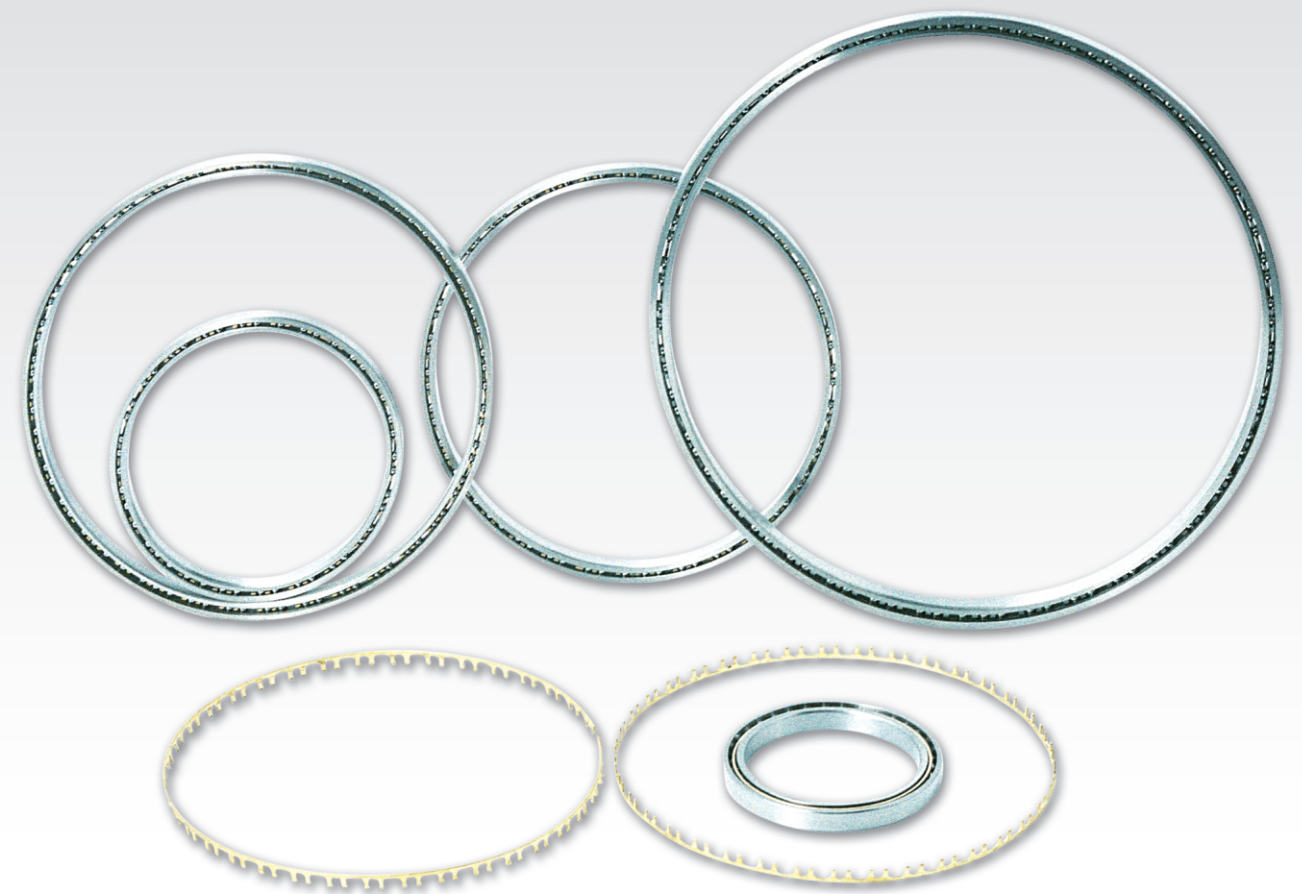




Thin Section Bearings

Introduction	1
Part numbering system explanation	2
Precision tolerances and radial internal clearances	3
Selection tables for the complete thin section bearings	4
Radial Contact series(L series):CLAA CLA series	5
CLB series	6
CLC series	7
CLD series	8
CLF series	9
CLG series	10
Angular Contact series (M series) CMAA CMA series.....	11
CMB series	12
CMC series	13
CMD series	14
CMF series	15
CMG series	16
Four point Contact series (N series)CNAA CNA series.....	17
CNB series	18
CNC series	19
CNDseries	20
CNF series	21
CNG series	22
Sealed Radial Contact series(L Series) WLHA WLA series	23
WLB series	24
WLU WLG series	25
Four point Contact series (N series)WNHA WNA series	26
WNB WNG series	27
WNU series	28



Introduction of NPB Thin–Section Bearings

Product line overview

The NPB Thin-Section bearings consists of a family of seven open and five sealed series of thin section bearings ranging in bore diameters from 1.000 inch to 20.000 inch. Series range from 0.1875×0.1875 inch to 1.000×1.000 inch cross section. Open bearings are available in three configurations: Type L (radial contact), Type M(angular contact), Type N(four-point contact). In these series, the material of rings could be Gcr15 and stainless steel. NPB thin section bearings are available with various separators include: brass or stainless steel continuous ring “snap-over” pocket, brass or stainless steel continuous ring circular pocket, toroid (Nylon), and steel spacer balls separators.

To support various load scenarios, NPB thin section bearings are available in Three basic types: radial contact (Type L), angular contact (Type M) and four-point contact (Type N). You could choose sealed bearings for applications where bearings need to be kept clean and well lubricated.

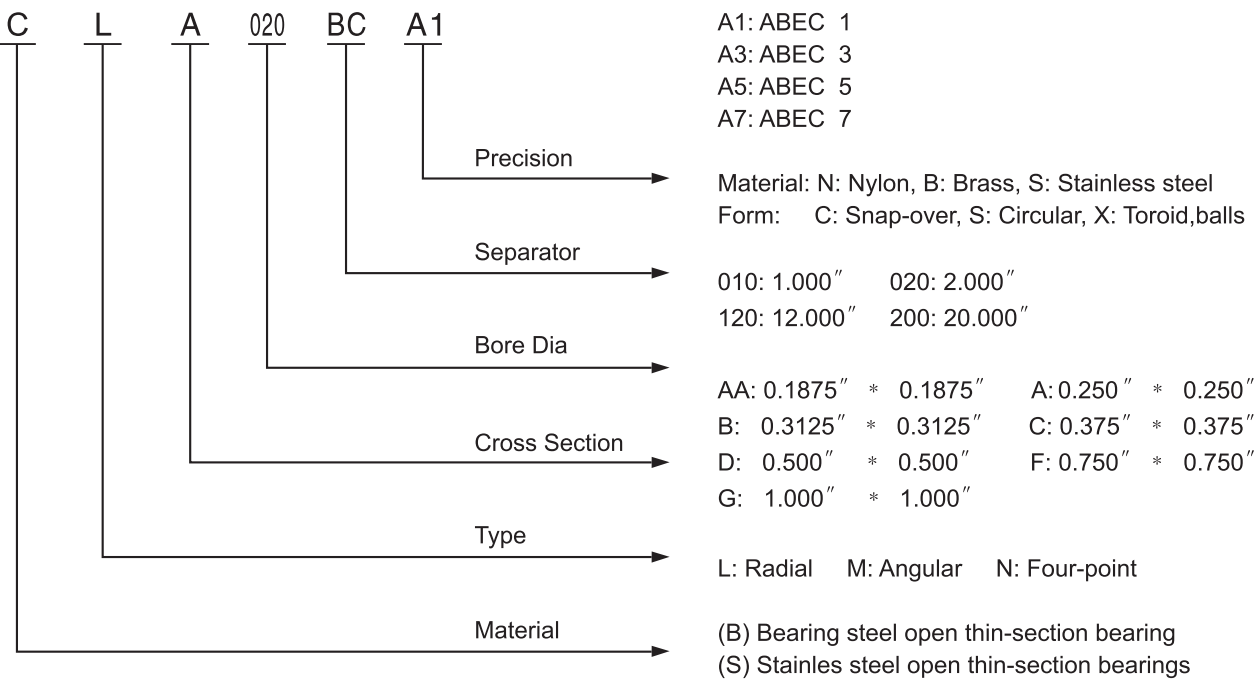
Specialty

Difference between thin section bearings and standard bearings is the cross section dimension of each series of thin section bearings were designed to be single, the cross section dimension increases in bore diameter. Therefore, this kind of thin section bearings are called uniform cross section thin-section bearings. By using the same series of NPB thin-section bearings throughout a product line. the designer could standardize on common components.

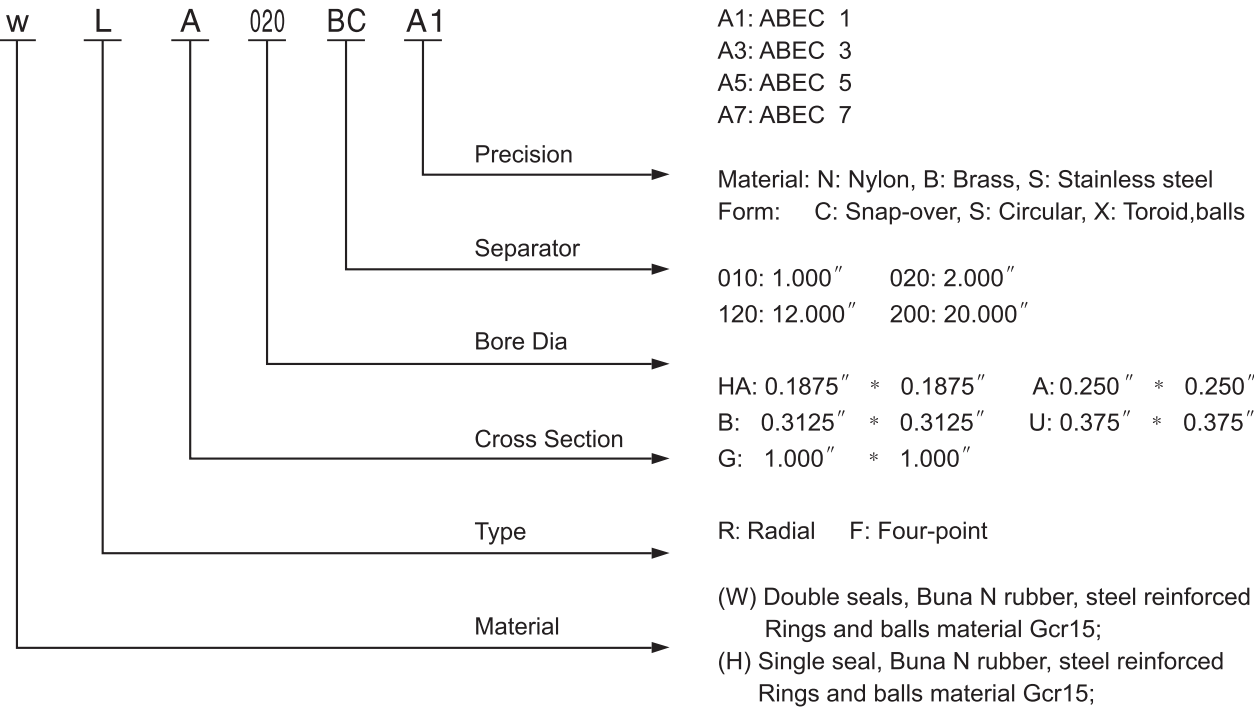
NPB thin-section bearings were designed to save space, lower the overall weight of your designs, dramatically reduce friction, and provide excellent running accuracy. With NPB thin-section bearings you could downsize your design and cut manufacturing costs, without sacrificing bearing performance or life.

Part Numbering System Explanation

Open style example:



Sealed style example:





Precision Tolerances and Radial Internal Clearances

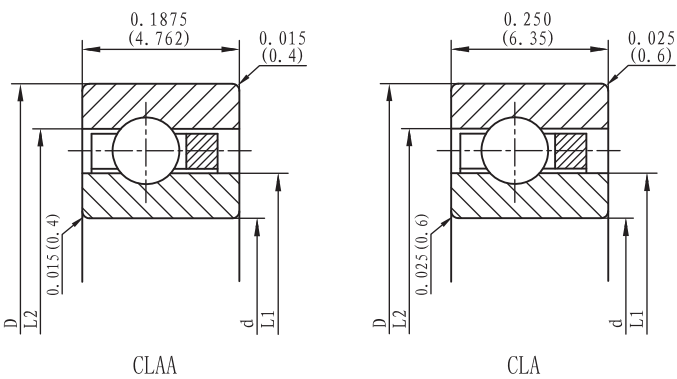
Radial Contact Type unit: μm

Bearing bore dia. Number (all series)	Tolerances for bearing bore dia.	Tolerances for outside dia.	Tolerances for inner and outer ring widths	Tolerances for axial and radial runout max		Radial internal clearance	
				Inner ring	Outer ring		
010	0 -10	0 -13	0 -125	13	20	25 41	
015	0 -13			15		30 46	
020 025	0 -15			20	25	30 61	
030 035	0 -20			0 -15	25	30	41 71
040 042		0 -20		36		51 86	
045 047 050	0 -25	0 -25		30	41		
055 060 065 070		0 -30			46		61 107
075 080 090 100 110 120	0 -36	0 -36		46	51	71 122	
140	0 -41	0 -41				81 132	
160 180	0 -46	0 -46				51	91 142
200	0 -51	0 -51					102 152

Precision Tolerances and Radial Internal Clearances

Four-point Contact and Angular Contact type unit: μm

Bearing bore dia. Number (all series)	Tolerances for bearing bore dia.	Tolerances for outside dia.	Tolerances for inner and outer ring widths	Tolerances for axial and radial runout max		Radial internal clearance
				Inner ring	Outer ring	
010	0 -10	0 -13	0 -125	7.5	10	25 38
015	0 -13			10		30 43
020	0 -15			13	13	30 56
025				15	15	
030	0 -20	20				20
035				0 -25	25	
040	0 -20	51 76				
042						0 -30
045	30	30				
047				36	36	
050	41	41				
055				46	46	
060	51	51				
065			56	56		
070	61	61				
075			66	66		
080	71	71				
090			76	76		
100	81	81				
110			86	86		
120	91	91				
140			96	96		
160	101	101				
180			106	106		
200	111	111				
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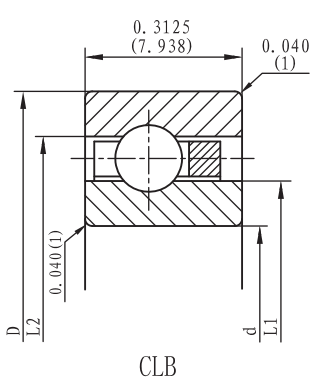


Selection Tables for the
complete thin-section Bearings

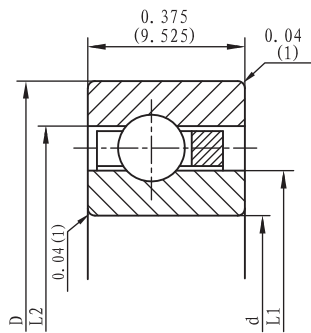
Open
Radial Contact series(L series):

Type	CLAA series (inch/mm) Dimension				Basic Cap.N		Weight Kg	Interchange		
	d	D	L1	L2	Cor	Cr				
CLAA010NCA1	1.000 25.4	1.375 34.925	1.142 29.0	1.236 31.4	1290	670	0.012	KRS010	KAA10CLO	
CLAA015NCA1	1.500 38.1	1.875 47.625	1.642 41.7	1.736 44.1	1780	800	0.018	KRS015	KAA15CLO	

Type	CLA series (inch/mm) Dimension				Basic Cap.N		Weight Kg	Interchange		
	d	D	L1	L2	Cor	Cr				
CLA020BCA1	2.000 50.8	2.500 63.5	2.186 55.5	2.134 58.8	3020	1420	0.048	KRA020	KA020CP0	
CLA025BCA1	2.500 63.5	3.000 76.2	2.686 68.2	2.814 71.5	3690	1600	0.059	KRA025	KA025CP0	
CLA030BCA1	3.000 76.2	3.500 88.9	3.186 80.9	3.314 84.2	4400	1820	0.068	KRA030	KA030CP0	
CLA035BCA1	3.500 88.9	4.000 101.6	3.686 93.6	3.814 96.9	5070	2000	0.082	KRA035	KA035CP0	
CLA040BCA1	4.000 101.6	4.500 114.3	4.186 106.3	4.314 109.6	5730	2130	0.090	KRA040	KA040CP0	
CLA042BCA1	4.250 107.95	4.150 120.65	4.436 112.7	4.564 115.9	6090	2220	0.095	KRA042	KA042CP0	
CLA045BCA1	4.500 114.3	5.000 127	4.686 119	4.814 122.3	6400	2310	0.100	KRA045	KA045CP0	
CLA047BCA1	4.750 120.65	5.250 133.35	4.936 125.4	5.064 128.6	6760	2400	0.104	KRA047	KA047CP0	
CLA050BCA1	5.000 127.0	5.500 139.7	5.186 131.7	5.314 135.0	7070	2490	0.109	KRA050	KA050CP0	
CLA055BCA1	5.500 139.7	6.000 152.4	5.686 144.4	5.814 147.7	7780	2620	0.118	KRA055	KA055CP0	
CLA060BCA1	6.000 152.4	6.500 165.1	6.186 157.1	6.314 160.4	8450	2800	0.130	KRA060	KA060CP0	
CLA065BCA1	6.500 165.1	7.000 177.8	6.686 169.8	6.814 173.1	9110	2930	0.140	KRA065	KA065CP0	
CLA070BCA1	7.000 177.8	7.500 190.5	7.186 182.5	7.314 185.8	9780	3070	0.150	KRA070	KA070CP0	
CLA075BCA1	7.500 190.5	8.000 203.2	7.686 195.2	7.814 198.5	10450	3200	0.160	KRA075	KA075CP0	
CLA080BCA1	8.000 203.2	8.500 215.9	8.186 207.9	8.314 211.2	11110	3330	0.172	KRA080	KA080CP0	
CLA090BCA1	9.000 228.6	9.500 241.3	9.186 233.3	9.314 236.6	12490	3600	0.200	KRA090	KA090CP0	
CLA100BCA1	10.000 254	10.500 266.7	10.186 258.7	10.314 262.0	13820	3870	.0227	KRA100	KA100CP0	
CLA110BCA1	11.000 279.4	11.500 292.1	11.186 284.1	11.314 287.4	15160	4130	0.236	KRA110	KA110CP0	
CLA120BCA1	12.000 304.8	12.500 317.5	12.186 309.5	12.314 312.8	16540	4360	0.254	KRA120	KA120CP0	

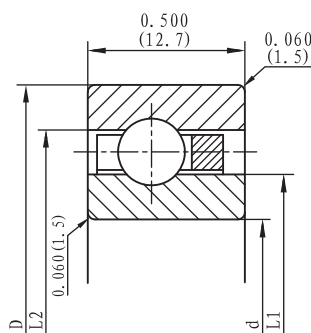


Type	CLB series (inch/mm) Dimension				Basic Cap.N		Weight Kg	Interchange		
	d	D	L1	L2	Cor	Cr				
CLB020BCA1	2.000 50.8	2.625 66.675	2.231 56.7	2.393 60.8	4130	2000	0.073	KRB020	KB020CP0	
CLB025BCA1	2.500 63.5	3.125 79.375	2.731 69.4	2.893 73.5	5070	2310	0.091	KRB025	KB025CP0	
CLB030BCA1	3.000 76.2	3.625 92.075	3.231 82.1	3.393 86.2	5960	2580	0.109	KRB030	KB030CP0	
CLB035BCA1	3.500 88.9	4.125 104.775	3.731 94.8	3.893 98.9	6850	2800	0.125	KRB035	KB035CP0	
CLB040BCA1	4.000 101.6	4.625 117.475	4.231 107.5	4.393 111.6	7780	3070	0.140	KRB040	KB040CP0	
CLB042BCA1	4.250 107.95	4.875 123.825	4.481 113.8	4.643 117.9	8130	3160	0.147	KRB042	KB042CP0	
CLB045BCA1	4.500 114.3	5.125 130.175	4.731 120.2	4.893 124.3	8670	3290	0.160	KRB045	KB045CP0	
CLB047BCA1	4.750 120.65	5.375 136.525	4.981 126.6	5.143 130.6	9020	3380	0.163	KRB047	KB047CP0	
CLB050BCA1	5.000 127	5.625 142.875	5.231 132.9	5.393 137.0	9650	3510	0.172	KRB050	KB050CP0	
CLB055BCA1	5.500 139.7	6.125 155.575	5.731 145.6	5.893 149.7	10490	3730	0.186	KRB055	KB055CP0	
CLB060BCA1	6.000 152.4	6.625 168.275	6.231 158.3	6.393 162.4	11380	3960	0.205	KRB060	KB060CP0	
CLB065BCA1	6.500 165.1	7.125 180.975	6.731 171.0	6.893 175.1	12270	4130	0.216	KRB065	KB065CP0	
CLB070BCA1	7.000 177.8	7.625 193.675	7.231 183.7	7.393 187.8	13200	4360	0.232	KRB070	KB070CP0	
CLB075BCA1	7.500 190.5	8.125 206.375	7.731 196.4	7.893 200.5	14090	4530	0.250	KRB075	KB075CP0	
CLB080BCA1	8.000 203.2	8.625 219.075	8.231 209.1	8.393 213.2	14980	4760	0.262	KRB080	KB080CP0	
CLB090BCA1	9.000 228.6	9.625 244.475	9.231 234.5	9.393 238.6	16800	5110	0.300	KRB090	KB090CP0	
CLB100BCA1	10.000 254	10.625 269.875	10.231 259.9	10.393 264.0	18620	5470	0.331	KRB100	KB100CP0	
CLB110BCA1	11.000 279.4	11.625 295.275	11.231 285.3	11.393 289.4	20400	5820	0.360	KRB110	KB110CP0	
CLB120BCA1	12.000 304.8	12.625 320.675	12.231 310.7	12.393 314.8	22230	6180	0.390	KRB120	KB120CP0	
CLB140BCA1	14.000 355.6	14.625 371.475	14.231 361.5	14.393 365.6	25830	6800	0.476	KRB140	KB140CP0	
CLB160BCA1	16.000 406.4	16.625 422.275	16.231 412.3	16.393 416.3	29430	7420	0.544	KRB160	KB160CP0	
CLB180BCA1	18.000 457.2	18.625 437.075	18.231 463.1	18.393 467.2	33070	8050	0.612	KRB180	KB180CP0	
CLB200BCA1	20.000 508	20.625 523.875	20.231 513.9	20.393 518.0	36670	8620	0.680	KRB200	KB200CP0	



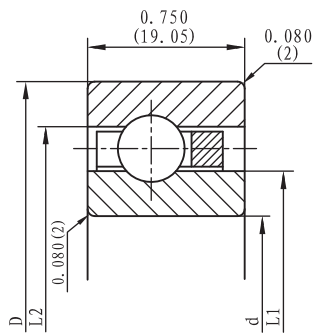
CLC

Type	CLC series (inch/mm) Dimension				Basic Cap.N		Weight Kg	Interchange		
	d	D	L1	L2	Cor	Cr				
CLC040BCA1	4.000 101.6	4.750 120.65	4.277 108.6	4.473 113.6	9330	3910	0.204	KRC040	KC040CP0	
CLC042BCA1	4.250 107.95	5.000 127	4.527 115.0	4.723 120.0	9780	4090	0.213	KRC042	KC042CP0	
CLC045BCA1	4.500 114.3	5.250 133.35	4.777 121.3	4.937 126.3	10400	4220	0.225	KRC045	KC045CP0	
CLC047BCA1	4.750 120.65	5.000 127	5.027 127.7	5.223 132.7	10930	4360	0.235	KRC047	KC047CP0	
CLC050BCA1	5.000 127	5.750 146.05	5.277 134.0	5.473 139.0	11510	4490	0.263	KRC050	KC050CP0	
CLC055BCA1	5.500 139.7	6.250 158.75	5.777 146.7	5.973 151.7	12580	4800	0.268	KRC055	KC055CP0	
CLC060BCA1	6.000 152.4	6.750 171.45	6.277 159.4	6.473 164.4	13650	5070	0.295	KRC060	KC060CP0	
CLC065BCA1	6.500 165.1	7.250 184.15	6.777 172.1	6.937 177.1	14710	5330	0.312	KRC065	KC065CP0	
CLC070BCA1	7.000 177.8	7.750 196.85	7.277 184.8	7.473 189.8	15780	5560	0.340	KRC070	KC070CP0	
CLC075BCA1	7.500 190.5	8.250 209.55	7.777 197.5	7.973 202.5	16850	5820	0.360	KRC075	KC075CP0	
CLC080BCA1	8.000 203.2	8.750 222.25	8.277 210.2	8.473 215.2	17910	6050	0.387	KRC080	KC080CP0	
CLC090BCA1	9.000 228.6	9.750 247.65	9.277 235.6	9.473 240.6	20050	6530	0.450	KRC090	KC090CP0	
CLC100BCA1	10.000 254	10.750 273.05	10.277 261.0	10.473 266.0	22180	6980	0.481	KRC100	KC100CP0	
CLC110BCA1	11.000 279.4	11.750 298.45	11.277 286.4	11.473 291.4	24310	7420	0.526	KRC110	KC110CP0	
CLC120BCA1	12.000 304.8	12.750 323.85	12.277 311.8	12.473 316.8	26450	7870	0.567	KRC120	KC120CP0	
CLC140BCA1	14.000 355.6	14.750 374.65	14.277 362.6	14.473 367.6	30720	8670	0.689	KRC140	KC140CP0	
CLC160BCA1	16.000 406.4	16.750 425.45	16.277 413.4	16.473 418.4	35030	9470	0.785	KRC160	KC160CP0	
CLC180BCA1	18.000 457.2	18.750 476.25	18.277 464.2	18.473 469.2	39290	10220	0.880	KRC180	KC180CP0	
CLC200BCA1	20.000 508	20.750 527.05	20.277 515.0	20.473 520.0	43560	10980	0.980	KRC200	KC200CP0	



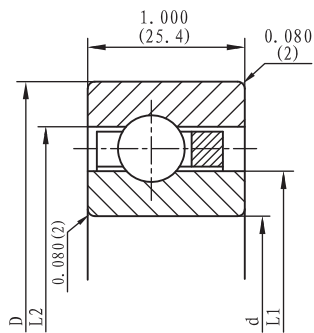
CLD

Type	CLD series (inch/mm) Dimension				Basic Cap.N		Weight Kg	Interchange		
	d	D	L1	L2	Cor	Cr				
CLD040BCA1	4.000 101.6	5.000 127	4.370 111.0	4.630 117.6	13690	6270	0.366	KRD040	KC040CP0	
CLD042BCA1	4.250 107.95	5.250 133.35	4.620 117.3	4.880 124.0	14180	6400	0.386	KRD042	KC042CP0	
CLD045BCA1	4.500 114.3	5.500 139.7	4.870 123.7	5.130 130.3	15200	6710	0.405	KRD045	KD045CP0	
CLD047BCA1	4.750 120.65	5.750 146.05	5.120 130.0	5.380 136.7	156900	6850	0.426	KRD047	KD047CP0	
CLD050BCA1	5.000 127	6.000 152.4	5.370 136.4	5.630 143.0	16710	7160	0.454	KRD050	KD050CP0	
CLD055BCA1	5.500 139.7	6.500 165.1	5.870 149.1	6.130 155.7	18230	7560	0.485	KRD055	KD055CP0	
CLD060BCA1	6.000 152.4	7.000 177.8	6.370 161.8	6.630 168.4	19780	8000	0.526	KRD060	KD060CP0	
CLD065BCA1	6.500 165.1	7.500 190.5	6.870 174.5	7.130 181.1	21290	8400	0.566	KRD065	KD065CP0	
CLD070BCA1	7.000 177.8	8.000 203.2	7.370 187.2	7.630 193.8	22800	8800	0.606	KRD070	KD070CP0	
CLD075BCA1	7.500 190.5	8.500 215.9	7.870 199.9	8.130 206.5	24310	9160	0.650	KRD075	KD075CP0	
CLD080BCA1	8.000 203.2	9.000 228.6	8.370 212.6	8.630 219.2	25830	9560	0.694	KRD080	KD080CP0	
CLD090BCA1	9.000 228.6	10.000 254	9.370 238.0	9.630 244.6	28890	10310	0.780	KRD090	KD090CP0	
CLD100BCA1	10.000 254	11.000 278.4	10.370 236.4	10.630 270	31920	10980	0.853	KRD100	KD100CP0	
CLD110BCA1	11.000 279.4	12.000 304.8	11.370 288.8	11.630 295.4	34980	11690	0.934	KRD110	KD110CP0	
CLD120BCA1	12.000 304.8	13.000 330.2	12.370 314.2	12.630 320.8	38010	12360	1.020	KRD120	KD120CP0	
CLD140BCA1	14.000 355.6	15.000 381	14.370 365.0	14.630 371.6	44090	13650	1.240	KRD140	KD140CP0	
CLD160BCA1	16.000 406.4	17.000 431.8	16.370 415.8	16.630 422.4	50180	14890	1.410	KRD160	KD160CP0	
CLD180BCA1	18.000 457.2	19.000 482.6	18.370 466.6	18.630 473.2	56230	16050	1.580	KRD180	KD180CP0	
CLD200BCA1	20.000 508	21.000 533.4	20.370 517.4	20.630 524.0	62320	17200	1.750	KRD200	KD200CP0	



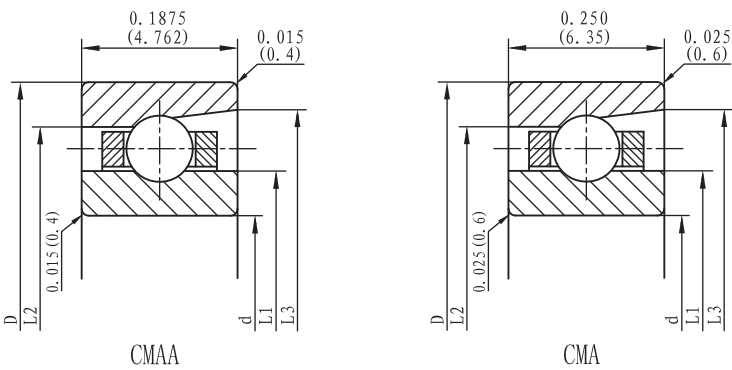
CLF

Type	CLF series (inch/mm) Dimension				Basic Cap.N		Weight Kg	Interchange		
	d	D	L1	L2	Cor	Cr				
CLF040BCA1	4.000 101.6	5.500 139.7	4.555 115.7	4.945 125.6	23830	12130	0.875	KRF040	KF040CP0	
CLF042BCA1	4.250 107.95	5.750 146.05	4.805 122.0	5.195 132.0	25070	12580	0.930	KRF042	KF042CP0	
CLF045BCA1	4.500 114.3	6.000 152.4	5.055 128.4	5.445 138.3	26360	12980	0.975	KRF045	KF045CP0	
CLF047BCA1	4.750 120.65	6.250 158.75	5.305 134.7	5.695 144.7	27600	13380	1.040	KRF047	KF047CP0	
CLF050BCA1	5.000 127	6.500 165.1	5.555 141.1	5.945 151.0	28850	13780	1.090	KRF050	KF050CP0	
CLF055BCA1	5.500 139.7	7.000 177.8	6.055 153.8	6.445 163.7	31340	14580	1.180	KRF055	KF055CP0	
CLF060BCA1	6.000 152.4	7.500 190.5	6.555 166.5	6.945 176.4	33870	15340	1.240	KRF060	KF060CP0	
CLF065BCA1	6.500 165.1	8.000 203.2	7.055 179.2	7.445 189.1	36360	16090	1.350	KRF065	KF065CP0	
CLF070BCA1	7.000 177.8	8.500 215.9	7.555 191.9	7.945 201.8	38890	16850	1.450	KRF070	KF070CP0	
CLF075BCA1	7.500 190.5	9.000 228.6	8.055 204.6	8.445 214.5	41380	17560	1.560	KRF075	KF075CP0	
CLF080BCA1	8.000 203.2	9.500 241.3	8.555 217.3	8.945 227.2	43920	18230	1.660	KRF080	KF080CP0	
CLF090BCA1	9.000 228.6	10.500 266.7	9.555 242.7	9.945 252.6	48900	19600	1.810	KRF090	KF090CP0	
CLF100BCA1	10.000 254	11.500 292.1	10.555 268.1	10.945 278.0	53920	20940	2.020	KRF100	KF100CP0	
CLF110BCA1	11.000 279.4	12.500 317.5	11.555 293.5	11.945 303.4	58940	22230	2.180	KRF110	KF110CP0	
CLF120BCA1	12.000 304.8	13.500 342.9	12.555 318.9	12.945 328.8	63960	23470	2.380	KRF120	KF120CP0	
CLF140BCA1	14.000 355.6	15.500 393.7	14.555 369.7	14.945 379.6	74010	25830	2.720	KRF140	KF140CP0	
CLF160BCA1	16.000 406.4	17.500 444.5	16.555 420.5	16.345 430.4	84010	28140	3.220	KRF160	KF160CP0	
CLF180BCA1	18.000 457.2	19.500 495.3	18.555 471.3	18.945 481.2	94060	30320	3.580	KRF180	KF180CP0	
CLF200BCA1	20.000 508	21.500 546.1	20.555 522.1	20.945 532.0	104100	32450	4.040	KRF200	KF200CP0	

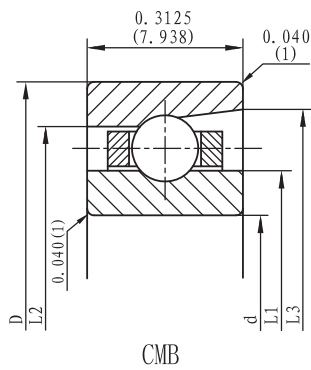


CLG

Type	CLG series (inch/mm) Dimension				Basic Cap.N		Weight Kg	Interchange		
	d	D	L1	L2	Cor	Cr				
CLG040BCA1	4.000 101.6	6.000 152.4	4.742 120.4	5.258 133.6	36490	20000	1.650	KRG040	KG040CP0	
CLG042BCA1	4.250 107.95	6.250 158.75	4.992 126.8	5.508 139.9	36490	20000	1.750	KRG042	KG042CP0	
CLG045BCA1	4.500 114.3	6.500 165.1	5.242 133.1	5.785 146.3	38940	20900	1.810	KRG045	KG045CP0	
CLG047BCA1	4.750 120.65	6.750 171.45	5.492 139.5	6.008 152.6	41340	21740	1.910	KRG047	KG047CP0	
CLG050BCA1	5.000 127	7.000 177.8	5.742 145.8	6.258 159.0	43780	22580	2.020	KRG050	KG050CP0	
CLG055BCA1	5.500 139.7	7.500 190.5	6.242 158.5	6.758 171.7	46230	23430	2.170	KRG055	KG055CP0	
CLG060BCA1	6.000 152.4	8.000 203.2	6.742 171.2	7.258 184.4	51070	25030	2.310	KRG060	KG060CP0	
CLG065BCA1	6.500 165.1	8.500 215.9	7.242 183.9	7.758 197.1	53520	25830	2.470	KRG065	KG065CP0	
CLG070BCA1	7.000 177.8	9.000 228.6	7.742 196.6	8.258 209.8	58360	27380	2.670	KRG070	KG070CP0	
CLG075BCA1	7.500 190.5	9.500 241.3	8.242 209.3	8.758 222.5	60810	28140	2.830	KRG075	KG075CP0	
CLG080BCA1	8.000 203.2	10.000 254	8.742 222.0	9.258 235.2	65650	29600	3.000	KRG080	KG080CP0	
CLG090BCA1	9.000 228.6	11.000 279.4	9.742 247.4	10.258 260.6	72990	31780	3.300	KRG090	KG090CP0	
CLG100BCA1	10.000 254	12.000 304.8	10.742 272.8	11.258 286.0	80280	33870	3.650	KRG100	KG100CP0	
CLG110BCA1	11.000 279.4	13.000 330.2	11.742 298.2	12.258 311.4	87570	35870	3.960	KRG110	KG110CP0	
CLG120BCA1	12.000 304.8	14.000 355.6	12.742 323.6	13.258 336.8	94860	37830	4.320	KRG120	KG120CP0	
CLG140BCA1	14.000 355.6	16.3000 406.4	14.742 374.4	15.258 387.6	109440	41600	4.960	KRG140	KG140CP0	
CLG160BCA1	16.000 406.4	18.000 457.2	16.742 425.2	17.258 438.4	124060	45250	5.650	KRG160	KG160CP0	
CLG180BCA1	18.000 457.2	20.000 508	18.742 476.0	19.258 489.2	138640	48720	6.280	KRG180	KG180CP0	
CLG200BCA1	20.000 508	22.000 558.8	20.742 526.8	21.258 540.0	153220	52100	7.530	KRG200	KG200CP0	



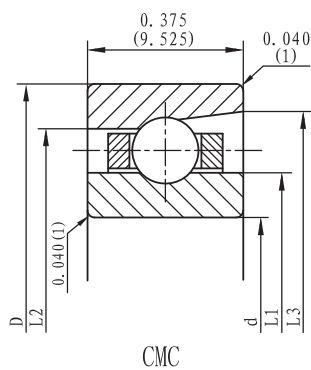
Angular Contact series (M series):



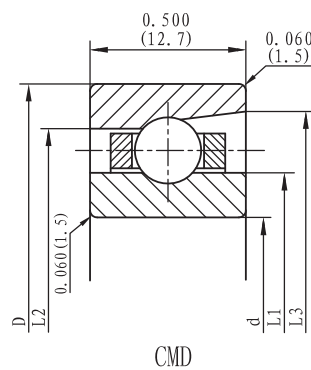
Type	CMAA series (inch/mm) Dimension					Basic Cap.N				Weight Kg	Interchange	
	d	D	L1	L2	L3	Radial Cor	Thrust Cr	Coa	Ca			
CMAA010NSA1	1.000 25.4	1.375 34.925	1.142 29.0	1.236 31.4	1.274 32.4	1510	670	4310	2000	0.011	KYS010	KAA10AG0
CMAA015NSA1	1.500 38.1	1.875 47.625	1.642 41.7	1.736 44.1	1.774 45.1	2130	890	6130	3250	0.017	KYS015	KAA15AG0

Type	CMA series (inch/mm) Dimension					Basic Cap.N				Weight Kg	Interchange	
	d	D	L1	L2	L3	Radial Cor	Thrust Cr	Coa	Ca			
CMA020BSA1	2.000 50.8	2.500 63.5	2.186 55.5	2.314 58.8	2.369 60.2	3510	1470	10140	4270	0.045	KYA020	KA020AR0
CMA025BSA1	2.500 63.5	3.000 76.2	2.686 68.2	2.814 71.5	2.869 72.9	4270	1690	12360	4890	0.054	KYA025	KA025AR0
CMA030BSA1	3.000 76.2	3.500 88.9	3.186 80.9	3.314 84.2	3.367 85.6	5070	1910	14620	5470	0.064	KYA030	KA030AR0
CMA035BSA1	3.500 88.9	4.000 101.6	3.686 93.6	3.814 96.9	2.867 98.2	5830	2090	16850	6000	0.077	KYA035	KA035AR0
CMA040BSA1	4.000 101.6	4.500 114.3	4.186 106.3	4.314 109.6	4.367 110.9	6630	2270	19110	6530	0.086	KYA040	KA040AR0
CMA042BSA1	4.250 107.95	4.750 120.65	4.436 112.7	4.564 115.9	4.615 117.2	7020	2360	20230	6800	0.091	KYA042	KA042AR0
CMA045BSA1	4.500 114.3	5.000 127	4.686 119	4.814 122.3	4.865 123.6	7380	2450	21380	7020	0.095	KYA045	KA045AR0
CMA047BSA1	4.750 120.65	5.250 133.35	4.936 125.4	5.064 128.6	5.115 129.9	7780	2530	22490	7290	0.100	KYA047	KA047AR0
CMA050BSA1	5.000 127.0	5.500 139.7	5.186 131.7	5.314 135.0	5.365 136.3	8180	2620	23600	7510	0.104	KYA050	KA050AR0
CMA055BSA1	5.500 139.7	6.000 152.4	5.686 144.4	5.814 147.7	5.863 148.9	8980	2760	25870	8000	0.113	KYA055	KA055AR0
CMA060BSA1	6.000 152.4	6.500 165.1	6.186 157.1	6.314 160.4	6.363 161.6	9740	2930	28090	8450	0.127	KYA060	KA060AR0
CMA065BSA1	6.500 165.1	7.000 177.8	6.686 169.8	6.814 173.1	6.816 172.3	10540	3070	30360	8890	0.136	KYA065	KA065AR0
CMA070BSA1	7.000 177.8	7.500 190.5	7.186 182.5	7.314 185.8	7.361 187	11290	3250	32630	9340	0.145	KYA070	KA070AR0
CMA075BSA1	7.500 190.5	8.000 203.2	7.666 195.2	7.814 198.5	7.861 199.7	12090	3380	34850	9740	0.154	KYA075	KA075AR0
CMA080BSA1	8.000 203.2	8.500 215.9	8.186 207.9	8.314 211.2	8.359 212.3	12850	3510	37120	10140	0.163	KYA080	KA080AR0
CMA090BSA1	9.000 228.6	9.500 241.3	9.186 233.3	9.314 236.6	9.357 237.7	14400	3780	41610	10980	0.186	KYA090	KA090AR0
CMA100BSA1	10.000 254	10.500 266.7	10.186 257.7	10.314 262.0	10.355 263	15960	4050	46100	11740	0.204	KYA100	KA100AR0
CMA110BSA1	11.000 279.4	11.500 292.1	11.186 284.1	11.314 287.4	11.353 288.4	17510	4310	50580	12490	0.227	KYA110	KA110AR0
CMA120BSA1	12.000 304.8	12.500 317.5	12.186 309.5	12.314 312.8	12.349 313.7	19070	4580	55070	13200	0.245	KYA120	KA120AR0

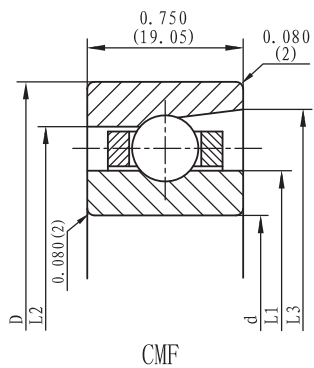
Type	CMB series (inch/mm) Dimension					Basic Cap.N				Weight Kg	Interchange	
	d	D	L1	L2	L3	Radial Cor	Thrust Cr	Coa	Ca			
CMB020BSA1	2.000 50.8	2.625 66.675	2.231 56.7	2.393 60.8	2.464 62.6	4850	2130	14000	6130	0.068	KYB020	KB020AR0
CMB025BSA1	2.500 63.5	3.125 79.375	2.731 69.4	2.893 73.5	2.964 75.3	5960	2450	17160	7070	0.086	KYB025	KB025AR0
CMB030BSA1	3.000 76.2	3.625 92.075	3.231 82.1	3.393 86.2	3.462 87.9	6890	2710	19870	7780	0.100	KYB030	KB030AR0
CMB035BSA1	3.500 88.9	4.125 104.775	3.731 94.8	3.893 98.9	3.962 100.6	7960	2980	23030	8580	0.122	KYB035	KB035AR0
CMB040BSA1	4.000 101.6	4.625 117.475	4.231 107.5	4.393 111.6	4.460 113.3	9070	3250	26180	9340	0.136	KYB040	KB040AR0
CMB042BSA1	4.250 107.95	4.875 123.825	4.481 113.8	4.643 117.9	4.710 119.6	9560	3330	27650	9650	0.141	KYB042	KB042AR0
CMB045BSA1	4.500 114.3	5.125 130.175	4.731 120.2	4.893 124.3	4.960 126.0	10000	3470	28890	9960	0.154	KYB045	KB045AR0
CMB047BSA1	4.750 120.65	5.375 136.525	4.981 126.6	5.143 130.6	5.210 132.3	10620	3600	30720	10400	0.159	KYB047	KB047AR0
CMB050BSA1	5.000 127	5.625 142.875	5.231 132.9	5.393 137.0	5.460 138.7	11110	3690	32050	10710	0.168	KYB050	KB050AR0
CMB055BSA1	5.500 139.7	6.125 155.575	5.731 145.6	5.893 149.7	5.958 151.3	12180	3960	35200	11380	0.181	KYB055	KB055AR0
CMB060BSA1	6.000 152.4	6.625 168.275	6.231 158.3	6.393 162.4	6.458 164.0	13290	4180	38360	12050	0.200	KYB060	KB060AR0
CMB065BSA1	6.500 165.1	7.125 180.975	6.731 171.0	6.893 175.1	6.958 176.7	14220	4360	41070	12620	0.213	KYB065	KB065AR0
CMB070BSA1	7.000 177.8	7.625 193.675	7.231 183.7	7.393 187.8	7.456 189.4	15340	4580	44270	13250	0.227	KYB070	KB070AR0
CMB075BSA1	7.500 190.5	8.125 206.375	7.731 196.4	7.893 200.5	7.955 201.1	16450	4800	47430	13870	0.245	KYB075	KB075AR0
CMB080BSA1	8.000 203.2	8.625 219.075	8.231 209.1	8.393 213.2	8.453 214.7	17510	5020	50580	14490	0.259	KYB080	KB080AR0
CMB090BSA1	9.000 228.6	9.625 244.475	9.231 234.5	9.393 238.6	9.451 240	19560	5420	56450	15600	0.290	KYB090	KB090AR0
CMB100BSA1	10.000 254	10.625 269.875	10.231 259.9	10.393 264.0	10.449 265.4	21740	5780	62760	16710	0.322	KYB100	KB100AR0
CMB110BSA1	11.000 279.4	11.625 295.275	11.231 285.3	11.393 289.4	11.447 290.8	23780	6130	68630	17780	0.354	KYB110	KB110AR0
CMB120BSA1	12.000 304.8	12.625 320.675	12.231 310.7	12.393 314.8	12.445 316.1	25960	6530	74940	18850	0.386	KYB120	KB120AR0
CMB140BSA1	14.000 355.6	14.625 371.475	14.231 361.5	14.393 365.6	14.439 366.8	30050	7200	86680	20760	0.445	KYB140	KB140AR0
CMB160BSA1	16.000 406.4	16.625 422.275	16.231 412.3	16.393 416.4	16.433 417.4	34270	7870	98900	22670	0.509	KYB160	KB160AR0
CMB180BSA1	18.000 457.2	18.625 437.075	18.231 463.1	18.393 467.2	18.425 468	38490	8490	111080	24490	0.572	KYB180	KB180AR0
CMB200BSA1	20.000 508	20.625 523.875	20.231 513.9	20.393 518.0	20.416 518.6	42720	9110	123260	26230	0.635	KYB200	KB200AR0



Type	CMC series (inch/mm) Dimension					Basic Cap.N Radial Thrust Cor Cr Coa Ca				Weight Kg	Interchange	
	d	D	L1	L2	L3	Cor	Cr	Coa	Ca			
CMC040BSA1	4.000 101.6	4.750 120.65	4.277 108.6	4.473 113.6	4.554 115.7	11340	4270	32720	12310	0.200	KYC040	KC040AR0
CMC042BSA1	4.250 107.9	5.000 127	4.527 115.0	4.723 120.0	4.804 122	12050	4450	34760	12800	0.209	KYC042	KC042AR0
CMC045BSA1	4.500 114.3	5.250 133.35	4.777 121.3	4.937 16.3	5.052 128.3	12710	4620	36760	13290	0.222	KYC045	KC045AR0
CMC047BSA1	4.750 120.65	5.000 127	5.027 127.7	5.223 132.7	5.302 134.7	13420	4760	38760	13780	0.231	KYC047	KC047AR0
CMC050BSA1	5.000 127	5.750 146.05	5.277 134.0	5.473 139.0	5.552 141	14140	4930	40760	14220	0.245	KYC050	KC050AR0
CMC055BSA1	5.500 139.7	6.250 158.75	5.777 146.7	5.973 151.7	6.052 153.7	15290	5200	44090	14980	0.263	KYC055	KC055AR0
CMC060BSA1	6.000 152.4	6.750 171.45	6.277 159.4	6.473 164.4	6.550 166.4	16670	5510	48100	15910	0.290	KYC060	KC060AR0
CMC065BSA1	6.500 165.1	7.250 184.15	6.777 172.1	6.973 177.1	7.050 179	18050	5820	52100	16760	0.308	KYC065	KC065AR0
CMC070BSA1	7.000 177.8	7.750 196.85	7.277 184.8	7.473 189.8	7.550 191.8	19200	6050	55430	17490	0.336	KYC070	KC070AR0
CMC075BSA1	7.500 190.5	8.250 209.55	7.777 197.5	7.793 202.5	8.048 204.4	20580	6360	59470	18310	0.354	KYC075	KC075AR0
CMC080BSA1	8.000 203.2	8.750 222.3	8.277 210.2	8.473 215.2	8.548 217.1	22010	6620	63480	19110	0.381	KYC080	KC080AR0
CMC090BSA1	9.000 228.6	9.750 247.65	9.277 235.6	9.473 240.6	9.546 242.5	24540	7110	70810	20580	0.445	KYC090	KC090AR0
CMC100BSA1	10.000 254	10.750 273.05	10.277 261.0	10.473 266.0	10.544 267.8	27290	7650	78810	22090	0.472	KYC100	KC100AR0
CMC110BSA1	11.000 279.4	11.750 298.45	11.277 286.4	11.473 291.4	11.542 293.2	29870	8130	86190	23470	0.517	KYC110	KC110AR0
CMC120BSA1	12.000 304.8	12.750 323.85	12.277 311.8	12.473 316.8	12.540 318.5	32400	8580	93520	24800	0.558	KYC120	KC120AR0
CMC140BSA1	14.000 355.6	14.750 374.65	14.277 362.3	14.437 367.6	14.535 369.2	37740	9510	108900	27430	0.649	KYB140	KB140AR0
CMC160BSA1	16.000 406.4	16.750 425.45	16.277 413.4	16.473 418.4	16.529 419.8	43030	10360	124240	29920	0.739	KYB160	KB160AR0
CMC180BSA1	18.000 457.2	18.750 476.25	18.277 464.2	18.473 469.2	18.523 470.5	48360	11200	139620	32360	0.830	KYB180	KB180AR0
CMC200BSA1	20.000 508	20.750 527.05	20.277 515.0	20.473 520.0	20.517 521.1	53470	11960	154330	34580	0.921	KYB200	KB200AR0

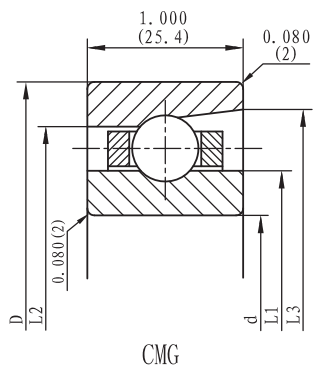


Type	CMD series (inch/mm) Dimension					Basic Cap.N Radial Thrust Cor Cr Coa Ca				Weight Kg	Interchange	
	d	D	L1	L2	L3	Cor	Cr	Coa	Ca			
CMD040BSA1	4.000 101.6	5.000 127	4.370 111.0	4.630 117.6	4.741 120.4	15780	6580	45610	18940	0.363	KYD040	KD040AR0
CMD042BSA1	4.250 107.9	5.250 133.35	4.620 11.73	4.880 124.0	4.991 126.8	16670	6800	48140	19650	0.381	KYF042	KF042AR0
CMD045BSA1	4.500 114.3	5.500 139.7	4.870 123.7	5.130 130.3	5.241 133.1	17560	7020	50670	20310	0.400	KYF045	KF045AR0
CMD047BSA1	4.750 120.65	5.750 146.05	5.120 130.0	5.380 136.7	5.490 139.4	18450	7290	53210	20980	0.422	KYD047	KD047AR0
CMD050BSA1	5.000 127	6.000 152.4	5.370 136.4	5.630 143.0	5.740 145.8	19290	7510	55740	21650	0.445	KYD050	KD050AR0
CMD055BSA1	5.500 139.7	6.500 165.1	5.870 149.1	6.130 155.7	6.238 158.4	21070	7960	60810	22940	0.481	KYD055	KD055AR0
CMD060BSA1	6.000 152.4	7.000 177.8	6.370 161.8	6.630 168.4	6.738 171.1	22800	8400	65880	24180	0.522	KYD060	KD060AR0
CMD065BSA1	6.500 165.1	7.500 190.5	6.870 174.5	7.130 181.1	7.236 183.8	24580	8800	70940	25430	0.562	KYD065	KD065AR0
CMD070BSA1	7.000 177.8	8.000 203.2	7.370 187.2	7.630 193.8	7.736 196.5	26310	9200	76010	26630	0.603	KYD070	KD070AR0
CMD075BSA1	7.500 190.5	8.500 215.9	7.870 199.9	8.130 206.5	8.236 209.2	28090	9650	81080	27780	0.644	KYD075	KD075AR0
CMD080BSA1	8.000 203.2	9.000 228.6	8.370 212.6	8.630 219.2	8.734 221.8	29830	10050	81640	28940	0.689	KYD080	KD080AR0
CMD090BSA1	9.000 228.6	10.000 254	9.370 238.0	9.630 244.6	9.732 247.2	33340	100800	96280	31160	0.767	KYD090	KD090AR0
CMD100BSA1	10.000 254	11.000 279.4	10.370 263.4	10.630 270	10.732 272.6	36850	11560	106410	33340	0.848	KYD100	KD100AR0
CMD110BSA1	11.000 279.4	12.000 304.8	11.370 288.8	11.630 295.4	11.730 298	40360	12270	116550	35380	0.930	KYD110	KD110AR0
CMD120BSA1	12.000 304.8	13.000 330.2	12.370 314.2	12.630 320.8	12.728 323.3	43870	12980	126680	37430	1.010	KYD120	KD120AR0
CMD140BSA1	14.000 355.6	15.000 381	14.370 365.0	14.630 371.6	14.724 374	50900	14310	146950	41290	1.170	KYD140	KD140AR0
CMD160BSA1	16.000 406.4	17.000 431.8	16.370 415.8	16.630 422.4	16.718 424.6	57920	15600	167220	45030	1.330	KYD160	KD160AR0
CMD180BSA1	18.000 457.2	19.000 482.6	18.370 466.6	18.630 473.2	18.712 475.3	649401	16850	187490	48580	1.490	KYD180	KD180AR0
CMD200BSA1	20.000 508	21.000 533.4	20.370 517.4	20.630 524.0	20.705 525.9	71970	18050	207760	52050	1.660	KYD200	KD200AR0



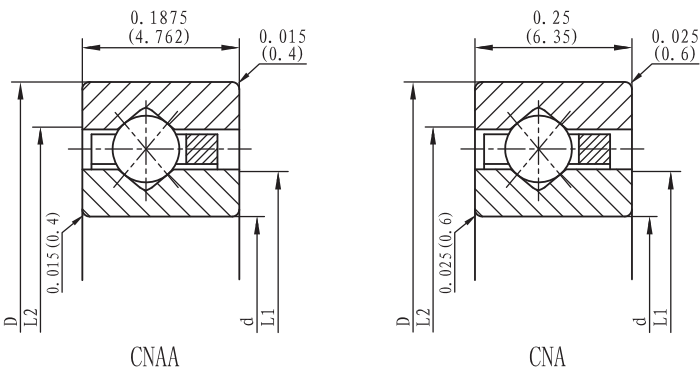
CMF

Type	CMF series (inch/mm) Dimension					Basic Cap.N Radial Thrust				Weight Kg	Interchange	
	d	D	L1	L2	L3	Cor	Cr	Coa	Ca			
CMF040BSA1	4.000 101.6	5.500 139.7	4.555 115.7	4.945 125.6	5.115 129.9	28230	12980	81520	37430	0.875	KYF040	KF040AR0
CMF042BSA1	4.250 107.9	5.750 146.05	4.805 122.0	5.195 132.0	5.365 136.3	29340	13290	84680	38360	0.930	KYF042	KF042AR0
CMF045BSA1	4.500 114.3	6.000 152.4	5.055 128.4	5.445 138.3	5.615 142.6	31580	13960	90950	40230	0.975	KYF045	KF045AR0
CMF047BSA1	4.750 120.65	6.250 158.75	5.305 134.7	5.695 144.7	5.865 149	32580	14270	94060	41160	1.040	KYF047	KF047AR0
CMF050BSA1	5.000 127	6.500 165.1	5.555 141.1	5.945 151.0	6.115 155.3	33650	14580	97210	42050	1.090	KYF050	KF050AR0
CMF055BSA1	5.500 139.7	7.000 177.8	6.055 153.8	6.445 163.7	6.613 168	36940	1551	106590	44720	1.180	KYF055	KF055AR0
CMF060BSA1	6.000 152.4	7.500 190.5	6.555 166.5	6.945 176.4	7.113 180.7	40180	16400	116020	47340	1.240	KYF060	KF060AR0
CMF065BSA1	6.500 165.1	8.000 203.2	7.055 179.2	7.445 189.1	7.613 193.4	43430	17290	125440	49870	1.350	KYF065	KF065AR0
CMF070BSA1	7.000 177.8	8.500 215.9	7.555 191.1	7.945 201.8	8.113 206.1	46720	18140	134820	52320	1.450	KYF070	KF070AR0
CMF075BSA1	7.500 190.5	9.000 228.6	8.055 204.6	8.445 214.5	8.610 218.7	48900	18670	141080	53920	1.560	KYF075	KF075AR0
CMF080BSA1	8.000 203.2	9.500 241.3	8.555 217.3	8.945 227.2	9.110 231.4	52140	19510	150510	56320	1.660	KYF080	KF080AR0
CMF090BSA1	9.000 228.6	10.500 266.7	9.555 242.7	9.945 252.6	10.108 256.7	58630	21110	169310	60900	1.810	KYF090	KF090AR0
CMF100BSA1	10.000 254	11.500 292.1	10.555 268.1	10.945 278.0	11.106 282.1	64100	22360	185000	64590	2.020	KYF100	KF100AR0
CMF110BSA1	11.000 279.4	12.500 317.5	11.555 293.5	11.945 303.4	12.106 307.5	70590	23870	203800	68900	2.180	KYF110	KF110AR0
CMF120BSA1	12.000 304.8	13.500 342.9	12.555 318.9	12.945 328.8	13.104 332.8	76010	25070	219490	72410	2.380	KYF120	KF120AR0
CMF140BSA1	14.000 355.6	15.500 393.7	14.555 369.7	14.945 430.4	15.102 383.6	87970	26750	253990	79790	2.720	KYF140	KF140AR0
CMF160BSA1	16.000 406.4	17.500 444.5	16.555 420.5	16.945 430.4	17.098 434.6	99920	30100	288440	86860	3.220	KYF160	KF160AR0
CMF180BSA1	18.000 457.2	19.500 495.3	18.555 471.3	18.945 481.2	19.096 485	112950	32670	326090	94280	3.580	KYF180	KF180AR0
CMF200BSA1	20.000 508	21.500 546.1	20.555 522.1	20.945 532.0	21.092 535.7	124910	34940	360580	100810	4.040	KYF200	KF200AR0



CMG

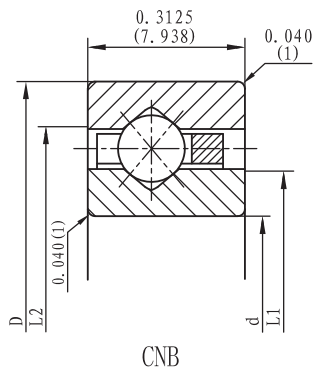
Type	CMG series (inch/mm) Dimension					Basic Cap.N Radial Thrust				Weight Kg	Interchange	
	d	D	L1	L2	L3	Cor	Cr	Coa	Ca			
CMG040BSA1	4.000 101.6	6.000 152.4	4.742 120.4	5.258 133.6	5.491 139.5	42140	20980	121620	60590	1.640	KYG040	KG040AR0
CMG042BSA1	4.250 107.9	6.250 158.75	4.992 126.8	5.058 139.9	5.741 145.8	44230	21690	227710	62630	1.740	KYG042	KG042AR0
CMG045BSA1	4.500 114.3	6.500 165.1	5.242 133.1	5.758 146.3	5.989 152.1	46360	22360	133800	64590	1.790	KYG045	KG045AR0
CMG047BSA1	4.750 120.65	6.750 171.45	5.492 139.5	6.008 152.6	6.239 158.9	48450	23030	139840	66540	1.890	KYG047	KG047AR0
CMG050BSA1	5.000 127	7.000 177.8	5.742 145.8	6.258 159.0	6.489 164.8	50540	23690	145930	68450	2.000	KYG050	KG050AR0
CMG055BSA1	5.500 139.7	7.500 190.5	6.242 158.5	6.758 171.7	6.898 177.5	54760	25030	158110	72190	2.150	KYG055	KG055AR0
CMG060BSA1	6.000 152.4	8.000 203.2	6.742 171.2	7.258 184.4	7.489 190.2	58990	26270	170240	75830	2.300	KYG060	KG060AR0
CMG065BSA1	6.500 165.1	8.500 215.9	7.242 183.9	7.758 197.1	7.987 202.9	63210	27520	182420	79430	2.450	KYG065	KG065AR0
CMG070BSA1	7.000 177.8	9.000 228.6	7.742 196.6	8.258 209.8	8.487 215.6	67390	28720	194600	829000	2.660	KYG070	KG070AR0
CMG075BSA1	7.500 190.5	9.500 241.3	8.242 209.3	8.758 222.5	8.987 228.3	71610	29920	206740	86320	2.810	KYG075	KG075AR0
CMG080BSA1	8.000 203.2	10.000 254	8.742 222.0	9.258 235.2	9.485 240.9	75830	31070	218920	89700	2.970	KYG080	KG080AR0
CMG090BSA1	9.000 228.6	11.000 279.4	9.742 247.4	10.258 260.6	10.485 266.3	84280	33340	243230	96190	3.270	KYG090	KG090AR0
CMG100BSA1	10.000 254	12.000 304.8	10.742 272.8	11.258 286.0	11.483 291.7	92680	35520	267550	102500	3.630	KYG100	KG100AR0
CMG110BSA1	11.000 279.4	13.000 330.2	11.742 298.2	12.258 311.4	12.481 317	101120	37650	291860	108640	3.940	KYG110	KG110AR0
CMG120BSA1	12.000 304.8	14.000 355.6	12.742 323.6	13.258 336.8	13.481 312.4	109530	39690	316220	114590	4.300	KYG120	KG120AR0
CMG140BSA1	14.000 355.6	16.000 406.4	14.742 374.4	15.258 387.6	15.478 393.1	126370	43650	364850	126060	4.940	KYG140	KG140AR0
CMG160BSA1	16.000 406.4	18.000 457.2	16.742 425.2	17.258 438.4	17.474 443.8	143320	47470	413470	137040	5.620	KYG160	KG160AR0
CMG180BSA1	18.000 457.2	20.000 508	18.742 476.0	19.258 489.2	19.472 494.6	160110	51120	462280	147570	6.260	KYG180	KG180AR0
CMG200BSA1	20.000 508	22.000 558.8	20.742 526.8	21.258 540.0	21.468 545.3	176960	54670	510730	157750	6.890	KYG200	KG200AR0



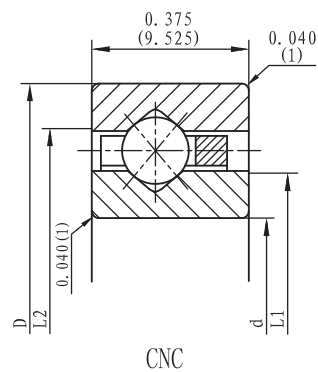
Four-point Contact series (N series):

Type	CNA series (inch/mm) Dimension				Basic Cap.N				Weight Kg	Interchange	
	d	D	L1	L2	Radial		Thrust				
					Cor	Cr	Coa	Ca			
CNA010NCA1	1.000 25.4	1.375 34.925	1.142 29.0	1.236 31.4	1290	670	3250	1650	0.012	KXS010	KAA10CG0
CNA015NCA1	1.500 38.1	1.875 47.625	1.642 41.7	1.736 44.1	1780	800	4450	2050	0.018	KXS015	KAA15CG0

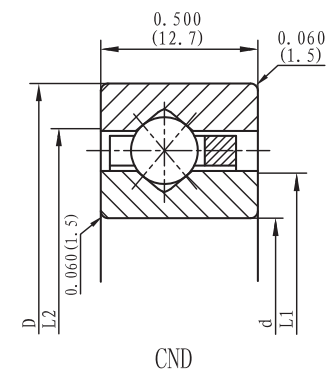
Type	CNA series (inch/mm) Dimension				Basic Cap.N				Weight Kg	Interchange	
	d	D	L1	L2	Radial		Thrust				
					Cor	Cr	Coa	Ca			
CNA020BCA1	2.000 50.8	2.500 63.5	2.186 55.5	2.314 58.8	1650	1420	7600	3510	0.048	KXA020	KA020XP0
CNA025BCA1	2.500 63.5	3.000 76.2	2.686 68.2	2.814 71.5	3690	1600	9290	4050	0.059	KXA025	KA025XP0
CNA030BCA1	3.000 76.2	3.500 88.9	3.186 80.9	3.314 84.2	4400	1820	10980	4490	0.068	KXA030	KA030XP0
CNA035BCA1	3.500 88.9	4.000 101.6	3.686 93.6	3.814 96.9	5070	2000	12670	4930	0.082	KXA035	KA035XP0
CNA040BCA1	4.000 101.6	4.500 114.3	4.186 106.3	4.314 109.6	5730	2130	14310	5380	0.090	KXA040	KA040XP0
CNA042BCA1	4.250 107.95	4.750 120.65	4.436 112.7	4.564 115.9	6090	2220	15160	5600	0.095	KXA042	KA042XP0
CNA045BCA1	4.500 114.3	5.000 127	4.686 119	4.814 122.3	6400	2310	16000	5820	0.100	KXA045	KA045XP0
CNA047BCA1	4.750 120.65	5.250 133.35	4.936 125.4	5.064 128.6	6760	2400	16850	6000	0.104	KXA047	KA047XP0
CNA050BCA1	5.000 127.0	5.500 139.7	5.186 131.7	5.314 135.0	7070	2490	17690	6220	0.109	KXA050	KA050XP0
CNA055BCA1	5.500 139.7	6.000 152.4	5.686 144.4	5.814 147.7	7780	2620	19380	6580	0.118	KXA055	KA055XP0
CNA060BCA1	6.000 152.4	6.500 165.1	6.186 157.1	6.314 160.4	8450	2800	20170	6980	0.130	KXA060	KA060XP0
CNA065BCA1	6.500 165.1	7.000 177.8	6.686 169.8	6.814 173.1	9110	2930	22760	7330	0.140	KXA065	KA065XP0
CNA070BCA1	7.000 177.8	7.500 190.5	7.186 182.5	7.314 185.8	9780	3070	24450	7690	0.150	KXA070	KA070XP0
CNA075BCA1	7.500 190.5	8.000 203.2	7.666 195.2	7.814 198.5	10450	3200	26140	8050	0.160	KXA075	KA075XP0
CNA080BCA1	8.000 203.2	8.500 215.9	8.186 207.9	8.314 211.2	11110	3330	27830	8400	0.172	KXA080	KA080XP0
CNA090BCA1	9.000 228.6	9.500 241.3	9.186 233.3	9.314 236.6	12490	3600	31200	9070	0.200	KXA090	KA090XP0
CNA100BCA1	10.000 254	10.500 266.7	10.186 285.7	10.314 262.0	13820	3870	34580	9690	0.227	KXA100	KA100XP0
CNA110BCA1	11.000 279.4	11.500 292.1	11.186 284.1	11.314 287.4	15160	4130	37960	10310	0.236	KXA110	KA110XP0
CNA120BCA1	12.000 304.8	12.500 317.5	12.186 309.5	12.314 312.8	16540	4360	41340	10890	0.254	KXA120	KA120XP0



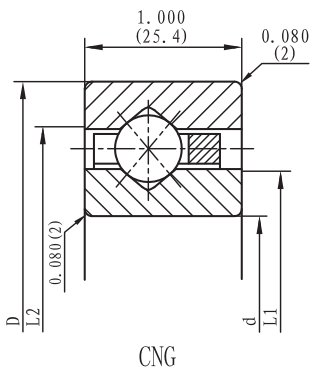
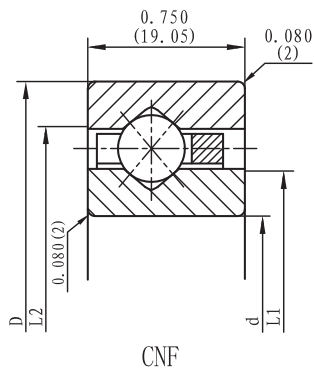
Type	CNB series (inch/mm) Dimension				Basic Cap.N				Weight Kg	Interchange	
	d	D	L1	L2	Radial		Thrust				
					Cor	Cr	Coa	Ca			
CNB020BCA1	2.000 50.8	2.625 66.675	2.231 56.7	2.393 60.8	4130	2000	10400	5020	0.073	KXB020	KB020XP0
CNB025BCA1	2.500 63.5	3.125 79.375	2.731 69.4	2.893 73.5	5070	2310	12620	5730	0.091	KXB025	KB025XP0
CNB030BCA1	3.000 76.2	3.625 90.075	3.231 82.1	3.393 86.2	5960	2580	14890	6400	0.109	KXB030	KB030XP0
CNB035BCA1	3.500 88.9	4.125 104.775	3.731 94.8	3.893 98.9	6850	2800	17160	7070	0.125	KXB035	KB035XP0
CNB040BCA1	4.000 101.6	4.625 117.475	4.231 107.5	4.393 111.6	7780	3070	19430	7650	0.140	KXB040	KB040XP0
CNB042BCA1	4.250 107.95	4.875 123.825	4.481 113.8	4.643 117.9	8130	3160	20310	7910	0.147	KXB042	KB042XP0
CNB045BCA1	4.500 114.3	5.125 130.175	4.731 120.2	4.893 124.3	8670	3290	21690	8220	0.160	KXB045	KB045XP0
CNB047BCA1	4.750 120.65	5.375 136.525	4.981 126.6	5.143 130.6	9020	3380	22580	8450	0.163	KXB047	KB047XP0
CNB050BCA1	5.000 127.0	5.625 142.875	5.231 132.9	5.393 137.0	9560	3510	23910	8800	0.172	KXB050	KB050XP0
CNB055BCA1	5.500 139.7	6.125 155.575	5.731 145.6	5.893 149.7	10490	3730	26180	9340	0.186	KXB055	KB055XP0
CNB060BCA1	6.000 152.4	6.625 168.275	6.231 158.3	6.393 162.4	11380	3960	28450	9870	0.205	KXB060	KB060XP0
CNB065BCA1	6.500 165.1	7.125 180.975	6.731 171.0	6.893 175.1	12270	4130	30720	10400	0.216	KXB065	KB065XP0
CNB070BCA1	7.000 177.8	7.625 193.675	7.231 183.7	7.393 187.8	13200	4360	32980	10890	0.232	KXB070	KB070XP0
CNB075BCA1	7.500 190.5	8.125 206.375	7.731 196.4	7.893 200.5	14090	4530	35200	11380	0.250	KXB075	KB075XP0
CNB080BCA1	8.000 203.2	8.625 219.075	8.231 209.1	8.393 213.2	14980	4760	37470	11870	0.262	KXB080	KB080XP0
CNB090BCA1	9.000 228.6	9.625 244.475	9.231 234.5	9.393 238.6	16800	5110	42000	12800	0.300	KXB090	KB090XP0
CNB100BCA1	10.000 254.00	10.625 266.875	10.231 259.9	10.393 264.0	18630	5470	46500	13690	0.331	KXB100	KB100XP0
CNB110BCA1	11.000 279.4	11.625 295.275	11.231 285.3	11.393 289.4	20400	5820	51030	14580	0.360	KXB110	KB110XP0
CNB120BCA1	12.000 304.8	12.625 320.675	12.321 310.7	12.393 314.8	22230	6180	55560	15420	0.390	KXB120	KB120XP0
CNB140BCA1	14.000 355.6	14.625 371.475	14.231 361.5	14.393 365.6	25830	6800	64590	17070	0.476	KXB140	KB140XP0
CNB160BCA1	16.000 406.4	16.625 422.275	16.231 412.3	16.393 416.4	29430	7420	73610	18630	0.544	KXB160	KB160XP0
CNB180BCA1	18.000 457.2	18.625 473.075	18.231 463.1	18.393 467.2	33070	8050	82630	20090	0.612	KXB180	KB180XP0
CNB200BCA1	20.000 508.00	20.625 523.875	20.231 513.9	20.393 518.0	36670	8620	91660	21560	0.680	KXB200	KB200XP0



Type	CNC series (inch/mm) Dimension				Basic Cap.N				Weight Kg	Interchange	
	d	D	L1	L2	Radial		Thrust				
					Cor	Cr	Coa	Ca			
CNC040BCA1	4.000 101.6	4.750 120.65	4.277 108.6	4.473 113.6	9340	3910	23380	9820	0.204	KXC040	KC040XP0
CNC042BCA1	4.250 107.95	5.000 127	4.527 115.0	4.723 120.0	9870	4090	24710	10180	0.231	KXC042	KC042XP0
CNC045BCA1	4.500 114.3	5.250 133.35	4.777 121.3	4.973 126.3	10400	4220	26050	10580	0.225	KXC045	KC045XP0
CNC047BCA1	4.750 120.65	5.000 127	5.027 127.7	5.223 132.7	10940	4360	27380	10940	0.235	KXC047	KC047XP0
CNC050BCA1	5.000 127.0	5.750 146.05	5.277 134.0	5.473 139.0	11510	4490	28720	11290	0.263	KXC050	KC050XP0
CNC055BCA1	5.500 139.7	6.250 158.75	5.777 146.7	5.973 151.7	12580	4800	31380	11960	0.268	KXC055	KC055XP0
CNC060BCA1	6.000 152.4	6.750 171.45	6.277 159.4	6.473 164.4	13650	5070	34050	12620	0.295	KXC060	KC060XP0
CNC065BCA1	6.500 165.1	7.250 184.15	6.777 172.1	6.973 177.1	14710	5330	36760	13290	0.312	KXC065	KC065XP0
CNC070BCA1	7.000 177.8	7.750 196.85	7.277 184.8	7.473 189.8	15780	5560	39430	13910	0.34	KXC070	KC070XP0
CNC075BCA1	7.500 190.5	8.250 209.55	7.777 197.5	7.973 202.5	16850	5820	42090	14540	0.360	KXC075	KC075XP0
CNC080BCA1	8.000 203.2	8.750 222.25	8.277 210.2	8.473 215.2	17910	6050	44760	15160	0.387	KXC080	KC080XP0
CNC090BCA1	9.000 228.6	9.750 247.65	9.277 235.6	9.473 240.6	20050	6530	50100	16310	0.450	KXC090	KC090XP0
CNC100BCA1	10.000 254.00	10.750 273.05	10.277 261.0	10.473 266.0	22180	6980	55430	17470	0.481	KXC100	KC100XP0
CNC110BCA1	11.000 279.4	11.750 298.45	11.277 286.4	11.473 291.4	24310	7420	60810	18580	0.526	KXC110	KC110XP0
CNC120BCA1	12.000 304.8	12.750 323.85	12.277 311.8	12.473 316.8	26450	7870	66140	19650	0.567	KXC120	KC120XP0
CNC140BCA1	14.000 355.6	14.750 374.65	14.277 362.6	14.473 367.6	30720	8670	76810	21740	0.689	KXC140	KC140XP0
CNC160BCA1	16.000 406.4	16.750 425.45	16.277 413.4	16.473 418.4	35030	9470	87520	23690	0.785	KXC160	KC160XP0
CNC180BCA1	18.000 457.2	18.750 476.25	18.277 464.2	18.473 469.2	39290	10220	98190	25600	0.880	KXC180	KC180XP0
CNC200BCA1	20.000 508.00	20.750 527.05	20.277 515.0	20.473 520.0	43560	10980	108900	27430	0.980	KXC200	KC200XP0



Type	CND series (inch/mm) Dimension				Basic Cap.N				Weight Kg	Interchange	
	d	D	L1	L2	Radial		Thrust				
					Cor	Cr	Coa	Ca			
CND040BCA1	4.000 101.6	5.000 127	4.370 111.0	4.630 117.6	13690	6270	34230	15650	0.366	KXD040	KD040XP0
CND042BCA1	4.250 107.95	5.250 133.35	4.620 117.3	4.880 124.0	14180	6400	35470	16000	0.386	KXD042	KD042XP0
CND045BCA1	4.500 114.3	5.500 139.7	4.870 123.7	5.130 130.3	15200	6710	38010	16760	0.405	KXD045	KD045XP0
CND047BCA1	4.750 120.65	5.750 146.05	5.120 130.0	5.380 136.7	15960	6850	39290	17160	0.426	KXD047	KD047XP0
CND050BCA1	5.000 127.0	6.000 152.4	5.370 136.4	5.630 143.0	16710	7160	41830	17870	0.454	KXD050	KD050XP0
CND055BCA1	5.500 139.7	6.500 165.1	5.870 149.1	6.130 155.7	18230	7560	45610	18940	0.485	KXD055	KD055XP0
CND060BCA1	6.000 152.4	7.000 177.8	6.370 161.8	6.630 168.4	19780	8000	49430	19960	0.526	KXD060	KD060XP0
CND065BCA1	6.500 165.1	7.500 190.5	6.870 174.5	7.130 181.1	21290	8400	53210	20980	0.566	KXD065	KD065XP0
CND070BCA1	7.000 177.8	8.000 203.2	7.370 187.2	7.630 193.8	22800	8800	57030	21960	0.606	KXD070	KD070XP0
CND075BCA1	7.500 190.5	8.500 215.9	7.870 199.9	8.130 206.5	24310	9160	60810	22940	0.650	KXD075	KD075XP0
CND080BCA1	8.000 203.2	9.000 228.6	8.370 212.6	8.630 219.2	25830	9560	64630	23870	0.694	KXD080	KD080XP0
CND090BCA1	9.000 228.6	10.000 254	9.370 238.0	9.630 244.6	28900	10310	72230	25740	0.780	KXD090	KD090XP0
CND100BCA1	10.000 254.00	11.000 279.4	10.370 263.4	10.630 270	31920	10980	79830	27520	0.853	KXD100	KD100XP0
CND110BCA1	11.000 279.4	12.000 304.8	11.370 288.8	11.630 295.4	34980	11690	87430	29200	0.934	KXD110	KD110XP0
CND120BCA1	12.000 304.8	13.000 330.2	12.370 314.2	12.630 320.8	38010	12360	95030	30890	1.020	KXD120	KD120XP0
CND140BCA1	14.000 355.6	15.000 381	14.370 365.0	14.630 371.6	44090	13650	110240	34090	1.240	KXD140	KD140XP0
CND160BCA1	16.000 406.4	17.000 431.8	16.370 415.8	16.630 422.4	50180	14890	125440	37160	1.410	KXD160	KD160XP0
CND180BCA1	18.000 457.2	19.000 482.6	18.370 466.6	18.630 473.2	56230	16050	140640	40140	1.580	KXD180	KD180XP0
CND200BCA1	20.000 508.00	21.000 533.4	20.370 517.4	20.630 524.0	62320	17200	155840	42980	1.750	KXD200	KD200XP0

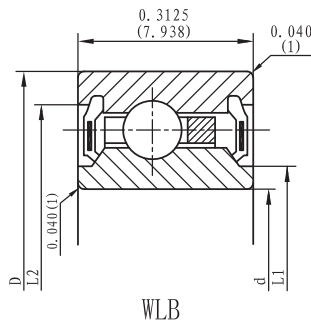
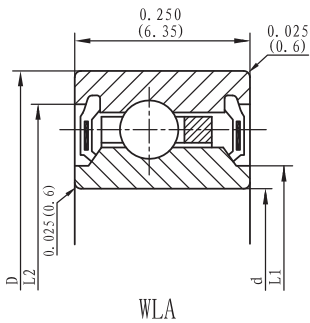
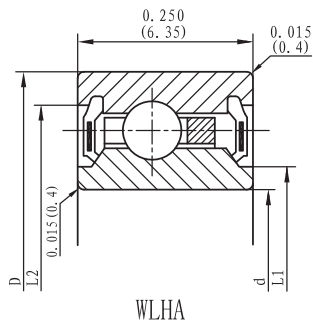


Type	CNF series (inch/mm) Dimension				Basic Cap.N				Weight Kg	Interchange	
	d	D	L1	L2	Radial		Thrust				
					Cor	Cr	Coa	Ca			
CNF040BCA1	4.000 101.6	5.500 139.7	4.555 115.7	4.945 125.6	23830	12140	59560	30360	0.875	KXF040	KF040XP0
CNF042BCA1	4.250 107.95	5.750 146.05	4.805 122.0	5.195 132.0	25070	12580	62720	31430	0.930	KXF042	KF042XP0
CNF045BCA1	4.500 114.3	6.000 152.4	5.055 128.4	5.445 138.3	26360	12980	65830	32450	0.975	KXF045	KF045XP0
CNF047BCA1	4.750 120.65	6.250 158.75	5.305 134.7	5.695 144.7	27600	13380	68990	33470	1.040	KXF047	KF047XP0
CNF050BCA1	5.000 127.0	6.500 161.5	5.555 141.1	5.945 151.0	28850	13780	72100	34490	1.090	KXF050	KF050XP0
CNF055BCA1	5.500 139.7	7.000 177.8	6055 153.8	6.445 163.7	31340	14580	78370	36450	1.180	KXF055	KF055XP0
CNF060BCA1	6.000 152.4	7.500 190.5	6.555 166.5	6.945 176.4	33870	15340	84680	38360	1.240	KXF060	KF060XP0
CNF065BCA1	6.500 165.1	8.000 203.2	7.055 179.2	7.445 189.1	36360	16090	90950	40230	1.350	KXF065	KF065XP0
CNF070BCA1	7.000 177.8	8.500 215.9	7.555 191.1	7.945 201.8	38890	16850	97210	42050	1.450	KXF070	KF070XP0
CNF075BCA1	7.500 190.5	9.000 228.6	8.055 204.6	8.445 214.5	41380	17560	103480	43870	1.560	KXF075	KF075XP0
CNF080BCA1	8.000 203.2	9.500 241.3	8.555 217.3	8.945 227.2	43920	18230	109750	45610	1.660	KXF080	KF080XP0
CNF090BCA1	9.000 228.6	10.500 266.7	9.555 242.7	9.945 252.6	48900	19600	122280	49030	1.810	KXF090	KF090XP0
CNF100BCA1	10.000 254.00	11.500 292.1	10.555 268.1	10.945 278.0	53920	20940	134820	52320	2.020	KXF100	KF100XP0
CNF110BCA1	11.000 279.4	12.500 317.5	11.555 293.5	11.945 303.4	58940	22230	147350	55520	2.180	KXF110	KF110XP0
CNF120BCA1	12.000 304.8	13.500 342.9	12.555 318.9	12.945 328.8	64960	23470	159890	58630	2.380	KXF120	KF120XP0
CNF140BCA1	14.000 355.6	15.500 393.7	14.555 369.7	14.945 379.6	74010	25830	185000	64590	2.720	KXF140	KF140XP0
CNF160BCA1	16.000 406.4	17.500 444.5	16.555 420.5	16.945 430.4	84010	28140	210070	70320	3.220	KXF160	KF160XP0
CNF180BCA1	18.000 457.2	19.500 495.3	18.555 471.3	18.945 481.2	94060	30320	235140	75830	3.580	KXF180	KF180XP0
CNF200BCA1	20.000 508.00	21.500 546.1	20.555 522.1	20.945 532.0	104100	32450	260260	81120	4.040	KXF200	KF200XP0

Type	CNG series (inch/mm) Dimension				Basic Cap.N				Weight Kg	Interchange	
	d	D	L1	L2	Radial		Thrust				
					Cor	Cr	Coa	Ca			
CNG040BCA1	4.000 101.6	6.000 152.4	4.742 120.4	5.258 133.6	36490	20000	91210	50050	1.650	KXG040	KG040XP0
CNG042BCA1	4.250 107.95	6.250 158.75	4.992 126.8	5.508 139.9	36490	20000	91210	50050	1.750	KXG042	KG042XP0
CNG045BCA1	4.500 114.3	6.500 165.1	5.242 133.1	5.758 146.3	38940	20890	97300	52230	1.810	KXG045	KG045XP0
CNG047BCA1	4.750 120.65	6.750 171.45	5.492 139.5	6.008 152.6	41340	21740	103390	54360	1.910	KXG047	KG047XP0
CNG050BCA1	5.000 127.0	7.000 177.8	5.742 145.8	6.258 159.0	43780	22580	109440	56500	2.020	KXG050	KG050XP0
CNG055BCA1	5.500 139.7	7.500 190.5	6.242 158.5	6.758 171.7	46230	23430	115530	58590	2.170	KXG055	KG055XP0
CNG060BCA1	6.000 152.4	8.000 203.2	6.742 171.2	7.258 184.4	51070	25030	127710	62630	2.310	KXG060	KG060XP0
CNG065BCA1	6.500 165.1	8.500 215.9	7.242 183.9	7.758 197.1	53520	25830	133800	64590	2.470	KXG065	KG065XP0
CNG070BCA1	7.000 177.8	9.000 228.6	7.742 196.6	8.258 209.8	58360	27380	145930	68450	2.670	KXG070	KG070XP0
CNG075BCA1	7.500 190.5	9.50 241.3	8.242 209.3	8.758 222.5	60810	28140	152020	70320	2.830	KXG075	KG075XP0
CNG080BCA1	8.000 203.2	10.000 254	8.742 222.0	9.258 235.2	65650	29600	164200	74010	3.000	KXG080	KG080XP0
CNG090BCA1	9.000 228.6	11.000 279.4	9.742 247.4	10.258 260.6	72990	31780	182420	79430	3.300	KXG090	KG090XP0
CNG100BCA1	10.000 254.00	12.000 304.8	10.742 272.8	11.258 286.0	80230	33870	200650	84630	3.650	KXG100	KG100XP0
CNG110BCA1	11.000 279.4	13.000 330.2	11.742 298.2	12.258 311.4	87570	35870	218920	89700	3.960	KXG110	KG110XP0
CNG120BCA1	12.000 304.8	14.000 355.6	11.742 323.6	13.258 336.8	94860	37830	237140	94590	4.320	KXG120	KG120XP0
CNG140BCA1	14.000 355.6	16.000 406.4	14.742 374.4	15.258 387.6	109440	41610	273630	104060	4.960	KXG140	KG140XP0
CNG160BCA1	16.000 406.4	18.000 457.2	16.742 425.2	17.258 438.4	124060	45250	310130	113130	5.650	KXG160	KG160XP0
CNG180BCA1	18.000 457.2	20.000 508	18.742 476.0	19.258 489.2	138640	48720	346620	121840	6.280	KXG180	KG180XP0
CNG200BCA1	20.000 508.00	22.000 558.8	20.742 526.8	21.258 540.0	153220	52100	383070	130240	7.530	KXG200	KG200XP0



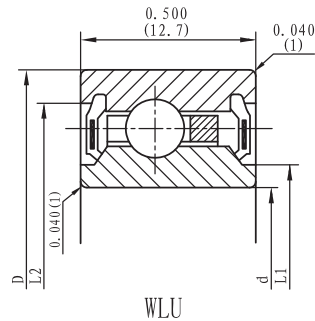
Sealed
Radial Contact
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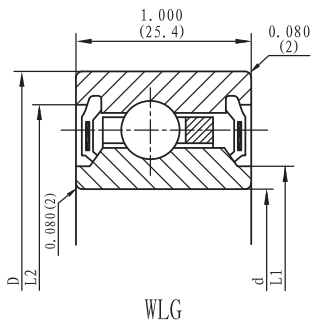
Type	WLA series (inch/mm) Dimension				Basic Cap.N		Weight Kg	Interchange	
	d	D	L1	L2	Cor	Cr			
WLA010NCA1	1.000 25.4	1.375 34.925	1.108 28.1	1.274 32.4	1290	670	0.016		JHA10CL0
WLA015NCA1	1.500 38.1	1.875 47.625	1.608 40.8	1.774 45.1	1780	800	0.024		JHA15CL0

Type	WLB series (inch/mm) Dimension				Basic Cap.N		Weight Kg	Interchange	
	d	D	L1	L2	Cor	Cr			
WLA020BCA1	2.000 50.8	2.500 63.5	2.148 54.6	2.356 59.8	3020	1420	0.045		JA020CP0
WLA025BCA1	2.500 63.5	3.000 76.2	2.648 62.7	2.856 72.5	3690	1600	0.054		JA025CP0
WLA030BCA1	3.000 76.2	3.500 88.9	3.148 80	3.356 85.2	4400	1820	0.064		JA030CP0
WLA035BCA1	3.500 88.9	4.000 101.6	3.648 92.7	3.856 98	5070	2000	0.077		JA035CP0
WLA040BCA1	4.000 101.6	4.500 114.3	4.418 105.4	4.356 110.6	5730	2130	0.086		JA040CP0
WLA042BCA1	4.250 107.95	4.750 120.65	4.398 111.7	4.606 117	6090	2220	0.091		JA042CP0
WLA045BCA1	4.500 114.3	5.000 127	4.648 118	4.856 123.3	6400	2310	0.095		JA045CP0
WLA047BCA1	4.750 120.65	5.250 133.35	4.898 124.4	5.106 129.7	6760	2400	0.100		JA047CP0
WLA050BCA1	5.000 127	5.500 139.7	5.148 130.8	5.356 136	7070	2490	0.104		JA050CP0
WLA055BCA1	5.500 139.7	6.000 152.4	5.648 143.5	5.856 148.7	7780	2620	0.113		JA055CP0
WLA060BCA1	6.000 152.4	6.500 165.1	6.148 156.2	6.356 161.4	8450	2800	0.127		JA060CP0
WLA065BCA1	6.500 165.1	7.000 177.8	6.648 168.9	6.856 174.1	9110	2930	0.136		JA065CP0

Type	WLB series (inch/mm) Dimension				Basic Cap.N		Weight Kg	Interchange	
	d	D	L1	L2	Cor	Cr			
WLB020BCA1	2.000 50.8	2.625 66.7	2.136 54.3	2.362 60	4130	2000	0.068		JB020CP0
WLB025BCA1	2.500 63.5	3.125 79.375	2.636 67	2.862 72.7	5070	2310	0.086		JB025CP0
WLB030BCA1	3.000 76.2	3.625 92.075	3.136 79.7	3.362 85.4	5960	2580	0.100		JB030CP0
WLB035BCA1	3.500 88.9	4.125 104.775	3.636 92.4	3.862 98.1	6850	2800	0.122		JB035CP0
WLB040BCA1	4.000 101.6	4.625 117.475	4.136 105	4.362 110.8	7780	3070	0.136		JB040CP0
WLB042BCA1	4.250 107.95	4.875 123.825	4.386 111.4	4.662 118.4	8130	3160	0.141		JB042CP0
WLB045BCA1	4.500 114.3	5.125 130.175	4.636 117.8	4.862 123.5	8670	3290	0.154		JB045CP0
WLB047BCA1	4.750 120.65	5.375 136.525	4.886 124.1	5.162 131.1	9020	3380	0.159		JB047CP0
WLB050BCA1	5.000 127	5.625 142.875	5.136 130.5	5.362 136.2	9560	3510	0.168		JB050CP0
WLB055BCA1	5.500 139.7	6.125 155.575	5.636 143.2	5.862 148.9	10490	3730	0.181		JB055CP0
WLB060BCA1	6.000 152.4	6.625 168.275	6.136 155.9	6.362 161.6	11380	3960	0.200		JB060CP0
WLB065BCA1	6.500 165.1	7.125 180.975	6.638 168.6	6.862 174.3	4130	4130	0.213		JB065CP0



WLU

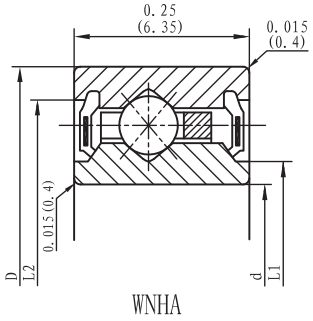


WLG

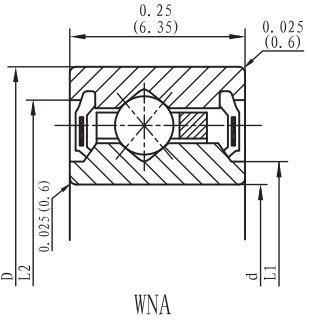
Type	WLU series (inch/mm) Dimension				Basic Cap.N		Weight Kg	Interchange		
	d	D	L1	L2	Cor	Cr				
WLU040BCA1	4.000 101.6	4.750 120.65	4.150 105.4	4.547 115.5	9340	3910	0.249	KRJ040CLL	JU040CP0	
WLU042BCA1	4.250 107.95	5.000 127	4.400 111.76	4.797 121.8	9870	4090	0.263	KRJ042CLL	JU042CP0	
WLU045BCA1	4500 114.3	5.250 133.35	4.650 118.1	5.047 128.2	10400	4220	0.277	KRJ045CLL	JU045CP0	
WLU047BCA1	4.750 120.65	5.500 139.7	4.900 124.5	5.295 134.5	10940	4630	0.295	KRJ047CLL	JU047CP0	
WLU050BCA1	5.000 127	5.750 146.05	5.150 130.8	5.545 140.8	11510	4490	0.308	KRJ050CLL	JU050CP0	
WLU055BCA1	5.500 139.7	6.250 158.75	5.560 143.5	6.042 153.5	12580	4800	0.336	KRJ055CLL	JU055CP0	
WLU060BCA1	6.000 152.4	6.750 171.45	6.150 156.2	6.542 166.2	13650	5070	0.367	KRJ060CLL	JU060CP0	
WLU065BCA1	6.500 165.1	7.250 184.15	6.650 168.9	7.037 178.7	14740	5330	0.395	KRJ065CLL	JU065CP0	
WLU070BCA1	7.000 177.8	7.750 196.85	7.150 181.6	7.537 191.4	15780	5560	0.422	KRJ070CLL	JU070CP0	
WLU075BCA1	7.500 190.5	8.250 209.55	7.650 194.3	8.037 204.1	16850	5820	0.449	KRJ075CLL	JU075CP0	
WLU080BCA1	8.000 203.2	8.750 222.25	8.0150 207	8.534 216.8	17910	6050	0.481	KRJ080CLL	JU080CP0	
WLU090BCA1	9.000 228.6	9.750 247.65	9.150 232.4	9.535 242.2	20050	6530	0.535	KRJ090CLL	JU090CP0	
WLU100BCA1	10.000 254	10.750 273.05	10.150 257.8	10.535 267.6	22180	6980	0.594	KRJ100CLL	JU100CP0	
WLU110BCA1	11.000 279.4	11.750 298.45	11.150 283.2	11.535 293	14310	7420	0.649	KRJ110CLL	JU110CP0	
WLU120BCA1	12.000 304.8	12.750 323.85	12.150 308.6	12.535 318.4	26450	7870	0.708	KRJ120CLL	JU120CP0	

Type	WLG series (inch/mm) Dimension				Basic Cap.N		Weight Kg	Interchange		
	d	D	L1	L2	Cor	Cr				
WLG120BCA1	12.000 304.8	14.000 355.6	12.554 318.9	13.602 345.5	94860	37830	4.218		JG120CP0	
WLG140BCA1	14.000 355.6	16.000 406.4	14.554 369.7	15.602 396.3	109440	41610	4.899		JG140CP0	
WLG160BCA1	16.000 406.4	18.000 457.2	16.554 420.5	17.602 447.1	124060	45250	5.579		JG160CP0	
WLG180BCA1	18.000 457.2	20.000 508	18.554 471.3	19.602 497.9	138640	48720	6.214		JG180CP0	
WLG200BCA1	20.000 508	22.000 558.8	20.554 522.1	21.602 548.7	153220	52100	7.167		JG200CP0	

Four-point Contact
series (N series)



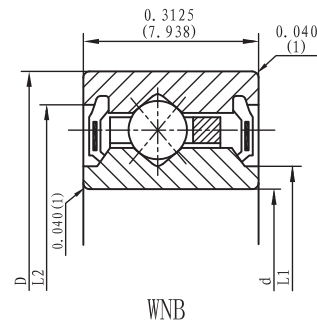
WNHA



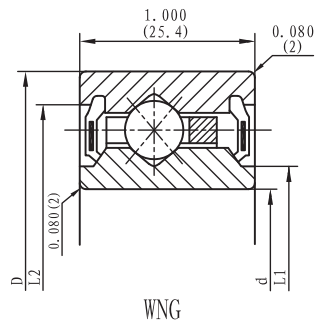
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Type	WNHA series (inch/mm) Dimension				Basic Cap.N				Weight Kg	Interchange		
	d	D	L1	L2	Radial Cor	Thrust Cr	Coa	Ca				
WNHA010NCA1	1.000 25.4	1.375 34.925	1.108 28.1	1.274 32.4	1290	670	3250	1650	0.016		JHA10XL0	
WNHA015NCA1	1.500 38.1	1.875 47.625	1.608 40.8	1.774 45.1	1780	800	4450	2050	0.024		JHA15XL0	

Type	WNA series (inch/mm) Dimension				Basic Cap.N				Weight Kg	Interchange		
	d	D	L1	L2	Radial Cor	Thrust Cr	Coa	Ca				
WNA020BCA1	2.000 50.8	2.500 63.5	2.148 54.6	2.356 59.8	3020	1420	7600	3510	0.045		JA020XP0	
WNA025BCA1	2.500 63.5	3.000 76.2	2.648 62.7	2.856 72.5	3690	1600	9090	4050	0.054		JA025XP0	
WNA030BCA1	3.000 76.2	3.500 88.9	3.148 80	3.356 85.2	4400	1820	10980	4490	0.064		JA030XP0	
WNA035BCA1	3.500 88.9	4.000 101.6	3.648 92.7	3.856 98	5070	2000	12670	4930	0.077		JA035XP0	
WNA040BCA1	4.000 101.6	4.500 114.3	4.148 105.4	4.356 110.6	5730	2130	14310	5380	0.086		JA040XP0	
WNA042BCA1	4.250 107.95	4.750 120.65	4.398 111.7	4.606 117	6090	2220	15160	5600	0.091		JA042XP0	
WNA045BCA1	4.500 114.3	5.000 127	4.648 118	4.856 123.3	6400	2310	16000	5820	0.095		JA045XP0	
WNA047BCA1	4.750 120.65	5.250 133.35	4.898 124.4	5.106 129.7	6760	2400	16850	6000	0.100		JA047XP0	
WNA050BCA1	5.000 127.0	5.500 139.7	5.148 130.8	5.356 136	7070	2490	17690	6220	0.104		JA050XP0	
WNA055BCA1	5.500 139.7	6.000 152.4	5.648 143.5	5.856 148.7	7780	2620	19380	6580	0.113		JA055XP0	
WNA060BCA1	6.000 152.4	6.500 165.1	6.148 156.2	6.356 161.4	8450	2800	21070	6980	0.127		JA060XP0	
WNA065BCA1	6.500 165.1	7.000 177.8	6.648 168.9	6.856 174.1	9110	2930	22760	7330	0.136		JA065XP0	



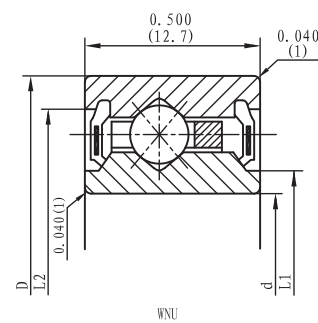
WNB



WNG

Type	WNB series (inch/mm) Dimension				Basic Cap.N				Weight Kg	Interchange	
	d	D	L1	L2	Radial		Thrust				
					Cor	Cr	Coa	Ca			
WNB020BCA1	2.000 50.8	2.625 66.7	2.136 54.3	2.362 60	4130	2000	10400	6020	0.068		JB020XP0
WNB025BCA1	2.500 63.5	3.125 79.375	2.636 67	2.862 72.7	5070	2310	12620	5730	0.086		JB025XP0
WNB030BCA1	3.000 76.2	3.625 92.075	3.136 79.7	3.362 85.4	5960	2580	14890	6400	0.100		JB030XP0
WNB035BCA1	3.500 88.9	4.125 104.775	3.636 92.4	3.682 98.1	6850	2800	17160	7070	0.122		JB035XP0
WNB040BCA1	4.000 101.6	4.625 117.475	4.136 105	4.362 110.8	7780	3070	19430	7650	0.136		JB040XP0
WNB042BCA1	4.250 107.95	4.875 123.825	4.386 111.4	4.662 118.4	8130	3160	20310	7910	0.141		JB042XP0
WNB045BCA1	4.500 114.3	5.125 130.175	4.636 117.8	4.862 123.5	8670	3290	21690	8220	0.154		JB045XP0
WNB047BCA1	4.750 120.65	5.375 136.525	4.886 124.1	5.162 131.1	9020	3380	22580	8450	0.159		JB047XP0
WNB050BCA1	5.000 127.0	5.625 142.875	5.136 130.5	5.362 136.2	9560	3510	23910	8800	0.168		JB050XP0
WNB055BCA1	5.500 139.7	6.125 155.575	5.636 143.2	5.862 148.9	10490	3730	26180	9340	0.181		JB055XP0
WNB060BCA1	6.000 152.4	6.625 168.275	6.136 155.9	6.362 161.6	11380	3960	28450	9870	0.200		JB060XP0
WNB065BCA1	6.500 165.1	7.125 180.975	6.638 168.6	6.862 174.3	12270	4130	30720	10400	0.213		JB065XP0

Type	WNG series (inch/mm) Dimension				Basic Cap.N				Weight Kg	Interchange	
	d	D	L1	L2	Radial		Thrust				
					Cor	Cr	Coa	Ca			
WNG120BCA1	12.000 304.8	14.000 355.6	12.554 318.9	13.602 345.5	94860	37830	237140	94590	4.218		JG120XP0
WNG140BCA1	14.000 355.6	16.000 406.4	14.554 369.7	15.602 396.3	109440	41610	273630	152950	4.899		JG140XP0
WNG160BCA1	16.000 406.4	18.000 457.2	16.554 420.5	17.602 447.1	124060	45250	310130	113130	5.579		JG160XP0
WNG180BCA1	18.000 457.2	20.000 508	18.554 471.3	19.602 497.9	138640	48720	346620	121840	6.214		JG180XP0
WNG200BCA1	20.000 508	22.000 558.8	20.554 522.1	21.602 548.7	153220	52100	383070	130240	7.167		JG200XP0



WNU

Type	WNU series (inch/mm) Dimension				Basic Cap.N				Weight Kg	Interchange	
	d	D	L1	L2	Radial		Thrust				
					Cor	Cr	Coa	Ca			
WNU040BCA1	4.000 101.6	4.750 120.65	4.150 105.4	4.547 115.5	9340	3910	23380	9820	0.249		JU040XP0
WNU042BCA1	4.250 107.95	5.000 127	4.400 111.76	4.797 121.8	9870	4090	24710	10180	0.263		JU042XP0
WNU045BCA1	4.500 114.3	5.250 133.35	4.650 118.1	5.047 128.2	10400	4220	26050	10580	0.277		JU045XP0
WNU047BCA1	4.750 120.65	5.500 139.7	4.900 124.5	5.295 134.5	10940	4360	27380	10940	0.295		JU047XP0
WNU050BCA1	5.000 127	5.750 146.05	5.150 130.8	5.545 140.8	11510	4490	28720	11290	0.308		JU050XP0
WNU055BCA1	5.500 139.7	6.250 158.75	5.560 143.5	6.042 153.5	12580	4800	31380	11960	0.336		JU055XP0
WNU060BCA1	6.000 152.4	6.750 171.45	6.150 156.2	6.542 166.2	13650	5070	34050	12620	0.367		JU060XP0
WNU065BCA1	6.500 165.1	7.250 184.15	6.650 168.9	7.037 178.7	14710	5330	36760	13290	0.395		JU065XP0
WNU070BCA1	7.000 177.8	7.750 196.85	7.150 181.6	7.537 191.4	15780	5560	39430	13910	0.422		JU070XP0
WNU075BCA1	7.500 190.5	8.250 209.55	7.650 194.3	8.037 204.1	16850	5820	42090	14540	0.449		JU075XP0
WNU080BCA1	8.000 203.2	8.750 222.25	8.150 207	8.537 216.8	17910	6050	44760	15160	0.481		JU080XP0
WNU090BCA1	9.000 228.6	9.750 247.65	9.150 232.4	9.535 242.2	20050	6530	50100	16310	0.535		JU090XP0
WNU100BCA1	10.000 254	10.750 273.05	10.150 257.8	10.535 267.6	22180	6980	55430	17470	0.594		JU100XP0
WNU110BCA1	11.000 279.4	11.750 298.45	11.150 283.2	11.535 293	24310	7420	60810	18580	0.649		JU110XP0
WNU120BCA1	12.000 304.8	12.750 323.85	12.15 308.6	12.535 318.4	26450	7870	66140	19650	0.708		JU120XP0