



Subject	Symbol	Description
Seal type	ZZ	Metal shields on both sides
	2RS	Rubber seals on both sides
	Z	Metal shield on one side
	RS	Rubber seal on one side
Radial internal clearance	C2	Less than normal
	CN	Normal clearance. Is not indicated as a standard
	C3	Greater clearance than normal
	C4	Greater than C3
	C5	Greater than C4
Other technical modifications	NR	Groove with inserted snap ring in outer ring
	N	Snap ring groove in the outer ring
	SS	Stainless steel
Cage type	M	Brass cage ball guided
	MB	Brass cage, inner ring centered
	MA	Brass cage, outer ring centered
Speed ratings	V	Normal vibration level. Is not indicated as a standard
	V2	Lower vibration level than normal
	V3	Lower vibration level than V2
	V4	Lower vibration level than V3
Tolerances	P0	Normal tolerance level. Is not indicated as a standard
	P6	Greater tolerance level than P0
	P5	Greater tolerance level than P6

Features

Single row deep groove ball bearings are most frequently used bearing type. They are versatile, self-retaining bearings with solid outer rings, inner rings and ball and cage assemblies. Due to their low frictional torque, they are suitable for high and even very high speeds and are robust in operation, little maintenance. Due to the raceway geometry and the balls used as rolling elements, deep groove ball bearings can support relatively high radial loads, as well as small axial loads.

Sealing and lubrication

The most popular sizes of deep groove ball bearings are also produced in sealed versions. These bearings with Z and ZZ are greased using a high quality grease, lubricated for life and suitable for high speeds. Bearings with the suffix RS or 2RS have lip seals on one or both sides made from nitrile butadiene rubber. CRAFT bearings grease is a low noise bearing grease which is thickened by lithium 12-hydroxy stearic, it is made from deeply refined mineral oil with rust and oxidation inhibitors through special technical process. Applied temperature range -20 C - +120 C.

Radial internal clearance

Bearing internal clearance is defined as the total distance through which one bearing ring can be moved relative to the other in the radial direction (radial internal clearance). CRAFT bearings single row deep groove ball bearings are manufactured with normal radial internal clearance as standard (CN). Most of the bearings are also available with C3 radial internal clearance. Depending on working conditions you can choose bearing with different internal clearances, the values of radial internal clearance are in accordance to ISO 5753:1 and are valid for unmounted bearings under zero measuring load.

Cages

CRAFT single row deep groove ball bearings are supplied with one of the following cages: steel cage or brass cage. Single row deep groove ball bearings without a cage suffix have a steel cage. Most frequently deep groove ball bearing with ball-guided solid brass cages are indicated by suffix M. These brass cage bearings can also be with inner ring centered (MB), or outer ring centered (MA).

ISO	GOST	Dimensions (mm)			Basic Load Ratings (N)		Limiting speed (r/min)		Weight (kg)
							Lubrication		
		d	D	B	Dyn. C	Stat. C ₀	Grease	Oil	
6219 ZZ	80219	95	170	32	108000	81500	3700	4400	2,713
6219 2RS	180219	95	170	32	108000	81500	2400	-	2,713
6220	220	100	180	34	124000	93000	3500	4200	3,321
6220 ZZ	80220	100	180	34	124000	93000	3500	4200	3,321
6220 2RS	180220	100	180	34	124000	93000	2300	-	3,321
6221	221	105	190	36	133000	104000	3400	4000	3,717
6221 ZZ	80221	105	190	36	133000	104000	3400	4000	3,717
6221 2RS	180221	105	190	36	133000	105000	2200	-	3,717
6222	222	110	200	38	143000	118000	3200	3800	4,340
6222 ZZ	80222	110	200	38	143000	118000	3200	3800	4,340
6222 2RS	180222	110	200	38	143000	118000	2000	-	4,340
6224	224	120	215	40	148000	131000	2900	3400	5,100
6224 ZZ	80224	120	215	40	148000	131000	2900	3400	5,100
6224 2RS	180224	120	215	40	148000	131000	1900	-	5,100
6226	226	130	230	40	156000	146000	2700	3100	5,615
6226 ZZ	80226	130	230	40	156000	146000	2700	3100	5,615
6228	228	140	250	42	165000	150000	2500	2900	7,485
6228 ZZ	80228	140	250	42	165000	150000	2500	2900	7,485
6230	230	150	270	45	174000	166000	2300	2700	9,475
6230 ZZ	80230	150	270	45	174000	166000	2300	2700	9,475
6232	232	160	290	48	186000	186000	2100	2500	14,590
6232 ZZ	80232	160	290	48	186000	186000	2100	2500	14,590
6234	234	170	310	52	212000	224000	2000	2400	17,570
6234 ZZ	80234	170	310	52	212000	224000	2000	2400	17,570
6236	236	180	320	52	229000	240000	1900	2200	18,600
6236 ZZ	80236	180	320	52	229000	240000	1900	2200	18,600
6238	238	190	340	55	255000	280000	1800	2100	22,800
6240	240	200	360	58	270000	310000	1700	2000	28,000
6244	244	220	400	65	296000	365000	1500	1800	32,40
6248	248	240	440	72	340000	431000	1300	1600	51,00
6252	252	260	480	80	390000	530000	1100	1400	65,50
6256	256	280	500	80	423000	600000	1100	1400	71,00
6260	260	300	540	85	441000	663000	1000	1350	89,50
6264	264	320	580	92	489000	744000	950	1200	113,00
6268	268	340	620	92	511000	817000	900	1100	131,00
6272	272	360	650	95	557000	904000	850	1000	144,00
6276	276	380	680	95	584000	990000	800	900	162,00
6280	280	400	720	103	628000	1080000	700	800	197,00
6300	300	10	35	11	8060	3400	23000	27000	0,054
6300 ZZ	80300	10	35	11	8060	3400	23000	27000	0,054
6300 2RS	180300	10	35	11	8060	3400	15000	-	0,054
6301	301	12	37	12	9750	4150	20000	24000	0,063
6301 ZZ	80301	12	37	12	9750	4150	20000	24000	0,063
6301 2RS	180301	12	37	12	9750	4150	14000	-	0,063
6302	302	15	42	13	11400	5400	17000	21000	0,087
6302 ZZ	80302	15	42	13	11400	5400	17000	21000	0,087
6302 2RS	180302	15	42	13	11400	5400	12000	-	0,087
6303	303	17	47	14	13500	6550	16000	19000	0,117
6303 ZZ	80303	17	47	14	13500	6550	16000	19000	0,117
6303 2RS	180303	17	47	14	13500	6550	11000	-	0,117
6304	304	20	52	15	15900	7800	14000	17000	0,153
6304 ZZ	80304	20	52	15	15900	7800	14000	17000	0,153
6304 2RS	180304	20	52	15	15900	7800	9500	-	0,153
6305	305	25	62	17	22500	11600	12000	14000	0,238
6305 ZZ	80305	25	62	17	22500	11600	12000	14000	0,238
6305 2RS	180305	25	62	17	22500	11600	7500	-	0,238
6306	306	30	72	19	28100	16000	10000	12000	0,360
6306 ZZ	80306	30	72	19	28100	16000	10000	12000	0,360
6306 2RS	180306	30	72	19	28100	16000	6300	-	0,360

ISO	GOST	Dimensions (mm)			Basic Load Ratings (N)		Limiting speed (r/min)		Weight (kg)
							Lubrication		
		d	D	B	Dyn. C	Stat. C ₀	Grease	Oil	
6307	307	35	80	21	33200	19000	8800	10000	0,467
6307 ZZ	80307	35	80	21	33200	19000	8800	10000	0,467
6307 2RS	180307	35	80	21	33200	19000	6000	-	0,467
6308	308	40	90	23	41000	24000	7800	9200	0,640
6308 ZZ	80308	40	90	23	41000	24000	7800	9200	0,640
6308 2RS	180308	40	90	23	41000	24000	5000	-	0,640
6309	309	45	100	25	52700	31500	7000	8200	0,843
6309 ZZ	80309	45	100	25	52700	31500	7000	8200	0,843
6309 2RS	180309	45	100	25	52700	31500	4500	-	0,843
6310	310	50	110	27	61800	38000	6400	7500	1,097
6310 ZZ	80310	50	110	27	61800	38000	6400	7500	1,097
6310 2RS	180310	50	110	27	61800	38000	4300	-	1,097
6311	311	55	120	29	71500	45000	5800	6800	1,377
6311 ZZ	80311	55	120	29	71500	45000	5800	6800	1,377
6311 2RS	180311	55	120	29	71500	45000	3800	-	1,377
6312	312	60	130	31	81900	52000	5400	6300	1,733
6312 ZZ	80312	60	130	31	81900	52000	5400	6300	1,733
6312 2RS	180312	60	130	31	81900	52000	3400	-	1,733
6313	313	65	140	33	92300	60000	4900	5800	2,153
6313 ZZ	80313	65	140	33	92300	60000	4900	5800	2,153
6313 2RS	180313	65	140	33	92300	60000	3200	-	2,153
6314	314	70	150	35	104000	68000	4600	5400	2,560
6314 ZZ	80314	70	150	35	104000	68000	4600	5400	2,560
6314 2RS	180314	70	150	35	104000	68000	3000	-	2,560
6315	315	75	160	37	111400	76500	4300	5000	3,120
6315 ZZ	80315	75	160	37	111400	76500	4300	5000	3,120
6315 2RS	180315	75	160	37	111400	76500	2800	-	3,120
6316	316	80	170	39	124000	86500	4000	4700	3,680
6316 ZZ	80316	80	170	39	124000	86500	4000	4700	3,680
6316 2RS	180316	80	170	39	124000	86500	2700	-	3,680
6317	317	85	180	41	133000	96500	3800	4500	4,303
6317 ZZ	80317	85	180	41	133000	96500	3800	4500	4,303
6317 2RS	180317	85	180	41	133000	96500	2500	-	4,303
6318	318	90	190	43	143000	108000	3600	4200	4,967
6318 ZZ	80318	90	190	43	143000	108000	3600	4200	4,967
6318 2RS	180318	90	190	43	143000	108000	2400	-	4,967
6319	319	95	200	45	153000	118000	3300	3900	5,710
6319 ZZ	80319	95	200	45	153000	118000	3300	3900	5,710
6319 2RS	180319	95	200	45	153000	118000	2200	-	5,710
6320	320	100	215	47	174000	140000	3200	3700	7,633
6320 ZZ	80320	100	215	47	174000	140000	3200	3700	7,633
6320 2RS	180320	100	215	47	174000	140000	2100	-	7,633
6321	321	105	225	49	182000	153000	3000	3600	8,677
6321 ZZ	80321	105	225	49	182000	153000	3000	3600	8,677
6321 2RS	180321	105	225	49	182000	153000	1900	-	8,677
6322	322	110	240	50	203000	180000	2900	3400	9,603
6322 ZZ	80322	110	240	50	203000	180000	2900	3400	9,603
6322 2RS	180322	110	240	50	203000	180000	1600	-	9,603
6324	324	120	260	55	208000	186000	2600	3100	12,750
6324 ZZ	80324	120	260	55	208000	186000	2600	3100	12,750
6326	326	130	280	58	230000	216000	2400	2800	18,400
6326 ZZ	80326	130	280	58	230000	216000	2400	2800	18,400
6328	328	140	300	62	251000	245000	2200	2600	22,000
6328 ZZ	80328	140	300	62	251000	245000	2200	2600	22,000
6330	330	150	320	65	276000	285000	2000	2400	23,000
6332	332	160	340	68	285000	300000	1900	2300	29,000
6334	334	170	360	72	312000	340000	1800	2100	34,500
6336	336	180	380	75	351000	405000	1700	2000	42,500

ISO	GOST	Dimensions (mm)			Basic Load Ratings (N)		Limiting speed (r/min)		Weight (kg)
							Lubrication		
		d	D	B	Dyn. C	Stat. C ₀	Grease	Oil	
6338	338	190	400	78	371000	430000	1600	1900	49,000
6340	340	200	420	80	377000	465000	1500	1800	55,500
6344	344	220	460	88	410000	520000	1400	1600	60,800
6348	348	240	500	95	470000	624000	1300	1500	93,300
6352	352	260	540	102	531000	741000	1200	1400	116,000
6356	356	280	580	108	568000	845000	1100	1300	145,000
6360	360	300	620	109	593000	886000	1000	1150	169,000
6364	364	320	670	112	634000	1010000	900	1050	207,00
6368	368	340	710	118	704000	1160000	800	950	238,00
6403	403	17	62	17	22900	10800	13000	15000	0,270
6403 ZZ	80403	17	62	17	22900	10800	13000	15000	0,270
6403 2RS	180403	17	62	17	22900	10800	8000	-	0,270
6404	404	20	72	19	31000	15200	9500	12000	0,400
6404 ZZ	80404	20	72	19	31000	15200	9500	12000	0,400
6404 2RS	180404	20	72	19	31000	15200	6300	-	0,400
6405	405	25	80	21	35800	19300	8500	10000	0,530
6405 ZZ	80405	25	80	21	35800	19300	8500	10000	0,530
6405 2RS	180405	25	80	21	35800	19300	5600	-	0,530
6406	406	30	90	23	43600	23600	7500	9000	0,740
6406 ZZ	80406	30	90	23	43600	23600	7500	9000	0,740
6406 2RS	180406	30	90	23	43600	23600	5000	-	0,740
6407	407	35	100	25	55300	31000	6700	8000	0,950
6407 ZZ	80407	35	100	25	55300	31000	6700	8000	0,950
6407 2RS	180407	35	100	25	55300	31000	4500	-	0,950
6408	408	40	110	27	63700	36500	6000	7000	1,250
6408 ZZ	80408	40	110	27	63700	36500	6000	7000	1,250
6408 2RS	180408	40	110	27	63700	36500	4000	-	1,250
6409	409	45	120	29	76100	45000	5300	6300	1,550
6409 ZZ	80409	45	120	29	76100	45000	5300	6300	1,550
6409 2RS	180409	45	120	29	76100	45000	3600	-	1,550
6410	410	50	130	31	87100	52000	5000	6000	1,900
6410 ZZ	80410	50	130	31	87100	52000	5000	6000	1,900
6410 2RS	180410	50	130	31	87100	52000	3400	-	1,900
6411	411	55	140	33	99500	62000	4500	5300	2,300
6411 ZZ	80411	55	140	33	99500	62000	4500	5300	2,300
6411 2RS	180411	55	140	33	99500	62000	3000	-	2,300
6412	412	60	150	35	108000	69500	4300	5000	2,750
6412 ZZ	80412	60	150	35	108000	69500	4300	5000	2,750
6412 2RS	180412	60	150	35	108000	69500	2800	-	2,750
6413	413	65	160	37	119000	78000	4000	4800	3,300
6413 ZZ	80413	65	160	37	119000	78000	4000	4800	3,300
6413 2RS	180413	65	160	37	119000	78000	2600	-	3,300
6414	414	70	180	42	143000	10400	3800	4500	4,850
6414 ZZ	80414	70	180	42	143000	10400	3800	4500	4,850
6414 2RS	180414	70	180	42	143000	10400	2500	-	4,850
6415	415	75	190	45	153000	114000	3700	4400	6,800
6415 ZZ	80415	75	190	45	153000	114000	3700	4400	6,800
6415 2RS	180415	75	190	45	153000	114000	2300	-	6,800
6416	416	80	200	48	162000	125000	3600	4200	6,422
6416 ZZ	80416	80	200	48	162000	125000	3600	4200	6,422
6416 2RS	180416	80	200	48	162000	125000	2100	-	6,422
6417	417	85	210	52	174000	137000	3400	4000	9,500
6417 ZZ	80417	85	210	52	174000	137000	3400	4000	9,500
6417 2RS	180417	85	210	52	174000	137000	1800	-	9,500
6418	418	90	225	54	186000	150000	3200	3800	9,560
6418 ZZ	80418	90	225	54	186000	150000	3200	3800	9,560
6418 2RS	180418	90	225	54	186000	150000	1400	-	9,560
6419	419	95	240	55	188000	153000	3000	3500	11,000

ISO	GOST	Dimensions (mm)			Basic Load Ratings (N)		Limiting speed (r/min)		Weight (kg)
							Lubrication		
		d	D	B	Dyn. C	Stat. C ₀	Grease	Oil	
6419 ZZ	80419	95	240	55	188000	153000	3000	3500	11,000
6419 2RS	180419	95	240	55	188000	153000	1100	-	11,000
6420	420	100	250	58	206000	175000	2900	3400	12,900
6420 ZZ	80420	100	250	58	206000	175000	2900	3400	12,900
6420 2RS	180420	100	250	58	206000	175000	900	-	12,900
6421	421	105	260	60	222000	179000	2700	3200	16,800
6422	422	110	280	65	247000	227000	2600	3000	21,300
6424	424	120	310	72	291000	287000	2300	2800	29,000
6426	426	130	340	78	300000	298000	2200	2500	38,000
62200 2RS	180500	10	30	14	5100	2400	17000	-	0,045
62201 2RS	180501	12	32	14	6900	3100	15000	-	0,048
62202 2RS	180502	15	35	14	7800	3750	13000	-	0,054
62203 2RS	180503	17	40	16	9500	4750	12000	-	0,083
62204 2RS	180504	20	47	18	12700	6550	10000	-	0,130
62205 2RS	180505	25	52	18	14000	7800	8500	-	0,150
62206 2RS	180506	30	62	20	16500	11200	7500	-	0,243
62207 2RS	180507	35	72	23	25500	15300	6300	-	0,388
62208 2RS	180508	40	80	23	30700	19000	5600	-	0,471
62209 2RS	180509	45	85	23	33200	21600	5000	-	0,523
62210 2RS	180510	50	90	23	35100	23200	4800	-	0,550
62211 2RS	180511	55	100	25	43600	29000	4300	-	0,700
62212 2RS	180512	60	110	28	47500	32500	4000	-	0,970
62213 2RS	180513	65	120	31	55900	40500	3600	-	1,250
62214 2RS	180514	70	125	31	60500	45000	3400	-	1,300
62300 2RS	180600	10	35	17	8000	3400	15000	-	0,060
62301 2RS	180601	12	37	17	9750	4150	14000	-	0,070
62302 2RS	180602	15	42	17	11400	5400	12000	-	0,110
62303 2RS	180603	17	47	19	13500	6550	11000	-	0,150
62304 2RS	180604	20	52	21	15900	7800	9500	-	0,207
62305 2RS	180605	25	62	24	22500	11600	7500	-	0,326
62306 2RS	180606	30	72	27	28100	16000	6300	-	0,493
62307 2RS	180607	35	80	31	33200	19000	6000	-	0,680
62308 2RS	180608	40	90	33	41000	24000	5000	-	0,890
62309 2RS	180609	45	100	36	52700	31500	4500	-	1,190
62310 2RS	180610	50	110	40	61800	38000	4300	-	1,500
62311 2RS	180611	55	120	43	71500	45000	3800	-	1,950
62312 2RS	180612	60	130	46	81900	52000	3400	-	2,500
62313 2RS	180613	65	140	48	92300	60000	3200	-	3,000
62314 2RS	180614	70	150	51	104000	68000	3000	-	3,550