU 40/530	NNU 40/530 K
	5	5	4	4	560	NNUB 320117	-
	7,5	7,5	6	6	790	NNU 41/530	NNU 41/530 K30
546,05	4	4	3	3	215	464787	-
550	14x20°	6	-	5	455	316115	-
560	5	5	4	4	165	326061	-
	5	5	4	4	215	313191	-
	5	5	4	4	235	NNU 49/560	NNU 49/560 K
	6	6	5	5	315	NN 30/560	NN 30/560 K
	6	6	5	5	475	NNU 40/560	NNU 40/560 K
	7,5	7,5	6	6	930	NNU 41/560	NNU 41/560 K30



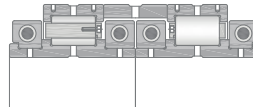
Main dimensions				Basic load ratings		Fatigue load limit	Speed ratings	Designation
d	D	B	C	Dynamic C	Static C ₀	C _u	Reference	Standard design
[mm]				[kN]			[rpm]	
600	800	200	-	3583	10030	787	950	NNU 49/600
	820	287,5	-	6483	17900	1283	500	319584
	870	200	-	3827	8560	604	900	NN 30/600
	870	272	-	6850	15510	1114	600	NNU 40/600
	980	375	-	9802	21080	1452	500	NNU 41/600
630	850	218	-	4038	11260	869	900	NNU 49/630
	920	212	-	4278	9680	672	850	NN 30/630
	920	290	-	7730	17150	1196	600	NNU 40/630
	1030	400	-	10900	23550	1599	480	NNU 41/630
635	762	101,6	-	1670	4540	324	740	319943
650	920	335	-	8697	23080	1592	560	326894
660	880	225	-	4126	11770	828	490	313477
670	900	230	-	4988	13570	921	850	NNU 49/670
	980	230	-	5045	11290	772	800	NN 30/670
	980	308	-	8333	19510	1334	530	NNU 40/670
	1090	412	-	12233	25140	1706	450	NNU 41/670
710	950	243	-	5326	15110	1027	740	NNU 49/710
	1030	236	-	5792	13040	869	710	NN 30/710
	1030	315	-	9482	21580	1459	510	NNU 40/710
	1150	438	-	13517	28470	1898	400	NNU 41/710
723,975	927,2	190	-	4453	11900	813	500	322191
750	920	170	-	3440	10000	706	585	NN 48/750
	1000	250	-	5538	15920	1055	710	NNU 49/750
	1000	250	-	6199	16420	1108	420	314420
	1090	250	-	6976	15990	1039	660	NN 30/750



NNUP

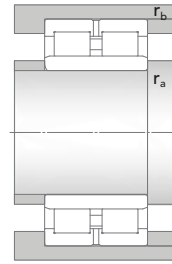
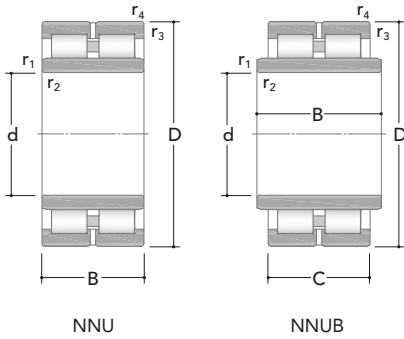


NN

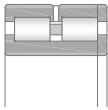
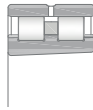
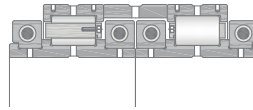


2ROW SCR

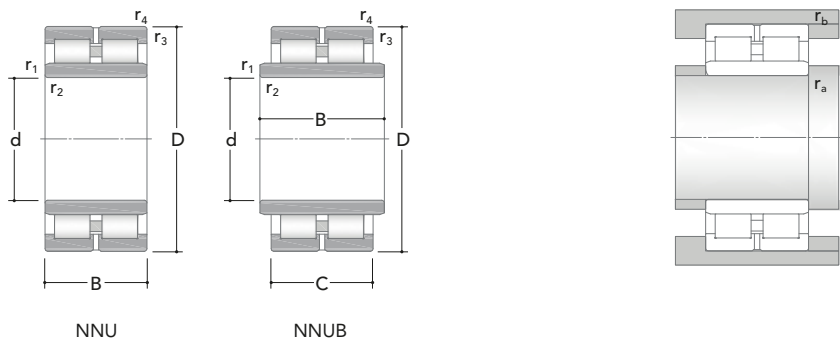
Dimensions					Mass	Designation	
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Cylindrical bore	Tapered bore
[mm]					[kg]		
600	5	5	4	4	280	NNU 49/600	NNU 49/600 K
	15x20°	3	-	2,5	470	319584	-
	6	6	5	5	355	NN 30/600	NN 30/600 K
	6	6	5	5	530	NNU 40/600	NNU 40/600 K
	7,5	7,5	6	6	1100	NNU 41/600	NNU 41/600 K30
630	6	6	5	5	355	NNU 49/630	NNU 49/630 K
	7,5	7,5	6	6	430	NN 30/630	NN 30/630 K
	7,5	7,5	6	6	635	NNU 40/630	NNU 40/630 K
	7,5	7,5	6	6	1330	NNU 41/630	NNU 41/630 K30
635	5	5	4	4	86,5	319943	-
650	17x20°	4	-	3	740	326894	-
660	6	6	5	5	390	313477	-
670	6	6	5	5	410	NNU 49/670	NNU 49/670 K
	7,5	7,5	6	6	530	NN 30/670	NN 30/670 K
	7,5	7,5	6	6	765	NNU 40/670	NNU 40/670 K
	7,5	7,5	6	6	1500	NNU 41/670	NNU 41/670 K30
710	6	6	5	5	480	NNU 49/710	NNU 49/710 K
	7,5	7,5	6	6	590	NN 30/710	NN 30/710 K
	7,5	7,5	6	6	850	NNU 40/710	NNU 40/710 K
	9,5	9,5	8	8	1790	NNU 41/710	NNU 41/710 K30
723,975	6	2	5	2	340	322191	-
750	5	5	4	4	240	NN 48/750	NN 48/750 K
	6	6	5	5	540	NNU 49/750	NNU 49/750 K
	6	6	5	5	575	314420	-
	7,5	7,5	6	6	705	NN 30/750	NN 30/750 K



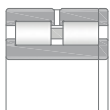
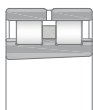
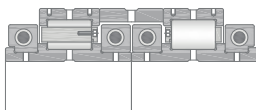
Main dimensions				Basic load ratings		Fatigue load limit	Speed ratings	Designation
d	D	B	C	Dynamic C	Static C ₀	C _u	Reference	Standard design
[mm]				[kN]			[rpm]	
750	1090	335	-	10137	23730	1582	460	NNU 40/750
(cont.)	1220	475	-	16148	35390	2313	400	NNU 41/750
760	1030	400	-	12362	33820	2228	-	239503
800	1060	258	-	5877	16780	1106	-	NNU 49/800
	1150	258	-	7757	17940	1156	-	NN 30/800
	1150	345	-	10942	25890	1693	-	NNU 40/800
	1260	375	-	12836	27810	1788	320	326379
	1280	475	-	16320	40891	2625	360	NNU 41/800
850	1120	272	-	5944	17990	1139	-	NNU 49/850
	1220	272	-	7949	18250	1158	-	NN 30/850
	1220	365	-	11641	28100	1804	-	NNU 40/850
900	1180	280	-	6634	19720	1233	-	NNU 49/900
	1280	280	-	8327	19730	1233	-	NN 30/900
	1280	375	-	12880	31140	1977	-	NNU 40/900
950	1250	300	-	7364	22340	1396	-	NNU 49/950
	1360	300	-	9117	22220	1359	-	NN 30/950
	1360	412	-	14078	35210	2182	-	NNU 40/950
1000	1320	315	-	8676	25620	1577	-	NNU 49/1000
	1320	315	-	8676	25620	1606	-	NN 49/1000
	1420	308	-	10004	24200	1511	-	NN 30/1000
	1420	412	-	15489	37310	2317	-	NNU 40/1000
1060	1400	335	-	10635	30380	1853	-	NNU 49/1060
	1500	325	-	11156	27210	1642	-	NN 30/1060
1120	1460	335	-	10462	31250	1845	-	NNU 49/1120

**NNUP****NN****2ROW SCRB**

Dimensions					Mass	Designation	
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Cylindrical bore	Tapered bore
[mm]					[kg]		
750	7,5	7,5	6	6	925	NNU 40/750	NNU 40/750 K
(cont.)	9,5	9,5	8	8	2230	NNU 41/750	NNU 41/750 K30
760	7,5	4	6	3	1280	239503	-
800	6	6	5	5	615	NNU 49/800	NNU 49/800 K
	7,5	7,5	6	6	790	NN 30/800	NN 30/800 K
	7,5	7,5	6	6	1140	NNU 40/800	NNU 40/800 K
	9,5	9,5	8	8	1850	326379	-
	9,5	9,5	8	8	2390	NNU 41/800	NNU 41/800 K30
850	6	6	5	5	715	NNU 49/850	NNU 49/850 K
	7,5	7,5	6	6	480	NN 30/850	NN 30/850 K
	7,5	7,5	6	6	300	NNU 40/850	NNU 40/850 K
900	6	6	5	5	805	NNU 49/900	NNU 49/900 K
	7,5	7,5	6	6	1050	NN 30/900	NN 30/900 K
	7,5	7,5	6	6	1500	NNU 40/900	NNU 40/900 K
950	7,5	7,5	6	6	960	NNU 49/950	NNU 49/950 K
	7,5	7,5	6	6	1300	NN 30/950	NN 30/950 K
	7,5	7,5	6	6	1900	NNU 40/950	NNU 40/950 K
1000	7,5	7,5	6	6	1250	NNU 49/1000	NNU 49/1000 K
	7,5	7,5	6	6	1200	NN 49/1000	NN 49/1000 K
	7,5	7,5	6	6	1400	NN 30/1000	NN 30/1000 K
	7,5	7,5	6	6	2000	NNU 40/1000	NNU 40/1000 K
1060	7,5	7,5	6	6	1350	NNU 49/1060	NNU 49/1060 K
	9,5	9,5	8	8	1650	NN 30/1060	NN 30/1060 K
1120	7,5	7,5	6	6	1450	NNU 49/1120	NNU 49/1120 K



Main dimensions				Basic load ratings		Fatigue load limit	Speed ratings	Designation
d	D	B	C	Dynamic C	Static C ₀	C _u	Reference	Standard design
[mm]				[kN]			[rpm]	
1180	1540	355	-	11803	35290	2078	-	NNU 49/1180
1311	1720	300	-	12421	34120	1978	169	326372
1320	1720	400	-	13845	41980	2420	-	NNU 49/1320
	1720	400	-	13845	41980	2420	-	NN 49/1320

**NNUP****NN****2ROW SCR**

Dimensions					Mass	Designation	
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Cylindrical bore	Tapered bore
[mm]					[kg]		
1180	7,5	7,5	6	6	1650	NNU 49/1180	NNU 49/1180 K
1311	7,5	7,5	6	6	1820	326372	-
1320	7,5	7,5	6	6	3100	NNU 49/1320	NNU 49/1320 K
	7,5	7,5	6	6	3060	NN 49/1320	NN 49/1320 K

Double row full complement cylindrical roller bearings

Double row full complement cylindrical roller bearings feature both solid inner and outer rings, as well as rolling elements properly guided between ribs. Due to that particular design (cageless) they can host the large numbers of rollers, leading to the highest load rating values. On the other side, they allow a maximum rotating speed lower than the classical cage design. Available in non locating, semi-locating and locating design these bearings represent the proper technical solution in several fields and applications.

Internal clearance

Double row full complement cylindrical roller bearings are produced as standard with Normal radial internal clearance CN, but they are also available with C2, C3, and C4 radial internal clearance, in accordance with the ISO 5753:2009. The radial internal clearance values are reported in the **Tab. 1 page 127** and **Tab. 2 page 128** and they are valid only for bearing unmounted and unloaded. The axial internal clearance of NNC and NNCF, which can axially locate the shaft in both directions, is in the range of 0.1 to 0.2 mm for all sizes.



Double row full complement cylindrical roller bearing

Axial displacement

NNCL and NNCF bearing can accommodate axial displacement between shaft and housing within certain limits. As a consequence of the fact that the axial displacement takes between the inner ring and outer ring and not between the inner ring and shaft and outer ring and housing, there is no additional friction during the bearing rotation.

Misalignment

Any misalignment between shaft and seat of the double row full complement cylindrical roller bearing creates a moment load inside the bearing. The bearing life will be obviously affected.

Minimum load

A minimum radial load is requested for a double row full complement cylindrical roller bearings to allow the correct functioning, especially in critical working conditions like: high speed, high acceleration and sudden changes of rotating direction. In these operating conditions, a skidding between the rollers and raceways can be generated by the inertial forces, influencing negatively the bearing life. Minimum radial load can be theoretically estimated using the following formula:

$$F_{rm} > \frac{C_{0r}}{50}$$

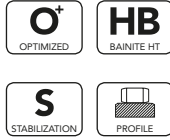
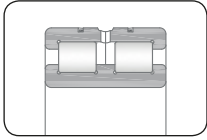
Where:

- F_{rm} minimum radial load, [kN];
- C_{0r} basic static load rating, [kN] .

Usually, the minimum radial load is reached or surpassed by the weight of the components supported by the bearing together with the loads acting on it, otherwise supplementary radial load must be applied on the double row full complement cylindrical roller bearing.

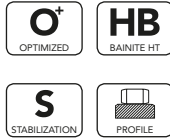
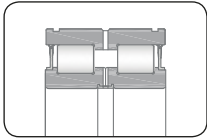
Designs and variants

Type NNC (SL01)



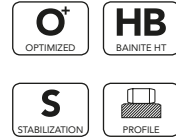
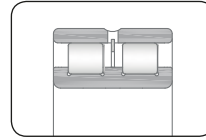
- Split outer ring with two integral ribs, clamped with a retaining ring
- Inner ring with three integral ribs
- Full complement (cageless) design for increased load carrying capacities
- Reduced maximum rotational speed compared to caged design
- Annular groove and lubrication holes in outer ring
- Optimized raceway geometry and roller profile
- Can be used in locating position

Type NNF (SL04)



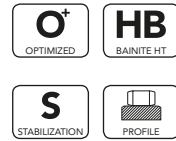
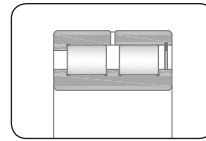
- Outer ring with one central integral rib
- Split inner ring with three integral ribs, clamped with a retaining ring
- Full complement (cageless) design for increased load carrying capacities
- Reduced maximum rotational speed
- Annular groove and lubrication holes in outer and inner ring
- Optimized raceway geometry and roller profile
- Integrated rubber seals on both bearing sides to avoid contamination
- Available filled with grease
- Can be used in locating position

Type NNCL (SL02)



- Ribless outer ring
- Inner ring with three integral ribs
- Full complement (cageless) design for increased load carrying capacities
- Reduced maximum rotational speed compared to caged design
- Annular groove and lubrication holes in outer ring
- Separating ring between the two rows of rollers
- Optimized raceway geometry and roller profile
- Can be used in locating position

Type NNCF



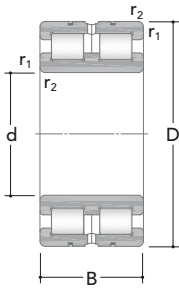
- Outer ring with one integral side rib and retaining ring
- Inner ring with three integral ribs
- Full complement (cageless) design for increased load carrying capacities
- Reduced maximum rotational speed compared to caged design
- Optimized raceway geometry and roller profile
- Can be used in one direction locating position (semi-locating design)
- Available with annular groove and lubrication holes in outer or inner ring

Suffixes	Internal Design
DA	Modified snap ring grooves in outer ring and two-piece inner ring held together by retaining ring
ADA	Wider snap ring grooves in outer ring and two-piece inner ring held together by retaining ring
OD	Special outer diameter. The number immediately following the OD gives the outer diameter in mm
B	Special bearing width. The number immediately following the B gives the width in mm
SP	Special or non-standard bearing
ZB	Optimized roller profile for improved load distribution. It is not necessarily stated in the bearing code

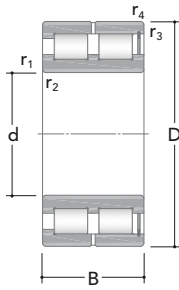
Suffixes	Cage
V	Full complement of rolling elements (without cage)

Suffixes	Lubrication
G	Helical groove in inner ring bore (not necessarily stated)
ISR3	Annular groove and three lubrication holes in inner ring
W33	Annular groove and three lubrication holes in outer ring
W33X	Annular groove and more than three lubrication holes in outer ring
W77X	Annular groove and more than three plugged lubrication holes in outer ring
W	Lubrication grooves in the side faces of inner and outer rings (not necessarily stated)
WI	Lubrication grooves in the side face of inner ring (not necessarily stated)
WO	Lubrication grooves in the side face of outer ring (not necessarily stated)

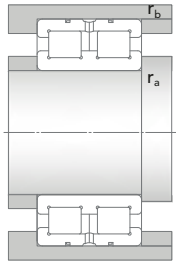
Suffixes	External design
P	Contact seal on one side (3194 series)
PP	Contact seal on both sides (NNF 50 series)
LS	Contact seal on one side (NNF 50 series)
2LS	Contact seal on both sides (3194 series)
NR	Snap ring groove in outer ring with suitable snap ring



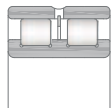
NNC (SL01)



NNCF

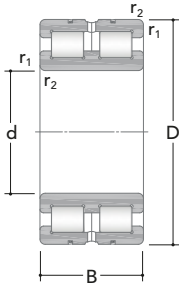


Main dimensions			Basic load ratings		Fatigue load limit	Speed ratings		Designation
d	D	B	Dynamic C	Static C ₀	C _u	Reference	Limiting	Standard design
[mm]			[kN]			[rpm]		
20	42	30	52,4	56,3	6,1	8300	8800	NNCF 5004 V
25	47	30	59	69,6	7,5	6700	7900	NNCF 5005 V
30	55	34	73,8	86,5	10	5800	6400	NNCF 5006 V
35	62	36	89,5	110	12,7	5100	5800	NNCF 5007 V
40	68	38	105	139	17	4600	5200	NNCF 5008 V
45	75	40	113	155	18,2	4100	4700	NNCF 5009 V
50	80	40	144	193	23,2	3800	4300	NNCF 5010 V
55	90	46	189	275	33,9	3300	3700	NNCF 5011 V
60	85	25	77,7	135	14,1	3400	3900	NNCF 4912 V
	85	25	77,7	135	14,1	3400	3900	NNC 4912 V
	85	25	77,7	135	14,1	3400	3900	NNCL 4912 V
	95	46	197	299	36,4	3200	3500	NNCF 5012 V
65	100	46	211	321	40	2900	3400	NNCF 5013 V
70	100	30	113	192	22,3	2900	3300	NNCF 4914 V
	100	30	113	192	22,3	2900	3300	NNC 4914 V
	100	30	113	192	22,3	2900	3300	NNCL 4914 V
	110	54	235	343	45	2700	3100	NNCF 5014 V
75	115	54	249	377	49	2500	2700	NNCF 5015 V
80	110	30	121	213	25	2500	3000	NNCF 4916 V
	110	30	121	213	25	2500	2900	NNC 4916 V
	110	30	121	213	25	2500	2900	NNCL 4916 V

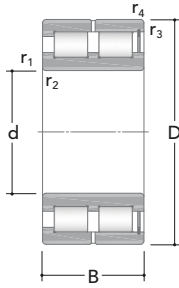


NNCL (SL02)

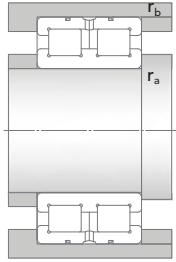
Dimensions					Mass	Designation
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Standard design
[mm]					[kg]	
20	0,6	0,3	0,5	0,3	0,2	NNCF 5004 V
25	0,6	0,3	0,5	0,3	0,23	NNCF 5005 V
30	1	0,3	1	0,3	0,35	NNCF 5006 V
35	1	0,3	1	0,3	0,46	NNCF 5007 V
40	1	0,3	1	0,3	0,56	NNCF 5008 V
45	1	0,3	1	0,3	0,71	NNCF 5009 V
50	1	0,3	1	0,3	0,76	NNCF 5010 V
55	1,1	0,6	1	0,5	1,15	NNCF 5011 V
60	1	1	1	1	0,48	NNCF 4912 V
	1	-	1	-	0,49	NNC 4912 V
	1	-	1	-	0,47	NNCL 4912 V
	1,1	0,6	1	0,5	1,25	NNCF 5012 V
65	1,1	0,6	1	0,5	1,3	NNCF 5013 V
70	1	1	1	1	0,77	NNCF 4914 V
	1	-	1	-	0,78	NNC 4914 V
	1	-	1	-	0,75	NNCL 4914 V
	1,1	0,6	1	0,5	1,85	NNCF 5014 V
75	1,1	0,6	1	0,5	1,95	NNCF 5015 V
80	1	1	1	1	0,87	NNCF 4916 V
	1	-	1	-	0,88	NNC 4916 V
	1	-	1	-	0,85	NNCL 4916 V



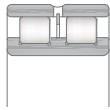
NNC (SL01)



NNCF

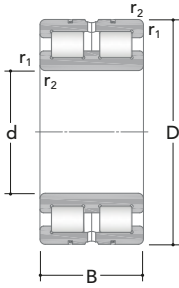


Main dimensions			Basic load ratings		Fatigue load limit	Speed ratings		Designation
d	D	B	Dynamic C	Static C ₀	C _u	Reference	Limiting	Standard design
[mm]			[kN]			[rpm]		
80	125	60	305	452	58,1	2300	2600	NNCF 5016 V
(cont.)								
85	130	60	318	472	60	2300	2600	NNCF 5017 V
90	125	35	160	296	35	2300	2700	NNCF 4918 V
	125	35	160	296	35	2300	2600	NNC 4918 V
	125	35	160	296	35	2300	2600	NNCL 4918 V
	140	67	364	552	68,5	2100	2500	NNCF 5018 V
100	140	40	208	399	46,4	1900	2300	NNCF 4920 V
	140	40	208	399	46,4	1900	2300	NNC 4920 V
	140	40	208	399	46,4	1900	2200	NNCL 4920 V
	150	67	392	614	74	1900	2200	NNCF 5020 V
105	145	47	233	474	55	1960,000	-	319372
110	150	40	221	429	49	1800	2100	NNCF 4922 V
	150	40	221	429	49	1800	2100	NNC 4922 V
	150	40	221	429	49	1800	2100	NNCL 4922 V
	170	80	513	799	95	1700	1900	NNCF 5022 V
120	165	45	240	478	53	1600	1900	NNCF 4924 V
	165	45	240	478	53	1600	1900	NNC 4924 V
	165	45	240	478	53	1600	1900	NNCL 4924 V
	180	80	546	878	104	1600	1800	NNCF 5024 V
130	180	50	297	529	60	1500	1700	NNCF 4926 V
	180	50	297	529	60	1500	1700	NNC 4926 V
	180	50	297	529	60	1500	1700	NNCL 4926 V
	200	95	757	1238	142	1400	1700	NNCF 5026 V
140	190	50	307	566	63	1400	1600	NNCF 4928 V
	190	50	307	566	63	1400	1700	NNC 4928 V

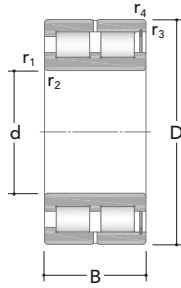


NNCL (SL02)

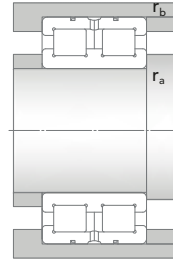
Dimensions					Mass	Designation
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Standard design
[mm]					[kg]	
80	1,1	0,6	1	0,5	2,6	NNCF 5016 V
(cont.)						
85	1,1	0,6	1	0,5	2,7	NNCF 5017 V
90	1,1	1,1	1	1	1,35	NNCF 4918 V
	1,1	-	1	-	1,35	NNC 4918 V
	1,1	-	1	-	1,3	NNCL 4918 V
	1,5	1	1,5	1	3,6	NNCF 5018 V
100	1,1	1,1	1	1	1,95	NNCF 4920 V
	1,1	-	1	-	1,95	NNC 4920 V
	1,1	-	1	-	1,9	NNCL 4920 V
	1,5	1	1,5	1	3,95	NNCF 5020 V
105	1,1	1,1	1	1	2,4	319372
110	1,1	1,1	1	1	2,1	NNCF 4922 V
	1,1	-	1	-	2,15	NNC 4922 V
	1,1	-	1	-	2,1	NNCL 4922 V
	2	1	2	1	6,3	NNCF 5022 V
120	1,1	1,1	1	1	2,9	NNCF 4924 V
	1,1	-	1	-	2,95	NNC 4924 V
	1,1	-	1	-	2,85	NNCL 4924 V
	2	1	2	1	6,75	NNCF 5024 V
130	1,5	1,5	1,5	1,5	3,9	NNCF 4926 V
	1,5	-	1,5	-	3,95	NNC 4926 V
	1,5	-	1,5	-	3,8	NNCL 4926 V
	2	1	2	1	10	NNCF 5026 V
140	1,5	1,5	1,5	1,5	4,15	NNCF 4928 V
	1,5	-	1,5	-	4,2	NNC 4928 V



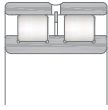
NNC (SL01)



NNCF

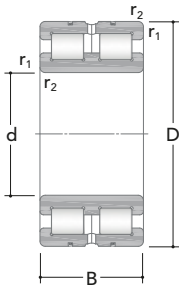


Main dimensions			Basic load ratings		Fatigue load limit	Speed ratings		Designation
d	D	B	Dynamic C	Static C_0	C_u	Reference	Limiting	Standard design
[mm]			[kN]			[rpm]		
140	190	50	307	566	63	1400	1700	NNCL 4928 V
	(cont.) 210	95	802	1350	151	1300	1600	NNCF 5028 V
150	190	40	253	574	59	1400	1600	NNCF 4830 V
	190	40	253	574	59	1400	1600	NNC 4830 V
	190	40	253	574	59	1400	1600	NNCL 4830 V
	210	60	432	816	90	1300	1500	NNCF 4930 V
	210	60	432	816	90	1300	1500	NNC 4930 V
	210	60	432	816	90	1300	1500	NNCL 4930 V
	225	100	837	1429	160	1200	1500	NNCF 5030 V
160	200	40	261	603	61	1300	1500	NNCF 4832 V
	200	40	261	603	61	1300	1500	NNC 4832 V
	200	40	261	603	61	1300	1500	NNCL 4832 V
	220	60	442	899	94,8	1200	1400	NNCF 4932 V
	220	60	442	899	94,8	1200	1400	NNC 4932 V
	220	60	442	899	94,8	1200	1400	NNCL 4932 V
	240	109	960	1590	179	1100	1300	NNCF 5032 V
170	215	45	286	647	64,7	1200	1400	NNCF 4834 V
	215	45	286	647	64,7	1200	1400	NNC 4834 V
	215	45	286	647	64,7	1200	1400	NNCL 4834 V
	230	60	459	932	98	1100	1300	NNCF 4934 V
	230	60	459	932	98	1100	1300	NNC 4934 V
	230	60	459	932	98	1100	1300	NNCL 4934 V
	260	122	1240	2090	233	1000	1200	NNCF 5034 V
180	225	45	297	689	68,9	1100	1300	NNCF 4836 V
	225	45	297	689	68,9	1100	1300	NNC 4836 V
	225	45	297	689	68,9	1100	1300	NNCL 4836 V
	250	69	590	1210	126	1000	1200	NNCF 4936 V
	250	69	590	1210	126	1000	1200	NNC 4936 V
	250	69	590	1210	126	1000	1200	NNCL 4936 V

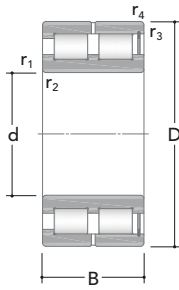


NNCL (SL02)

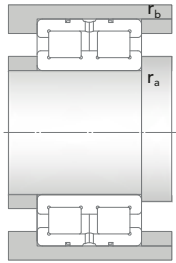
Dimensions					Mass	Designation
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Standard design
[mm]					[kg]	
140	1,5	-	1,5	-	4,1	NNCL 4928 V
(cont.)	2	1	2	1	11	NNCF 5028 V
150	1,1	1,1	1	1	2,8	NNCF 4830 V
	1,1	-	1	-	2,9	NNC 4830 V
	1,1	-	1	-	2,7	NNCL 4830 V
	2	2	2	2	6,55	NNCF 4930 V
	2	-	2	-	6,65	NNC 4930 V
	2	-	2	-	6,45	NNCL 4930 V
	2	1,1	2	1	13,5	NNCF 5030 V
160	1,1	1,1	1	1	3	NNCF 4832 V
	1,1	-	1	-	3,1	NNC 4832 V
	1,1	-	1	-	2,9	NNCL 4832 V
	2	2	2	2	6,9	NNCF 4932 V
	2	-	2	-	7	NNC 4932 V
	2	-	2	-	6,8	NNCL 4932 V
	2,1	1,1	2	1	16	NNCF 5032 V
170	1,1	1,1	1	1	4	NNCF 4834 V
	1,1	-	1	-	4,1	NNC 4834 V
	1,1	-	1	-	3,9	NNCL 4834 V
	2	2	2	2	7,2	NNCF 4934 V
	2	-	2	-	7,35	NNC 4934 V
	2	-	2	-	7,1	NNCL 4934 V
	2,1	1,1	2	1	23	NNCF 5034 V
180	1,1	1,1	1	1	4,2	NNCF 4836 V
	1,1	-	1	-	4,3	NNC 4836 V
	1,1	-	1	-	4,1	NNCL 4836 V
	2	2	2	2	10,5	NNCF 4936 V
	2	-	2	-	11	NNC 4936 V
	2	-	2	-	10,5	NNCL 4936 V



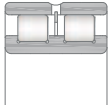
NNC (SL01)



NNCF

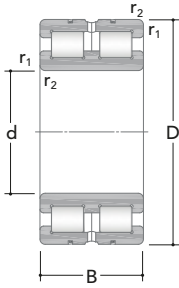


Main dimensions			Basic load ratings		Fatigue load limit	Speed ratings		Designation
d	D	B	Dynamic C	Static C ₀	C _u	Reference	Limiting	Standard design
[mm]			[kN]			[rpm]		
180	280	136	1441	2460	266	1000	1100	NNCF 5036 V
(cont.)								
190	240	50	357	744	75,9	1000	1200	NNCF 4838 V
	240	50	357	744	75,9	1000	1300	NNC 4838 V
	240	50	357	744	75,9	1000	1200	NNCL 4838 V
	260	69	600	1288	132	1000	1200	NNCF 4938 V
	260	69	600	1288	131	1000	1200	NNC 4938 V
	260	69	600	1288	132	1000	1200	NNCL 4938 V
	290	136	1482	2590	279	1000	1100	NNCF 5038 V
200	250	50	366	793	79	1000	1200	NNCF 4840 V
	250	50	366	793	79	1000	1200	NNC 4840 V
	250	50	366	793	79	1000	1200	NNCL 4840 V
	280	80	696	1470	150	1000	1100	NNCF 4940 V
	280	80	696	1470	150	1000	1100	NNC 4940 V
	280	80	696	1470	150	1000	1200	NNCL 4940 V
	310	150	1705	3020	317	900	1040	NNCF 5040 V
220	270	50	378	853	84	1000	1100	NNCF 4844 V
	270	50	378	853	84	1000	1050	NNC 4844 V
	270	50	378	853	84	1000	1100	NNCL 4844 V
	300	80	739	1580	158	900	1030	NNCF 4944 V
	300	80	739	1580	158	900	1100	NNC 4944 V
	300	80	739	1580	158	900	1040	NNCL 4944 V
	340	160	2028	3580	373	800	940	NNCF 5044 V
240	300	60	534	1305	127	900	1000	NNCF 4848 V
	300	60	534	1305	126	900	950	NNC 4848 V
	300	60	534	1305	125	900	1000	NNCL 4848 V
	320	80	784	1750	172	800	1000	NNCF 4948 V
	320	80	784	1750	172	800	1000	NNC 4948 V
	320	80	784	1750	172	800	1000	NNCL 4948 V
	360	160	2143	3840	394	800	900	NNCF 5048 V

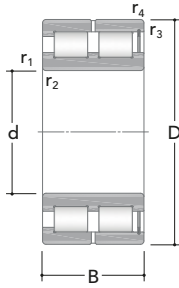


NNCL (SL02)

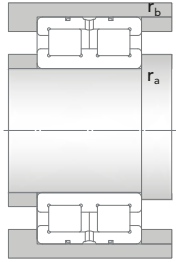
Dimensions					Mass	Designation
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Standard design
[mm]					[kg]	
180	2,1	2,1	2	2	30,5	NNCF 5036 V
(cont.)						
190	1,5	1,5	1,5	1,5	5,5	NNCF 4838 V
	1,5	-	1,5	-	5,65	NNC 4838 V
	1,5	-	1,5	-	5,3	NNCL 4838 V
	2	2	2	2	11	NNCF 4938 V
	2	-	2	-	11	NNC 4938 V
	2	-	2	-	11	NNCL 4938 V
	2,1	2,1	2	2	31,5	NNCF 5038 V
200	1,5	1,5	1,5	1,5	5,8	NNCF 4840 V
	1,5	-	1,5	-	5,9	NNC 4840 V
	1,5	-	1,5	-	5,7	NNCL 4840 V
	2,1	2,1	2	2	15,5	NNCF 4940 V
	2,1	-	2	-	16	NNC 4940 V
	2,1	-	2	-	15,5	NNCL 4940 V
	2,1	2,1	2	2	41	NNCF 5040 V
220	1,5	1,5	1,5	1,5	6,3	NNCF 4844 V
	1,5	-	1,5	-	6,4	NNC 4844 V
	1,5	-	1,5	-	6,2	NNCL 4844 V
	2,1	2,1	2	2	17	NNCF 4944 V
	2,1	-	2	-	17	NNC 4944 V
	2,1	-	2	-	17	NNCL 4944 V
	3	3	2,5	2,5	52,5	NNCF 5044 V
240	2	2	2	2	9,9	NNCF 4848 V
	2	-	2	-	10	NNC 4848 V
	2	-	2	-	9,8	NNCL 4848 V
	2,1	2,1	2	2	18,5	NNCF 4948 V
	2,1	-	2	-	18,5	NNC 4948 V
	2,1	-	2	-	18	NNCL 4948 V
	3	3	2,5	2,5	56	NNCF 5048 V



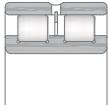
NNC (SL01)



NNCF

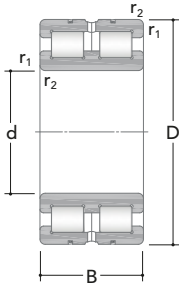


Main dimensions			Basic load ratings		Fatigue load limit	Speed ratings		Designation
d	D	B	Dynamic C	Static C ₀	C _u	Reference	Limiting	Standard design
[mm]			[kN]			[rpm]		
260	320	60	556	1380	130	800	900	NNCF 4852 V
	320	60	556	1380	130	800	900	NNC 4852 V
	320	60	556	1380	130	800	900	NNCL 4852 V
	360	100	1168	2540	244	700	830	NNCF 4952 V
	360	100	1168	2540	244	700	820	NNC 4952 V
	360	100	1168	2540	244	700	810	NNCL 4952 V
	400	190	2833	5050	495	700	780	NNCF 5052 V
280	350	69	741	1830	170	700	820	NNCF 4856 V
	350	69	741	1830	170	700	820	NNC 4856 V
	350	69	741	1830	170	700	820	NNCL 4856 V
	380	100	1215	2695	252	700	800	NNCF 4956 V
	380	100	1215	2695	255	700	800	NNC 4956 V
	380	100	1215	2695	259	700	800	NNCL 4956 V
	420	190	2902	5220	512	700	750	NNCF 5056 V
300	380	80	858	2110	195	700	730	NNCF 4860 V
	380	80	858	2110	195	700	740	NNC 4860 V
	380	80	858	2110	195	700	800	NNCL 4860 V
	420	118	1681	3700	350	700	700	NNCF 4960 V
	420	118	1681	3700	350	700	700	NNC 4960 V
	420	118	1681	3700	350	700	700	NNCL 4960 V
	460	218	3530	6540	599	600	700	NNCF 5060 V
320	400	80	897	2270	207	600	700	NNCF 4864 V
	400	80	897	2270	207	600	700	NNC 4864 V
	400	80	897	2270	207	600	700	NNCL 4864 V
	440	118	1762	3990	369	600	700	NNCF 4964 V
	440	118	1762	3990	369	600	700	NNC 4964 V
	440	118	1762	3990	369	600	700	NNCL 4964 V
	480	218	3682	6940	619	500	600	NNCF 5064 V
340	420	80	925	2380	214	600	700	NNCF 4868 V

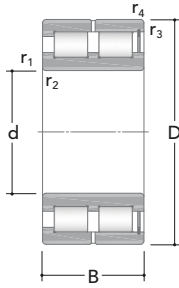


NNCL (SL02)

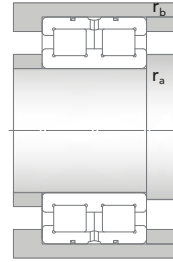
Dimensions					Mass	Designation
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Standard design
[mm]					[kg]	
260	2	2	2	2	11	NNCF 4852 V
	2	-	2	-	11	NNC 4852 V
	2	-	2	-	10,5	NNCL 4852 V
	2,1	2,1	2	2	31,5	NNCF 4952 V
	2,1	-	2	-	32	NNC 4952 V
	2,1	-	2	-	31	NNCL 4952 V
	4	4	3	3	85,5	NNCF 5052 V
280	2	2	2	2	16	NNCF 4856 V
	2	-	2	-	16	NNC 4856 V
	2	-	2	-	15,5	NNCL 4856 V
	2,1	2,1	2	2	33,5	NNCF 4956 V
	2,1	-	2	-	34	NNC 4956 V
	2,1	-	2	-	33	NNCL 4956 V
	4	4	3	3	90,5	NNCF 5056 V
300	2,1	2,1	2	2	22,5	NNCF 4860 V
	2,1	-	2	-	23	NNC 4860 V
	2,1	-	2	-	22	NNCL 4860 V
	3	3	2,5	2,5	52,5	NNCF 4960 V
	3	-	2,5	-	53	NNC 4960 V
	3	-	2,5	-	52	NNCL 4960 V
	4	4	3	3	130	NNCF 5060 V
320	2,1	2,1	2	2	23,5	NNCF 4864 V
	2,1	-	2	-	24	NNC 4864 V
	2,1	-	2	-	23	NNCL 4864 V
	3	3	2,5	2,5	55,5	NNCF 4964 V
	3	-	2,5	-	56	NNC 4964 V
	3	-	2,5	-	55	NNCL 4964 V
	4	4	3	3	135	NNCF 5064 V
340	2,1	2,1	2	2	25	NNCF 4868 V



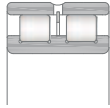
NNC (SL01)



NNCF

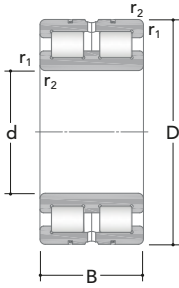


Main dimensions			Basic load ratings		Fatigue load limit	Speed ratings		Designation
d	D	B	Dynamic C	Static C ₀	C _u	Reference	Limiting	Standard design
[mm]			[kN]			[rpm]		
340 (cont.)	420	80	925	2380	214	600	700	NNC 4868 V
	420	80	925	2380	214	600	650	NNCL 4868 V
	460	118	1785	4210	386	500	600	NNCF 4968 V
	460	118	1785	4210	386	500	600	NNC 4968 V
	460	118	1785	4210	386	500	600	NNCL 4968 V
	520	243	4334	8250	706	500	600	NNCF 5068 V
360	440	80	939	2520	221	500	600	NNCF 4872 V
	440	80	939	2520	221	500	600	NNC 4872 V
	440	80	939	2520	221	500	600	NNCL 4872 V
	480	118	1849	4470	402	500	600	NNCF 4972 V
	480	118	1849	4470	402	500	600	NNC 4972 V
	480	118	1849	4470	402	500	600	NNCL 4972 V
380	540	243	4330	8480	721	500	550	NNCF 5072 V
	480	100	1392	3620	312	500	570	NNCF 4876 V
	480	100	1392	3620	312	500	570	NNC 4876 V
	480	100	1392	3620	312	500	570	NNCL 4876 V
	520	140	2355	5630	494	500	550	NNCF 4976 V
	520	140	2355	5630	494	500	560	NNC 4976 V
400	520	140	2355	5630	494	500	540	NNCL 4976 V
	560	243	4679	9050	742	500	510	NNCF 5076 V
	500	100	1418	3740	324	500	540	NNCF 4880 V
	500	100	1418	3740	324	500	560	NNC 4880 V
	500	100	1418	3740	324	500	550	NNCL 4880 V
	540	140	2454	5990	519	500	510	NNCF 4980 V
420	540	140	2454	5990	519	500	510	NNC 4980 V
	540	140	2454	5990	519	500	510	NNCL 4980 V
	600	272	5484	10990	899	440	500	NNCF 5080 V
	520	100	1347	3920	319	460	-	NNCF 4884 V
	520	100	1347	3920	319	480	-	NNC 4884 V

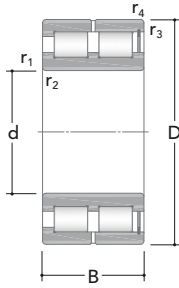


NNCL (SL02)

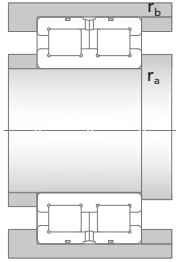
Dimensions					Mass	Designation
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Standard design
[mm]					[kg]	
340	2,1	-	2	-	25,5	NNC 4868 V
(cont.)	2,1	-	2	-	25,5	NNCL 4868 V
	3	3	2,5	2,5	58,5	NNCF 4968 V
	3	-	2,5	-	59	NNC 4968 V
	3	-	2,5	-	58	NNCL 4968 V
	5	5	4	4	185	NNCF 5068 V
360	2,1	2,1	2	2	26,5	NNCF 4872 V
	2,1	-	2	-	27	NNC 4872 V
	2,1	-	2	-	26	NNCL 4872 V
	3	3	2,5	2,5	61,5	NNCF 4972 V
	3	-	2,5	-	62	NNC 4972 V
	3	-	2,5	-	61	NNCL 4972 V
	5	5	4	4	195	NNCF 5072 V
380	2,1	2,1	2	2	45	NNCF 4876 V
	2,1	-	2	-	45,5	NNC 4876 V
	2,1	-	2	-	44	NNCL 4876 V
	4	4	3	3	91,5	NNCF 4976 V
	4	-	3	-	92,5	NNC 4976 V
	4	-	3	-	90,5	NNCL 4976 V
	5	5	4	4	200	NNCF 5076 V
400	2,1	2,1	2	2	46	NNCF 4880 V
	2,1	-	2	-	46,5	NNC 4880 V
	2,1	-	2	-	46	NNCL 4880 V
	4	4	3	3	95,5	NNCF 4980 V
	4	-	3	-	96,5	NNC 4980 V
	4	-	3	-	94,5	NNCL 4980 V
	5	5	4	4	270	NNCF 5080 V
420	2,1	2,1	2	2	49,5	NNCF 4884 V
	2,1	-	2	-	49,5	NNC 4884 V



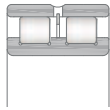
NNC (SL01)



NNCF

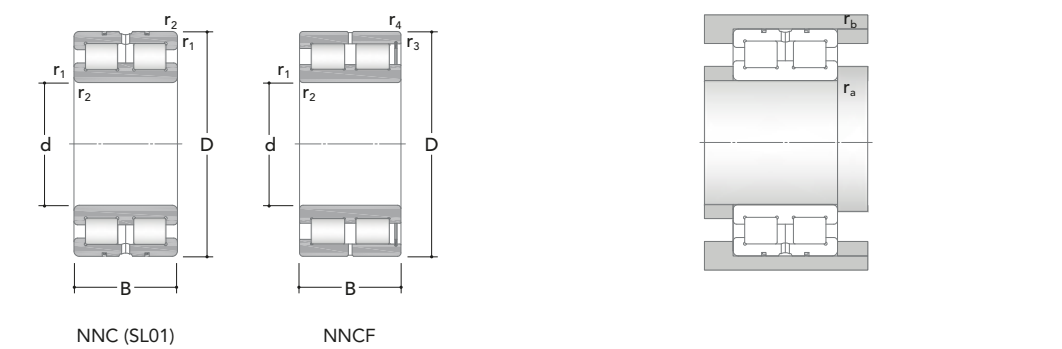


Main dimensions			Basic load ratings		Fatigue load limit	Speed ratings		Designation
d	D	B	Dynamic C	Static C ₀	C _u	Reference	Limiting	Standard design
[mm]			[kN]			[rpm]		
420 (cont.)	520	100	1347	3920	319	500	-	NNCL 4884 V
	560	140	2217	5980	508	430	-	NNCF 4984 V
	560	140	2217	5980	508	460	-	NNC 4984 V
	560	140	2217	5980	508	470	-	NNCL 4984 V
440	540	100	1414	4080	334	440	-	NNCF 4888 V
	540	100	1414	4080	334	450	-	NNC 4888 V
	540	100	1414	4080	334	460	-	NNCL 4888 V
	600	160	3000	7460	637	420	-	NNCF 4988 V
	600	160	3000	7460	635	450	-	NNC 4988 V
	600	160	3000	7460	635	420	-	NNCL 4988 V
460	580	118	1555	4470	373	420	-	NNCF 4892 V
	580	118	1555	4470	373	420	-	NNC 4892 V
	580	118	1555	4470	373	440	-	NNCL 4892 V
	620	160	3027	7590	650	390	-	NNCF 4992 V
	620	160	3027	7590	650	390	-	NNC 4992 V
	620	160	3027	7590	650	410	-	NNCL 4992 V
480	600	118	1572	4680	384	390	-	NNCF 4896 V
	600	118	1572	4680	384	410	-	NNC 4896 V
	600	118	1572	4680	384	390	-	NNCL 4896 V
	650	170	3314	8210	702	380	-	NNCF 4996 V
	650	170	3314	8210	702	390	-	NNC 4996 V
	650	170	3314	8210	702	370	-	NNCL 4996 V
500	620	118	1596	4840	385	420	-	NNCF 48/500 V
	620	118	1596	4840	385	390	-	NNC 48/500 V
	620	118	1596	4840	385	390	-	NNCL 48/500 V
	670	170	3364	8790	734	370	-	NNCF 49/500 V
	670	170	3364	8790	734	360	-	NNC 49/500 V
	670	170	3364	8790	734	370	-	NNCL 49/500 V

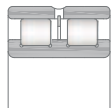


NNCL (SL02)

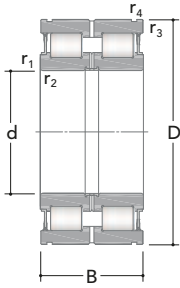
Dimensions					Mass	Designation
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Standard design
[mm]					[kg]	
420	2,1	-	2	-	49,5	NNCL 4884 V
(cont.)	4	4	3	3	99,5	NNCF 4984 V
	4	-	3	-	99,5	NNC 4984 V
	4	-	3	-	99,5	NNCL 4984 V
440	2,1	2,1	2	2	52	NNCF 4888 V
	2,1	-	2	-	52	NNC 4888 V
	2,1	-	2	-	52	NNCL 4888 V
	4	4	3	3	137	NNCF 4988 V
	4	-	3	-	137	NNC 4988 V
	4	-	3	-	137	NNCL 4988 V
460	3	3	2,5	2,5	76	NNCF 4892 V
	3	-	2,5	-	76	NNC 4892 V
	3	-	2,5	-	76	NNCL 4892 V
	4	4	3	3	140	NNCF 4992 V
	4	-	3	-	140	NNC 4992 V
	4	-	3	-	140	NNCL 4992 V
480	3	3	2,5	2,5	78,5	NNCF 4896 V
	3	-	2,5	-	78,5	NNC 4896 V
	3	-	2,5	-	78,5	NNCL 4896 V
	5	5	4	4	165	NNCF 4996 V
	5	-	4	-	165	NNC 4996 V
	5	-	4	-	165	NNCL 4996 V
500	3	3	2,5	2,5	81,5	NNCF 48/500 V
	3	-	2,5	-	81,5	NNC 48/500 V
	3	-	2,5	-	81,5	NNCL 48/500 V
	5	5	4	4	175	NNCF 49/500 V
	5	-	4	-	175	NNC 49/500 V
	5	-	4	-	175	NNCL 49/500 V



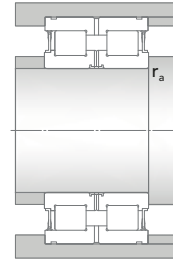
Main dimensions			Basic load ratings		Fatigue load limit	Speed ratings		Designation
d	D	B	Dynamic C	Static C ₀	C _u	Reference	Limiting	Standard design
[mm]			[kN]			[rpm]		
530	650	118	1695	5320	419	370	-	NNCF 48/530 V
	650	118	1695	5320	419	370	-	NNC 48/530 V
	650	118	1695	5320	419	350	-	NNCL 48/530 V
	710	180	3925	10160	827	330	-	NNCF 49/530 V
	710	180	3925	10160	827	330	-	NNC 49/530 V
	710	180	3925	10160	827	330	-	NNCL 49/530 V

**NNCL (SL02)**

Dimensions					Mass	Designation
d	r _{1,2min}	r _{3,4min}	r _{amax}	r _{bmax}		Standard design
[mm]					[kg]	
530	3	3	2,5	2,5	85	NNCF 48/530 V
	3	-	2,5	-	86	NNC 48/530 V
	3	-	2,5	-	84	NNCL 48/530 V
	5	5	4	4	200	NNCF 49/530 V
	5	-	4	-	200	NNC 49/530 V
	5	-	4	-	200	NNCL 49/530 V

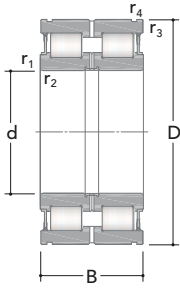


NNF (SL04)

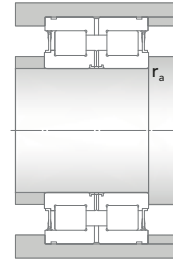


Main dimensions				Basic load ratings		Fatigue load limit	Speed ratings	Designation
d	D	B	C	Dynamic C	Static C ₀	C _u	Limiting	Standard design
[mm]				[kN]			[rpm]	
20	42	30	29	45,8	54,6	5,7	3000	NNF 5004
25	47	30	29	50,7	65	6,7	2700	NNF 5005
30	55	34	33	57,8	74	7,7	2300	NNF 5006
35	62	36	35	69,4	97,9	10,6	1900	NNF 5007
40	68	38	37	85	114,3	13	1800	NNF 5008
45	75	40	39	101,7	145,7	17	1600	NNF 5009
50	80	40	39	109	158	18,4	1500	NNF 5010
55	90	46	45	128	195	23	1300	NNF 5011
60	95	46	45	136	207	25	1200	NNF 5012
65	100	46	45	136	220	26	1200	NNF 5013
70	110	54	53	187	284	34,4	1100	NNF 5014
75	115	54	53	227	309	40	1000	NNF 5015
80	125	60	59	251	411	52	900	NNF 5016
85	130	60	59	270	422	54	900	NNF 5017
90	140	67	66	317	545	68,9	800	NNF 5018
95	145	67	66	329	564	70	800	NNF 5019
100	150	67	66	335	569	68	800	NNF 5020

Dimensions				Mass	Designation
d	r _{1,2min}	r _{3,4min}	r _{amax}		Standard design
[mm]				[kg]	
20	0,5	0,3	0,3	0,2	NNF 5004
25	0,5	0,3	0,3	0,24	NNF 5005
30	0,5	0,3	0,3	0,37	NNF 5006
35	0,5	0,3	0,3	0,48	NNF 5007
40	0,8	0,6	0,4	0,56	NNF 5008
45	0,8	0,6	0,4	0,7	NNF 5009
50	0,8	0,6	0,4	0,76	NNF 5010
55	1	0,6	0,6	1,2	NNF 5011
60	1	0,6	0,6	1,25	NNF 5012
65	1	0,6	0,6	1,35	NNF 5013
70	1	0,6	0,6	1,85	NNF 5014
75	1	0,6	0,6	1,95	NNF 5015
80	1,5	0,6	1	2,7	NNF 5016
85	1,5	0,6	1	2,85	NNF 5017
90	1,5	0,6	1	3,7	NNF 5018
95	1,5	0,6	1	3,9	NNF 5019
100	1,5	0,6	1	3,95	NNF 5020



NNF (SL04)



Main dimensions				Basic load ratings		Fatigue load limit	Speed ratings	Designation
d	D	B	C	Dynamic C	Static C_0	C_u	Limiting	Standard design
[mm]				[kN]			[rpm]	
110	170	80	79	410	693	81,3	700	NNF 5022
120	180	80	79	426	851	85,1	620	NNF 5024
130	190	69	68	382	731	83	600	319110
	190	80	79	443	800	89,8	600	319426
	200	95	94	622	1044	118	600	NNF 5026
140	200	80	79	468	861	96,1	600	319428
	210	95	94	641	1100	125	530	NNF 5028
150	210	80	79	482	897	98	500	319430
	225	100	99	758	1272	141	500	NNF 5030
160	220	80	79	504	994	105	500	319432
	240	109	108	772	1390	152	430	NNF 5032
170	230	80	79	520	1040	108	500	319434
	260	122	121	1022	1780	191	430	NNF 5034
180	240	80	79	524	1080	112	440	319436
	280	136	135	1169	2090	225	400	NNF 5036
190	260	80	79	547	1170	119	400	319438
	290	136	135	1180	2160	232	400	NNF 5038
200	270	80	79	566	1230	123	400	319440
	310	150	149	1458	2860	296	400	NNF 5040
220	300	95	94	881	1850	185	340	322108
	340	160	159	1630	3060	311	320	NNF 5044
240	360	160	159	1677	3340	334	290	NNF 5048

Dimensions				Mass	Designation
d	r _{1,2min}	r _{3,4min}	r _{amax}		Standard design
[mm]				[kg]	
110	1,8	0,6	1,5	6,45	NNF 5022
120	1,8	0,6	1,5	6,9	NNF 5024
130	1,8	0,6	1	6,5	319110
	1,8	0,6	1,5	7,5	319426
	1,8	0,6	1,5	10,5	NNF 5026
140	1,8	0,6	1,5	8	319428
	1,8	0,6	1,5	11	NNF 5028
150	1,8	0,6	1,5	8,4	319430
	2	0,6	2	13,5	NNF 5030
160	1,8	0,6	1,5	8,8	319432
	2	0,6	2	16,5	NNF 5032
170	1,8	0,6	1,5	9,3	319434
	2	0,6	2	22,5	NNF 5034
180	1,8	0,6	1,5	9,8	319436
	2	0,6	2	30	NNF 5036
190	1,8	0,6	1,5	12,5	319438
	2	0,6	2	31,5	NNF 5038
200	1,8	0,6	1,5	13	319440
	2	0,6	2	42	NNF 5040
220	2	1	1	19,5	322108
	2	1	2	53,5	NNF 5044
240	2	1	2	57,5	NNF 5048



Main dimensions				Basic load ratings		Fatigue load limit	Speed ratings	Designation
d	D	B	C	Dynamic C	Static C ₀	C _u	Limiting	Standard design
[mm]				[kN]			[rpm]	
260	400	160	159	1918	3510	341	270	320848

Dimensions				Mass	Designation
d	r _{1,2min}	r _{3,4min}	r _{amax}		Standard design
[mm]				[kg]	
260	3	1,5	1,5	70	320848