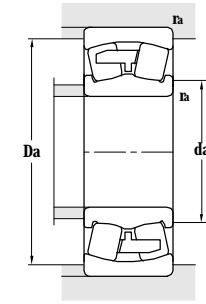
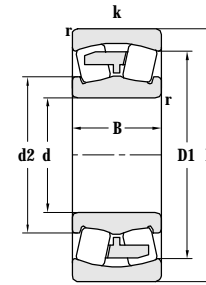
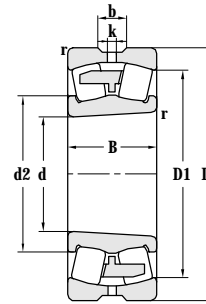
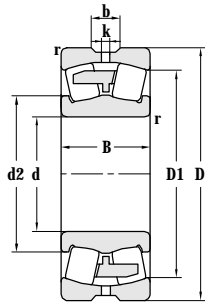


Spherical Roller Bearing(CA)

d 170~180 mm

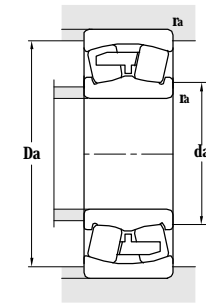
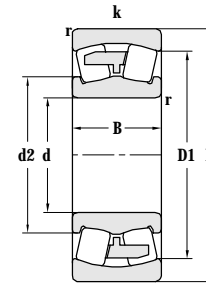
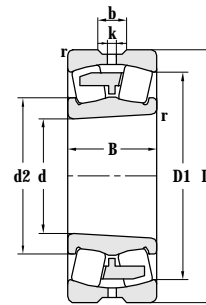
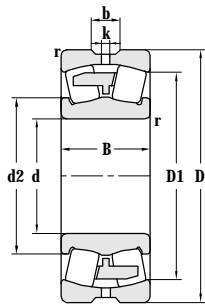


Principal dimensions				Basic load ratings		Limit speed ratings		Designations	
d	D	B	r _{min}	C _r	C _{0r}	Grease	Oil		
mm				kN		r/min			
170	260	67	2.1	670	1090	1600	2000	23034CAK	
	260	67	2.1	670	1090	1600	2000	23034CAF3	
	260	67	2.1	670	1090	1600	2000	23034CAF3/W33	
	260	90	2.1	885	1500	1000	1400	24034CA	
	260	90	2.1	885	1500	1000	1400	24034CAK/W33	
	280	88	2.1	890	1450	1200	1600	23134	
	280	88	2.1	890	1450	1200	1600	23134K	
	280	88	2.1	890	1450	1200	1600	23134F3	
	280	88	2.1	890	1450	1200	1600	23134KF3	
	280	88	2.1	990	1530	1200	1600	23134CA	
	280	88	2.1	990	1530	1200	1600	23134CAK	
	280	109	2.1	1160	1830	670	850	24134CA	
	280	109	2.1	1160	1830	670	850	24134CAK30/W33	
	280	88	2.1	990	1530	1200	1600	23134CAF3	
	280	109	2.1	1160	1770	670	850	24134CA/W33	
	280	109	2.1	1160	1770	670	850	24134CA	
	310	86	4	1060	1450	1300	1700	22234CA	
	310	86	4	1060	1450	1300	1700	22234CAK	
	310	86	4	1060	1390	1300	1700	22234K/W33	
	310	110	4	1330	1930	950	1300	23234CA	
	310	110	4	1330	1930	950	1300	23234CAF3/W33	
	360	120	4	1300	2110	950	1300	22334	
	360	120	4	1300	2110	950	1300	22334K	
	360	120	4	1300	2110	950	1300	22334KF3	
	360	120	4	1300	2110	950	1300	22334F3	
	360	120	4	1670	2120	950	1300	22334CA/W33	
	360	120	4	1670	2120	950	1300	22334CA/W33X	
	360	120	4	1670	2120	950	1300	22334ACA	
	360	120	4	1670	2120	950	1300	22334CA/HCEW33	
	360	136	4	1670	2280	950	1300	23334X2/W33	
	180	250	52	2	430	830	1700	2200	23936CAF3/W33
		280	74	2.1	700	1320	1400	1800	23036
280		74	2.1	700	1320	1400	1800	23036K	
280		74	2.1	700	1320	1400	1800	23036YA2	
280		74	2.1	700	1320	1400	1800	23036F3	
280		74	2.1	700	1320	1400	1800	23936CA/W33	
280		74	2.1	700	1320	1400	1800	23036/W33	

Other dimensions				Contact surface and chamfer dimensions			Calculation coefficient				Weight
d2	D1	b	k	da	Da	ra	e	Y1	Y2	Y0	
mm				mm	mm	mm	mm				kg
198	231			182	248	2	0.23	2.90	4.40	2.80	13.8
198	231			182	248	2	0.23	2.90	4.40	2.80	14.0
198	231	11.1	5	182	248	2	0.23	2.90	4.40	2.80	13.5
198	227	8.3	4	182	248	2	0.33	2.00	3.00	2.00	17.8
188	226	8.3	4	198	249	2	0.33	2.00	3.00	2.00	16.8
204	246	13.9	6	182	268	2					23
204	246	13.9	6	182	268	2					21.6
204	246			182	268	2					22.6
204	246			182	268	2					21.2
204	243			182	268	2	0.30	2.30	3.40	2.20	25.7
204	243	13.9	6	182	268	2	0.30	2.30	3.40	2.20	24.3
203	237	8.3	5	182	268	2	0.37	1.80	2.70	1.80	25.4
203	237	8.3	5	182	268	2	0.37	1.80	2.70	1.80	24.7
204	243			182	268	2	0.30	2.30	3.40	2.20	24.6
203	237	8.3	5	182	268	2	0.37	1.80	2.70	1.80	24.8
203	237			182	268	2	0.37	1.80	2.70	1.80	25.4
215	268	16.7	6	188	292	3	0.27	2.50	3.70	2.50	26.8
215	268	16.7	6	188	292	3	0.27	2.50	3.70	2.50	26.2
215	268	16.7	6	188	292	3	0.27	2.50	3.70	2.50	27.8
214	261	13.9	7	188	292	3	0.34	1.99	2.96	1.94	38.0
214	261	13.9	7	188	292	3	0.34	1.99	2.96	1.94	37.7
228	300	16.7	7	188	342	3					60.1
228	300	16.7	7	188	342	3					60.1
228	300			188	342	3					59.4
228	300			188	342	3					60
231	299	16.7	7	188	342	3	0.34	1.99	2.96	1.94	62.6
231	299	16.7	7	188	342	3	0.34	1.99	2.96	1.94	62.6
231	299			188	342	3	0.34	1.99	2.96	1.94	61.4
231	299	16.7	7	188	342	3	0.34	1.99	2.96	1.94	62.6
229	292	22.3	12	188	342	3					68.6
204	230	9.5	4	190	240	2	0.18	3.80	5.60	3.60	7.4
214	247	13.9	6	192	268	2					18.1
214	247	13.9	6	192	268	2					17.6
214	247			192	268	2					18
214	247			192	268	2					17.6

Spherical Roller Bearing(CA)

d 180 mm

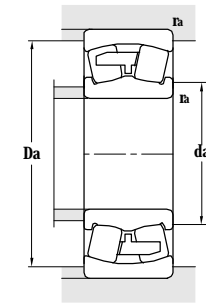
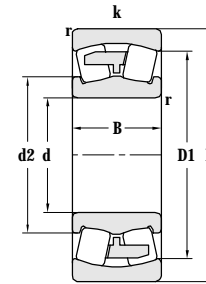
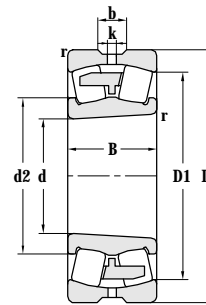
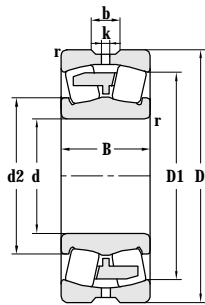


Principal dimensions				Basic load ratings		Limit speed ratings		Designations
d	D	B	r _{min}	C _r	C _{0r}	Grease	Oil	
mm				kN		r/min		
180	280	74	2.1	700	1320	1400	1800	23036KF3
	280	74	2.1	790	1280	1400	1800	23036CA
	280	74	2.1	790	1280	1400	1800	23036CA/W33
	280	74	2.1	790	1280	1400	1800	23036CAK/W33
	280	100	2.1	1030	1750	950	1300	23036CAF3
	280	100	2.1	1030	1750	950	1300	24036CA/W33
	280	100	2.1	1030	1750	950	1300	24036CAF3/W33
	280	100	2.1	1030	1750	950	1300	24036CAK30F3/W33
	300	96	3	1140	1670	1100	1500	23136
	300	96	3	1140	1670	1100	1500	23136K
	300	96	3	1140	1670	1100	1500	23136K/W33
	300	96	3	1140	1670	1100	1500	23136F3
	300	96	3	1140	1670	1100	1500	23136KF3
	300	96	3	1140	1800	1100	1500	23136CA
	300	96	3	1140	1800	1100	1500	23136CA/W33
	300	96	3	1140	1800	1100	1500	23136CAF3
	300	96	3	1140	1800	1100	1500	23136CAK
	300	96	3	1140	1800	1100	1500	23136CAK/W33
	300	96	3	1140	1800	1100	1500	23136CAK30/W33
	300	96	3	1140	1800	1100	1500	23136CAK/W33
	300	118	3	1330	2050	630	800	24136CA
	300	118	3	1330	2050	630	800	24136CA/W33
	300	118	3	1330	2050	630	800	24136CA/HCW33YA2
	300	118	3	1330	2050	630	800	24136CAQ1
	320	86	4	1120	1550	1300	1700	22236
	320	86	4	1120	1550	1300	1700	22236K
	320	86	4	1120	1550	1300	1700	22236KF3
	320	86	4	1120	1550	1300	1700	22236F3
	320	86	4	1120	1550	1300	1700	22236F3/W33
	320	86	4	1120	1550	1300	1700	22236CA
	320	86	4	1120	1550	1300	1700	22236CA/W33
	320	86	4	1120	1550	1300	1700	22236CAF3
	320	86	4	1120	1550	1300	1700	22236CAQ1
	320	86	4	1120	1550	1300	1700	22236CAK
	320	86	4	1120	1550	1300	1700	22236CAK/W33
	320	86	4	1120	1550	1300	1700	22236CAK/W33T
	320	112	4	1290	2270	900	1200	23236/W33
	320	112	4	1430	2130	900	1200	23236CA
	320	112	4	1430	2130	900	1200	23236CA/W33
	320	112	4	1430	2130	900	1200	23236CA/HCW33
320	112	4	1430	2130	900	1200	23236CAF3	
320	112	4	1430	2130	900	1200	23236CAF3/W33	
320	112	4	1430	2130	900	1200	23236CAK/W33	
320	112	4	1430	2130	900	1200	23236CAK/W33	
380	126	4	1400	2300	900	1200	22336	
380	126	4	1400	2300	900	1200	22336K	
380	126	4	1400	2300	900	1200	22336K/W33	
380	126	4	1400	2300	900	1200	22336F3	
380	126	4	1900	2400	900	1200	22336CA	
380	126	4	1900	2400	900	1200	22336CA/W33	
380	126	4	1900	2400	900	1200	22336CAF3/W33	
380	126	4	1900	2400	900	1200	22336CAK	
380	126	4	1900	2400	900	1200	22336CAK/W33	

Other dimensions				Contact surface and chamfer dimensions			Calculation coefficient				Weight
d2	D1	b	k	da	Da	ra	e	Y1	Y2	Y0	
mm				mm	mm	mm	mm				kg
214	247			192	268	2					17.2
214	247	13.9	7.5	192	268	2	0.25	2.70	4.00	2.60	17.7
214	247	13.9	7.5	192	268	2	0.25	2.70	4.00	2.60	16.8
214	247			192	268	2	0.25	2.70	4.00	2.60	17.6
210	242	8.3	4	192	268	2	0.33	2.00	3.00	2.00	25.7
210	242	8.3	4	192	268	2	0.33	2.00	3.00	2.00	25.6
216	259			194	286	2.5					28.6
216	259	13.9	6	194	286	2.5					28.2
216	259			194	286	2.5					28.2
216	259	13.9	6	194	286	2.5					27.8
216	259	13.9	6	194	286	2.5	0.30	2.30	3.40	2.20	27.6
216	259			194	286	2.5	0.30	2.30	3.40	2.20	27.0
216	259	13.9	6	194	286	2.5	0.30	2.30	3.40	2.20	27.5
216	259			194	286	2.5					26.8
216	259	13.9	6	194	286	2.5	0.30	2.30	3.40	2.20	26.5
212	252	11.1	6	194	286	2.5	0.37	1.80	2.70	1.80	33.0
212	252	11.1	6	194	286	2.5	0.37	1.80	2.70	1.80	32.8
212	252			194	286	2.5	0.37	1.80	2.70	1.80	33.0
224	278			198	302	3					31.1
224	278			198	302	3					30.2
224	278			198	302	3					30.8
224	278	16.7	6	198	302	3	0.26	2.60	3.90	2.50	29.4
224	278			198	302	3	0.26	2.60	3.90	2.50	29.2
224	278			198	302	3	0.26	2.60	3.90	2.50	29.3
224	278	16.7	6	198	302	3	0.26	2.60	3.90	2.50	29.1
222	271	13.9	7	198	302	3					40
222	271			198	302	3	0.35	1.90	2.90	1.80	38.7
222	271	13.9	7	198	302	3	0.35	1.90	2.90	1.80	38.6
222	271	13.9	7	198	302	3	0.35	1.90	2.90	1.80	38.5
222	271	13.9	7	198	302	3	0.35	1.90	2.90	1.80	38.4
241	317	22.3	8	198	362	3					70.9
241	317	22.3	8	198	362	3					69.8
241	317			198	362	3					70.5
242	316	22.3	8	198	362	3	0.34	1.99	2.96	1.94	72.2
242	316	22.3	8	198	362	3	0.34	1.99	2.96	1.94	71.3
242	316	22.3	8	198	362	3	0.34	1.99	2.96	1.94	71.3

Spherical Roller Bearing(CA)

d 190~200 mm

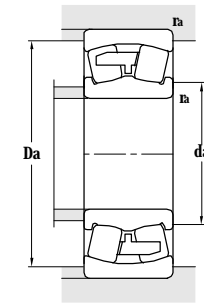
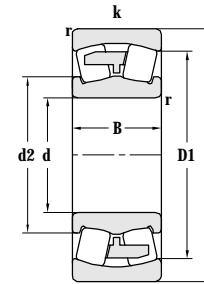
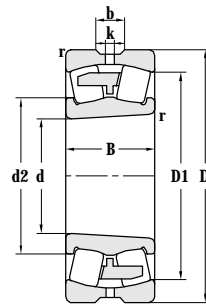
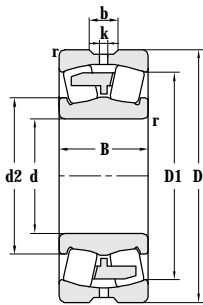


Principal dimensions				Basic load ratings		Limit speed ratings		Designations
d	D	B	r _{min}	C _r	C _{OR}	Grease	Oil	
mm				kN		r/min		
190	260	52	2	440	855	1600	2000	23938CA/W33
	280	67	2.5	660	1210			20638
	290	75	2.1	720	1300	1300	1700	23038
	290	75	2.1	720	1300	1300	1700	23038K
	290	75	2.1	720	1300	1300	1700	23038F3
	290	75	2.1	820	1450	1300	1700	23038CA
	290	75	2.1	820	1450	1300	1700	23038CAF3
	290	75	2.1	820	1450	1300	1700	23038CAK
	290	75	2.1	820	1450	1300	1700	23038CAKF3/W33
	290	100	2.1	1060	1840	950	1300	24038CA
	290	100	2.1	1060	1840	950	1300	24038CAF3
	290	100	2.1	1060	1840	950	1300	24038CA/W33X
	320	104	3	1100	1880	1000	1400	23138
	320	104	3	1100	1880	1000	1400	23138K
	320	104	3	1100	1880	1000	1400	23138F3
	320	104	3	1100	1880	1000	1400	23138KF3
	320	104	3	1300	1980	1000	1400	23138CA
	320	104	3	1300	1980	1000	1400	23138CAK/W33
	320	128	3	1520	2400	600	750	24138CA
	320	128	3	1520	2400	600	750	24138CAF3
	320	128	3	1520	2400	600	750	24138CA/HCW33
	320	128	3	1520	2400	600	750	24138CAK30F3/W33
	340	92	4	1210	1620	1200	1600	22238F3
	340	92	4	1210	1620	1200	1600	22238CA
	340	92	4	1210	1620	1200	1600	22238CA/W33
	340	92	4	1210	1620	1200	1600	22238CAKF3
	340	92	4	1210	1620	1200	1600	22238CAK
	340	92	4	1210	1620	1200	1600	22238ACA
	340	120	4	1580	2400	850	1100	23238CA
	340	120	4	1580	2400	850	1100	23238CAK/W33
	400	132	5	2010	2630	850	1100	22338CA
	400	132	5	2010	2630	850	1100	22338CAF3
	400	132	5	2010	2630	850	1100	22338ACA
200	280	60	2.1	520	1150	1600	2000	23940CAF3/W33
	280	186	1.1					23940CA/W33
								H2344

Other dimensions				Contact surface and chamfer dimensions			Calculation coefficient				Weight
d2	D1	b	k	da	Da	ra	e	Y1	Y2	Y0	
mm				mm	mm	mm	mm				
213	238	5.5	3	202	248	2	0.18	3.80	5.60	3.60	8.29
220	253			204	264	2					14.5
222	259	13.9	5	202	278	2					19.6
222	259	13.9	5	202	278	2					19.1
222	259	13.9	5	202	278	2					19.4
224	259	13.9	5	202	278	2	0.23	2.90	4.40	2.80	17.3
224	259			202	278	2	0.23	2.90	4.40	2.80	17.2
224	259	13.9	5	202	278	2	0.23	2.90	4.40	2.80	16.8
224	259	13.9	5	202	278	2	0.23	2.90	4.40	2.80	16.5
219	252	8.3	4.5	202	278	2	0.31	2.20	3.30	2.20	22.9
219	252			202	278	2	0.31	2.20	3.30	2.20	22.8
219	252	8.3	4.5	202	278	2	0.31	2.20	3.30	2.20	22.4
232	271			204	306	2.5					35.3
232	271	13.9	7	204	306	2.5					35.3
232	271			204	306	2.5					34.9
232	271			204	306	2.5					34.9
232	276	13.9	7	204	306	2.5	0.31	2.20	3.30	2.20	34.3
232	276	13.9	7	204	306	2.5					30
226	267	11.1	6	204	306	2.5	0.40	1.69	2.51	1.65	41.9
226	267	11.1	6	204	306	2.5	0.40	1.69	2.51	1.65	41.8
226	267	11.1	6	204	306	2.5	0.40	1.69	2.51	1.65	41.8
226	267	11.1	6	204	306	2.5	0.40	1.69	2.51	1.65	41.5
235	293			208	322	3					35.6
235	293			208	322	3	0.26	2.60	3.90	2.50	37.4
235	293	16.7	6	208	322	3	0.26	2.60	3.90	2.50	37.4
235	293			208	322	3	0.26	2.60	3.90	2.50	37.2
235	293	16.7	6	208	322	3	0.26	2.60	3.90	2.50	37.3
235	293			208	322	3	0.26	2.60	3.90	2.50	37.0
237	288	16.7	7	208	322	3	0.35	1.90	2.90	1.80	44.8
237	288	16.7	7	208	322	3	0.35	1.90	2.90	1.80	43.1
257	334	22.3	8	212	378	4	0.34	1.99	2.96	1.94	82.2
257	334			212	378	4	0.34	1.99	2.96	1.94	81.7
257	334	22.3	12	212	378	4	0.34	1.99	2.96	1.94	81.0
226	254	9.5	4	212	268	2	0.19	3.61	5.38	3.53	12.1
											16.8

Spherical Roller Bearing(CA)

d 200~220 mm

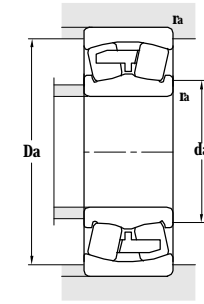
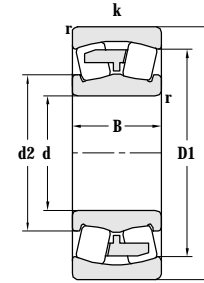
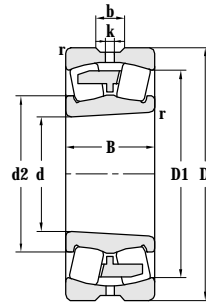
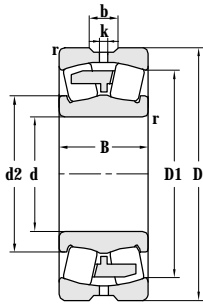


Principal dimensions				Basic load ratings		Limit speed ratings		Designations	
d	D	B	r _{min}	C _r	C _{0r}	Grease	Oil		
mm				kN		r/min			
200	310	82	2.1	660	1370	1200	1600	23040	23040/W33
	310	82	2.1	660	1370	1200	1600	23040K	23040K/W33
	310	82	2.1	660	1370	1200	1600	23040F3	23040F3/W33
	310	82	2.1	660	1370	1200	1600	23040KF3	
	310	82	2.1	950	1560	1200	1600	23040CA	23040CA/W33
	310	82	2.1	950	1560	1200	1600	23040CAK	23040CAK/W33
	310	109	2.1	1230	2130	900	1200	24040CA/W33	24040CAK30/W33
	340	112	3	1520	2240	950	1300	23140CA	23140CA/W33
	340	112	3	1520	2240	950	1300	23140CA/HCW33YA2	
	340	112	3	1520	2240	950	1300	23140CAK	23140CAK/W33
	340	140	3	1710	3800	5601	700	24140CA/W33	
	340	140	3	1710	3800	5601	700	24140CAK30F3	24140CAK30F3/W33
	360	98	4	1390	1830	1100	1500	22240	22240/W33
	360	98	4	1390	1830	1100	1500	22240K	22240K/W33
	360	98	4	1390	1830	1100	1500	22240F3	22240KF3/W33
	360	98	4	1390	1950	1100	1500	22240CA	22240CA/W33
	360	98	4	1390	1950	1100	1500	22240CAF3	22240CAKF3
	360	98	4	1390	1950	1100	1500	22240CAK	22240CAK/W33
	360	128	4	1770	2570	850	1100	23240CA/W33	
	360	128	4	1770	2570	850	1100	23240CA/HCW33	
	360	128	4	1770	2570	850	1100	23240CAK	23240CAK/W33
	360	128	4	1770	2730	900	1200	23240/W33	
	420	138	5	2200	2760	850	1100	22340	22340/W33
	420	138	5	2200	2760	850	1100	22340K	22340K/W33
	420	138	5	1620	2740	850	1100	22340F3	22340F3/W33
	420	138	5	2200	2860	850	1100	22340CA	22340CAF3
	420	138	5	2200	2860	850	1100	22340CA/W33	
	420	138	5	2200	2860	850	1100	22340CAK	22340CAK/W33
420	138	5	2000	2860	850	1100	22340CK	22340CK/W33	
420	165	5	2220	2860	750	950	23340CAF3		
220	300	60	2.1	520	1190	1500	1900	23944CA/W33	23944CAF3/C3W33
	340	90	3	1160	1900	1100	1500	23044CA	23044CA/W33
	340	90	3	1160	1900	1100	1500	23044CAK	23044CAK/W33
	340	90	3	1160	1900	1100	1500	23044CA/YA2	
	340	90	3	1160	1900	1100	1500	23044CAK/F3	

Other dimensions				Contact surface and chamfer dimensions			Calculation coefficient			Weight	
d2	D1	b	k	da	Da	ra	e	Y1	Y2		Y0
mm				mm			mm			kg	
236	271	13.9	6	212	298	2					25
236	271	13.9	6	212	298	2					24.5
236	271	13.9	6	212	298	2					24.7
236	271			212	298	2					24.2
237	276	13.9	7.5	212	298	2	0.25	2.70	4.00	2.60	22.6
237	276	13.9	7.5	212	298	2	0.25	2.70	4.00	2.60	22.4
233	268	11.1	5	212	298	2	0.33	2.00	3.00	2.00	31.3
243	292	16.7	7	214	326	2.5	0.31	2.20	3.30	2.20	43.8
243	292	16.7	7	214	326	2.5	0.31	2.20	3.30	2.20	43.5
243	292	16.7	7	214	326	2.5	0.31	2.20	3.30	2.20	42.6
242	284	11.1	6	214	326	2.5	0.40	1.70	2.50	1.60	51.5
242	283	11.1	6	214	326	2.5	0.40	1.70	2.50	1.60	51.3
248	309			218	342	3					44.2
248	309			218	342	3					43.4
248	309			218	342	3					43.8
250	309	16.7	6	218	342	3	0.26	2.60	3.90	2.50	44.7
250	309	16.7	6	218	342	3	0.26	2.60	3.90	2.50	44.3
250	309	16.7	6	218	342	3	0.26	2.60	3.90	2.50	44
249	304	16.7	8	218	342	3	0.35	1.90	2.90	1.80	53.4
249	304	16.7	8	218	342	3	0.35	1.90	2.90	1.80	53.4
249	304	16.7	8	218	342	3	0.35	1.90	2.90	1.80	52
248	304	16.7	8	218	342	3	0.36	1.87	2.79	1.83	56.5
269	350	22.3	8	222	398	4					96
269	350	22.3	8	222	398	4					94
269	350	22.3	8	222	398	4					95
269	350			222	398	4	0.34	1.99	2.96	1.94	95.7
269	350			222	398	4	0.34	1.99	2.96	1.94	96.7
269	350	22.3	8	222	398	4	0.34	1.99	2.96	1.94	94
269	350	22.3	8	222	398	4	0.34	1.99	2.96	1.94	90
266	340			222	398	4	0.40	1.68	2.50	1.64	95.2
242	278	8.3	4	232	288	2	0.18	3.80	5.60	3.60	12.9
260	303	13.9	6	234	326	2.5	0.24	2.80	4.20	2.80	30.3
260	303	13.9	6	234	326	2.5	0.24	2.80	4.20	2.80	31.6
260	303			234	326	2.5	0.25	2.75	4.09	2.69	31.5
260	303			234	326	2.5	0.24	2.80	4.20	2.80	31

Spherical Roller Bearing(CA)

d 220~240 mm

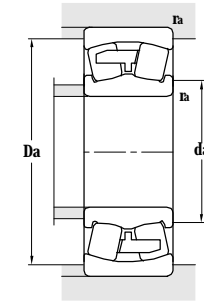
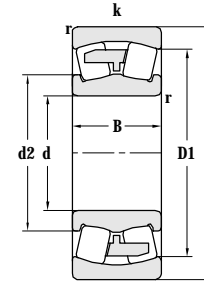
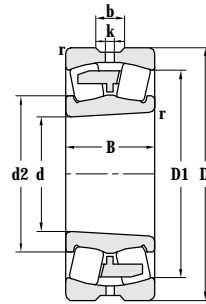
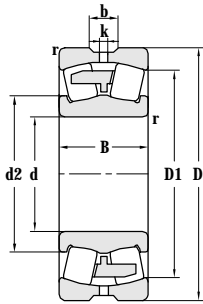


Principal dimensions				Basic load ratings		Limit speed ratings		Designations
d	D	B	r _{min}	C _r	C _{OR}	Grease	Oil	
mm				kN		r/min		
220	340	118	3	1480	2500	850	1100	24044CA 24044CA/W33
	340	118	3	1480	2500	850	1100	24044CA/W33X
	340	118	3	1480	2500	850	1100	24044CAN
	340	118	3	1480	2500	850	1100	24044CAK30/W33
	340	118	3	1480	2500	850	1100	24044CAF3 24044CAF3/W33
	370	120	4	1500	1160	900	1200	23144 23144/W33
	370	120	4	1500	1160	900	1200	23144K
	370	120	4	1500	1160	900	1200	23144F3 23144F3/W33
	370	120	4	1500	1160	900	1200	23144KF3/W33
	370	120	4	1710	2710	900	1200	23144CA 23144CA/W33
	370	120	4	1510	2750	900	1200	23144CA/HG2/W33
	370	120	4	1510	2710	900	1200	23144CAK 23144CAK/W33
	370	120	4	1730	2710	900	1200	23144CAKF3/W33 22244CAK/W33
	370	150	4	2010	3410	500	630	24144CA/W33 24144CAK30
	400	108	4	1670	2400	950	1300	22244CA 22244CA/W33
	400	108	4	1670	2400	950	1300	22244CA/W33X 22244CAF3
	400	108	4	1670	2400	950	1300	22244CAK 22244CAK/W33T
	400	144	4	2240	3280	750	950	23244CA/W33 23244CAK/W33
	460	145	5	2570	3450	980	1360	22344CA 22344CA/W33
	460	145	5	2570	3450	980	1360	22344CAK/W33
240	320	60	2.1	630	1360	1300	1700	23948CA 23948CA/W33
	320	60	2.1	660	1450	1300	1700	23948CAF3 23948CAF3/W33
	330	60	2.1	610	1280	1200	1500	23948X1CAF3/HA
	330	190	1.1					OH3152H
	360	92	3	1230	2110	1000	1400	23048 23048/W33
	360	92	3	1230	2110	1000	1400	23048Q1/YA2
	360	92	3	1230	2110	1000	1400	23048K 23048K/W33
	360	92	3	1230	2110	1000	1400	23048F3 23048F3/W33
	360	92	3	1230	2110	1000	1400	23048KF3 23048KF3/W33
	360	92	3	1230	2080	1000	1400	23048CA 23048CA/W33
	360	92	3	1230	2080	1000	1400	23048CAQ1/YA2
	360	92	3	1230	2080	1000	1400	23048CAK 23048CAK/W33
	360	92	3	1230	2080	1000	1400	23048CAQ1
	360	118	3	1520	2800	800	1000	24048CA
	360	118	3	1520	2800	800	1000	24048CA/W33X

Other dimensions				Contact surface and chamfer dimensions			Calculation coefficient				Weight
d2	D1	b	k	da	Da	ra	e	Y1	Y2	Y0	
mm				mm	mm	mm	mm				kg
257	295	11.1	5	234	326	2.5	0.33	2.00	3.00	2.00	39.3
257	295	11.1	5	234	326	2.5	0.33	2.00	3.00	2.00	38.9
257	295	11.1	5	234	326	2.5	0.33	2.00	3.00	2.00	39.1
257	295	11.1	5	234	326	2.5	0.33	2.00	3.00	2.00	38.5
257	295	11.1	5	234	326	2.5	0.33	2.00	3.00	2.00	39
265	310	16.7	7	238	352	3					54.8
265	310			238	352	3					53.2
265	310	16.7	7	238	352	3					54.3
265	310	16.7	7	238	352	3					52.4
268	320	16.7	7	238	352	3	0.30	2.30	3.40	2.20	54.7
268	320	16.7	7	238	352	3	0.30	2.30	3.40	2.20	54.6
268	320	16.7	7	238	352	3	0.30	2.30	3.40	2.20	53.1
268	320	16.7	7	238	352	3	0.30	2.30	3.40	2.20	52.7
262	308	11.1	6	238	352	3	0.40	1.70	2.50	1.60	66.4
275	344	16.7	8	238	382	3	0.27	2.50	3.70	2.50	63.5
275	344	16.7	8	238	382	3	0.27	2.50	3.70	2.50	63
275	344			238	382	3	0.27	2.50	3.70	2.50	63.2
272.5	334	16.7	8	238	382	3	0.36	1.89	2.81	1.85	77.3
293.5	384.5	22.3	12	246	422	4	0.32	2.09	3.11	2.04	119
293.5	384.5	22.3	12	246	422	4	0.32	2.09	3.11	2.04	119
266	295	9.5	4	252	308	2	0.15	4.50	6.70	4.50	15.1
266	295	9.5	4	252	308	2	0.15	4.50	6.70	4.50	14.9
266	295			252	308	2	0.15	4.50	6.70	4.50	15.8
278	317	13.9	6	254	346	2.5					23.3
278	317			254	346	2.5					34.9
278	317	13.9	6	254	346	2.5					34.8
278	317	13.9	6	254	346	2.5					33.9
278	317	13.9	6	254	346	2.5					34.5
278	317	13.9	6	254	346	2.5					33.5
278	322	13.9	6	254	346	2.5	0.24	2.80	4.20	2.80	34.2
278	322			254	346	2.5	0.24	2.80	4.20	2.80	34.2
278	322	13.9	6	254	346	2.5	0.24	2.80	4.20	2.80	32.2
278	322			254	346	2.5	0.24	2.80	4.20	2.80	34.2
278	318	11.1	5	254	346	2.5	0.30	2.30	3.40	2.20	44.1
278	318	11.1	5	254	346	2.5	0.30	2.30	3.40	2.20	43.7

Spherical Roller Bearing(CA)

d 240~260 mm

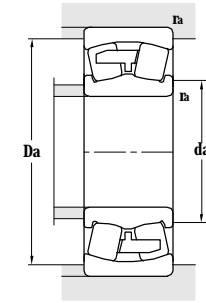
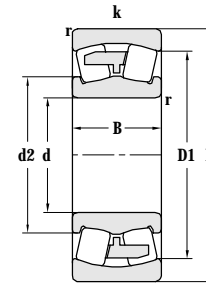
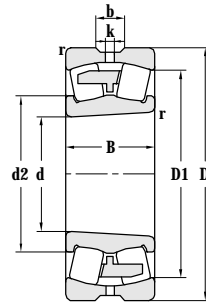
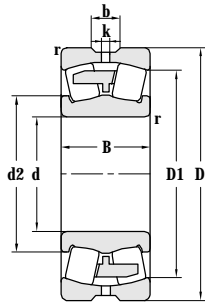


Principal dimensions				Basic load ratings		Limit speed ratings		Designations	
d	D	B	r _{min}	C _r	C _{Or}	Grease	Oil		
mm				kN		r/min			
240	360	118	3	1520	2800	800	1000	24048CAK30	24048CAK30/W33
	400	128	4	1550	2930	850	1100	23148	23148/W33
	400	128	4	1550	2930	850	1100	23148K	23148K/W33
	400	128	4	1550	2930	850	1100	23148F3	
	400	128	4	1980	3040	850	1100	23148CA	23148CA/W33
	400	128	4	1980	3040	850	1100	23148CAK/W33	
	400	160	4	2280	3750	480	600	24148/W33	
	400	160	4	2280	3750	480	600	24148F3/W33	
	400	160	4	2280	3705	480	600	24148CA	24148CA/W33
	400	160	4	2280	3705	480	600	24148CAK/W33	
	400	160	4	2280	3705	480	600	24148CAK30/C3W33	24148CAK30F3/W33
	440	120	4	2090	3250	900	1200	22248CA	22248CA/W33
	440	120	4	2090	3250	900	1200	22248CAK	22248CAK/W33
	440	120	4	2090	3250	900	1200	22248CAF3/C9W33	22248CAF3/W33
	440	120	4	2090	3250	900	1200	22248K/W33	
	440	160	4	2950	3950	670	850	23248CA/W33	
	440	160	4	2950	3950	670	850	23248CAK/W33	
	440	160	4	2950	3800	670	850	23248CAF3	
	500	155	5	2950	4100	650	800	22348CA	22348CA/W33
	500	155	5	2950	4100	650	800	22348CAK	22348CAK/W33
241	410	128	4	1860	3350	1000	1400	2650CA	
250	350	195	1.1					OH3156H	
	360	75	2.1	902	1750	1100	1500	23952CA	23952CA/W33
	410	128	4	1860	3350			2650CA	
260	360	75	2.1	835	1750	1100	1500	23952CA	23952CA/W33
	360	75	2.1	835	1750	1100	1500	23952CAK/W33	
	400	104	4	1520	2550	900	1200	23052CA	23052CA/W33
	400	104	4	1520	2550	900	1200	23052CAF3	
	400	104	4	1520	2550	900	1200	23052CAK	23052CAK/W33
	400	104	4	1520	2550	900	1200	23052CAKF3	
	400	140	4	1930	3500	700	900	24052CA/W33	
	400	140	4	1930	3800	700	900	24052CA/W33XYA	
	400	140	4	1930	3500	700	900	24052CAF3	24052CAF3/W33

Other dimensions				Contact surface and chamfer dimensions			Calculation coefficient				Weight
d2	D1	b	k	da	Da	ra	e	Y1	Y2	Y0	
mm				mm	mm	mm	mm				
278	318	11.1	5	254	346	2.5	0.30	2.30	3.40	2.20	44.1
290	347	16.7	8	258	382	3					47.5
290	347	16.7	8	258	382	3					65.6
290	347			258	382	3					66.7
289	345	16.7	8	258	382	3	0.31	2.21	3.29	2.16	68.2
289	345	16.7	8	258	382	3	0.31	2.21	3.29	2.16	66.5
285	336	11.1	6	258	382	3					81
285	336	11.1	6	258	382	3					80
285	336	11.1	6	258	382	3	0.40	1.70	2.50	1.60	79
285	336	11.1	6	258	382	3	0.40	1.70	2.50	1.60	75.6
285	336	11.1	6	258	382	3	0.40	1.70	2.50	1.60	77.8
290	383	18	7	258	422	3	0.27	2.50	3.70	2.50	85.3
290	383	18	7	258	422	3	0.27	2.50	3.70	2.50	82.4
303	379	18	7	258	422	3	0.27	2.50	3.70	2.50	85
305	379	18	7	258	422	3	0.27	2.50	3.70	2.50	84.1
292	369	22.3	8	258	422	3	0.35	1.90	2.90	1.80	102
292	369	22.3	8	258	422	3	0.35	1.90	2.90	1.80	102
292	369			258	422	3	0.35	1.90	2.90	1.80	102
330	390	22.3	12	297	439	4	0.32	2.09	3.11	2.04	146
330	390	22.3	12	297	439	4	0.32	2.09	3.11	2.04	145
299	356			272	382	3	0.29	2.30	3.50	2.40	59.4
294	328	12	6	272	348	2	0.18	3.80	5.60	3.60	25.9
298	356			271	390	3					59.4
287	331	12	6	271	348	2	0.18	3.80	5.60	3.60	24.4
287	331	12	6	271	348	2	0.18	3.80	5.60	3.60	24.2
306	357	16.7	7	278	382	3	0.23	2.90	4.40	2.80	49.8
306	357			278	382	3	0.23	2.90	4.40	2.80	49.5
306	357	16.7	7	278	382	3	0.23	2.90	4.40	2.80	46.9
306	357			278	382	3	0.23	2.90	4.40	2.80	46.6
300	347	11.1	6	278	382	3	0.33	2.00	3.00	2.00	66.7
300	347	11.1	6	278	382	3	0.33	2.00	3.00	2.00	67.2
300	347	11.1	6	278	382	3	0.33	2.00	3.00	2.00	64.9

Spherical Roller Bearing(CA)

d 260~280 mm

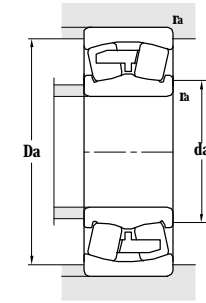
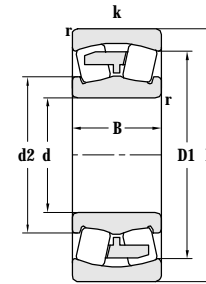
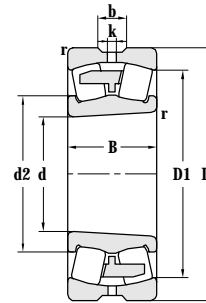
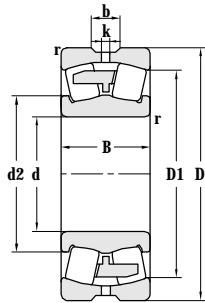


Principal dimensions				Basic load ratings		Limit speed ratings		Designations
d	D	B	r _{min}	C _r	C _{0r}	Grease	Oil	
mm				kN		r/min		
260	400	140	4	1930	3500	700	900	24052CAK30/W33
	440	144	4	2420	3700	800	1000	23152
	440	144	4	2420	3700	800	1000	23152K
	440	144	4	2420	3750	800	1000	23152K/HG2YA6
	440	144	4	2420	3750	800	1000	23152K/HG2YAB
	440	144	4	2420	3700	800	1000	23152F3
	440	144	4	2420	3750	800	1000	23152CA
	440	144	4	2420	3750	800	1000	23152CAK
	440	144	4	2420	3750	800	1000	23152CAK/HG2C9YA6/W33
	440	144	4	2420	3750	800	1000	23152CAK30
	440	180	4	2850	4560	430	530	24152CA
	440	180	4	2850	4560	430	530	24152CA/HAW36
	440	180	4	2850	4560	430	530	24152CAK30/W33
	440	180	4	2850	4560	430	530	24152CAF3/W33
	440	180	4	2420	4380	430	530	SX-24152
	480	130	5	2520	3600	850	1100	22252CA
	480	130	5	2520	3600	850	1100	22252CAK
	480	174	5	2800	4600	630	800	23252/HG2W33T
	480	174	5	3090	4750	630	800	23252CA/W33
	480	174	5	3090	4750	630	800	23252CA/W33X
	480	174	5	3090	4750	630	800	23252CA/W33XB
	480	174	5	3090	4750	630	800	23252CAF3/W33
	480	174	5	3090	4750	630	800	23252CAK/W33
	480	174	5	3090	4750	630	800	23252CAKL/W33
	540	165	6	3370	4700	630	800	22352
	540	165	6	3370	4700	630	800	22352K
	540	165	6	3370	4700	630	800	22352F3
	540	165	6	3370	4750	630	800	22352CA/W33
	540	165	6	3370	4750	630	800	22352CAK/W33
	540	165	6	3370	4750	630	800	22352CAF3
	540	165	6	3370	4750	630	800	22352CAF3/W33
	540	165	6	3370	4750	630	800	22352CAKF3/W33
280	350	52	2	435	1230	1200	1500	23856CA
	380	75	2.1	805	1850	1000	1400	23956CA
	380	75	2.1	805	1850	1000	1400	23956CAQ1/W33
	420	106	4	1640	2810	850	1100	23056
								23056/W33

Other dimensions				Contact surface and chamfer dimensions			Calculation coefficient				Weight
d2	D1	b	k	da	Da	ra	e	Y1	Y2	Y0	
mm				mm			mm				kg
300	347	11.1	6	278	382	3	0.33	2.00	3.00	2.00	65.2
318	372	16.7	12	278	422	3					92.1
318	372			278	422	3					90.2
310	380			278	422	3					94.4
310	380			278	422	3					94.4
318	372			278	422	3					91.6
310	379	16.7	9	278	422	3	0.31	2.20	3.30	2.20	88.9
310	379	16.7	9	278	422	3	0.31	2.20	3.30	2.20	88.7
310	379	16.7	9	278	422	3	0.31	2.20	3.30	2.20	88.7
310	379	16.7	9	278	422	3	0.31	2.20	3.30	2.20	86.7
312	366	13.9	8	278	422	3	0.39	1.73	2.58	1.69	115
312	366	13.9	8	278	422	3	0.39	1.73	2.58	1.69	114
312	366	13.9	8	278	422	3	0.39	1.73	2.58	1.69	112
312	366	13.9	8	278	422	3	0.39	1.73	2.58	1.69	113
312	366	13.9	8	278	422	3	0.39	1.73	2.58	1.69	114
330	414	22.3	12	282	458	4	0.27	2.51	3.74	2.45	106
330	414			282	458	4	0.27	2.51	3.74	2.45	105
320	404	27	16	282	458	4					138
320	404	22.3	8	282	458	4	0.35	1.90	2.90	1.80	141
320	404	22.3	12	282	458	4	0.35	1.90	2.90	1.80	141
320	404	25	15	282	458	4	0.35	1.90	2.90	1.80	141
320	404	22.3	8	282	458	4	0.35	1.90	2.90	1.80	138
320	404	22.3	8	282	458	4	0.35	1.90	2.90	1.80	139
320	404	22.3	8	282	458	4	0.35	1.90	2.90	1.80	137
349	446	24	10	288	512	5					191
349	446	24	10	288	512	5					190
349	446			288	512	5					190
349	455	22.3	8	288	512	5	0.31	2.20	3.30	2.20	186
349	455	22.3	8	288	512	5	0.31	2.20	3.30	2.20	185
349	455	22.3	8	288	512	5	0.31	2.20	3.30	2.20	184
349	455	22.3	8	288	512	5	0.31	2.20	3.30	2.20	183
305	328	8.3	4.5	278	348	2	0.13	5.36	7.98	5.24	11.4
316	346	12	6	292	368	2	0.18	3.80	5.66	3.72	25.3
316	346	12	6	292	368	2	0.18	3.80	5.66	3.72	25.7
326	371	16.7	7	296	400	3					54.9

Spherical Roller Bearing(CA)

d 280~300 mm

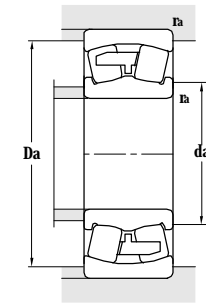
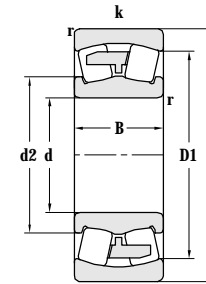
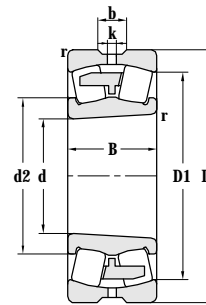
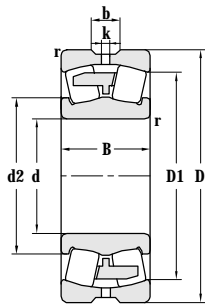


Principal dimensions				Basic load ratings		Limit speed ratings		Designations
d	D	B	r _{min}	C _r	C _{0r}	Grease	Oil	
mm				kN		r/min		
280	420	106	4	1640	2810	850	1100	23056K 23056K/W33
	420	106	4	1640	2810	850	1100	23056X1K
	420	106	4	1640	2810	850	1100	23056F3 23056F3/W33
	420	106	4	1640	2810	850	1100	23056KF3
	420	106	4	1640	2850	850	1100	23056CA 23056CA/W33
	420	106	4	1640	2850	850	1100	23056CAK 23056CAK/W33
	420	140	4	2050	3700	670	850	24056CA/W33
	420	140	4	2050	3700	670	850	24056CA/W33X 24056CA/W33YA2
	420	140	4	2050	3700	670	850	24056CAF3 24056CAF3/W33
	420	140	4	2050	3700	670	850	24056CAK30F3 24056CAK30F3/W33
	460	146	5	2520	4200	800	1000	23156/W33
	460	146	5	2520	4150	750	950	23156CA 23156CA/W33
	460	146	5	2520	4150	750	950	23156CAF3
	460	146	5	2520	4150	750	950	23156CAKF3
	460	146	5	2520	4150	750	950	23156CAK 23156CAK/W33
	460	130	5	2520	4150	750	950	23156X2CA
	460	180	5	2900	4950	400	500	24156CA 24156CA/W33
	460	180	5	2900	4950	400	500	24156CAK30/W33
	460	180	5	2900	4950	400	500	24156CA/HCW33
	500	130	5	2570	3600	800	1000	22256CA 22256CA/W33
	500	130	5	2570	3600	800	1000	22256CAK 22256CAK/W33
	500	130	5	2570	3600	800	1000	22256CAF3
	500	130	5	2130	3300	850	1100	22256/W33
	500	130	5	2130	3300	850	1100	22256K/W33
	500	176	5	3080	5100	600	750	23256CA 23256CA/W33
	500	176	5	3080	5100	600	750	23256CAF3 23256CAF3/W33
	500	176	5	3080	5100	600	750	23256CAK/W33
	500	176	5	3080	5100	600	750	23256CAKF3/W33
	580	175	6	3200	5600	600	750	22356 22356/W33
	580	175	6	3800	5700	600	750	22356CA 22356CA/W33
	580	175	6	3800	5700	600	750	22356CAK/W33
	580	175	6	3800	5700	600	750	22356CAF3/W33
300	380	60	3	640	1580	950	1400	23860CA/W33
	380	60	3	640	1580	950	1400	23860CAK/W33

Other dimensions				Contact surface and chamfer dimensions			Calculation coefficient				Weight
d2	D1	b	k	da	Da	ra	e	Y1	Y2	Y0	
mm				mm	mm	mm	mm				kg
326	371	16.7	7	296	400	3					53.4
326	371			296	400	3					57.6
326	371	16.7	7	296	400	3					54.6
326	371			296	400	3					53.1
323	377	16.7	7	298	402	3	0.23	2.91	4.40	2.84	56.8
323	377	16.7	7	298	402	3	0.23	2.91	4.40	2.84	56.6
317	366	11.1	6	298	402	3	0.31	2.20	3.30	2.20	66.8
317	366	11.1	6	298	402	3	0.31	2.20	3.30	2.20	68.6
317	366	11.1	6	298	402	3	0.31	2.20	3.30	2.20	66.8
317	366	11.1	6	298	402	3	0.31	2.20	3.30	2.20	67.2
337	400	16.7	8	302	438	4	0.32	2.09	3.11	2.04	99.1
333	400	16.7	8	302	438	4	0.30	2.30	3.40	2.20	104
333	400			302	438	4	0.30	2.30	3.40	2.20	103
333	400			302	438	4	0.30	2.30	3.40	2.20	100
333	400	16.7	8	302	438	4	0.30	2.30	3.40	2.20	96.9
332	404			302	438	4	0.27	2.50	3.72	2.45	87
327	393	13.9	8	302	438	4	0.40	1.70	2.50	1.60	118
327	393	13.9	8	302	438	4	0.40	1.70	2.50	1.60	115
327	388	13.9	8	302	438	4	0.40	1.70	2.50	1.60	118
347	435	22.3	8	302	478	4	0.26	2.60	3.90	2.50	118
347	435	22.3	8	302	478	4	0.26	2.60	3.90	2.50	117
347	435			302	478	4	0.26	2.60	3.90	2.50	117
348	435	22.3	8	302	478	4	0.27	2.50	3.70	2.50	113
348	435	22.3	8	302	478	4	0.27	2.50	3.70	2.50	109
340	424	22.3	8	302	478	4	0.35	1.90	2.90	1.80	147
340	424	22.3	8	302	478	4	0.35	1.90	2.90	1.80	146
340	424	22.3	8	302	478	4	0.35	1.90	2.90	1.80	153
340	424	22.3	8	302	478	4	0.35	1.90	2.90	1.80	142
372	485	22.3	8	314	552	5	0.32	2.09	3.11	2.04	230
364	485	22.3	8	308	552	5	0.30	2.30	3.40	2.20	221
364	485	22.3	8	308	552	5	0.30	2.30	3.40	2.20	217
364	485	22.3	8	308	552	5	0.30	2.30	3.40	2.20	221
328	357	12	6	310	368	2	0.13	5.20	7.70	5.00	16.8
	328	357	12	310	368	2	0.13	5.20	7.70	5.00	17.6

Spherical Roller Bearing(CA)

d 300 mm



Principal dimensions				Basic load ratings		Limit speed ratings		Designations
d	D	B	r _{min}	C _r	C _{0r}	Grease	Oil	
mm				kN		r/min		
300	420	90	3	1140	2500	950	1300	23960CA/W33
	420	90	3	1140	2500	950	1300	23960CAK
	420	118	3	1580	3600	950	1300	24960CA/W33
	440	105	4	2010	3450	870	1100	23060X3CA/W33
	460	118	4	1400	3200	800	1000	23060
	460	118	4	1400	3200	800	1000	23060F3
	460	118	4	1400	3200	800	1000	23060KF3
	460	118	4	1400	3200	800	1000	23060KQ1/W33
	460	118	4	2010	3450	800	1000	23060CA
	460	118	4	2010	3450	800	1000	23060CAK
	460	118	4	2010	3450	800	1000	23060CAK/C9W33
	460	118	4	2010	3450	800	1000	23060CAF3/W33
	460	160	4	2570	4750	600	750	24060CA
	500	160	5	3040	4850	670	850	23160CA
	500	160	5	3040	4850	670	850	23160CAF1
	500	160	5	3040	4850	670	850	23160CA/HCEC9W33
	500	160	5	3040	4850	670	850	23160CAF3
	500	160	5	3040	4850	670	850	23160CAKF3
	500	160	5	3040	4850	670	850	23160CAK
	500	200	5	3560	5990	600	750	24160CA
	500	200	5	3560	5990	600	750	24160CAK30/W33
	540	140	5	2990	4300	750	950	22260CA
	540	140	5	2990	4300	750	950	22260CAF3
	540	140	5	2990	4300	750	950	22260CAKF3
	540	140	5	2990	4040	800	1000	22260/W33
	540	140	5	2990	4040	800	1000	22260K/W33
	540	192	5	3700	5560	530	670	23260CAF3/W33
	540	192	5	3700	5560	530	670	23260CAKF1/W33
	540	192	5	3150	5300	530	670	23260/YA3
	540	192	5	3700	5950	530	670	23260CA
	540	192	5	3700	5950	530	670	23260CAK/W33
	540	192	5	3700	5950	530	670	23260CA/W33T
	540	192	5	3700	5950	530	670	23260CAF1
	540	192	5	3700	5950	530	670	23260CAF3/W33
	540	192	5	3700	5950	530	670	23260CAK/W33
	620	185	7.5	3950	6000			22360CA

Other dimensions				Contact surface and chamfer dimensions			Calculation coefficient				Weight
d2	D1	b	k	da	Da	ra	e	Y1	Y2	Y0	
mm				mm			mm				kg
339	382	15	6	314	406	2.5	0.19	3.60	5.30	3.60	40.1
339	382			314	406	2.5	0.19	3.60	5.30	3.60	39
339	376	18	7								52.8
343	396	16.7	9	302	438	3	0.21	3.16	4.71	3.09	54.7
351	406	16.7	7	322	438	3					70.4
351	406	16.7	7	322	438	3					69.8
351	406	16.7	7	322	438	3					69.5
351	409	16.7	7	318	442	3					70.3
351	409	16.7	7	318	442	3	0.23	2.90	4.40	2.80	75.8
351	409	16.7	7	318	442	3	0.23	2.90	4.40	2.80	73.6
351	409	16.7	7	318	442	3	0.23	2.90	4.40	2.80	73.4
351	409	16.7	7	318	442	3	0.23	2.90	4.40	2.80	74.9
342	399	13.9	7	318	442	3	0.32	2.09	3.11	2.04	99
356	433	16.7	8	322	478	4	0.30	2.30	3.40	2.20	127
356	433	16.7	9	322	478	4	0.30	2.30	3.40	2.20	143
356	433	16.7	9	322	478	4	0.30	2.30	3.40	2.20	126
356	433	16.7	8	322	478	4	0.30	2.30	3.40	2.20	127
356	433	16.7	8	322	478	4	0.30	2.30	3.40	2.20	123
356	433	16.7	9	322	478	4	0.30	2.30	3.40	2.20	123
356	420	13.9	6	322	478	4	0.39	1.75	2.61	1.71	160
356	420	13.9	6	322	478	4	0.39	1.75	2.61	1.71	157
374	467			322	518	4	0.26	2.60	3.90	2.50	138
374	467	22.3	8	322	518	4	0.26	2.60	3.90	2.50	136
374	467			322	518	4	0.26	2.60	3.90	2.50	136
374	467	22.3	8	322	518	4	0.27	2.50	3.70	2.50	140
374	467	22.3	8	322	518	4	0.27	2.50	3.70	2.50	137
373	455	22	10	322	518	4	0.35	1.90	2.90	1.80	192
373	455	22	10	322	518	4	0.35	1.90	2.90	1.80	190
373	455	22	10	322	518	4	0.35	1.90	2.90	1.80	194
373	455	22	10	322	518	4	0.35	1.90	2.90	1.80	190
373	455	22	10	322	518	4					187
373	455	22	10	322	518	4					193
373	455	22	10	322	518	4					194
373	455	22	10	322	518	4					192
373	455	22	10	322	518	4	0.35	1.90	2.90	1.80	189
396	523			335	586	6					271