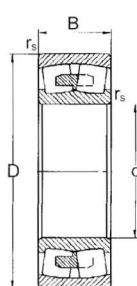
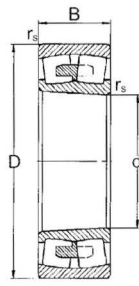


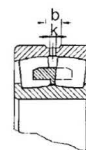
**21300, 22200, 22300, 23000, 23100, 23200,
24000, 24100 Series**



Cylindrical bore



Tapered bore
K, K30

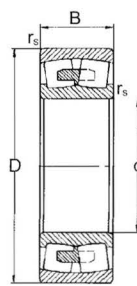


Lubrication groove and holes
W33

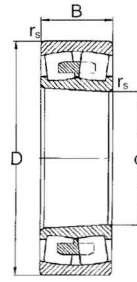
KML No.		Boundary dimensions mm				Lubrication groove & holes mm		Basic load ratings KN		Limiting speeds RPM		Mass Kg
Cylindrical bore	Tapered bore	d	D	B	r _s min	b	k	Dynamic C _r	Static C _{0r}	Lubrication		
										Grease	Oil	
21304	-	20	52	15	1.1	-	-	30.8	31.2	6000	7500	0.17
22205	22205K	25	52	18	1	5.5	3	38.9	40.8	8000	10000	0.19
21305	-		62	17	1.1	-	-	41.5	44.2	5300	6700	0.28
22206	22206K	30	62	20	1	5.5	3	33.5	38.2	6700	8500	0.29
21306	-		72	19	1.1	-	-	55.8	62	4500	6000	0.41
22207	22207K	35	72	23	1.1	5.5	3	45.2	59.5	5600	7000	0.43
21307	21307K		80	21	1.5	-	-	63.5	73.2	4000	5300	0.54
22208	22208K	40	80	23	1.1	5.5	3	78.5	90.8	5000	6300	0.52
21308	21308K		90	23	1.5	-	-	86.2	90.4	3600	4500	0.74
22308	22308K		90	33	1.5	5.5	3	73.5	90.5	4000	5000	1.04
22209	22209K		85	23	1.1	5.5	3	80.5	95.2	4500	6000	0.58
21309	21309K	45	100	25	1.5	-	-	102.6	110.4	3200	4000	1.02
22309	22309K		100	36	1.5	5.5	3	142	170	4000	5300	1.38
22210	22210K	50	90	23	1.1	5.5	3	83.8	102	4300	5300	0.63
21310	21310K		110	27	2	-	-	120	140	2800	3800	1.3
22310	22310K		110	40	2	5.5	3	178	212	3800	4800	1.79
22211	22211K	55	100	25	1.5	5.5	3	106	126	3800	5000	0.85
21311	21311K		120	29	2	-	-	142	170	2600	3400	1.65
22311	22311K		120	43	2	5.5	3	210	252	3400	4300	2.31
22212	22212K	60	110	28	1.5	5.5	3	118.3	145.8	3600	4500	1.2
21312	21312K		130	31	2.1	-	-	162	195	2400	3200	2.08
22312	22312K		130	46	2.1	5.5	3	244.2	295.6	3200	4000	2.92
22213	22213K	65	120	31	1.5	5.5	3	151	193.5	3200	4000	1.51
21313	21313K		140	33	2.1	-	-	182	228	2200	3000	2.57
22313	22313K		140	48	2.1	5.5	3	265	320	3000	3800	3.51
22214	22214K	70	125	31	1.5	5.5	3	151	195	3000	3800	1.63
21314	21314K		150	35	2.1	-	-	212	268	2000	2800	3.11
22314	22314K		150	51	2.1	8.3	4.5	300	362	2800	3400	4.32
22215	22215K	75	130	31	1.5	5.5	3	162.7	214.5	3000	3800	1.69
21315	21315K		160	37	2.1	-	-	238	302	1900	2600	3.76
22315	22315K		160	55	2.1	8.3	4.5	348	446.7	2600	3200	5.89
22216	22216K	80	140	33	2	5.5	3	174.4	233.8	2800	3400	2.26
21316	21316K		170	39	2.1	-	-	260	332	1800	2400	4.47
22316	22316K		170	58	2.1	8.3	4.5	391	507	2400	3000	6.32
22217	22217K	85	150	36	2	5.5	3	212.8	282.3	2600	3200	2.87
21317	21317K		180	41	3	-	-	298	385	1700	2200	5.23
22317	22317K		180	60	3	8.3	4.5	432	560	2200	2800	7.27
22218	22218K	90	160	40	2	5.5	3	248	337	2400	3000	3.67
21318	21318K		190	43	3	-	-	320	420	1600	2200	6.17
22318	22318K		190	64	3	11.1	6	496	640	2200	2600	8.63

[Remark] When there is lubrication groove and holes on the outer ring, suffix "W33" is added to bearings number.

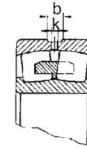
**21300, 22200, 22300, 23000, 23100, 23200,
24000, 24100 Series**



Cylindrical bore



Tapered bore
K, K30

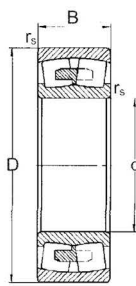


Lubrication groove and holes
W33

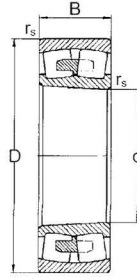
KML No.		Boundary dimensions mm				Lubrication groove & holes mm		Basic load ratings KN		Limiting speeds RPM		Mass Kg
Cylindrical bore	Tapered bore	d	D	B	r _s min	b	k	Dynamic Cr	Static Cor	Lubrication		
										Grease	Oil	
22219	22219K	95	170	43	2.1	8.3	4.5	282.7	390.3	2200	2800	4.57
21319	21319K		200	45	3	-	-	355	485	1700	2200	7.15
22319	22319K		200	67	3	11.1	6	530	705	2000	2600	9.97
23120	23120K	100	165	52	2	5.5	3	326	494	1700	2200	4.43
22220	22220K		180	46	2.1	8.3	4.5	316	435	2200	2600	5.01
23220	23220K		180	60.3	2.1	8.3	4.5	420	630	1600	2000	6.52
22320	22320K		215	73	3	11.1	6	618	832	1900	2400	12.8
23022	23022K	110	170	45	2	-	-	195	410	1400	1800	3.95
23122	23122K		180	56	2	8.3	4.5	376	578.5	1600	2000	5.58
24122	24122K30		180	69	2	5.5	3	458	775	1600	2000	6.63
22222	22222K		200	53	2.1	8.3	4.5	410	588	1900	2400	7.32
23222	23222K		200	69.8	2.1	8.3	4.5	520	800	1500	1900	9.46
21322	21322K		240	50	3	-	-	460	635	1400	1800	11.8
22322	22322K		240	80	3	13.9	7.5	715	968	1700	2200	17.5
23024	23024K	120	180	46	3	5.5	3	212	470	1200	1600	4.3
24024	24024K30		180	60	2	5.5	3	380	675	1500	2000	5.05
23124	23124K		200	62	2	8.3	4.5	457	725	1400	1800	7.85
24124	24124K30		200	80	2	5.5	3	575	998	1400	1800	9.65
22224	22224K		215	58	2.1	11.1	6	395.7	690	1700	2200	9.14
23224	23224K		215	76	2.1	8.3	4.5	610	955	1300	1700	11.7
22324	22324K		260	86	3	13.9	7.5	845	1160	1500	1900	22.2
23026	23026K	130	200	52	2	8.3	4.5	270	608	1100	1500	6.12
24026	24026K30		200	69	2	5.5	3	472	852	1400	1800	7.55
23126	23126K		210	64	2	8.3	4.5	482	802	1300	1700	8.49
24126	24126K30		210	80	2	5.5	3	585	1030	1300	1700	10.3
22226	22226K		230	64	3	11.1	6	562	832	1600	2000	11.2
23226	23226K		230	80	3	8.3	4.5	678	1080	1200	1600	13.8
22326	22326K		280	93	4	16.7	9	965	1340	1400	1800	27.5
23028	23028K	140	210	53	2	8.3	4.5	285	635	950	1300	6.3
24028	24028K30		210	69	2	5.5	3	488	895	1300	1700	8.01
23128	23128K		225	68	2.1	8.3	4.5	538	905	1200	1600	10.2
24128	24128K30		225	85	2.1	8.3	4.5	670	1200	1200	1600	12.5
22228	22228K		250	68	3	11.1	6	640	955	1400	1700	14.48
23228	23228K		250	88	3	11.1	6	812	1300	1100	1500	18.1
22328	22328K		300	102	4	16.7	9	1130	1610	1300	1700	34.6
23030	23030K	150	225	56	2.1	8.3	4.5	328	768	900	1200	8.19
24030	24030K30		225	75	2.1	5.5	3	570	1070	1200	1500	10.1
23130	23130K		250	80	2.1	11.1	6	738	1250	1100	1400	15.7
24130	24130K30		250	100	2.1	8.3	4.5	890	1600	1100	1400	19
22230	22230K		270	73	3	13.9	7.5	750	1130	1300	1600	18
23230	23230K		270	96	3	11.1	6	948	1540	1100	1400	23.2
22330	22330K		320	108	4	16.7	9	1207	1850	1200	1500	42

[Remark] When there is lubrication groove and holes on the outer ring, suffix "W33" is added to bearings number.

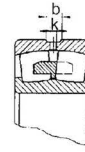
**21300, 22200, 22300, 23000, 23100, 23200,
24000, 24100 Series**



Cylindrical bore



Tapered bore
K, K30

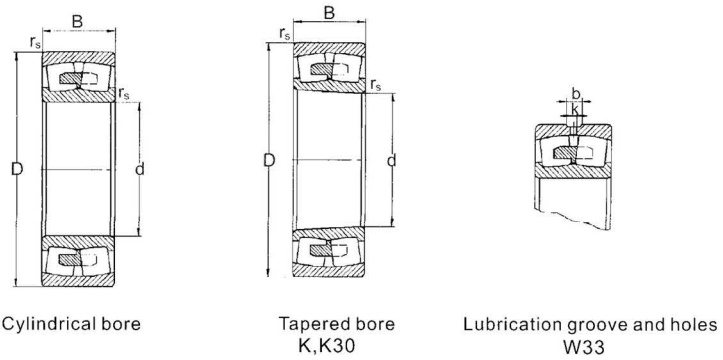


Lubrication groove and holes
W33

KML No.		Boundary dimensions mm				Lubrication groove & holes mm		Basic load ratings KN		Limiting speeds RPM		Mass Kg
Cylindrical bore	Tapered bore	d	D	B	r _s min	b	k	Dynamic Cr	Static Cor	Lubrication		
										Grease	Oil	
23032	23032K	160	240	60	2.1	11.1	6	368	825	850	1100	9.6
24032	24032K30		240	80	2.1	8.3	4.5	652	1230	1100	1400	12.2
23132	23132K		270	86	2.1	13.9	7.5	845	1440	1000	1300	19.8
24132	24132K30		270	86	2.1	8.3	4.5	1040	1880	1000	1300	24.4
22232	22232K		290	80	3	13.9	7.5	920.8	1290	1200	1500	22.95
23232	23232K		290	104	3	13.9	7.5	1090	1780	1100	1400	29.4
22332	22332K		340	114	4	16.7	9	1040	1700	800	1000	51
23034	23034K	170	260	67	2.1	11.1	6	445	1010	800	1000	13
24034	24034K30		260	90	2.1	8.3	4.5	792	1520	1000	1300	16.7
23134	23134K		280	88	2.1	13.9	7.5	900	1550	1000	1300	21.1
24134	24134K30		280	109	2.1	8.3	4.5	1070	1930	1000	1300	25.5
22234	22234K		310	86	4	16.7	9	975	1500	1100	1400	28.1
23234	23234K		310	110	4	13.9	7.5	1200	2030	900	1200	35.7
22334	22334K		360	120	4	16.7	9	1150	2060	750	950	60
23036	23036K	180	280	74	2.1	13.9	7.5	540	1230	750	950	17.6
24036	24036K30		280	100	2.1	8.3	4.5	928	1820	950	1200	22.1
23136	23136K		300	96	3	13.9	7.5	1050	1830	900	1200	26.9
24136	24136K30		300	118	3	11.1	6	1210	2200	900	1200	32
22236	22236K		320	86	4	16.7	9	1010	1590	1100	1300	29.4
23236	23236K		320	112	4	13.9	7.5	1280	2170	850	1100	37.9
22336	22336K		380	126	4	22.3	12	1260	2270	700	900	70
23038	23038K	190	290	75	2.1	13.9	7.5	555	1230	700	900	20
24038	24038K30		290	100	2.1	8.3	4.5	975	1910	900	1200	23
23138	23138K		320	104	3	13.9	7.5	1200	2120	850	1100	33.6
24138	24138K30		320	128	3	11.1	6	1410	2590	850	1100	40.2
22238	22238K		340	92	4	16.7	9	1595	2490	800	1100	36.2
23238	23238K		340	120	4	16.7	9	1450	2490	800	1100	46.1
22338	22338K		400	132	5	22.3	12	1390	2530	670	850	81
23040	23040K	200	310	82	2.1	13.9	7.5	580	1310	670	850	24
24040	24040K30		310	109	2.1	11.1	6	1120	2220	850	1100	29.3
23140	23140K		340	112	3	16.7	9	1380	2460	800	1000	41.6
24140	24140K30		340	140	3	11.1	6	1580	2950	800	1000	49.9
22240	22240K		360	98	4	16.7	9	1771	2810	750	1000	43.9
23240	23240K		360	128	4	16.7	9	1610	2790	750	1000	55.4
22340	22340K		420	138	5	22.3	12	1490	2720	630	800	94

[Remark] When there is lubrication groove and holes on the outer ring, suffix "W33" is added to bearings number.

**21300, 22200, 22300, 23000, 23100, 23200,
24000, 24100 Series**



KML No.		Boundary dimensions mm				Lubrication groove & holes mm		Basic load ratings N		Limiting speeds RPM		Mass Kg
Cylindrical bore	Tapered bore	d	D	B	r_3 min	b	k	Dynamic Cr	Static Cor	Lubrication		
										Grease	Oil	
23044	23044K	220	340	90	3	13.9	7.5	760	1810	600	750	28.8
24044	24044K30		340	118	3	11.1	6	1330	2680	750	1000	38.1
23144	23144K		370	120	4	16.7	9	1570	2820	700	950	51.5
22244	22244K		400	108	4	16.7	9	2287	3220	630	800	58.4
23244	23244K		400	144	4	16.7	9	2070	3620	670	900	78.5
22344	22344K		460	145	5	22.3	12	1690	3200	560	700	120
23048	23048K	240	360	92	3	13.9	7.5	792	2060	530	670	35.5
24048	24048K30		360	118	3	11.1	6	1400	2850	700	950	40.8
23148	23148K		400	128	4	16.7	9	1790	3220	670	850	63.7
23248	23248K		440	160	4	22.3	12	2340	3990	730	970	110
23052	23052K	260	400	104	4	16.7	9	1000	2450	500	630	51.5
24052	24052K30		400	140	4	11.1	6	1790	3740	630	850	62.4
23152	23152K		440	144	4	16.7	9	2210	4070	600	800	88.2
24152	24152K		440	180	4	13.9	7.5	2360	4170	640	860	111
23252	23252K	480	174	5	22.3	12	2750	4640	640	860	144	
23056	23056K	280	420	106	4	16.7	9	1430	2860	710	950	54.5
24056	24056K		420	140	4	11.1	6	1740	3420	640	850	68.5
23156	23156K		460	146	5	16.7	9	2140	4280	660	880	100
22356	22356K		580	175	6	22.3	12	3150	4910	530	710	229
23060	23060K	300	460	118	4	16.7	9	1750	3480	630	840	75.8
24160	24160K		500	200	5	13.9	6	2990	5520	530	710	157
22260	22260K		540	140	5	22.3	12	2690	4330	550	740	136
23064	23064K	320	480	121	4	16.7	9	1830	3740	590	790	77.1
24164	24164K		540	218	5	16.7	9	3200	5990	480	640	197
23264	23264K		580	208	5	22.3	12	3630	6550	500	670	229
23068	23068K	340	520	133	5	22.3	12	2130	4330	530	710	101
24168	24168K		580	243	5	16.7	9	4060	7620	440	580	260
23268	23268K		620	224	6	22.3	12	4090	7560	450	600	291
23072	23072K	360	540	134	5	22.3	12	2280	4800	500	660	107
24172	24172K		600	243	5	16.7	9	4080	7690	450	600	275
23076	23076K	380	560	135	5	22.3	12	2320	4970	470	630	113
23176	23176K		620	194	5	22.3	12	3590	7320	420	560	226
23080	23080K	400	600	148	5	22.3	9	2710	5790	420	560	143
24180	24180K		650	250	6	22.3	12	4640	9140	390	530	407
23084	23084K	420	620	150	5	22.3	12	2800	6120	400	530	155
23284	23284K		760	272	7.5	22.3	12	6500	11500	320	430	537
23088	23088K	440	650	157	6	22.3	12	3030	6540	370	500	177
23188	23188K		720	226	6	22.3	12	5040	9600	330	440	378
23092	23092K	460	680	163	6	22.3	12	3240	7170	340	460	204
23192	23192K		760	240	7.5	22.3	12	5180	10800	310	410	420
23096	23096K	480	700	165	6	22.3	12	3350	7540	320	430	208
23196	23196K		790	248	7.5	22.3	12	5440	11500	280	380	470

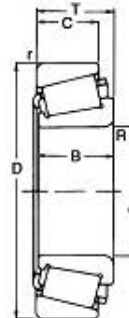
[Remark] When there is lubrication groove and holes on the outer ring, suffix "W33" is added to bearings number.

ROLLER BEARINGS



TAPERED ROLLER BEARINGS

Metric Size



Boundary dimensions (mm)							Basic load rating N		Limiting speeds RPM		Mass (kg)	Bearing No.	
d	D	T	B	C	R _{min}	r _{min}	dynamic Cr	static Cor	Grease	oil			
15	42	14.25	13	11	1	1	21 200	12 700	9 900	13 000	0.098	30302	
17	40	13.25	12	11	1	1	17 900	11 000	9 900	13 000	0.080	30203	
	47	15.25	14	12	1	1	33 000	21 200	9 000	12 000	0.134	30303	
20	42	15	15	12	0.6	0.6	22 900	15 600	9 500	13 000	0.097	32004X	
	47	15.25	14	12	1	1	26 000	16 600	8 800	12 000	0.127	30204	
	52	16.25	15	13	1.5	1.5	31 900	20 000	8 000	11 000	0.169	30304	
22	52	22.25	21	18	1.5	1.5	41 300	28 000	8 000	11 000	0.245	32304	
	44	15	15	11.5	0.6	0.6	23 800	16 600	8 900	12 000	0.106	320/22X	
	47	15	15	11.5	0.6	0.6	25 500	18 300	7 900	11 000	0.114	32005X	
25	52	16.25	15	13	1	1	29 200	19 300	7 300	9 800	0.154	30205	
	52	19.25	18	16	1	1	34 100	25 000	7 300	9 800	0.187	32205	
	52	22	22	18	1	1	44 000	32 500	7 300	9 800	0.217	33205	
	62	18.25	17	15	1.5	1.5	41 800	26 500	6 700	8 900	0.272	30305	
	62	18.25	17	13	1.5	1.5	35 800	23 200	5 900	7 800	0.284	31305	
	62	25.25	24	20	1.5	1.5	56 100	39 000	6 700	8 900	0.381	32305	
28	52	16	16	12	1	1	29 700	21 600	7 300	9 700	0.146	320/28X	
30	55	17	17	13	1	1	33 600	24 500	6 900	9 200	0.166	32006X	
	62	17.25	16	14	1	1	38 000	25 500	6 300	8 400	0.241	20206	
	62	21.25	20	17	1	1	47 300	33 500	6 300	8 400	0.301	32206	
	62	25	25	19.5	1	1	60 500	45 500	6 300	8 400	0.344	33206	
	72	20.75	19	16	1.5	1.5	52 800	34 500	5 700	7 600	0.408	30306	
	72	20.75	19	14	1.5	1.5	44 600	29 000	5 000	6 700	0.398	31306	
32	72	28.75	27	23	1.5	1.5	72 100	52 000	5 700	7 600	0.583	32306	
	58	17	17	13	1	1	34 700	26 000	6 600	8 700	0.181	320/32X	
	35	62	18	18	14	1	1	40 200	30 500	6 100	8 100	0.224	32007X
		72	18.25	17	15	1.5	1.5	48 400	32 500	5 500	7 400	0.344	30207
		72	24.25	23	19	1.5	1.5	61 600	45 000	5 500	7 400	0.457	32207
		72	28	28	22	1.5	1.5	79 200	62 000	5 500	7 400	0.530	33207
80		22.75	21	18	2	1.5	68 200	45 000	5 000	6 600	0.520	30307	
80		22.75	21	15	2	1.5	57 200	39 000	4 400	5 800	0.530	31307	
40	80	32.75	31	25	2	1.5	89 700	65 500	5 000	6 600	0.787	32307	
	68	19	19	14.5	1	1	44 500	40 000	5 300	7 100	0.278	32008X	
	68	22	22	18	1	1	56 000	44 700	5 300	7 100	0.312	33008	
	75	26	26	20.5	1.5	1.5	74 800	58 500	5 200	6 900	0.494	33108	
	80	19.75	18	16	1.5	1.5	58 300	40 000	4 900	6 600	0.435	30208	
	80	24.75	23	19	1.5	1.5	70 400	50 000	4 900	6 600	0.558	32208	
	80	32	32	25	1.5	1.5	96 800	78 000	4 900	6 600	0.728	33208	
	90	25.25	23	20	2	1.5	80 900	56 000	4 400	5 900	0.769	30308	
	90	25.25	23	17	2	1.5	69 300	46 500	3 900	5 200	0.738	31308	
90	35.25	32	27	2	1.5	110 000	83 000	4 400	5 900	1.080	32308		

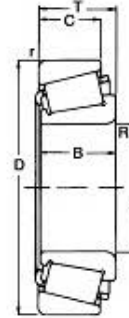


ROLLER BEARINGS



TAPERED ROLLER BEARINGS

Metric Size



Boundary dimensions (mm)							Basic load rating N		Limiting speeds RPM		Mass (kg)	Bearing No.
d	D	T	B	C	R _{min}	r _{min}	dynamic C _r	static C _{0r}	Grease	oil		
45	75	20	20	15.5	1	1	55 000	44 000	4 800	6 400	0.345	32009X
	75	24	24	19	1	1	62 600	50 000	4 800	6 400		33009
	80	26	26	20.5	1.5	1.5	79 200	64 000	4 700	6 200		33109
	85	20.75	19	16	1.5	1.5	62 700	44 000	4 400	5 900	0.495	30209
	85	24.75	23	19	1.5	1.5	74 800	56 000	4 400	5 900	0.607	32209
	85	32	32	25	1.5	1.5	101 000	81 500	4 400	5 900	0.783	33209
	100	27.25	25	22	2	1.5	101 000	72 000	4 000	5 300	1.010	30309
	100	27.25	25	18	2	1.5	85 800	60 000	3 500	4 600	0.958	31309
100	38.25	36	30	2	1.5	132 000	102 000	4 000	5 300	1.460	32309	
50	72	15	15	12	0.6	0.6	35 500		4 700	6 300	0.191	32910
	80	20	20	15.5	1	1	57 200	48 000	4 400	5 800	0.366	32010X
	80	24	24	19	1	1	64 000	56 000	4 400	5 800	0.433	33010
	85	26	26	20	1.5	1.5	80 900	67 000	4 200	5 600	0.580	33110
	90	21.75	20	17	1.5	1.5	70 400	52 000	4 000	5 300	0.563	30210
	90	24.75	23	19	1.5	1.5	70 400	52 000	4 000	5 300	0.648	32210
	90	32	32	24.5	1.5	1.5	76 500	57 000	4 000	5 300	0.852	33210
	110	29.25	27	23	2.5	2	117 000	83 000	3 600	4 800	1.310	30310
	110	29.25	27	19	2.5	2	99 000	69 500	3 200	4 200	1.250	31310
	110	42.25	40	33	2.5	2	161 000	127 000	3 600	4 800	1.920	32310
55	80	17	17	14	1	1	44 500	35 600	4 300	5 700	0.274	32911
	90	23	23	17.5	1.5	1.5	76 500	64 000	4 000	5 400	0.563	32011X
	90	27	27	21	1.5	1.5	84 200	75 000	4 000	5 400	0.643	33011
	95	30	30	23	1.5	1.5	105 000	86 500	3 900	5 200	0.846	33111
	100	22.75	21	18	2	1.5	84 200	61 000	3 600	4 900	0.740	30211
	100	26.75	25	21	2	1.5	99 000	75 000	3 600	4 900	0.876	32211
	100	36	35	27	2	1.5	130 000	10 800	3 600	4 900	1.150	33211
	120	31.5	29	21	2.5	2	134 000	96 500	3 300	4 400	1.660	30311
	120	31.5	29	21	2.5	2	114 000	80 000	2 900	3 800	1.590	31311
	120	45.5	43	35	2.5	2	187 000	15 000	3 300	4 400	2.440	32311
60	85	17	17	14	1	1	46 000	36 800	4 000	5 300	0.294	32912
	95	23	23	17.5	1.5	1.5	76 500	67 000	3 700	4 900	0.576	32012X
	95	27	27	21	1.5	1.5	85 800	78 000	3 700	4 900	0.684	33012
	100	30	30	23	1.5	1.5	110 000	95 000	3 600	4 700	0.912	33112
	110	23.75	22	19	2	1.5	91 300	65 500	3 400	4 500	0.949	30212
	110	29.75	28	24	2	1.5	119 000	91 500	3 400	4 500	1.180	32212
	110	38	38	29	2	1.5	157 000	134 000	3 400	4 500	1.550	33212
	130	33.5	31	26	3	2.5	161 000	116 000	3 000	4 000	2.060	30312
	130	33.5	31	22	3	2.5	134 000	96 500	2 700	3 600	1.970	31312
	130	48.5	46	37	3	2.5	216 000	17 300	3 000	4 000	3.020	32312
65	90	17	17	14	1	1	48 500	38 800	3 700	4 900	0.315	32913
	100	23	23	17.5	1.5	1.5	78 100	68 000	3 400	4 600	0.630	32013X
	100	27	27	21	1.5	1.5	91 300	83 000	3 400	4 600	0.732	33013
	110	31	34	26.5	1.5	1.5	134 000	116 000	3 300	4 400	1.280	33113
	120	24.75	23	20	2	1.5	108 000	78 000	3 100	4 200	1.180	30213
	120	32.75	31	27	2	1.5	142 000	112 000	3 100	4 200	1.580	32213
	120	41	41	32	2	1.5	168 000	153 000	3 100	4 200	1.980	33213
	140	36	33	28	3	2.5	183 000	134 000	2 800	3 700	2.550	30313
	140	36	33	23	3	2.5	154 000	112 000	2 500	3 300	2.420	31313
	140	51	48	39	3	2.5	246 000	200 000	2 800	3 700	3.660	32313



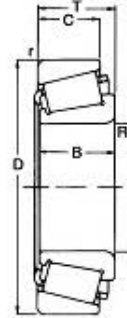
ROLLER BEARINGS

ROLLER BEARINGS



TAPERED ROLLER BEARINGS

Metric Size



Boundary dimensions (mm)							Basic load rating N		Limiting speeds RPM		Mass (kg)	Bearing No.
d	D	T	B	C	R _{min}	r _{min}	dynamic C _r	static C _{0r}	Grease	oil		
70	100	20	20	16	1	1	68 500	59 000	3 400	4 600	0.487	32914
	110	25	25	19	1.5	1.5	95 200	83 000	3 200	4 200	0.848	32014X
	110	31	31	25.5	1.5	1.5	121 000	108 000	3 200	4 200	1.070	33014
	125	26.25	24	21	2	1.5	119 000	88 000	2 900	3 900	1.260	30214
	125	33.25	31	27	2	1.5	147 000	118 000	2 900	3 900	1.680	32214
	125	41	41	32	2	1.5	190 000	163 000	2 900	3 900	2.100	33214
	150	38	35	30	3	2.5	209 000	153 000	2 600	3 500	3.060	30314
	150	38	35	25	3	2.5	176 000	127 000	2 300	3 000	2.920	31314
	150	54	51	42	3	2.5	275 000	228 000	2 600	3 500	4.460	32314
75	105	20	20	16	1	1	69 500	59 000	3 200	4 300	0.511	32915
	115	25	25	19	1.5	1.5	99 000	88 000	3 000	4 000	0.909	32015X
	115	31	31	25.5	1.5	1.5	128 000	122 000	3 000	4 000	1.130	33015
	130	27.25	25	22	2	1.5	130 000	100 000	2 700	3 600	1.410	30215
	130	33.25	31	27	2	1.5	151 000	120 000	2 700	3 600	1.740	32215
	130	41	41	31	2	1.5	194 000	170 000	2 700	3 600	2.200	33215
	160	40	37	31	3	2.5	229 000	173 000	2 400	3 200	3.570	30315
	160	40	37	26	3	2.5	194 000	143 000	2 100	2 800	3.470	31315
	160	58	55	45	3	2.5	319 000	260 000	2 400	3 200	5.350	32315
80	110	20	20	16	1	1	72 000	41 200	3 000	4 000	0.540	32916
	125	29	29	22	1.5	1.5	128 000	116 000	2 800	3 700	1.280	32016X
	130	37	37	29	2	1.5	168 000	153 000	2 600	3 600	1.900	33016
	140	28.25	26	22	2.5	2	140 000	104 000	2 500	3 400	1.720	30216
	140	35.25	33	28	2.5	2	176 000	137 000	2 500	3 400	2.180	32216
	140	46	46	35	2.5	2	233 000	208 000	2 500	3 400	2.920	33216
	170	42.5	39	33	3	2.5	255 000	190 000	2 300	3 000	4.410	30316
	170	42.5	39	27	3	2.5	212 000	153 000	2 000	2 700	4.110	31316
	170	61.5	58	48	3	2.5	358 000	300 000	2 300	3 000	6.410	32316
85	120	23	23	18	1.5	1.5	94 000	80 000	2 800	3 800	0.773	32917
	130	29	29	22	1.5	1.5	130 000	120 000	2 600	3 500	1.350	32017X
	130	36	36	29.5	1.5	1.5	172 000	166 000	2 600	3 500	1.700	33017
	150	30.5	28	24	2.5	2	165 000	125 000	2 400	3 200	2.140	30217
	150	38.5	36	30	2.5	2	201 000	163 000	2 400	3 200	2.750	32217
	150	49	49	37	2.5	2	270 000	240 000	2 400	3 200	3.580	33217
	180	44.5	41	34	4	3	286 000	216 000	2 100	2 900	5.200	30317
	180	44.5	41	28	4	3	229 000	166 000	1 900	2 500	4.850	31317
	180	63.5	60	49	4	3	380 000	320 000	2 100	2 900	7.150	32317
90	125	23	23	18	1.5	1.5	97 500	83 000	2 700	3 600	0.817	32918
	140	32	32	24	2	1.5	157 000	146 000	2 500	3 300	1.790	32018X
	150	45	45	35	2.5	2	238 000	220 000	2 000	3 000	3.150	33118
	160	32.5	30	26	2.5	2	183 000	140 000	2 200	3 000	2.660	30218
	160	42.5	40	34	2.5	2	238 000	193 000	2 200	3 000	3.490	32218
	190	46.5	43	36	4	3	308 000	236 000	2 000	2 700	6.030	30318
	190	67.5	64	53	4	3	429 000	360 000	2 000	2 700	8.570	32318

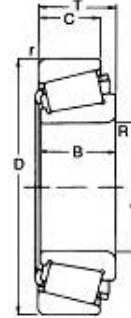


ROLLER BEARINGS



TAPERED ROLLER BEARINGS

Metric Size



Boundary dimensions (mm)							Basic load rating N		Limiting speeds RPM		Mass (kg)	Bearing No.
d	D	T	B	C	R _{min}	r _{min}	dynamic C _r	static C _{0r}	Grease	oil		
95	130	23	23	18	1.5	1.5	101 000	86 000	2 500	3 400	0.881	32919
	145	32	32	24	2	1.5	157 000	146 000	2 300	3 100	1.830	32019X
	145	39	39	32.5	2	1.5	209 000	200 000	2 300	3 100	2.270	33019
	170	34.5	32	27	3	2.5	205 000	156 000	2 100	2 800	3.070	30219
	170	45.5	43	37	3	2.5	264 000	220 000	2 100	2 800	4.300	32219
	200	49.5	45	38	4	3	341 000	265 000	1 900	2 500	6.980	30319
200	71.5	67	55	4	4	3	468 000	400 000	1 900	2 500	10.10	32319
100	140	25	25	20	1.5	1.5	121 000	103 000	2 400	3 200	1.140	32920
	150	32	32	24	2	1.5	161 000	150 000	2 200	3 000	1.910	32020X
	150	39	39	32.5	2	1.5	212 000	208 000	2 200	3 000	2.370	33020
	180	37	34	29	3	2.5	233 000	183 000	2 000	2 700	3.780	30220
	180	49	46	39	3	2.5	297 000	250 000	2 000	2 700	5.120	32220
	215	51.5	47	39	4	3	380 000	290 000	1 800	2 400	8.560	30320
215	77.5	73	60	4	3	539 000	465 000	1 800	2 400	12.70	32320	
105	145	25	25	20	1.5	1.5	126 000	107 000	2 300	3 000	1.200	32921
	160	35	35	26	2.5	2	190 000	180 000	2 100	2 800	2.420	32021X
	160	43	43	34	2.5	2	233 000	232 000	2 100	2 800	3.000	33021
	190	39	36	30	3	2.5	255 000	200 000	1 900	2 500	4.390	30221
	190	53	50	43	3	2.5	341 000	290 000	1 900	2 500	6.250	32221
	225	53.5	49	41	4	3	402 000	315 000	1 700	2 300	9.790	30321
225	81.5	77	63	4	3	561 000	480 000	1 700	2 300	14.50	32321	
110	150	25	25	20	1.5	1.5	127 000	108 000	2 200	2 900	1.240	32922
	170	38	38	29	2.5	2	220 000	208 000	2 000	2 700	3.070	32022X
	170	47	47	37	2.5	2	264 000	270 000	2 000	2 700	3.800	33022
	200	41	38	32	3	2.5	286 000	228 000	1 800	2 400	5.180	30222
	200	56	53	46	3	2.5	374 000	325 000	1 800	2 400	7.430	32222
	240	54.5	50	42	4	3	446 000	345 000	1 600	2 200	11.40	30322
240	84.5	80	65	4	3	660 000	570 000	1 600	2 200	18.00	32322	
120	165	29	29	23	1.5	1.5	162 000	138 000	2 000	2 600	1.770	32924
	180	38	38	29	2.5	2	229 000	224 000	1 800	2 500	3.250	32024X
	215	43.5	40	34	3	2.5	319 000	260 000	1 700	2 200	6.230	30224
	215	61.5	58	50	3	2.5	440 000	390 000	1 700	2 200	9.080	32224
	260	59.5	55	46	4	3	528 000	415 000	1 500	2 000	14.20	30324
	260	90.5	86	69	4	3	748 000	655 000	1 500	2 000	22.40	32324
130	180	32	32	25	2	1.5	194 000	165 000	1 800	2 400	2.360	32926
	200	45	45	34	2.5	2	297 000	290 000	1 700	2 200	4.960	32026X
	230	43.75	40	34	4	3	347 000	280 000	1 500	2 000	7.250	30226
	230	67.75	64	54	4	3	523 000	475 000	1 500	2 000	11.20	32226
	280	63.75	58	49	5	4	594 000	475 000	1 400	1 800	17.40	30326
	140	190	32	32	25	2	1.5	200 000	170 000	1 700	2 200	2.510
210	45	45	34	2.5	2	308 000	311 000	1 600	2 100	5.280	32028X	



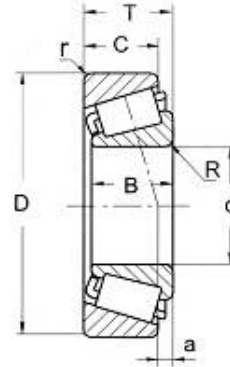
ROLLER BEARINGS

ROLLER BEARINGS



TAPERED ROLLER BEARINGS

Inch Size



Assembly No.	SET	Boundary dimensions (mm)						Load center (mm) a	Mass (kg)	Bearing No.		
		d	D	T	B	C	Rmin			min	Cone	Cup
A1	SET1	17.462	39.878	13.843	14.605	10.688	1.3	1.3	5.3	0.083	LM11749	LM11710
A2	SET2	19.050	45.237	15.494	16.637	12.065	1.3	1.3	5.6	0.124	LM11949	LM11910
A3	SET3	21.430	50.005	17.526	18.288	13.970	1.3	1.3	6.4	0.169	M12649	M12610
A4	SET4	26.988	50.292	14.244	14.732	10.688	3.5	1.3	3.4	0.115	L44649	L44610
A5	SET5	34.925	65.088	18.034	18.288	13.970	Spec	1.3	3.7	0.248	LM48548	LM48510
A6	SET6	31.750	59.131	15.875	16.764	11.811	Spec	1.3	2.8	0.180	LM67048	LM67010
A7	SET7	39.688	73.025	25.654	22.098	21.336	0.8	2.3	5.9	0.435	M201047	M201011
A12	SET12	21.986	45.237	15.494	16.637	12.065	1.3	1.3	5.4	0.123	LM12749	LM12710
A13	SET13	34.988	59.131	15.875	16.764	11.938	Spec	1.3	2.5	0.167	L 68149	L68110
A14	SET14	25.400	50.292	14.224	14.732	10.668	1.3	1.3	3.4	0.130	L 44643	L44610
A15	SET8	29.000	50.292	14.224	14.732	10.668	3.5	1.3	3.5	0.110	L 45449	L45410
A16	SET16	21.986	45.974	15.494	16.637	12.065	1.3	1.3	5.4	0.121	LM12749	LM12711
A17	SET17	34.988	59.974	15.875	16.764	11.938	Spec	1.3	2.5	0.174	L 68149	L 68 111
A18	SET11	38.000	63.000	17.000	17.000	13.500	Spec	1.3	2.3	0.194	JL69349	JL69310
A19	-	25.400	50.005	13.495	14.250	9.525	1.0	1.0	3.0	0.115	07100	07196
A21	SET21	28.575	57.150	19.845	19.355	15.875	3.5	1.5	5.9	0.213	1988	1922
A22	SET25	55.000	90.000	23.000	26.000	18.500	3.5	0.5	2.8	0.576	JLM506848E(2)	JLM506810(2)
A23	SET23	50.800	82.550	51.765	51.765	41.605	3.5	1.3	5.8	1.100	LM104949E(2)	LM104910(2)
A29	SET22	31.750	59.131	15.875	18.570	11.811	Spec	1.3	2.8	0.180	LM67045	LM67010
A31	SET24	35.000	60.000	15.875	18.460	11.990	2.0	1.3	2.5	0.183	JL68145	JL68111Z
A32	-	28.000	52.000	16.000	16.000	12.000	1.0	1.0	4.0	0.146	320 / 28X	320 / 28X
A33	-	32.000	58.000	17.000	17.000	13.000	3.3	1.5	3.0	0.181	320 / 32DX	320 / 32DX
A34	SET34	21.430	45.237	15.494	16.637	12.065	1.3	1.3	5.4	0.121	LM12748	LM12710
A35	SET45	41.275	73.431	19.588	19.812	14.732	3.5	0.8	3.3	0.327	LM501349	LM501310
A36	SET36	45.242	77.788	21.430	19.842	16.667	3.5	0.8	2.2	0.381	LM603049	LM603012
A37	SET37	45.242	77.788	19.842	19.842	15.080	3.5	0.8	2.2	0.363	LM603049	LM603011
A38	SET38	50.800	82.550	21.590	22.225	16.510	3.5	1.3	5.8	0.419	LM104949	LM104911
A39	SET46	32.000	53.000	14.500	15.000	11.500	3.5	1.3	-	0.120	JL26749	JL26710
A40	SET26	50.000	82.000	21.500	21.500	17.000	3.0	0.5	5.8	0.440	JLM104946	JLM104910Z
A41	SET42	38.100	65.088	18.034	21.139	13.970	Spec	1.3	4.3	0.240	57410S	LM29710S
A42	-	55.000	90.000	23.000	23.000	18.500	1.5	0.5	2.8	0.576	JLM506849A	JLM506811
A80	SET47	45.242	73.431	19.588	19.812	15.748	3.5	0.8	4.7	0.303	LM102949	LM102910
A81	SET56	38.100	65.088	18.034	18.288	13.970	Spec	1.3	4.3	0.233	LM29748	LM29710
	SET9	35.000	65.000	18.100	20.600	17.000	2.3	1.3		0.380	U298	U261L
	SET10	39.688	73.025	19.395	22.100	18.500	2.3	1.3		0.500	U399	U360L
	SET20	39.688	79.967	19.395	22.100	20.100	2.3	1.3		0.740	U399A	U365L
		26.000	52.000	15.000	14.260	12.700	3.2	2.0		0.139	CBK - 171	
		19.050	39.992	12.014	11.153	9.525	1.0	1.3		0.067	A6075	A6157
		32.000	58.000	17.000	17.000	13.000	3.5	1.0		0.182	320 / 32C	
		25.000	47.000	15.000	15.000	11.500	2.5	1.0			32005X / VB015	
		38.000	63.000	17.000	19.000	13.500	Spec	1.3		0.198	JL69345	JL69310Z

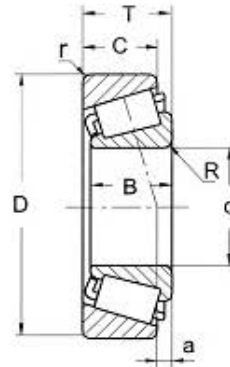


ROLLER BEARINGS



TAPERED ROLLER BEARINGS

Inch Size



Assembly No	Boundary dimensions (mm)							Mass (kg)	Bearing No.	
	d	D	T	B	C	Rmin	rmin		Cone	Cup
SET30	28.000	57.150	17.462	17.462	13.495	3.5	1.5	0.270	JLM67042	LM67010
SET44	25.400	50.292	14.244	14.732	10.668	1.3	1.3	0.210	L44600LB+90005	L44610
SET50	28.575	73.025	22.225	22.225	17.462	0.8	3.3	0.480	02872	02820
SET51	26.988	62.000	19.050	20.638	14.288	1.3	0.8	0.291	15106	15245
SET52	44.450	82.931	23.812	25.400	19.050	3.5	0.8	0.561	25580	25520
SET53	44.450	82.931	26.988	25.400	22.225	3.5	2.3	0.603	25580	25523
SET54	45.618	82.931	23.812	25.400	19.050	3.5	0.8	0.544	25590	25520
SET55	45.618	82.931	26.988	25.400	22.225	3.5	2.3	0.588	25590	25523
SET57	34.920	76.200	29.370	28.575	23.812	3.3	1.5	0.627	31594	31520
SET58	34.925	65.088	18.034	18.288	13.970	1.3	0.8	0.252	LM48548A	LM48510
SET59	34.925	65.088	21.082	18.288	17.016	0.8	1.5	0.280	LM48548A	LM48511A
SET60	34.925	65.088	21.082	18.288	17.018	Spec	1.5	0.290	LM48548	LM48511A
SET61	15.875	42.862	14.288	14.288	9.525	1.5	1.5	0.100	11590	11520
SET62	45.230	79.985	19.842	20.638	15.080	2.0	1.3	0.400	17887	17831
SET63	33.338	68.262	22.225	22.225	17.462	0.8	1.5	0.379	M88048	M88010
SET64	44.450	95.250	30.958	28.575	22.225	3.5	0.8	1.000	HM903249	HM903210
SET65	28.575	64.292	21.433	21.433	16.670	1.5	1.5	0.348	M86647	M86610
SET66	51.592	90.000	20.638	22.225	16.513	2.0	2.0	0.507	3685	362
SET67	34.925	72.233	25.400	25.400	19.842	2.3	2.3	0.489	HM88649	HM88610
SET68	85.725	136.525	30.162	28.789	22.225	3.5	3.3	1.550	497	493
SET69	41.275	73.431	21.430	19.812	16.604	3.5	0.8	0.350	LMS01349	LMS01314



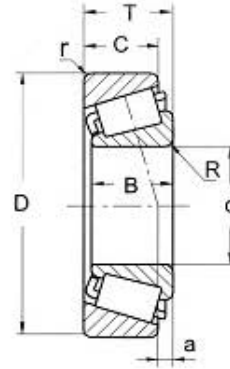
ROLLER BEARINGS

ROLLER BEARINGS



TAPERED ROLLER BEARINGS

Inch Size



Assembly No.	Boundary dimensions (mm)							Mass (kg)	Bearing No.	
	d	D	T	B	C	Rmin	rmin		Cone	Cup
SET70	38.100	65.088	18.034	18.288	13.970	2.3	1.3	0.235	LM29749	LM29710
SET73	25.400	62.000	19.050	20.638	14.288	3.5	1.3	0.300	15101	15245
SET74	57.150	96.838	21.000	21.946	15.875	3.5	0.8	0.581	387A	382A
SET75	57.150	96.838	25.400	21.946	20.274	3.5	2.3	0.650	387A	382S
SET76	57.150	96.838	21.000	21.946	15.875	5.0	0.8	0.576	387AS	382A
SET77	57.531	98.425	21.000	21.946	17.826	3.5	0.8	0.610	388A	382
SET78	50.800	111.125	30.162	26.909	20.638	3.5	3.3	1.080	55200C	55437
SET79	107.950	165.100	36.512	36.512	26.988	3.5	3.3	2.690	56425	56650
SET81	31.750	73.025	29.370	27.783	23.020	3.3	1.3	0.622	HM88542	HM88510
SET82	50.800	82.000	21.500	22.225	17.000	3.5	0.5	0.429	LM104949	JLM104910
SET83	44.450	88.900	30.162	29.370	23.020	3.5	3.3	0.849	HM803149	HM803110
SET84	44.450	104.775	36.512	36.512	28.575	3.5	3.3	1.620	HM807040	HM807010
SET85	36.487	73.025	23.812	24.608	19.050	1.5	2.3	0.559	25880	25820
SET401	82.550	139.992	36.512	36.098	28.575	3.5	3.3	2.220	580	572
SET403	95.250	152.400	39.688	36.322	30.162	5.0	3.3	2.510	594A	592A
SET404	92.075	152.400	39.688	36.322	30.162	6.4	3.3	2.630	598A	592A
SET405	82.550	146.050	41.275	41.275	31.750	3.5	3.3	2.740	663	653
SET406	44.450	93.264	30.162	30.302	23.812	3.5	3.3	0.961	3782	3720
SET407	57.150	97.630	24.608	24.608	19.446	3.5	0.8	0.747	28682	28622
SET408	66.675	112.712	30.162	30.162	23.812	3.5	3.3	1.180	39590	39520
SET410	50.800	104.775	30.162	30.958	23.812	6.4	3.3	1.220	45284	45220
SET411	82.550	133.350	33.338	33.338	26.195	3.5	3.3	1.720	47686	47620
SET412	63.500	122.238	38.100	38.354	29.718	7.0	3.3	1.940	HM212047	HM212011
SET413	66.675	122.238	38.100	38.354	29.718	3.5	3.3	1.850	HM212049	HM212011
SET414	89.975	146.975	40.000	40.000	32.500	7.0	3.5	2.520	HM218248	HM218210
SET415	88.900	152.400	39.688	39.688	30.163	3.5	3.3	2.840	HMS18445	HMS18410
SET416	57.150	104.775	30.162	30.958	23.812	6.4	3.3	1.090	45291	45220
SET417	92.075	146.050	33.338	34.925	26.195	3.5	3.3	2.080	47890	47820
SET418	61.912	136.525	46.038	46.038	36.512	3.5	3.3	3.470	H715334	H715311
SET419	68.262	136.525	46.038	46.038	36.512	3.5	3.3	3.240	H715343	H715311

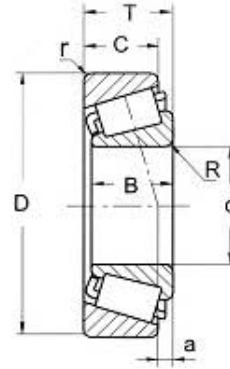


ROLLER BEARINGS



TAPERED ROLLER BEARINGS

Inch Size



Boundary dimensions (mm)							Mass (kg)	Bearing No.	
d	D	T	B	C	Rmin	rmin		Cone	Cup
50.800	88.900	20.638	22.225	16.513	3.5	1.3	0.516	368A	362A
57.150	96.838	21.000	21.946	15.875	3.5	0.8	0.581	387A	382A
57.150	96.838	21.000	21.946	15.875	5.0	0.8	0.576	387AS	382S
63.500	110.000	22.000	21.996	18.824	3.5	1.3	0.847	395	394A
38.100	88.500	26.988	29.083	22.225	3.5	1.5	0.841	418	414
38.100	76.200	23.812	25.654	19.050	3.5	3.3	0.402	2788	2720
34.925	80.167	29.370	30.391	23.812	3.5	3.3	0.732	3379	3320
50.800	93.264	30.162	30.302	23.812	3.5	3.3	0.848	3780	3720
34.925	85.725	30.162	30.162	23.812	3.5	3.3	0.897	3872	3820
63.500	112.712	30.162	30.048	23.812	3.5	3.3	1.200	3982	3920
66.675	112.712	30.162	30.048	23.812	3.5	3.3	1.180	3984	3920
41.275	90.488	39.688	40.386	33.338	3.5	3.3	1.220	4388	4335
19.050	39.992	12.014	11.153	9.525	1.0	1.3	0.065	A6075	A6175
28.575	73.025	22.225	22.225	17.462	0.8	3.3	0.480	02872	02820
23.812	50.005	13.495	14.260	9.525	1.5	1.0	0.123	07093	07196
25.400	50.005	13.495	14.260	9.525	1.0	1.0	0.117	07100	07196
19.050	49.225	18.034	19.050	14.288	1.3	1.3	0.179	09067	09195
15.875	42.862	14.288	14.288	9.525	1.5	1.5	0.103	11590	11520
31.750	69.012	19.845	19.583	15.875	3.5	1.3	0.360	14125A	14276
26.162	61.912	19.050	19.939	14.288	0.8	2.0	0.280	15103S	15243
31.750	62.000	18.161	19.050	14.288	Spec	1.3	0.244	15123	15245
45.230	79.985	19.842	20.638	15.080	2.0	1.3	-	17887	17831
41.275	73.025	16.667	17.462	12.700	3.5	1.5	0.281	18590	18520
50.800	85.000	17.462	17.462	13.495	3.5	1.5	0.374	18790	18720
41.275	76.200	22.225	23.020	17.462	3.5	0.8	0.432	24780	24720
44.450	82.931	23.812	25.400	19.050	3.5	0.8	0.561	25580	25520
45.618	82.931	23.812	25.400	19.050	3.5	0.8	0.544	25590	25520
45.618	82.931	26.988	25.400	22.225	3.5	2.3	0.603	25590	25523
34.925	73.025	23.812	24.608	19.050	1.5	0.8	0.471	25877	25821
82.550	125.412	25.400	25.400	19.845	3.5	1.5	1.070	27687	27620
52.388	92.075	24.608	25.400	19.845	3.5	0.8	0.677	28584	28521
41.275	79.375	23.812	25.400	19.050	3.5	0.8	0.530	26882	26822
60.325	101.600	25.400	25.400	19.845	3.5	3.3	0.811	28985	28920



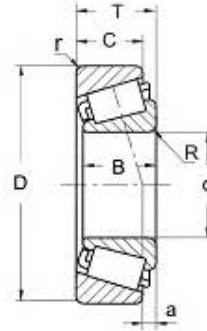
ROLLER BEARINGS

ROLLER BEARINGS



TAPERED ROLLER BEARINGS

Inch Size



Boundary dimensions (mm)							Mass (kg)	Bearing No.	
d	D	T	B	C	Rmin	rmin		Cone	Cup
66.675	107.950	25.400	25.400	19.050	3.5	3.3	0.860	29590	29520
69.850	117.475	30.162	30.162	23.812	3.5	3.3	1.280	33275	33462
57.150	112.712	30.162	30.162	23.812	8.0	3.3	1.380	39581	39520
66.675	112.712	30.162	30.162	23.812	3.5	3.3	1.190	39590	39520
76.200	127.000	30.162	31.000	22.225	3.5	3.3	1.460	42687	42620
35.000	62.000	16.700	17.000	13.599	Spec	1.5	0.222	LM78349	LM78310A
25.400	59.530	23.368	23.114	18.288	0.8	1.5	0.330	M84249	M84210
30.162	64.292	21.433	21.433	16.670	1.5	1.5	0.336	M86649	M86610
33.338	68.262	22.225	22.225	17.462	0.8	1.5	0.379	M88048	M88010
34.925	72.233	25.400	25.400	19.842	2.3	2.3	0.485	HM88649	HM88610
45.242	73.431	19.588	19.812	15.748	3.5	0.8	0.307	LM102949	LM102910
50.000	82.000	21.500	21.500	17.000	3.0	0.5	0.420	JLM104948	JLM104910
50.000	90.000	28.000	28.000	23.000	3.0	2.5	0.752	JM205149	JM205110
55.000	95.000	29.000	29.000	23.500	1.5	2.5	0.820	JM207049	JM207010
40.988	67.975	17.500	18.000	13.500	Spec	1.5	0.234	LM300849	LM300811
41.275	88.900	30.162	29.370	23.020	0.8	3.3	0.892	HM803145	HM803110
41.275	88.900	30.162	29.370	23.020	3.5	3.3	0.892	HM803146	HM803110

