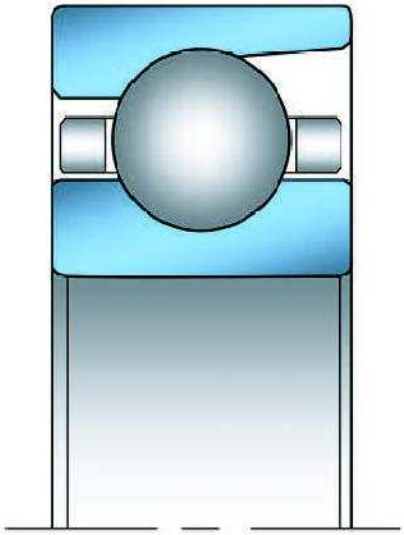
Flush Ground
Angular Contact Ball Bearings

BMU Series



- Flush Ground Type
- Machined Brass Cage

FLUSH GROUND for Versatility, Ease of Assembly, and Simplified Inventory Control

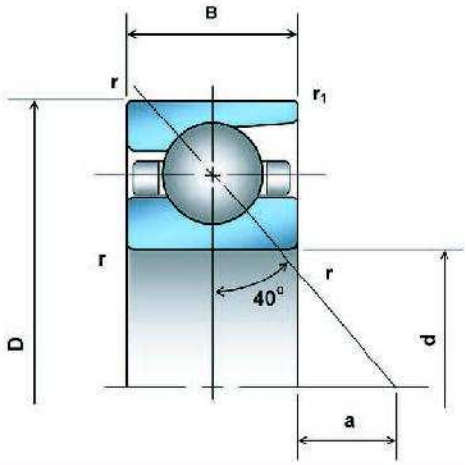
Any combination of NACHI Flush Ground Angular Contact Ball Bearings will provide the desired clearance. With the Universal Flush Grinding, bearings can be mounted as DB, DF, and DT pairs, or combined to form triplex and quadraplex sets.

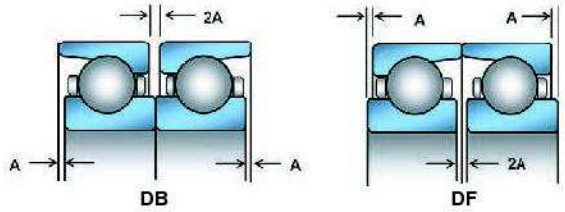
Offices

Conmutador: +52(55) 5305-1320
Fax: +52(55) 5305-1326
Nextel ID: 52*40085*2
Lada sin Costo México: 01800 552 9428
mail: ventas@rodamientos-samper.com.mx

NACHI AMERICA INC.

Technical Information





BMU Series standard clearance

Bore (mm) over	incl.	2A (μm)		
10	18	18	~	32
18	30	20	~	40
30	40	25	~	45
40	50	30	~	50
50	65	35	~	60
65	80	40	~	65
80	100	55	~	80
100	120	60	~	85
120	140	75	~	105
140	150	85	~	115

Note: Values are before mounting under no load condition

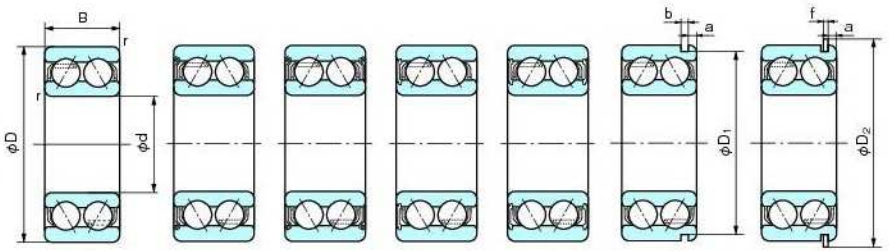
Bearing No.	Boundary Dimensions (mm) d	D	B	r_{min}	$r_{1\,min}$	a	Dynamic Load Ratings Cr (N) Single	Duplex	Static Load Ratings Cor (N) Single	Duplex	Limiting Speed (rpm) Grease Lube. Single	Duplex	Oil Lube. Single	Duplex
7303BMU	17	47	14	1.0	0.6	6.8	13,800	22,500	7,300	14,600	14,000	11,000	18,000	15,000
7204BMU	20	47	14	1.0	0.6	7.5	13,300	21,600	7,700	15,400	13,000	10,000	17,000	14,000
7304BMU	20	52	15	1.1	0.6	7.6	16,200	26,300	8,700	17,400	13,000	10,000	17,000	13,000
7205BMU	25	52	15	1.0	0.6	8.9	14,000	22,700	8,700	17,400	12,000	9,200	15,000	12,000
7305BMU	25	62	17	1.1	0.6	9.8	22,900	37,200	13,300	26,600	10,000	8,300	14,000	11,000
7206BMU	30	62	16	1.0	0.6	11.6	19,400	31,600	12,500	25,000	9,600	7,700	13,000	10,000
7306BMU	30	72	19	1.1	0.6	12.3	27,600	44,900	17,400	34,700	8,700	6,900	12,000	9,200
7207BMU	35	72	17	1.1	0.6	14.4	25,600	41,600	17,000	34,100	8,300	6,600	11,000	8,800
7307BMU	35	80	21	1.5	1.0	14.0	32,500	52,700	20,200	40,500	7,700	6,200	10,000	8,200
7208BMU	40	80	18	1.1	0.6	16.2	30,600	49,700	21,300	42,700	7,500	6,000	10,000	8,000
7308BMU	40	90	23	1.5	1.0	15.8	39,700	64,500	25,200	50,500	6,900	5,500	9,200	7,400
7209BMU	45	85	19	1.1	0.6	17.4	34,300	55,800	24,300	48,600	7,000	5,600	9,400	7,500
7309BMU	45	100	25	1.5	1.0	18.1	50,600	82,100	34,100	68,200	6,200	4,900	8,200	6,600
7210BMU	50	90	20	1.1	0.6	19.6	35,700	58,000	26,700	53,500	6,400	5,100	8,500	6,800
7310BMU	50	110	27	2.0	1.0	20.9	64,400	105,000	44,300	88,600	5,500	4,400	7,300	5,800
7211BMU	55	100	21	1.5	1.0	22.6	44,100	71,600	33,800	67,600	5,700	4,600	7,600	6,100
7311BMU	55	120	29	2.0	1.0	22.8	74,300	121,000	52,000	104,000	5,000	4,000	6,700	5,400
7212BMU	60	110	22	1.5	1.0	25.5	53,400	86,800	41,600	83,300	5,100	4,100	6,900	5,500
7312BMU	60	130	31	2.1	1.1	24.8	84,900	138,000	60,300	121,000	4,600	3,700	6,200	5,000
7213BMU	65	120	23	1.5	1.0	27.3	60,900	99,000	49,300	98,700	4,800	3,900	6,400	5,200
7313BMU	65	140	33	2.1	1.1	26.7	96,100	156,000	69,300	139,000	4,300	3,500	5,800	4,600
7214BMU	70	125	24	1.5	1.0	28.9	63,200	103,000	50,600	101,000	4,600	3,700	6,100	4,900
7314BMU	70	150	35	2.1	1.1	28.7	108,000	175,000	78,900	158,000	4,000	3,200	5,400	4,300
7215BMU	75	130	25	1.5	1.0	30.5	71,700	116,000	59,300	119,000	4,300	3,500	5,800	4,600
7315BMU	75	160	37	2.1	1.1	30.8	118,000	191,000	89,200	178,000	3,800	3,000	5,000	4,000
7216BMU	80	140	26	2.0	1.0	33.2	77,100	125,000	65,000	130,000	4,000	3,200	5,400	4,300
7316BMU	80	170	39	2.1	1.1	32.9	127,000	207,000	100,000	200,000	3,500	2,800	4,700	3,800
7217BMU	85	150	28	2.0	1.0	35.3	89,200	145,000	76,000	152,000	3,800	3,000	5,000	4,000
7317BMU	85	180	41	3.0	1.1	35.1	137,000	223,000	112,000	223,000	3,300	2,700	4,400	3,500
7218BMU	90	160	30	2.0	1.0	37.4	102,000	166,000	88,000	176,000	3,500	2,800	4,700	3,800
7318BMU	90	190	43	3.0	1.1	37.2	148,000	240,000	124,000	248,000	3,100	2,500	4,200	3,300
7219BMU	95	170	32	2.1	1.1	39.6	111,000	180,000	94,000	188,000	3,300	2,700	4,400	3,500
7319BMU	95	200	45	3.0	1.1	39.4	158,000	256,000	137,000	273,000	3,000	2,400	4,000	3,200
7220BMU	100	180	34	2.1	1.1	42.2	124,000	202,000	107,000	214,000	3,100	2,500	4,200	3,300
7320BMU	100	215	47	3.0	1.1	43.2	168,000	274,000	148,000	297,000	2,700	2,200	3,600	2,900
7221BMU	105	190	36	2.1	1.1	44.5	135,000	220,000	121,000	241,000	2,900	2,300	3,900	3,100
7321BMU	105	225	49	3.0	1.1	44.7	191,000	310,000	177,000	355,000	2,600	2,100	3,500	2,800
7222BMU	110	200	38	2.1	1.1	46.9	147,000	238,000	135,000	270,000	2,800	2,200	3,700	3,000
7322BMU	110	240	50	3.0	1.1	49.6	213,000	346,000	208,000	416,000	2,400	1,900	3,200	2,600
7224BMU	120	215	40	2.1	1.1	50.3	158,000	257,000	151,000	302,000	2,600	2,100	3,400	2,800
7226BMU	130	230	40	3.0	1.1	55.5	177,000	288,000	180,000	360,000	2,400	1,900	3,200	2,500
7228BMU	140	250	42	3.0	1.1	60.8	197,000	320,000	213,000	426,000	2,200	1,700	2,900	2,300
7230BMU	150	270	45	3.0	1.1	65.6	225,000	365,000	254,000	509,000	2,000	1,600	2,700	2,100

NACHI
NACHI AMERICA INC.

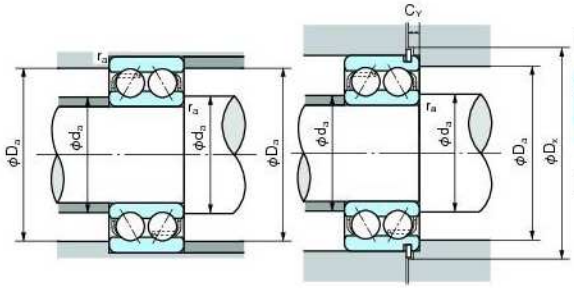
CATALOG NO.: NAB 0203-2
December 2005

■ Double-row Angular Contact Ball Bearings

Bore Diameter: 10～45mm



Open type | One shield (Z) | Two shields (ZZ) | One seal (NS) | Two seals (2NS) | With snap ring groove (N) | With snap ring (NR)



■Dynamic equivalent radial load

Pr=XFr+YFa

Contact angle	e	Fa/Fr ≦ e		Fa/Fr > e	
		X	Y	X	Y
30°	0.80	1.0	0.78	0.63	1.24
20°	0.57	1.0	1.09	0.70	1.63

■Static equivalent radial load

Nominal contact angle 30° : Por=Fr+0.66Fa

Nominal contact angle 20° : Por=Fr+0.84Fa

1N=0.102kgf

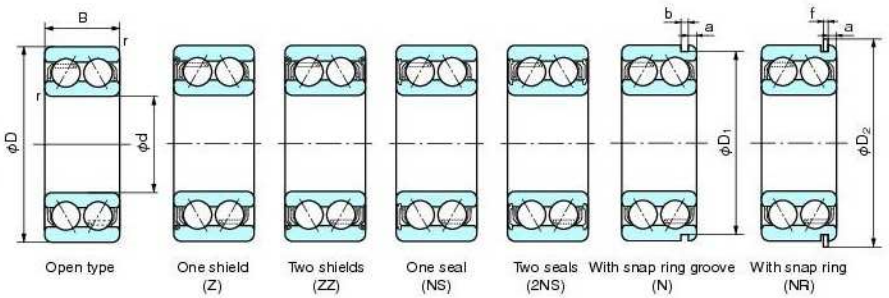
Boundary dimensions (mm)				Bearing No.							Basic dynamic load rating Cr (N)	Basic static load rating Cor (N)	Limiting speed (min⁻¹)		Dimensions of snap ring groove and snap ring (mm)					Abutment and fillet dimensions (mm)					Mass (kg)	Bearing No.
d	D	B	r (min)	Open type	Shield type		Seal type		With snap ring groove	With snap ring			Grease lubrication	Oil lubrication	D1 (max)	a (max)	b (min)	D2 (max)	f (max)	da (min)	Da (max)	Dx (min)	ra (max)	Cy (max)		
10	30	14.3	0.6	5200	5200Z	5200ZZ	5200NS	5200-2NS	5200N	5200NR	7300	4000	18000	24000	28.17	2.06	1.35	34.7	1.12	15	25	35.5	0.6	2.9	0.050	5200
	30	14.3	0.6	5200A	5200AZ	5200AZZ	5200ANS	5200A-2NS	5200AN	5200ANR	6950	3800	16000	22000	28.17	2.06	1.35	34.7	1.12	15	25	35.5	0.6	2.9	0.050	5200A
12	32	15.9	0.6	5201	5201Z	5201ZZ	5201NS	5201-2NS	5201N	5201NR	10700	5950	16000	22000	30.15	2.06	1.35	36.7	1.12	17	27	37.5	0.6	2.9	0.060	5201
	32	15.9	0.6	5201A	5201AZ	5201AZZ	5201ANS	5201A-2NS	5201AN	5201ANR	10300	5650	15000	20000	30.15	2.06	1.35	36.7	1.12	17	27	37.5	0.6	2.9	0.060	5201A
15	35	15.9	0.6	5202	5202Z	5202ZZ	5202NS	5202-2NS	5202N	5202NR	11900	7200	14000	19000	33.17	2.06	1.35	39.7	1.12	20	30	40.5	0.6	2.9	0.070	5202
	35	15.9	0.6	5202A	5202AZ	5202AZZ	5202ANS	5202A-2NS	5202AN	5202ANR	11400	6850	12000	17000	33.17	2.06	1.35	39.7	1.12	20	30	40.5	0.6	2.9	0.070	5202A
17	40	17.5	0.6	5203	5203Z	5203ZZ	5203NS	5203-2NS	5203N	5203NR	15000	9250	12000	17000	38.1	2.06	1.35	44.6	1.12	22	35	45.5	0.6	2.9	0.090	5203
	40	17.5	0.6	5203A	5203AZ	5203AZZ	5203ANS	5203A-2NS	5203AN	5203ANR	14200	8800	11000	15000	38.1	2.06	1.35	44.6	1.12	22	35	45.5	0.6	2.9	0.090	5203A
	47	22.2	1	5303	—	—	—	—	5303N	5303NR	23100	12700	10000	14000	44.6	2.46	1.35	52.7	1.12	23	41	53.5	1	3.3	0.140	5303
20	47	20.6	1	5204	5204Z	5204ZZ	5204NS	5204-2NS	5204N	5204NR	20000	12700	10000	14000	44.6	2.46	1.35	52.7	1.12	26	41	53.5	1	3.3	0.120	5204
	47	20.6	1	5204A	5204AZ	5204AZZ	5204ANS	5204A-2NS	5204AN	5204ANR	19000	12100	9500	13000	44.6	2.46	1.35	52.7	1.12	26	41	53.5	1	3.3	0.120	5204A
	52	22.2	1.1	5304	—	—	—	—	5304N	5304NR	21700	13300	9000	11000	49.73	2.46	1.35	57.9	1.12	27	45	58.5	1	3.3	0.230	5304
25	52	20.6	1	5205	5205Z	5205ZZ	5205NS	5205-2NS	5205N	5205NR	21800	15100	9500	13000	49.73	2.46	1.35	57.9	1.12	31	46	58.5	1	3.3	0.190	5205
	52	20.6	1	5205A	5205AZ	5205AZZ	5205ANS	5205A-2NS	5205AN	5205ANR	20600	14300	8000	11000	49.73	2.46	1.35	57.9	1.12	31	46	58.8	1	3.3	0.190	5205A
	62	25.4	1.1	5305	—	—	—	—	5305N	5305NR	32000	21600	7300	10000	59.61	3.28	1.9	67.7	1.7	32	55	68.5	1	4.7	0.340	5305
30	62	23.8	1	5206	—	—	—	—	5206N	5206NR	30500	21700	8000	11000	59.61	3.28	1.9	67.7	1.7	36	56	68.5	1	4.7	0.290	5206
	62	23.8	1	—	5206Z	5206ZZ	5206NS	5206-2NS	—	—	25900	18700	8000	—	—	—	—	—	—	36	56	—	1	—	0.290	5206Z
	62	23.8	1	5206A	—	—	—	—	5206AN	5206ANR	28600	20500	7000	9500	59.61	3.28	1.9	67.7	1.7	36	56	68.5	1	4.7	0.290	5206A
	62	23.8	1	—	5206AZ	5206AZZ	5206ANS	5206A-2NS	—	—	24400	17700	7000	—	—	—	—	—	—	36	56	—	1	—	0.290	5206AZ
	72	30.2	1.1	5306	—	—	—	—	5306N	5306NR	41500	29000	7000	9500	68.81	3.28	1.9	78.6	1.7	37	65	80	1	4.7	0.510	5306
35	72	27	1.1	5207	—	—	—	—	5207N	5207NR	40000	29500	7000	9500	68.81	3.28	1.9	78.6	1.7	42	65	80	1	4.7	0.430	5207
	72	27	1.1	—	5207Z	5207ZZ	5207NS	5207-2NS	—	—	35000	25900	7000	—	—	—	—	—	—	42	65	—	1	—	0.430	5207Z
	72	27	1.1	5207A	—	—	—	—	5207AN	5207ANR	38000	27700	6000	8000	68.81	3.28	1.9	78.6	1.7	42	65	80	1	4.7	0.430	5207A
	72	27	1.1	—	5207AZ	5207AZZ	5207ANS	5207A-2NS	—	—	33000	24500	6000	—	—	—	—	—	—	42	65	—	1	—	0.430	5207AZ
	80	34.9	1.5	5307	—	—	—	—	5307N	5307NR	52000	37000	6300	8500	76.81	3.28	1.9	86.6	1.7	44	71	88	1.5	4.7	0.790	5307
40	80	30.2	1.1	5208	—	—	—	—	5208N	5208NR	45500	34000	6000	8000	76.81	3.28	1.9	86.6	1.7	47	73	88	1	4.7	0.570	5208
	80	30.2	1.1	—	5208Z	5208ZZ	5208NS	5208-2NS	—	—	40000	30500	6000	—	—	—	—	—	—	47	73	—	1	—	0.570	5208Z
	80	30.2	1.1	5208A	—	—	—	—	5208AN	5208ANR	42500	32500	5300	7200	76.81	3.28	1.9	86.6	1.7	47	73	88	1	4.7	0.570	5208A
	80	30.2	1.1	—	5208AZ	5208AZZ	5208ANS	5208A-2NS	—	—	37500	28700	5300	—	—	—	—	—	—	47	73	—	1	—	0.570	5208AZ
	90	36.5	1.5	5308	—	—	—	—	5308N	5308NR	63500	46500	5500	7500	86.79	3.28	2.7	96.5	2.46	49	81	98	1.5	5.4	1.05	5308
45	85	30.2	1.1	5209	—	—	—	—	5209N	5209NR	51000	39000	5500	7500	81.81	3.28	1.9	91.6	1.7	52	78	93	1	4.7	0.620	5209
	85	30.2	1.1	—	5209Z	5209ZZ	5209NS	5209-2NS	—	—	42500	34500	5500	—	—	—	—	—	—	52	78	—	1	—	0.620	5209Z
	85	30.2	1.1	5209A	—	—	—	—	5209AN	5209ANR	48000	37000	5000	6700	81.81	3.28	1.9	91.6	1.7	52	78	93	1	4.7	0.620	5209A
	85	30.2	1.1	—	5209AZ	5209AZZ	5209ANS	5209A-2NS	—	—	40000	32500	5000	—	—	—	—	—	—	52	78	—	1	—	0.620	5209AZ
	100	39.7	1.5	5309	—	—	—	—	5309N	5309NR	76500	56500	5000	6700	96.8	3.28	2.7	106.5	2.46	54	91	108	1.5	5.4	1.42	5309

Remark: Dimensions and tolerances of snap ring groove and snap ring are shown on pages 45 to 48.

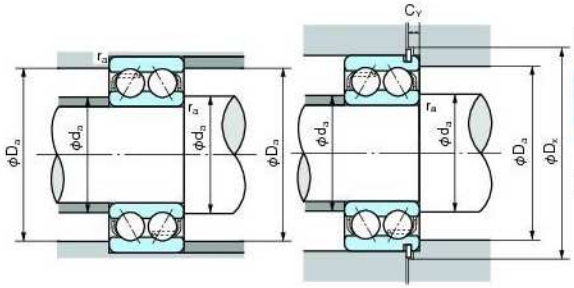
NACHI

Double-row Angular Contact Ball Bearings

Bore Diameter: 50～85mm



Open type | One shield (Z) | Two shields (ZZ) | One seal (NS) | Two seals (2NS) | With snap ring groove (N) | With snap ring (NR)



Dynamic equivalent radial load

Pr=XFr+YFa

Contact angle	e	Fa/Fr ≦ e		Fa/Fr > e	
		X	Y	X	Y
30°	0.80	1.0	0.78	0.63	1.24
20°	0.57	1.0	1.09	0.70	1.63

Static equivalent radial load

Nominal contact angle 30° : Por=Fr+0.66Fa

Nominal contact angle 20° : Por=Fr+0.84Fa

1N=0.102kgf

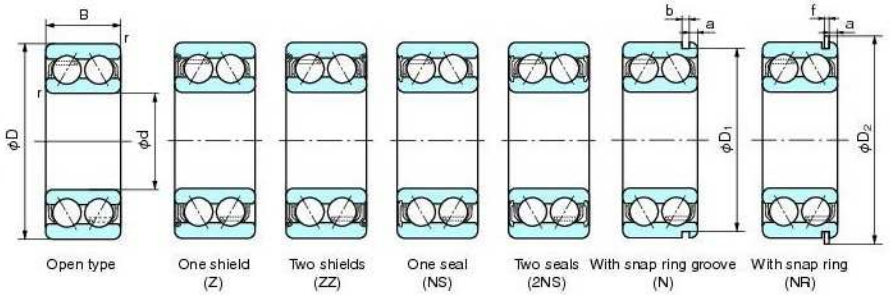
Boundary dimensions (mm)				Bearing No.						Basic dynamic load rating Cr (N)	Basic static load rating Cor (N)	Limiting speed (min⁻¹)		Dimensions of snap ring groove and snap ring (mm)					Abutment and fillet dimensions (mm)					Mass (kg)	Bearing No.
d	D	B	r (min)	Open type	Shield type		Seal type		With snap ring groove	With snap ring		Grease lubrication	Oil lubrication	D1 (max)	a (max)	b (min)	D2 (max)	f (max)	da (min)	Da (max)	Dx (min)	ra (max)	CY (max)		
	90	30.2	1.1	5210	—	—	—	—	5210N	5210NR		54500	44500	5000	6700	86.79	3.28	2.7	96.5	2.46	57	83	98	1	5.4	0.670	5210
	90	30.2	1.1	—	5210Z	5210ZZ	5210NS	5210-2NS	—	—		45000	39000	5000	—	—	—	—	—	—	57	83	—	1	—	0.670	5210Z
50	90	30.2	1.1	5210A	—	—	—	—	5210AN	5210ANR		51000	42000	4500	6000	86.79	3.28	2.7	96.5	2.46	57	83	98	1	5.4	0.670	5210A
	90	30.2	1.1	—	5210AZ	5210AZZ	5210ANS	5210A-2NS	—	—		42000	36500	4500	—	—	—	—	—	—	57	83	—	1	—	0.670	5210AZ
	110	44.4	2	5310	—	—	—	—	5310N	5310NR		90000	68000	4500	6000	106.81	3.28	2.7	116.6	2.46	60	100	118	2	5.4	1.93	5310
	100	33.3	1.5	5211	—	—	—	—	5211N	5211NR		67500	56500	4500	6300	96.8	3.28	2.7	106.5	2.46	64	91	108	1.5	5.4	0.960	5211
	100	33.3	1.5	—	5211Z	5211ZZ	—	—	—	—		57500	50500	4500	—	—	—	—	—	—	64	91	—	1.5	—	0.960	5211Z
55	100	33.3	1.5	5211A	—	—	—	—	5211AN	5211ANR		63500	53000	4000	5500	96.8	3.28	2.7	106.5	2.46	64	91	108	1.5	5.4	0.960	5211A
	100	33.3	1.5	—	5211AZ	5211AZZ	—	—	—	—		54000	47500	4000	—	—	—	—	—	—	64	91	—	1.5	—	0.960	5211AZ
	120	49.2	2	5311	—	—	—	—	5311N	5311NR		112000	86500	4000	5500	115.21	4.06	3.1	129.7	2.82	65	110	131.5	2	6.5	2.30	5311
	110	36.5	1.5	5212	—	—	—	—	5212N	5212NR		76000	62000	4300	5600	106.81	3.28	2.7	116.6	2.46	69	101	118	1.5	5.4	1.36	5212
	110	36.5	1.5	—	5212Z	5212ZZ	—	—	—	—		67000	57500	4300	—	—	—	—	—	—	69	101	—	1.5	—	1.36	5212Z
60	110	36.5	1.5	5212A	—	—	—	—	5212AN	5212ANR		71500	58500	3800	5000	106.81	3.28	2.7	116.6	2.46	69	101	118	1.5	5.4	1.36	5212A
	110	36.5	1.5	—	5212AZ	5212AZZ	—	—	—	—		63000	54000	3800	—	—	—	—	—	—	69	101	—	1.5	—	1.36	5212AZ
	130	54	2.1	5312	—	—	—	—	5312N	5312NR		128000	101000	3800	5000	125.22	4.06	3.1	139.7	2.82	72	118	141.5	2	6.5	3.16	5312
	120	38.1	1.5	5213	—	—	—	—	5213N	5213NR		89000	77000	3900	5300	115.21	4.06	3.1	129.7	2.82	74	111	131.5	1.5	6.5	1.66	5213
	120	38.1	1.5	—	5213Z	5213ZZ	—	—	—	—		78500	71000	3900	—	—	—	—	—	—	74	111	—	1.5	—	1.66	5213Z
65	120	38.1	1.5	5213A	—	—	—	—	5213AN	5213ANR		83500	72500	3400	4600	115.21	4.06	3.1	129.7	2.82	74	111	131.5	1.5	6.5	1.66	5213A
	120	38.1	1.5	—	5213AZ	5213AZZ	—	—	—	—		73500	66500	3400	—	—	—	—	—	—	74	111	—	1.5	—	1.66	5213AZ
	140	58.7	2.1	5313	—	—	—	—	5313N	5313NR		145000	115000	3600	4700	135.23	4.9	3.1	149.7	2.82	77	128	152	2	7.4	3.86	5313
	125	39.7	1.5	5214	—	—	—	—	5214N	5214NR		96500	84500	3800	5000	120.22	4.06	3.1	134.7	2.82	79	116	136.5	1.5	6.5	1.82	5214
	125	39.7	1.5	—	5214Z	5214ZZ	—	—	—	—		86000	79000	3800	—	—	—	—	—	—	79	116	—	1.5	—	1.82	5214Z
70	125	39.7	1.5	5214A	—	—	—	—	5214AN	5214ANR		90500	79500	3200	4500	120.22	4.06	3.1	134.7	2.82	79	116	136.5	1.5	6.5	1.82	5214A
	125	39.7	1.5	—	5214AZ	5214AZZ	—	—	—	—		80500	74000	3200	—	—	—	—	—	—	79	116	—	1.5	—	1.82	5214AZ
	150	63.5	2.1	5314	—	—	—	—	5314N	5314NR		163000	132000	3200	4300	145.24	4.9	3.1	159.7	2.82	82	138	162	2	7.4	4.88	5314
	130	41.3	1.5	5215	—	—	—	—	5215N	5215NR		96000	85500	3400	4700	125.22	4.06	3.1	139.7	2.82	84	121	141.5	1.5	6.5	1.91	5215
	130	41.3	1.5	—	5215Z	5215ZZ	—	—	—	—		94000	87000	3400	—	—	—	—	—	—	84	121	—	1.5	—	1.91	5215Z
75	130	41.3	1.5	5215A	—	—	—	—	5215AN	5215ANR		90000	80500	3200	4300	125.22	4.06	3.1	139.7	2.82	84	121	141.5	1.5	6.5	1.91	5215A
	130	41.3	1.5	—	5215AZ	5215AZZ	—	—	—	—		88000	81500	3200	—	—	—	—	—	—	84	121	—	1.5	—	1.91	5215AZ
	160	68.3	2.1	5315	—	—	—	—	5315N	5315NR		178000	149000	3000	4000	155.22	4.9	3.1	169.7	2.82	87	148	172	2	7.4	5.51	5315
	140	44.4	2	5216	—	—	—	—	5216N	5216NR		104000	94000	3500	4600	135.23	4.9	3.1	149.7	2.82	90	130	152	2	7.4	2.48	5216
80	140	44.4	2	5216A	—	—	—	—	5216AN	5216ANR		97500	88500	2800	4000	135.23	4.9	3.1	149.7	2.82	90	130	152	2	7.4	2.48	5216A
	170	68.3	2.1	5316	—	—	—	—	5316N	5316NR		192000	167000	2800	4000	163.65	5.69	3.5	182.9	3.1	92	158	185	2	8.4	6.81	5316
85	150	49.2	2	5217	—	—	—	—	5217N	5217NR		112000	103000	3000	4000	145.24	4.9	3.1	159.7	2.82	95	140	162	2	7.4	3.40	5217
	150	49.2	2	5217A	—	—	—	—	5217AN	5217ANR		105000	96500	2600	3800	145.24	4.9	3.1	159.7	2.82	95	140	162	2	7.4	3.40	5217A

Remark: Dimensions and tolerances of snap ring groove and snap ring are shown on pages 45 to 48.

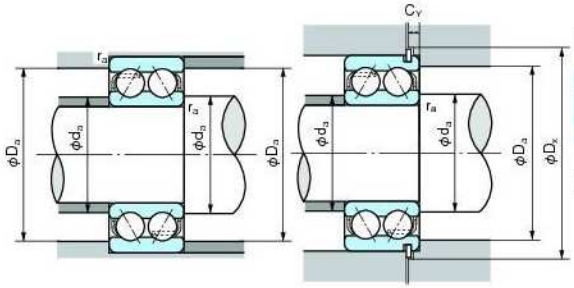
NACHI

Double-row Angular Contact Ball Bearings

Bore Diameter: 90～100mm



Open type | One shield (Z) | Two shields (ZZ) | One seal (NS) | Two seals (2NS) | With snap ring groove (N) | With snap ring (NR)



Dynamic equivalent radial load

Pr=XFr+YFa

Contact angle	e	Fa/Fr ≦ e		Fa/Fr > e	
		X	Y	X	Y
30°	0.80	1.0	0.78	0.63	1.24
20°	0.57	1.0	1.09	0.70	1.63

Static equivalent radial load

Nominal contact angle 30° : Por=Fr+0.66Fa

Nominal contact angle 20° : Por=Fr+0.84Fa

1N=0.102kgf

Boundary dimensions (mm)				Bearing No.							Basic dynamic load rating Cr (N)	Basic static load rating Cor (N)	Limiting speed (min⁻¹)		Dimensions of snap ring groove and snap ring (mm)					Abutment and fillet dimensions (mm)					Mass (kg)	Bearing No.
d	D	B	r (min)	Open type	Shield type		Seal type		With snap ring groove	With snap ring			Grease lubrication	Oil lubrication	D1 (max)	a (max)	b (min)	D2 (max)	f (max)	da (min)	Da (max)	Dx (min)	ra (max)	CY (max)		
90	160	52.4	2	**5218**	—	—	—	—	**5218N**	**5218NR**	138000	133000	2700	3900	155.22	4.9	3.1	169.7	2.82	100	150	172	2	7.4	4.28	**5218**
	160	52.4	2	**5218A**	—	—	—	—	**5218AN**	**5218ANR**	129000	125000	2500	3500	155.22	4.9	3.1	169.7	2.82	100	150	172	2	7.4	4.28	**5218A**
95	170	55.6	2.1	**5219**	—	—	—	—	**5219N**	**5219NR**	149000	139000	2600	3700	163.65	5.69	3.5	182.9	3.1	107	158	185	2	8.4	5.02	**5219**
	170	55.6	2.1	**5219A**	—	—	—	—	**5219AN**	**5219ANR**	139000	131000	2400	3200	163.65	5.69	3.5	182.9	3.1	107	158	185	2	8.4	5.02	**5219A**
100	180	60.3	2.1	**5220**	—	—	—	—	**5220N**	**5220NR**	168000	159000	2400	3200	173.66	5.69	3.5	192.9	3.1	112	168	195	2	8.4	5.78	**5220**
	180	60.3	2.1	**5220A**	—	—	—	—	**5220AN**	**5220ANR**	158000	150000	2200	3000	173.66	5.69	3.5	192.9	3.1	112	168	195	2	8.4	5.78	**5220A**

Remark: Dimensions and tolerances of snap ring groove and snap ring are shown on pages 45 to 48.