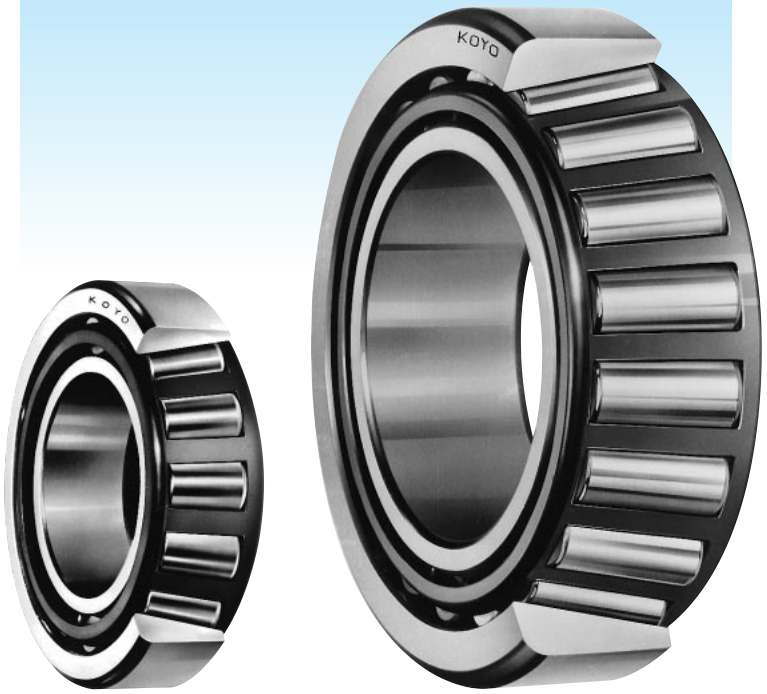
KOYO



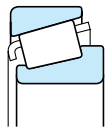
Tapered roller bearings

Tapered roller bearings are designed such that cup, cone and rollers have tapered surfaces whose apexes converge at a common point on the bearing axis.

Along with metric series bearings, inch series bearings are also available.

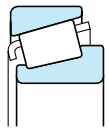
This type of bearing is suitable for applications that involve heavy or impact loading.

Tapered roller bearings



Matric series

Bore diameter **15 – 200 mm**

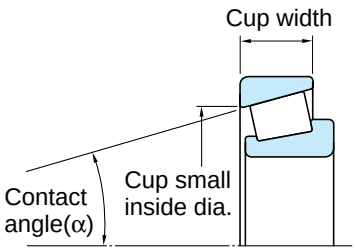


Inch series
(including J series matric bearing)

Bore diameter **15.875 – 200.000 mm**

Tapered roller bearings

- Able to carry radial and axial load in one direction simultaneously.
  Because an axial component of force is produced when this type of bearing is loaded radially, two bearings are used together facing one another, or two or more bearings are matched and used.
- There are the standard, medium and steep type which are different in contact angle size.
  Medium-tapered metric series bearings are identified by the supplementary code "C" which is added as a suffix to bearing numbers.
- Bearings whose cup width, cup small inside diameter and contact angle are determined in accordance with ISO 355 specifications are identified by the supplementary code "J" as a suffix.
  Cone assemblies and the cups of such bearings are inter-changeable with those of bearings produced abroad if the bearing numbers are the same.



ISO sub-unit specifications

Note : When supplementary code "J" is added as a prefix (not a suffix) to bearing numbers (e.g. JHM720249/JHM720210), the bearings are not designed according to ISO 355.
Such bearings are called "J series metric tapered roller bearings," and are produced according to special tolerances.

Tapered roller bearings

Boundary dimensions

Metric single-row tapered roller bearings : as specified in JIS B 1512.

Reference

JIS B 1512 specifies new dimension series which are based on ISO 355, as well as the conventional "3XX" dimension series.
These new dimension series are as follows :

New dimension series

(1) Angle series

Angle series	Contact angle α	
	over	up to
2	10°	13°52'
3	13°52'	15°59'
4	15°59'	18°55'
5	18°55'	23°
6	23°	27°
7	27°	30°

(2) Diameter series

Diameter series	$D/\ (d^{0.77})$	
	over	up to
B	3.40	3.80
C	3.80	4.40
D	4.40	4.70
E	4.70	5.00
F	5.00	5.60
G	5.60	7.00

(3) Width series

Width series	$T/\ \{(D-d)^{0.95}\}$	
	over	up to
B	0.50	0.68
C	0.68	0.80
D	0.80	0.88
E	0.88	1.00

Remarks :
1. Combine these series symbols in the listed order to make the dimension series numbers.
   (ex. 2BC)
2. Bearing numbers consist of a dimension series number and a bore diameter which is added as a suffix.
   (ex. 2BC080 : bearing bore diameter 80 mm)

Tolerances

- Metric series single-row tapered roller bearings as specified in JIS B 1514.
- Inch series tapered roller bearings as specified in ABMA Section 19.
- J series metric tapered roller bearings the tolerance is specified separately.

Standard cage

Pressed steel cage (supplementary code : //)
(Some large size bearings have a pin type cage (FP) instead.)

Allowable misalignment

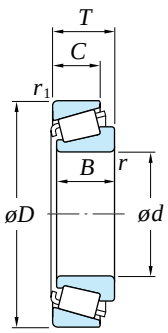
Single-row tapered roller bearings : 0.000 9 rad (3')
(If the misalignment exceeds this angle size, Koyo is ready to design special bearings to order.)

Equivalent radial load	■ Single-row tapered roller bearings Dynamic equivalent radial load $\left\{\text{when } \frac{F_a}{F_r} \leq e\right\}$ $P_r = F_r$ $\left\{\text{when } \frac{F_a}{F_r} > e\right\}$ $P_r = 0.4F_r + Y_1 F_a$ Static equivalent radial load $P_{0r} = 0.5F_r + Y_0 F_a$ when $P_{0r} < F_r$, $P_{0r} = F_r$ ■ Double-row or four-row tapered roller bearings Dynamic equivalent radial load $\left\{\text{when } \frac{F_a}{F_r} \leq e\right\}$ $P_r = F_r + Y_2 F_a$ $\left\{\text{when } \frac{F_a}{F_r} > e\right\}$ $P_r = 0.67F_r + Y_3 F_a$ Static equivalent radial load $P_{0r} = F_r + Y_0 F_a$

Remarks) 1. When two single-row tapered roller bearings are used together facing one another, an axial component of force is produced under radial load.

2. When the load is too small, slippage occurs between the rollers and raceways, causing smearing to develop. This also occurs to matched pair bearings when the ratio of axial load to radial load exceeds the value e shown in the specification table ($F_a / F_r > e$).
Consult Koyo on use of bearings under such conditions.

Tapered roller bearings
metric series
d 15 – 30 mm

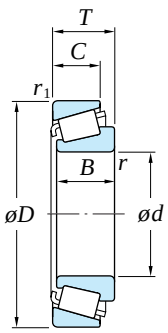


Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min⁻¹)		Bearing No.	(Refer.) Dimension series to ISO355	(Refer.) Mass (kg)
d	*D*	*T*	*B*	*C*	*r* min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.			
15	35	11.75	11	10	0.6	0.6	15.8	14.5	12 000	16 000	**30202R**	–	0.054
	42	14.25	13	11	1	1	21.9	19.2	10 000	14 000	**30302JR**	2FB	0.098
17	40	13.25	12	11	1	1	20.8	20.7	10 000	14 000	**30203JR**	2DB	0.081
	40	17.25	16	14	1	1	27.4	27.5	10 000	14 000	**32203JR**	2DD	0.104
	47	15.25	14	12	1	1	27.4	24.5	9 200	12 000	**30303R**	–	0.127
	47	20.25	19	16	1	1	31.9	29.9	9 400	13 000	**32303**	–	0.170
20	42	15	15	12	0.6	0.6	27.3	31.5	9 700	13 000	**32004JR**	3CC	0.102
	47	15.25	14	12	1	1	25.8	25.5	9 000	12 000	**57008R**	–	0.125
	47	15.25	14	12	1	1	27.0	27.2	8 700	12 000	**30204JR**	2DB	0.127
	47	19.25	18	15	1	1	33.1	34.7	8 900	12 000	**32204JR**	2DD	0.159
	52	16.25	16	13	1.5	1.5	36.2	35.1	8 300	11 000	**30304AJR**	–	0.179
	52	22.25	21	18	1.5	1.5	45.1	46.7	8 400	11 000	**32304JR**	2FD	0.244
22	44	15	15	11.5	0.6	0.6	28.3	33.6	9 100	12 000	**320/22JR**	3CC	0.108
25	47	15	15	11.5	0.6	0.6	30.2	37.7	8 300	11 000	**32005JR**	4CC	0.118
	47	17	17	14	0.6	0.6	33.5	42.3	8 300	11 000	**33005JR**	2CE	0.131
	52	16.25	15	13	1	1	31.5	33.7	7 800	10 000	**30205JR**	3CC	0.156
	52	19.25	18	16	1	1	39.8	44.8	7 900	11 000	**32205JR**	2CD	0.188
	52	22	22	18	1	1	48.9	58.5	7 900	10 000	**33205JR**	2DE	0.225
	62	18.25	17	13	1.5	1.5	39.8	42.5	5 700	8 000	**30305DJR**	7FB	0.269
	62	18.25	17	14	1.5	1.5	45.0	45.8	6 700	9 000	**TR0506R**	–	0.275
	62	18.25	17	15	1.5	1.5	48.2	46.9	6 800	9 000	**30305JR**	2FB	0.273
	62	25.25	24	20	1.5	1.5	61.2	64.1	6 900	9 100	**32305JR**	2FD	0.386
28	52	16	16	12	1	1	35.2	44.0	7 500	10 000	**320/28JR**	4CC	0.150
30	55	17	17	13	1	1	38.2	48.0	7 000	9 400	**32006JR**	4CC	0.177
	55	20	20	16	1	1	43.2	55.2	7 000	9 400	**33006JR**	2CE	0.203
	62	17.25	16	14	1	1	41.5	44.8	6 500	8 700	**30206JR**	3DB	0.236
	62	21.25	20	17	1	1	50.7	57.9	6 500	8 700	**32206JR**	3DC	0.292
	62	25	25	19.5	1	1	66.4	79.4	6 500	8 700	**33206JR**	2DE	0.359
	72	20.75	19	14	1.5	1.5	50.9	54.9	4 900	6 800	**30306DJR**	7FB	0.400
	72	20.75	19	16	1.5	1.5	56.5	55.2	5 900	7 900	**TRA0607R**	–	0.405
	72	20.75	19	16	1.5	1.5	59.6	60.1	5 800	7 700	**30306JR**	2FB	0.411
	72	28.75	27	23	1.5	1.5	82.2	91.6	5 900	7 900	**32306JR**	2FD	0.588

d 32 – (55) mm

Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min^{-1})		Bearing No.	(Refer.) Dimension series to ISO355	(Refer.) Mass (kg)
d	*D*	*T*	*B*	*C*	*r* min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.			
32	58	17	17	13	1	1	39.2	50.6	6 700	8 900	**320/32JR**	4CC	0.196
	65	22.25	21	18	1	1	51.6	57.7	6 200	8 200	**322/32**	–	0.330
	75	29.75	28	23	1.5	1.5	75.1	87.1	5 600	7 400	**TR0608A**	5FD	0.649
35	62	18	18	14	1	1	45.5	59.4	6 200	8 200	**32007JR**	4CC	0.231
	62	21	21	17	1	1	51.3	68.0	6 200	8 200	**33007JR**	2CE	0.263
	72	18.25	17	15	1.5	1.5	55.1	60.9	5 600	7 400	**30207JR**	3DB	0.344
	72	24.25	23	19	1.5	1.5	69.6	82.4	5 600	7 500	**32207JR**	3DC	0.453
	72	28	28	22	1.5	1.5	87.6	107	5 700	7 500	**33207JR**	2DE	0.551
	80	22.75	21	15	2	1.5	63.1	69.1	4 300	6 000	**30307DJR**	7FB	0.536
	80	22.75	21	18	2	1.5	76.2	78.9	5 200	6 900	**30307JR-1**	2FB	0.527
	80	32.75	31	25	2	1.5	96.9	123	5 200	7 000	**TR0708-1R**	–	0.830
	80	32.75	31	25	2	1.5	101	114	5 300	7 000	**32307JR**	2FE	0.776
40	68	19	19	14.5	1	1	53.5	71.4	5 600	7 400	**32008JR**	3CD	0.282
	68	22	22	18	1	1	60.4	84.6	5 500	7 400	**33008JR**	2BE	0.326
	75	26	26	20.5	1.5	1.5	82.2	108	5 200	6 900	**33108JR**	2CE	0.508
	80	19.75	18	16	1.5	1.5	62.9	69.2	5 000	6 700	**30208JR**	3DB	0.434
	80	24.75	23	19	1.5	1.5	77.7	90.8	5 000	6 600	**32208JR**	3DC	0.554
	80	32	32	25	1.5	1.5	108	139	5 000	6 700	**33208JR**	2DE	0.758
	90	25.25	23	17	2	1.5	80.5	90.2	3 800	5 300	**30308DJR**	7FB	0.757
	90	25.25	23	20	2	1.5	90.6	101	4 500	6 100	**30308JR**	2FB	0.757
	90	35.25	33	26	2	1.5	112	138	4 700	6 200	**TR0809AR**	–	1.10
	90	35.25	33	27	2	1.5	116	139	4 600	6 200	**32308JR**	2FD	1.06
45	75	20	20	15.5	1	1	62.8	86.5	5 000	6 600	**32009JR**	3CC	0.354
	75	24	24	19	1	1	69.6	101	5 000	6 700	**33009JR**	2CE	0.416
	80	26	26	20.5	1.5	1.5	87.5	120	4 800	6 400	**33109JR**	3CE	0.563
	85	20.75	19	16	1.5	1.5	67.2	77.4	4 600	6 100	**30209JR**	3DB	0.502
	85	24.75	23	19	1.5	1.5	84.2	104	4 600	6 100	**32209JR-1**	3DC	0.597
	85	32	32	25	1.5	1.5	112	149	4 600	6 200	**33209JR**	3DE	0.818
	100	27.25	25	18	2	1.5	95.1	107	3 400	4 700	**30309DJR**	7FB	0.973
	100	27.25	25	22	2	1.5	113	128	4 100	5 400	**30309JR**	2FB	1.01
	100	38.25	36	30	2	1.5	146	180	4 100	5 500	**32309JR**	2FD	1.43
50	72	15	15	12	0.6	0.6	35.9	56.3	4 900	6 600	**32910JR**	2BC	0.195
	80	20	20	15.5	1	1	65.7	94.5	4 600	6 100	**32010JR**	3CC	0.389
	80	24	24	19	1	1	73.0	110	4 600	6 100	**33010JR**	2CE	0.451
	85	26	26	20	1.5	1.5	89.4	127	4 400	5 900	**33110JR**	3CE	0.594
	90	21.75	20	17	1.5	1.5	76.5	91.7	4 300	5 700	**30210JR**	3DB	0.566
	90	24.75	23	19	1.5	1.5	85.0	105	4 300	5 700	**32210JR**	3DC	0.643
	90	32	32	24.5	1.5	1.5	119	167	4 300	5 700	**33210JR**	3DE	0.887
	110	29.25	27	19	2.5	2	115	133	3 100	4 300	**30310DJR**	7FB	1.25
	110	29.25	27	23	2.5	2	137	152	3 700	4 900	**30310JR**	2FB	1.32
	110	42.25	40	33	2.5	2	176	220	3 700	5 000	**32310JR**	2FD	1.89
55	80	17	17	14	1	1	44.6	73.3	4 400	5 900	**32911JR**	2BC	0.285
	90	23	23	17.5	1.5	1.5	84.6	121	4 100	5 500	**32011JR**	3CC	0.569
	90	27	27	21	1.5	1.5	96.5	149	4 100	5 400	**33011JR**	2CE	0.672
	95	30	30	23	1.5	1.5	116	161	4 000	5 300	**33111JR**	3CE	0.868
	100	22.75	21	18	2	1.5	94.6	113	3 900	5 200	**30211JR**	3DB	0.732
	100	26.75	25	21	2	1.5	107	133	3 900	5 200	**32211JR-1**	3DC	0.863
	100	35	35	27	2	1.5	142	189	3 900	5 200	**33211JR**	3DE	1.18
	120	31.5	29	21	2.5	2	129	148	2 900	4 000	**30311DJR**	7FB	1.59

Tapered roller bearings
metric series
d (55) – 70 mm

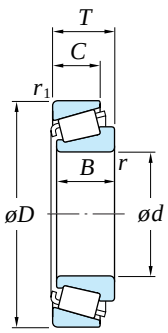


Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min⁻¹)		Bearing No.	(Refer.) Dimension series to ISO355	(Refer.) Mass (kg)
d	*D*	*T*	*B*	*C*	*r* min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.			
55	120	31.5	29	25	2.5	2	149	170	3 300	4 500	**30311JR**	2FB	1.65
	120	45.5	43	35	2.5	2	200	250	3 400	4 500	**32311JR**	2FD	2.38
60	85	17	17	14	1	1	46.2	78.2	4 100	5 500	**32912JR**	2BC	0.306
	95	23	23	17.5	1.5	1.5	86.1	127	3 900	5 200	**32012JR**	4CC	0.621
	95	27	27	21	1.5	1.5	101	162	3 900	5 200	**33012JR**	2CE	0.719
	100	30	30	23	1.5	1.5	118	170	3 700	5 000	**33112JR**	3CE	0.923
	110	23.75	22	19	2	1.5	106	127	3 500	4 700	**30212JR**	3EB	0.945
	110	29.75	28	24	2	1.5	132	167	3 500	4 700	**32212JR**	3EC	1.19
	110	38	38	29	2	1.5	174	239	3 600	4 700	**33212JR**	3EE	1.57
	130	33.5	31	22	3	2.5	153	179	2 600	3 700	**30312DJR**	7FB	2.01
	130	33.5	31	26	3	2.5	173	201	3 100	4 100	**30312JR**	2FB	2.08
	130	48.5	46	37	3	2.5	244	315	3 100	4 200	**32312JR**	2FD	2.99
65	90	17	17	14	1	1	47.4	83.1	3 900	5 200	**32913JR**	2BC	0.327
	100	23	23	17.5	1.5	1.5	90.0	137	3 600	4 800	**32013JR**	4CC	0.664
	100	27	27	21	1.5	1.5	103	169	3 600	4 800	**33013JR**	2CE	0.762
	110	34	34	26.5	1.5	1.5	152	223	3 400	4 600	**33113JR**	3DE	1.33
	120	24.75	23	20	2	1.5	128	156	3 200	4 300	**30213JR**	3EB	1.18
	120	32.75	31	27	2	1.5	157	203	3 200	4 300	**32213JR**	3EC	1.58
	120	41	41	32	2	1.5	200	277	3 200	4 300	**33213JR**	3EE	2.02
	140	36	33	23	3	2.5	176	209	2 400	3 400	**30313DJR**	7GB	2.44
	140	36	33	28	3	2.5	204	239	2 800	3 800	**30313JR**	2GB	2.56
	140	51	48	39	3	2.5	276	357	2 900	3 900	**32313JR**	2GD	3.64
70	100	20	20	16	1	1	71.0	115	3 500	4 700	**32914JR**	2BC	0.496
	110	25	25	19	1.5	1.5	108	163	3 300	4 400	**32014JR**	4CC	0.884
	110	31	31	25.5	1.5	1.5	134	208	3 300	4 400	**33014JR**	2CE	1.09
	120	37	37	29	2	1.5	181	266	3 100	4 200	**33114JR**	3DE	1.71
	125	26.25	24	21	2	1.5	138	173	3 100	4 100	**30214JR**	3EB	1.32
	125	33.25	31	27	2	1.5	169	225	3 100	4 100	**32214JR**	3EC	1.71
	125	41	41	32	2	1.5	206	294	3 100	4 100	**33214JR**	3EE	2.16
	150	38	35	25	3	2.5	197	235	2 300	3 200	**30314DJR**	7GB	2.97
	150	38	35	30	3	2.5	230	273	2 600	3 500	**30314JR**	2GB	3.08
	150	54	51	42	3	2.5	317	414	2 700	3 600	**32314JR**	2GD	4.50

d 75 – 95 mm

Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min^{-1})		Bearing No.	(Refer.) Dimension series to ISO355	(Refer.) Mass (kg)
d	*D*	*T*	*B*	*C*	*r* min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.			
75	105	20	20	16	1	1	73.6	123	3 300	4 400	**32915JR**	2BC	0.526
	115	25	25	19	1.5	1.5	110	169	3 100	4 200	**32015JR**	4CC	0.930
	115	31	31	25.5	1.5	1.5	141	225	3 200	4 200	**33015JR**	2CE	1.16
	125	37	37	29	2	1.5	186	280	3 000	4 000	**33115JR**	3DE	1.84
	130	27.25	25	22	2	1.5	142	181	2 900	3 900	**30215JR**	4DB	1.42
	130	33.25	31	27	2	1.5	174	234	2 900	3 900	**32215JR**	4DC	1.77
	130	41	41	31	2	1.5	212	310	2 900	3 900	**33215JR**	3EE	2.26
	160	40	37	26	3	2.5	222	266	2 100	2 900	**30315DR**	–	3.48
	160	40	37	31	3	2.5	260	311	2 500	3 300	**30315JR**	2GB	3.65
	160	58	55	45	3	2.5	363	481	2 500	3 300	**32315JR**	2GD	5.41
80	110	20	20	16	1	1	76.1	131	3 100	4 200	**32916JR**	2BC	0.556
	125	29	29	22	1.5	1.5	147	225	2 900	3 900	**32016JR**	3CC	1.32
	125	36	36	29.5	1.5	1.5	173	288	2 900	3 900	**33016JR**	2CE	1.63
	130	37	37	29	2	1.5	191	294	2 800	3 800	**33116JR**	3DE	1.93
	140	28.25	26	22	2.5	2	161	202	2 700	3 600	**30216JR**	3EB	1.72
	140	35.25	33	28	2.5	2	203	271	2 700	3 600	**32216JR**	3EC	2.17
	140	46	46	35	2.5	2	250	371	2 700	3 600	**33216JR**	3EE	2.99
	170	42.5	39	27	3	2.5	236	282	2 000	2 800	**30316DJR**	7GB	4.12
	170	42.5	39	33	3	2.5	294	355	2 300	3 100	**30316JR**	2GB	4.46
	170	61.5	58	48	3	2.5	383	503	2 300	3 100	**32316JR**	2GD	6.31
85	120	23	23	18	1.5	1.5	97.1	165	2 900	3 900	**32917JR**	2BC	0.794
	130	29	29	22	1.5	1.5	150	234	2 800	3 700	**32017JR**	4CC	1.38
	130	36	36	29.5	1.5	1.5	177	300	2 800	3 700	**33017JR**	2CE	1.72
	140	41	41	32	2.5	2	224	346	2 600	3 500	**33117JR**	3DE	2.43
	150	30.5	28	24	2.5	2	182	231	2 500	3 400	**30217JR**	3EB	2.17
	150	38.5	36	30	2.5	2	232	315	2 500	3 400	**32217JR**	3EC	2.80
	150	49	49	37	2.5	2	294	439	2 500	3 400	**33217JR**	3EE	3.63
	180	44.5	41	28	4	3	263	317	1 900	2 600	**30317DJR**	7GB	4.81
	180	44.5	41	34	4	3	316	384	2 200	2 900	**30317JR**	2GB	5.15
	180	63.5	60	49	4	3	439	587	2 200	3 000	**32317JR**	2GD	7.42
90	125	23	23	18	1.5	1.5	101	175	2 800	3 700	**32918JR**	2BC	0.834
	140	32	32	24	2	1.5	178	276	2 600	3 500	**32018JR**	3CC	1.80
	140	39	39	32.5	2	1.5	221	367	2 600	3 400	**33018JR**	2CE	2.22
	150	45	45	35	2.5	2	258	413	2 500	3 300	**33118JR**	3DE	3.13
	160	32.5	30	26	2.5	2	204	261	2 400	3 200	**30218JR**	3FB	2.65
	160	42.5	40	34	2.5	2	263	362	2 400	3 200	**32218JR**	3FC	3.47
	190	46.5	43	30	4	3	282	336	1 700	2 400	**30318DR**	–	5.60
	190	46.5	43	36	4	3	345	420	2 100	2 700	**30318JR**	2GB	6.04
	190	67.5	64	53	4	3	461	614	2 100	2 800	**32318JR**	2GD	8.61
95	145	32	32	24	2	1.5	182	287	2 500	3 300	**32019JR**	4CC	1.88
	145	39	39	32.5	2	1.5	226	382	2 500	3 300	**33019JR**	2CE	2.31
	160	49	49	38	2.5	2	304	473	2 300	3 100	**33119JR**	3EE	3.89
	170	34.5	32	27	3	2.5	231	299	2 200	3 000	**30219JR**	3FB	3.20
	170	45.5	43	37	3	2.5	311	439	2 200	3 000	**32219JR**	3FC	4.34
	170	58	58	44	3	2.5	374	582	2 200	2 900	**33219JR**	3FE	5.66
	200	49.5	45	32	4	3	319	391	1 700	2 300	**30319DJR**	7GB	6.68
	200	49.5	45	38	4	3	372	455	2 000	2 600	**30319JR**	2GB	6.96
	200	71.5	67	55	4	3	517	695	2 000	2 600	**32319JR**	2GD	10.1

Tapered roller bearings
metric series
d 100 – (120) mm



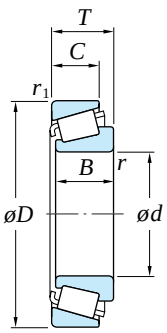
Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min⁻¹)		Bearing No.	(Refer.) Dimension series to ISO355	(Refer.) Mass (kg)
d	*D*	*T*	*B*	*C*	*r* min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.			
100	140	25	25	20	1.5	1.5	126	217	2 400	3 300	**32920JR**	2CC	1.19
	150	32	32	24	2	1.5	185	298	2 400	3 200	**32020JR**	4CC	1.95
	150	39	39	32.5	2	1.5	231	397	2 400	3 200	**33020JR**	2CE	2.40
	165	52	52	40	2.5	2	325	523	2 200	3 000	**33120JR**	3EE	4.29
	180	37	34	29	3	2.5	258	338	2 100	2 800	**30220JR**	3FB	3.83
	180	49	46	39	3	2.5	347	495	2 100	2 800	**32220JR**	3FC	5.21
	180	63	63	48	3	2.5	431	680	2 100	2 800	**33220JR**	3FE	6.92
	215	51.5	47	34	4	3	318	374	1 500	2 100	**30320D**	–	8.02
	215	51.5	47	39	4	3	344	400	1 800	2 400	**30320**	–	7.76
	215	51.5	47	39	4	3	422	521	1 800	2 400	**30320JR**	2GB	8.49
	215	56.5	51	35	4	3	373	459	1 500	2 200	**31320JR**	7GB	8.72
	215	77.5	73	60	4	3	579	783	1 800	2 400	**32320JR**	2GD	13.0
105	145	25	25	20	1.5	1.5	128	224	2 400	3 100	**32921JR**	2CC	1.23
	160	35	35	26	2.5	2	215	344	2 200	3 000	**32021JR**	4DC	2.45
	160	43	43	34	2.5	2	267	461	2 200	3 000	**33021JR**	2DE	3.08
	175	56	56	44	2.5	2	360	607	2 100	2 800	**33121JR**	3EE	5.33
	190	39	36	30	3	2.5	288	380	2 000	2 600	**30221JR**	3FB	4.49
	190	53	50	43	3	2.5	392	567	2 000	2 700	**32221JR**	3FC	6.37
	190	68	68	52	3	2.5	497	790	2 000	2 600	**33221JR**	3FE	8.43
	225	53.5	49	41	4	3	464	578	1 700	2 300	**30321JR**	2GB	9.73
	225	58	53	36	4	3	397	489	1 500	2 100	**31321JR**	7GB	9.72
	225	81.5	77	63	4	3	635	866	1 800	2 300	**32321JR**	2GD	14.9
110	170	38	38	29	2.5	2	248	395	2 100	2 800	**32022JR**	4DC	3.12
	170	47	47	37	2.5	2	287	502	2 100	2 800	**33022JR**	2DE	3.81
	180	56	56	43	2.5	2	369	634	2 000	2 700	**33122JR**	3EE	5.52
	200	41	38	32	3	2.5	324	434	1 900	2 500	**30222JR**	3FB	5.33
	200	56	53	46	3	2.5	438	640	1 900	2 500	**32222JR**	3FC	7.45
	240	54.5	50	42	4	3	481	590	1 600	2 100	**30322JR**	2GB	11.4
	240	63	57	38	4	3	452	563	1 400	1 900	**31322JR**	7GB	12.2
	240	84.5	80	65	4	3	691	943	1 600	2 200	**32322JR**	2GD	17.8
120	165	29	29	23	1.5	1.5	172	298	2 100	2 700	**32924JR**	2CC	1.77
	180	38	38	29	2.5	2	258	427	2 000	2 600	**32024JR**	4DC	3.34
	180	48	48	38	2.5	2	299	540	2 000	2 600	**33024JR**	2DE	4.16
	200	62	62	48	2.5	2	462	785	1 800	2 400	**33124JR**	3FE	7.73
	215	43.5	40	34	3	2.5	347	473	1 700	2 300	**30224JR**	4FB	6.36

d (120) – 200 mm

Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min^{-1})		Bearing No.	(Refer.) Dimension series to ISO355	(Refer.) Mass (kg)
d	*D*	*T*	*B*	*C*	*r* min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.			
120	215	61.5	58	50	3	2.5	470	691	1 700	2 300	**32224JR**	4FD	9.04
	260	59.5	55	46	4	3	569	714	1 500	2 000	**30324JR**	2GB	14.5
	260	68	62	42	4	3	526	665	1 300	1 800	**31324JR**	7GB	15.4
	260	90.5	86	69	4	3	800	1 110	1 500	2 000	**32324JR**	2GD	22.2
130	180	32	32	25	2	1.5	200	368	1 900	2 500	**32926JR**	2CC	2.42
	200	45	45	34	2.5	2	340	563	1 800	2 300	**32026JR**	4EC	5.04
	200	55	55	43	2.5	2	390	705	1 700	2 300	**33026JR**	2EE	6.19
	230	43.75	40	34	4	3	377	511	1 600	2 100	**30226JR**	4FB	7.24
	230	67.75	64	54	4	3	554	830	1 600	2 200	**32226JR**	4FD	11.5
	280	63.75	58	49	5	4	657	834	1 400	1 800	**30326JR**	2GB	18.1
	280	72	66	44	5	4	589	748	1 200	1 600	**31326JR**	7GB	18.9
140	190	32	32	25	2	1.5	206	390	1 800	2 300	**32928JR**	2CC	2.57
	210	45	45	34	2.5	2	346	585	1 700	2 200	**32028JR**	4DC	5.28
	210	56	56	44	2.5	2	406	758	1 600	2 200	**33028JR**	2DE	6.61
	250	45.75	42	36	4	3	420	570	1 500	1 900	**30228JR**	4FB	8.97
	250	71.75	68	58	4	3	636	961	1 500	2 000	**32228JR**	4FD	14.7
	300	67.75	62	53	5	4	749	962	1 300	1 700	**30328JR**	2GB	22.6
	300	77	70	47	5	4	674	865	1 100	1 500	**31328JR**	7GB	23.3
150	210	38	38	30	2.5	2	286	536	1 600	2 100	**32930JR**	2DC	3.96
	225	48	48	36	3	2.5	391	668	1 500	2 000	**32030JR**	4EC	6.41
	225	59	59	46	3	2.5	459	869	1 500	2 000	**33030JR**	2EE	8.09
	270	49	45	38	4	3	483	664	1 300	1 800	**30230JR**	4GB	11.6
	270	77	73	60	4	3	704	1 070	1 300	1 800	**32230JR**	4GD	18.2
	320	72	65	55	5	4	837	1 080	1 200	1 500	**30330JR**	2GB	26.6
	320	82	75	50	5	4	763	989	980	1 400	**31330JR**	7GB	28.0
160	220	38	38	30	2.5	2	295	568	1 500	2 000	**32932JR**	2DC	4.19
	240	51	51	38	3	2.5	440	758	1 400	1 900	**32032JR**	4EC	7.75
	290	52	48	40	4	3	542	750	1 200	1 600	**30232JR**	4GB	14.1
	290	84	80	67	4	3	795	1 210	1 200	1 700	**32232JR**	4GD	23.2
	340	75	68	58	5	4	938	1 220	1 100	1 400	**30332JR**	2GB	31.8
170	230	38	38	30	2.5	2	296	606	1 400	1 900	**32934JR**	3DC	4.49
	260	57	57	43	3	2.5	526	905	1 300	1 700	**32034JR**	4EC	10.5
	310	57	52	43	5	4	620	867	1 100	1 500	**30234JR**	4GB	17.8
	310	91	86	71	5	4	898	1 380	1 100	1 500	**32234JR**	4GD	28.9
	360	80	72	62	5	4	1 040	1 370	1 000	1 300	**30334JR**	2GB	37.5
180	250	45	45	34	2.5	2	357	735	1 300	1 700	**32936JR**	4DC	6.64
	280	64	64	48	3	2.5	644	1 100	1 200	1 600	**32036JR**	3FD	14.1
	320	57	52	43	5	4	615	870	1 100	1 400	**30236JR**	4GB	18.3
	320	91	86	71	5	4	957	1 520	1 100	1 500	**32236JR**	4GD	29.9
190	260	45	45	34	2.5	2	366	789	1 200	1 600	**32938JR**	4DC	6.89
	290	64	64	48	3	2.5	654	1 170	1 100	1 500	**32038JR**	4FD	14.7
	340	60	55	46	5	4	729	1 030	1 000	1 300	**30238JR**	4GB	21.9
	340	97	92	75	5	4	1 090	1 740	1 000	1 300	**32238JR**	4GD	36.6
200	280	51	51	39	3	2.5	486	958	1 100	1 500	**32940JR**	3EC	9.44
	310	70	70	53	3	2.5	755	1 340	1 100	1 400	**32040JR**	4FD	19.1
	360	64	58	48	5	4	792	1 120	940	1 200	**30240JR**	4GB	26.4
	360	104	98	82	5	4	1 240	1 880	960	1 300	**32240JR**	3GD	44.2

Tapered roller bearings
inch series

d 15.875 – (28.575) mm



Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min⁻¹)		Bearing No.		(Refer.) Mass (kg)	
d	*D*	*T*	*B*	*C*	*r* min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.	Cone	Cup	Cone	Cup
15.875	42.862	14.288	14.288	9.525	1.6	1.6	17.8	17.7	10 000	14 000	**11590**	**11520**	0.060	0.040
17.462	39.878	13.843	14.605	10.668	1.2	1.2	25.4	26.0	11 000	14 000	**LM11749R**	**LM11710**	0.058	0.028
19.050	45.237	15.494	16.637	12.065	1.2	1.2	29.4	30.1	9 400	13 000	**LM11949**	**LM11910**	0.081	0.044
	49.225	19.845	21.539	14.288	1.2	1.2	37.7	37.7	8 900	12 000	**09078**	**09195**	0.124	0.065
	49.225	21.209	19.050	17.462	1.2	1.6	37.7	37.7	8 900	12 000	**09067**	**09196**	0.114	0.084
21.430	50.005	17.526	18.288	13.970	1.2	1.2	39.1	40.7	8 500	11 000	**M12649**	**M12610**	0.119	0.058
21.987	45.974	15.494	16.637	12.065	1.2	1.2	30.1	34.6	8 900	12 000	**LM12749**	**LM12711**	0.078	0.043
22.225	50.005	17.526	18.288	13.970	1.2	1.2	39.1	40.7	8 500	11 000	**M12648**	**M12610**	0.115	0.058
	56.896	19.368	19.837	15.875	1.2	1.2	40.0	43.1	7 600	10 000	**1755**	**1729**	0.150	0.100
	57.150	22.225	22.225	17.462	0.8	1.6	52.6	55.7	7 600	10 000	**1280**	**1220**	0.189	0.105
22.606	47.000	15.500	15.500	12.000	1.6	1.0	28.0	32.8	8 700	12 000	**LM72849**	**LM72810**	0.076	0.047
23.812	50.292	14.224	14.732	10.668	1.6	1.2	31.2	37.0	7 800	10 000	**L44640R**	**L44610**	0.099	0.039
	56.896	19.368	19.837	15.875	0.8	1.2	40.0	43.1	7 600	10 000	**1779**	**1729**	0.141	0.100
25.400	50.005	13.495	14.260	9.525	1.0	1.0	26.7	28.8	7 900	11 000	**07100**	**07196**	0.084	0.035
	50.005	13.495	14.260	9.525	1.6	1.0	26.7	28.8	7 900	11 000	**07100S**	**07196**	0.082	0.035
	50.292	14.224	14.732	10.668	1.2	1.2	31.2	37.0	7 800	10 000	**L44643R**	**L44610**	0.092	0.039
	61.912	19.050	20.638	14.288	0.8	2.0	44.6	50.7	6 400	8 600	**15101**	**15243**	0.215	0.080
	62.000	19.050	20.638	14.288	3.6	1.2	44.6	50.7	6 400	8 600	**15100**	**15245**	0.215	0.081
	63.500	19.050	20.638	14.288	0.8	1.2	44.6	50.7	6 400	8 600	**15101**	**15250R**	0.215	0.097
	64.292	21.432	21.432	16.670	1.6	1.6	55.2	70.7	6 400	8 500	**M86643R**	**M86610**	0.248	0.127
	65.088	22.225	21.463	15.875	1.6	1.6	47.8	51.7	5 600	7 900	**23100**	**23256**	0.231	0.140
	72.233	25.400	25.400	19.842	0.8	2.4	66.9	87.4	5 700	7 600	**HM88630**	**HM88610**	0.391	0.185
26.988	50.292	14.224	14.732	10.668	3.6	1.2	31.2	37.0	7 800	10 000	**L44649R**	**L44610**	0.083	0.039
	60.325	19.842	17.462	15.875	3.6	1.6	37.8	42.7	7 000	9 400	**15580**	**15523**	0.140	0.122
	62.000	19.050	20.638	14.288	0.8	1.2	44.6	50.7	6 400	8 600	**15106**	**15245**	0.206	0.081
28.575	57.150	19.845	19.355	15.875	3.6	1.6	48.8	57.1	7 000	9 300	**1988R**	**1922**	0.151	0.076
	62.000	19.050	20.638	14.288	3.6	1.2	44.6	50.7	6 400	8 600	**15112**	**15245**	0.193	0.081

Remark) Inch series tapered roller bearings with bore diameter larger than 200 mm are shown in catalogue "large size ball & roller bearings," CAT. NO. 211E.

d (28.575) – 38.000 mm

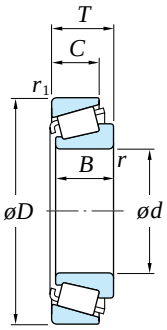
Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min^{-1})		Bearing No.[1]		(Refer.) Mass (kg)	
d	*D*	*T*	*B*	*C*	r [2] min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.	Cone	Cup	Cone	Cup
28.575	64.292	21.432	21.432	16.670	1.6	1.6	55.2	70.7	6 400	8 500	**M86647R**	**M86610**	0.225	0.127
	66.421	23.812	25.433	19.050	1.2	1.2	67.0	75.2	6 500	8 700	**2689**	**2631**	0.249	0.165
	68.262	22.225	22.225	17.462	0.8	1.6	51.0	61.1	6 000	8 000	**02474**	**02420**	0.252	0.150
	73.025	22.225	22.225	17.462	0.8	3.2	55.0	65.7	5 500	7 400	**02872**	**02820**	0.319	0.158
29.000	50.292	14.224	14.732	10.668	3.6	1.2	28.9	37.2	7 600	10 000	**L45449**	**L45410**	0.079	0.036
29.367	66.421	23.812	25.433	19.050	3.6	1.2	67.0	75.2	6 500	8 700	**2690**	**2631**	0.242	0.165
30.162	64.292	21.432	21.432	16.670	1.6	1.6	55.2	70.7	6 400	8 500	**M86649R**	**M86610**	0.213	0.127
	68.262	22.225	22.225	17.462	2.4	1.6	56.1	71.1	6 000	7 900	**M88043**	**M88010**	0.258	0.144
30.213	62.000	19.050	20.638	14.288	3.6	1.2	44.6	50.7	6 400	8 600	**15118**	**15245**	0.181	0.081
	62.000	19.050	20.638	14.288	1.6	1.2	44.6	50.7	6 400	8 600	**15119**	**15245**	0.183	0.081
	62.000	19.050	20.638	14.288	0.8	1.2	44.6	50.7	6 400	8 600	**15120**	**15245**	0.183	0.081
30.226	69.012	19.845	19.583	15.875	0.8	3.2	46.1	55.0	5 900	7 800	**14116**	**14274**	0.226	0.131
31.750	59.131	15.875	16.764	11.811	sp	1.2	35.8	43.1	6 600	8 800	**LM67048**	**LM67010**	0.120	0.062
	62.000	18.161	19.050	14.288	sp	1.2	44.6	50.7	6 400	8 600	**15123**	**15245**	0.157	0.081
	62.000	19.050	20.638	14.288	3.6	1.2	44.6	50.7	6 400	8 600	**15125**	**15245**	0.169	0.081
	62.000	19.050	20.638	14.288	0.8	1.2	44.6	50.7	6 400	8 600	**15126**	**15245**	0.171	0.081
	66.421	25.400	25.357	20.638	0.8	3.2	71.4	85.1	6 000	8 000	**2580**	**2520**	0.281	0.123
	68.262	22.225	22.225	17.462	1.6	1.6	56.1	71.1	6 000	7 900	**M88046**	**M88010**	0.245	0.144
	68.262	22.225	22.225	17.462	3.6	1.6	51.0	61.1	6 000	8 000	**02475**	**02420**	0.224	0.150
	73.025	22.225	22.225	17.462	3.6	3.2	55.0	65.7	5 600	7 400	**02875**	**02820**	0.293	0.158
	73.025	29.370	27.783	23.020	1.2	3.2	74.3	101	5 600	7 500	**HM88542**	**HM88510**	0.377	0.238
	73.812	29.370	27.783	23.020	1.2	3.2	74.3	101	5 600	7 500	**HM88542**	**HM88512**	0.377	0.254
33.338	68.262	22.225	22.225	17.462	0.8	1.6	56.1	71.1	6 000	7 900	**M88048**	**M88010**	0.231	0.144
	73.025	29.370	27.783	23.020	0.8	3.2	74.3	101	5 600	7 500	**HM88547**	**HM88510**	0.360	0.238
	76.200	29.370	28.575	23.020	0.8	3.2	79.5	107	5 400	7 200	**HM89443**	**HM89410**	0.415	0.254
34.925	65.088	18.034	18.288	13.970	sp	1.2	48.0	58.5	6 000	8 000	**LM48548**	**LM48510**	0.164	0.086
	69.012	26.982	26.721	15.875	0.8	1.2	46.1	55.0	5 900	7 800	**14136A**	**14276**	0.254	0.133
	72.233	25.400	25.400	19.842	2.4	2.4	66.9	87.4	5 700	7 600	**HM88649**	**HM88610**	0.301	0.185
	73.025	23.812	24.608	19.050	1.6	0.8	72.2	87.3	5 600	7 400	**25877R**	**25821**	0.310	0.165
	76.200	29.370	28.575	23.812	1.6	3.2	80.9	97.4	5 400	7 200	**31594**	**31520**	0.388	0.232
34.980	59.131	15.875	16.764	11.938	sp	1.2	35.7	48.5	6 400	8 500	**L68149**	**L68110**	0.112	0.056
	59.975	15.875	16.764	11.938	sp	1.2	35.7	48.5	6 400	8 500	**L68149**	**L68111**	0.112	0.063
35.000	79.375	23.812	25.400	19.050	0.8	0.8	81.1	105	5 000	6 700	**26883R**	**26822**	0.414	0.186
35.717	72.233	25.400	25.400	19.842	3.6	2.4	66.9	87.4	5 700	7 600	**HM88648**	**HM88610**	0.291	0.185
36.487	73.025	23.812	24.608	19.050	1.6	0.8	72.2	87.3	5 600	7 400	**25880R**	**25821**	0.294	0.165
36.512	76.200	29.370	28.575	23.020	3.6	0.8	79.5	107	5 400	7 200	**HM89449**	**HM89411**	0.386	0.258
	79.375	23.812	25.400	19.050	0.8	0.8	81.1	105	5 000	6 700	**26877R**	**26822**	0.404	0.186
38.000	63.000	17.000	17.000	13.500	sp	sp	43.5	58.2	6 000	8 000	**JL69349**	**JL69310**	0.128	0.070

Notes 1) Bearings identified by prefix J feature special designed accuracy.
2) 'sp' means special chamfer shape.

Remark) Inch series tapered roller bearings with bore diameter larger than 200 mm are shown in catalogue "large size ball & roller bearings," CAT. NO. 211E.

Tapered roller bearings
inch series

d 38.100 – 41.275 mm



Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min⁻¹)		Bearing No.		(Refer.) Mass (kg)	
d	*D*	*T*	*B*	*C*	*r* 1) min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.	Cone	Cup	Cone	Cup
38.100	65.088	18.034	18.288	13.970	sp	1.2	42.9	56.5	5 800	7 800	**LM29748**	**LM29710**	0.154	0.079
	65.088	19.812	18.288	15.748	2.4	1.2	42.9	56.5	5 800	7 800	**LM29749**	**LM29711**	0.159	0.092
	71.438	15.875	16.520	11.908	1.6	1.0	46.1	53.8	5 700	7 600	**19150R**	**19281**	0.167	0.105
	71.996	17.018	16.520	14.288	1.6	1.6	46.1	53.8	5 700	7 600	**19150R**	**19283**	0.167	0.133
	71.996	19.000	20.638	14.237	3.6	1.6	49.7	61.3	5 600	7 400	**16150**	**16282**	0.207	0.121
	72.238	20.638	20.638	15.875	3.6	1.2	49.7	61.3	5 600	7 400	**16150**	**16284**	0.207	0.144
	72.238	23.812	20.638	19.050	3.6	2.4	49.7	61.3	5 600	7 400	**16150**	**16283**	0.207	0.183
	76.200	23.812	25.654	19.050	3.6	0.8	74.1	92.2	5 400	7 200	**2788R**	**2729**	0.308	0.189
	79.375	29.370	29.771	23.812	3.6	3.2	87.4	105	5 200	6 900	**3490**	**3420**	0.419	0.256
	82.550	29.370	28.575	23.020	0.8	3.2	87.3	117	4 900	6 600	**HM801346**	**HM801310**	0.483	0.282
	82.550	29.370	28.575	23.020	2.4	3.2	87.3	117	4 900	6 600	**HM801346X**	**HM801310**	0.483	0.282
	88.501	26.988	29.083	22.225	3.6	1.6	98.2	112	4 900	6 500	**418**	**414**	0.523	0.325
39.688	73.025	23.812	25.654	19.050	3.6	0.8	74.1	92.2	5 400	7 200	**2789R**	**2735X**	0.288	0.134
40.000	76.200	20.638	20.940	15.507	1.6	1.2	57.3	65.9	5 300	7 000	**28158**	**28300**	0.266	0.137
	80.000	21.000	22.403	17.826	3.6	1.2	68.0	74.8	4 900	6 600	**344**	**332**	0.334	0.144
	80.000	21.000	22.403	17.826	0.8	1.2	68.0	74.8	4 900	6 600	**344A**	**332**	0.334	0.144
40.483	82.550	29.370	28.575	23.020	3.6	3.2	87.3	117	4 900	6 600	**HM801349**	**HM801310**	0.450	0.282
41.275	73.025	16.667	17.462	12.700	3.6	1.6	45.9	55.8	5 200	6 900	**18590**	**18520**	0.199	0.085
	73.431	19.558	19.812	14.732	3.6	0.8	57.8	73.0	5 200	7 000	**LM501349**	**LM501310**	0.227	0.107
	73.431	21.430	19.812	16.604	3.6	0.8	57.8	73.0	5 200	7 000	**LM501349**	**LM501314**	0.227	0.126
	73.431	23.012	19.812	18.186	3.6	2.4	57.8	73.0	5 200	7 000	**LM501349**	**LM501311**	0.227	0.140
	76.200	18.009	17.384	14.288	1.6	1.6	51.6	63.3	5 200	6 900	**11162R**	**11300**	0.221	0.127
	76.200	22.225	23.020	17.462	3.6	0.8	66.3	83.3	5 200	6 900	**24780R**	**24720**	0.275	0.148
	80.000	21.000	22.403	17.826	3.6	1.2	68.0	74.8	4 900	6 600	**342**	**332**	0.317	0.144
	85.725	30.162	30.162	23.812	3.6	1.2	108	136	4 800	6 400	**3877**	**3821**	0.506	0.324
	88.900	20.638	22.225	16.513	3.6	1.2	74.3	87.3	4 400	5 800	**365A**	**362A**	0.458	0.164
	88.900	30.162	29.370	23.020	0.8	3.2	99.6	125	4 600	6 100	**HM803145**	**HM803110**	0.577	0.318
	88.900	30.162	29.370	23.020	3.6	3.2	99.6	125	4 600	6 100	**HM803146**	**HM803110**	0.574	0.318
	90.488	39.688	40.386	33.338	3.6	3.2	132	169	4 500	6 000	**4388**	**4335**	0.775	0.454
	95.250	30.162	29.370	23.020	3.6	3.2	104	140	3 300	4 400	**HM804840**	**HM804810**	0.719	0.351
	104.775	36.512	36.512	28.575	1.6	3.2	141	195	3 800	5 100	**HM807035**	**HM807010**	1.19	0.497

Note 1) 'sp' means special chamfer shape.

Remark) Inch series tapered roller bearings with bore diameter larger than 200 mm are shown in catalogue "large size ball & roller bearings," CAT. NO. 211E.

d 42.875 – 50.000 mm

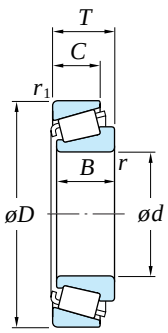
Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min⁻¹)		Bearing No.[1)]		(Refer.) Mass (kg)	
d	*D*	*T*	*B*	*C*	*r* min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.	Cone	Cup	Cone	Cup
42.875	82.931	23.812	25.400	19.050	3.6	0.8	77.2	100	4 800	6 300	**25577**	**25520**	0.382	0.200
44.450	82.931	23.812	25.400	19.050	5.2	0.8	77.2	100	4 800	6 300	**25582**	**25520**	0.361	0.200
	84.138	30.162	30.886	23.812	3.6	3.2	95.8	120	4 600	6 200	**3578R**	**3520**	0.479	0.221
	85.000	20.638	21.692	17.462	2.4	1.2	71.8	81.7	4 600	6 200	**355**	**354A**	0.344	0.160
	85.000	20.638	21.692	17.462	0.8	1.2	71.8	81.7	4 600	6 200	**355A**	**354A**	0.344	0.160
	88.900	30.162	29.370	23.020	3.6	3.2	99.6	125	4 600	6 100	**HM803149**	**HM803110**	0.525	0.318
	95.250	27.783	28.575	22.225	0.8	2.4	108	141	4 100	5 400	**33885**	**33821**	0.714	0.264
	95.250	30.162	29.370	23.020	0.8	2.4	104	140	3 300	4 400	**HM804842**	**HM804810**	0.673	0.351
	95.250	30.162	29.370	23.020	3.6	2.4	104	140	3 300	4 400	**HM804843**	**HM804810**	0.670	0.351
	95.250	30.958	28.301	20.638	3.6	0.8	88.7	98.4	3 700	5 200	**53177**	**53375**	0.558	0.363
	95.250	30.958	28.575	22.225	3.6	0.8	99.7	120	3 700	5 100	**HM903249**	**HM903210**	0.614	0.383
	104.775	36.512	36.512	28.575	3.6	3.2	141	195	3 800	5 100	**HM807040**	**HM807010**	1.13	0.497
	111.125	30.162	26.909	20.638	3.6	3.2	111	150	3 100	4 300	**55175CR**	**55437**	0.939	0.507
	111.125	30.162	26.909	20.638	0.8	3.2	111	150	3 100	4 300	**55176CR**	**55437**	0.939	0.507
44.983	93.264	30.162	30.302	23.812	3.6	3.2	103	137	4 200	5 500	**3776**	**3720**	0.650	0.288
44.988	95.250	30.958	28.575	22.225	3.6	0.8	99.7	120	3 700	5 100	**HM903248**	**HM903210**	0.606	0.383
45.242	73.431	19.558	19.812	15.748	3.6	0.8	55.6	78.1	5 100	6 700	**LM102949**	**LM102910**	0.209	0.100
	77.788	19.842	19.842	15.080	3.6	0.8	57.1	73.5	4 900	6 500	**LM603049**	**LM603011**	0.243	0.120
	77.788	21.430	19.842	16.667	3.6	0.8	57.1	73.5	4 900	6 500	**LM603049**	**LM603012**	0.243	0.138
	79.974	19.842	19.842	15.080	3.6	0.8	57.1	73.5	4 900	6 500	**LM603049**	**LM603014**	0.243	0.152
45.618	85.000	23.812	25.400	19.050	3.6	2.4	77.2	100	4 800	6 300	**25590**	**25526**	0.344	0.241
45.987	74.976	18.000	18.000	14.000	2.4	1.6	52.6	74.6	5 000	6 600	**LM503349R**	**LM503310**	0.207	0.095
46.038	79.375	17.462	17.462	13.495	2.8	1.6	47.1	59.1	4 800	6 400	**18690**	**18620**	0.208	0.123
	85.000	20.638	21.692	17.462	3.6	1.2	71.8	81.7	4 600	6 200	**359A**	**354A**	0.323	0.160
	85.000	20.638	21.692	17.462	2.4	1.2	71.8	81.7	4 600	6 200	**359S**	**354A**	0.323	0.160
47.625	88.900	20.638	22.225	16.513	3.6	1.2	74.3	87.3	4 400	5 800	**369A**	**362A**	0.373	0.164
	88.900	25.400	25.400	19.050	3.6	3.2	87.1	112	4 400	5 900	**M804049**	**M804010**	0.450	0.216
	95.250	30.162	29.370	23.020	3.6	3.2	104	140	3 300	4 400	**HM804846**	**HM804810**	0.617	0.351
	96.838	21.000	21.946	15.875	0.8	0.8	80.4	101	3 900	5 200	**386A**	**382A**	0.563	0.177
	101.600	34.925	36.068	26.988	3.6	3.2	131	159	4 000	5 300	**528**	**522**	0.871	0.411
	104.775	30.162	29.317	24.605	4.8	3.2	109	144	3 700	4 900	**463**	**453X**	0.838	0.372
	111.125	30.162	26.909	20.638	3.6	3.2	97.7	119	3 200	4 400	**55187**	**55437**	0.817	0.507
48.412	95.250	30.162	29.370	23.020	2.4	3.2	104	140	3 300	4 400	**HM804848**	**HM804810**	0.606	0.351
49.212	88.900	20.638	22.225	16.513	0.8	1.2	74.3	87.3	4 400	5 800	**365S**	**362A**	0.366	0.164
	104.775	36.512	36.512	28.575	3.6	3.2	141	195	3 800	5 100	**HM807044**	**HM807010**	1.03	0.497
	114.300	44.450	44.450	34.925	3.6	3.2	189	230	3 800	5 000	**65390**	**65320**	1.28	0.894
50.000	82.000	21.501	21.501	17.000	3.0	0.5	71.7	97.9	4 500	6 000	**JLM104948**	**JLM104910**	0.304	0.128
	88.900	20.638	22.225	16.513	2.0	1.2	74.3	87.3	4 400	5 800	**365**	**362A**	0.346	0.164
	90.000	28.000	28.000	23.000	3.0	2.5	105	138	4 300	5 800	**JM205149**	**JM205110**	0.508	0.243
	105.000	37.000	36.000	29.000	3.0	2.8	149	205	3 800	5 100	**JHM807045**	**JHM807012**	1.01	0.523
	110.000	22.000	21.996	18.824	0.8	1.2	86.4	116	3 400	4 500	**396**	**394A**	0.777	0.263

Note 1) Bearings identified by prefix J feature special designed accuracy.

Remark) Inch series tapered roller bearings with bore diameter larger than 200 mm are shown in catalogue "large size ball & roller bearings," CAT. NO. 211E.

Tapered roller bearings
inch series

d 50.800 – 54.991 mm



Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min⁻¹)		Bearing No.		(Refer.) Mass (kg)	
d	*D*	*T*	*B*	*C*	*r* min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.	Cone	Cup	Cone	Cup
50.800	82.550	21.590	22.225	16.510	3.6	1.2	61.2	84.3	4 500	6 000	**LM104949**	**LM104911**	0.287	0.131
	88.900	17.462	17.462	13.495	3.6	1.2	49.7	65.5	4 400	5 900	**18790**	**18724**	0.226	0.190
	88.900	20.638	22.225	16.513	1.6	1.2	74.3	87.3	4 400	5 800	**368**	**362A**	0.333	0.164
	88.900	20.638	22.225	16.513	3.6	1.2	74.3	87.3	4 400	5 800	**368A**	**362A**	0.331	0.164
	92.075	24.608	25.400	19.845	3.6	0.8	84.8	119	4 200	5 600	**28580R**	**28521**	0.453	0.247
	93.264	30.162	30.302	23.812	3.6	3.2	103	137	4 200	5 500	**3780**	**3720**	0.547	0.288
	95.250	27.783	28.575	22.225	3.6	0.8	108	141	4 100	5 400	**33889**	**33822**	0.604	0.267
	96.838	21.000	21.946	15.875	0.8	0.8	80.4	101	3 900	5 200	**385AX**	**382A**	0.521	0.177
	97.630	24.608	24.608	19.446	3.6	0.8	89.6	131	3 900	5 200	**28678**	**28622**	0.569	0.267
	101.600	31.750	31.750	25.400	3.6	3.2	114	143	3 900	5 200	**49585**	**49520**	0.736	0.384
	101.600	34.925	36.068	26.988	0.8	3.2	131	159	4 000	5 300	**529**	**522**	0.806	0.411
	104.775	30.162	30.958	23.812	6.4	3.2	126	165	3 700	4 900	**45284**	**45220**	0.873	0.345
	104.775	36.512	36.512	28.575	3.6	3.2	141	195	3 800	5 100	**HM807046**	**HM807010**	0.995	0.497
	107.950	36.512	36.957	28.575	3.6	3.2	138	172	3 800	5 100	**537**	**532X**	0.969	0.569
	111.125	30.162	26.909	20.638	3.6	3.2	111	150	3 100	4 300	**55200CR**	**55437**	0.840	0.507
	112.712	30.162	30.162	23.812	3.6	3.2	147	207	3 300	4 500	**39575**	**39520**	1.13	0.359
	123.825	36.512	32.791	25.400	3.6	3.2	156	190	2 900	4 000	**72200C**	**72487**	1.32	0.782
51.592	88.900	20.638	22.225	16.513	2.0	1.2	74.3	87.3	4 400	5 800	**368S**	**362A**	0.321	0.164
52.388	92.075	24.608	25.400	19.845	3.6	0.8	84.8	119	4 200	5 600	**28584R**	**28521**	0.435	0.247
	104.775	30.162	29.317	24.605	1.6	3.2	109	144	3 700	4 900	**468**	**453X**	0.748	0.372
53.975	88.900	19.050	19.050	13.492	2.4	2.0	62.9	86.8	4 200	5 600	**LM806649**	**LM806610**	0.312	0.135
	95.250	27.783	28.575	22.225	1.6	0.8	108	141	4 100	5 400	**33895**	**33822**	0.550	0.267
	104.775	36.512	36.512	28.575	3.6	3.2	141	195	3 800	5 100	**HM807049**	**HM807010**	0.921	0.497
	120.650	41.275	41.275	31.750	3.6	3.2	174	217	3 500	4 600	**621**	**612**	1.36	0.853
	123.825	36.512	32.791	25.400	3.6	3.2	156	190	2 900	4 000	**72212C**	**72487**	1.26	0.782
	123.825	38.100	36.678	30.162	3.6	3.2	162	223	3 200	4 200	**557S**	**552A**	1.47	0.756
54.991	135.755	53.975	56.007	44.450	3.6	3.2	266	357	3 000	4 000	**6381**	**6320**	2.75	1.37

Remark) Inch series tapered roller bearings with bore diameter larger than 200 mm are shown in catalogue "large size ball & roller bearings," CAT. NO. 211E.

d 55.000 – 66.675 mm

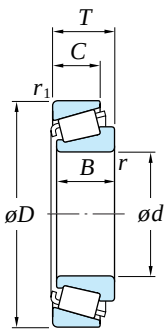
Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min⁻¹)		Bearing No.[1]		(Refer.) Mass (kg)	
d	*D*	*T*	*B*	*C*	*r* min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.	Cone	Cup	Cone	Cup
55.000	90.000	23.000	23.000	18.500	1.6	0.5	81.4	115	4 200	5 500	**JLM506849**	**JLM506810**	0.370	0.183
	95.000	29.000	29.000	23.500	1.6	2.8	110	150	4 000	5 300	**JM207049**	**JM207010**	0.567	0.256
	96.838	21.000	21.946	15.875	2.4	0.8	80.4	101	3 900	5 200	**385**	**382A**	0.461	0.177
	110.000	39.000	39.000	32.000	3.0	2.5	176	224	3 600	4 900	**JH307749**	**JH307710**	1.16	0.560
55.562	97.630	24.608	24.608	19.446	3.6	0.8	89.6	131	3 900	5 200	**28680**	**28622**	0.492	0.267
55.575	96.838	21.000	21.946	15.875	2.4	0.8	80.4	101	3 900	5 200	**389**	**382A**	0.452	0.177
57.150	96.838	21.000	21.946	15.875	2.4	0.8	80.4	101	3 900	5 200	**387**	**382A**	0.428	0.177
	96.838	21.000	21.946	15.875	3.6	0.8	80.4	101	3 900	5 200	**387A**	**382A**	0.426	0.177
	96.838	21.000	21.946	15.875	5.2	0.8	80.4	101	3 900	5 200	**387AS**	**382A**	0.422	0.177
	96.838	21.000	21.946	15.875	0.8	0.8	80.4	101	3 900	5 200	**387S**	**382A**	0.431	0.177
	98.425	21.000	21.946	17.826	2.4	0.8	80.4	101	3 900	5 200	**387**	**382**	0.428	0.233
	104.775	30.162	29.317	24.605	2.4	3.2	109	144	3 700	4 900	**462**	**453X**	0.685	0.372
	104.775	30.162	29.317	24.605	3.6	3.2	109	144	3 700	4 900	**469**	**453X**	0.682	0.372
	104.775	30.162	30.958	23.812	6.4	0.8	126	165	3 700	4 900	**45291**	**45221**	0.742	0.350
	112.712	30.162	30.162	23.812	3.6	3.2	147	207	3 300	4 500	**39580**	**39520**	1.05	0.355
	112.712	30.162	30.162	23.812	7.9	3.2	147	207	3 300	4 500	**39581**	**39520**	1.03	0.355
	123.825	36.512	32.791	25.400	3.6	3.2	156	190	2 900	4 000	**72225C**	**72487**	1.19	0.782
	140.030	36.512	33.236	23.520	3.6	2.4	150	177	2 500	3 500	**78225**	**78551**	1.70	0.915
57.531	96.838	21.000	21.946	15.875	3.6	0.8	80.4	101	3 900	5 200	**388A**	**382A**	0.420	0.177
60.325	100.000	25.400	25.400	19.845	3.6	3.2	91.4	137	3 700	4 900	**28985**	**28921**	0.533	0.230
	101.600	25.400	25.400	19.845	3.6	3.2	91.4	137	3 700	4 900	**28985**	**28920**	0.533	0.269
	127.000	44.450	44.450	34.925	3.6	3.2	208	269	3 300	4 400	**65237**	**65500**	1.59	1.02
	136.525	46.038	46.038	36.512	3.6	3.2	231	369	2 800	3 700	**H715332**	**H715311**	2.56	0.950
61.912	110.000	22.000	21.996	18.824	0.8	1.2	86.4	116	3 400	4 500	**392**	**394A**	0.606	0.259
	146.050	41.275	39.688	25.400	3.6	3.2	199	232	2 300	3 300	**H913842R**	**H913810**	2.20	0.898
63.500	107.950	25.400	25.400	19.050	1.6	3.2	92.8	143	3 400	4 500	**29586**	**29520**	0.649	0.277
	110.000	22.000	21.996	18.824	3.6	1.2	86.4	116	3 400	4 500	**395**	**394A**	0.575	0.259
	110.000	25.400	25.400	19.050	3.6	1.2	92.8	143	3 400	4 500	**29585**	**29521**	0.644	0.333
	112.712	30.162	30.162	23.812	3.6	3.2	147	207	3 300	4 500	**39585**	**39520**	0.908	0.355
65.000	105.000	24.000	23.000	18.500	3.0	1.0	95.3	129	3 500	4 700	**JLM710949**	**JLM710910**	0.513	0.234
	110.000	28.000	28.000	22.500	3.0	2.8	136	191	3 400	4 600	**JM511946**	**JM511910**	0.733	0.338
	120.000	39.000	38.500	32.000	3.0	2.8	189	255	3 200	4 300	**JH211749**	**JH211710**	1.27	0.618
65.088	135.755	53.975	56.007	44.450	3.6	3.2	266	357	3 000	4 000	**6379**	**6320**	2.34	1.37
66.675	110.000	22.000	21.996	18.824	0.8	1.2	86.4	116	3 400	4 500	**395A**	**394A**	0.524	0.259
	110.000	22.000	21.996	18.824	3.6	1.2	86.4	116	3 400	4 500	**395S**	**394A**	0.519	0.259
	112.712	30.162	30.048	23.812	3.6	0.8	111	164	3 400	4 500	**3984**	**3925**	0.700	0.454
	112.712	30.162	30.162	23.812	3.6	3.2	147	207	3 300	4 500	**39590**	**39520**	0.832	0.355
	112.712	30.162	30.162	23.812	3.6	0.8	147	207	3 300	4 500	**39590**	**39521**	0.832	0.360
	117.475	30.162	30.162	23.812	3.6	3.2	118	179	3 200	4 200	**33262**	**33462**	0.910	0.436
	122.238	38.100	38.354	29.718	3.6	1.6	191	249	3 200	4 300	**HM212049**	**HM212010**	1.26	0.596
	135.755	53.975	56.007	44.450	4.3	3.2	266	357	3 000	4 000	**6386**	**6320**	2.27	1.37
	177.800	57.150	53.975	37.308	3.6	3.2	334	372	2 100	2 900	**HH914449**	**HH914412**	4.26	2.51

Note 1) Bearings identified by prefix J feature special designed accuracy.

Remark) Inch series tapered roller bearings with bore diameter larger than 200 mm are shown in catalogue "large size ball & roller bearings," CAT. NO. 211E.

Tapered roller bearings
inch series

d 68.262 – (76.200) mm



Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min⁻¹)		Bearing No.[1]		(Refer.) Mass (kg)	
d	*D*	*T*	*B*	*C*	*r* min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.	Cone	Cup	Cone	Cup
68.262	110.000	22.000	21.996	18.824	2.4	1.2	86.4	116	3 400	4 500	**399A**	**394A**	0.493	0.259
	110.000	22.000	21.996	18.824	5.2	1.2	86.4	116	3 400	4 500	**399AS**	**394A**	0.485	0.259
	136.525	41.275	41.275	31.750	3.6	3.2	241	308	2 900	3 800	**H414245**	**H414210**	1.92	0.788
	136.525	46.038	46.038	36.512	3.6	3.2	231	369	2 800	3 700	**H715343**	**H715311**	2.27	0.950
69.850	112.712	25.400	25.400	19.050	1.6	3.2	97.0	155	3 200	4 300	**29675**	**29620**	0.676	0.270
	117.475	30.162	30.162	23.812	3.6	3.2	118	179	3 200	4 200	**33275**	**33462**	0.830	0.436
	120.000	29.794	29.007	24.237	3.6	2.0	118	161	3 200	4 200	**482**	**472**	0.791	0.487
	120.000	32.545	32.545	26.195	3.6	3.2	150	218	3 100	4 200	**47487R**	**47420**	1.01	0.476
	123.825	30.162	29.007	24.605	3.6	3.2	118	161	3 200	4 200	**482**	**472X**	0.791	0.625
	127.000	36.512	36.170	28.575	3.6	3.2	156	226	3 000	4 000	**566**	**563**	1.24	0.648
	146.050	41.275	39.688	25.400	3.6	3.2	202	237	2 300	3 300	**H913849R**	**H913810**	1.95	0.898
70.000	110.000	26.000	25.000	20.500	1.0	2.5	103	158	3 300	4 400	**JLM813049**	**JLM813010**	0.590	0.300
	115.000	29.000	29.000	23.000	3.0	2.5	123	173	3 200	4 300	**JM612949**	**JM612910**	0.776	0.358
71.438	117.475	30.162	30.162	23.812	3.6	3.2	118	179	3 200	4 200	**33281**	**33462**	0.789	0.436
	120.000	32.545	32.545	26.195	3.6	3.2	150	218	3 100	4 200	**47490R**	**47420**	0.964	0.476
	127.000	36.512	36.170	28.575	3.6	3.2	156	226	3 000	4 000	**567A**	**563**	1.19	0.648
	136.525	41.275	41.275	31.750	3.6	3.2	241	308	2 900	3 800	**H414249**	**H414210**	1.80	0.788
	136.525	46.038	46.038	36.512	3.6	3.2	231	369	2 800	3 700	**H715345**	**H715311**	2.15	0.950
73.025	112.712	25.400	25.400	19.050	3.6	3.2	97.0	155	3 200	4 300	**29685**	**29620**	0.602	0.270
	117.475	30.162	30.162	23.812	3.6	3.2	118	179	3 200	4 200	**33287**	**33462**	0.747	0.436
	127.000	36.512	36.170	28.575	3.6	3.2	156	226	3 000	4 000	**567**	**563**	1.14	0.648
	149.225	53.975	54.229	44.450	3.6	3.2	285	404	2 700	3 500	**6460**	**6420**	2.79	1.61
75.000	115.000	25.000	25.000	19.000	3.0	2.8	101	151	3 100	4 200	**JLM714149**	**JLM714110**	0.612	0.269
	120.000	31.000	29.500	25.000	3.0	2.8	145	216	3 100	4 100	**JM714249**	**JM714210**	0.846	0.430
76.200	121.442	24.608	23.012	17.462	3.6	2.0	90.0	127	3 000	4 000	**34301**	**34478**	0.617	0.313
	127.000	30.162	31.000	22.225	6.4	3.2	143	225	2 400	3 200	**42688**	**42620**	1.04	0.434
	133.350	30.162	29.769	22.225	6.4	3.2	133	198	2 700	3 600	**495AX**	**492A**	1.20	0.430
	133.350	33.338	33.338	26.195	6.4	3.2	154	245	2 700	3 700	**47678R**	**47620**	1.29	0.577
	135.733	44.450	46.101	34.925	3.6	3.2	213	337	2 800	3 700	**5760**	**5735**	1.85	0.877
	136.525	30.162	29.769	22.225	3.6	3.2	133	198	2 700	3 600	**495A**	**493**	1.26	0.544
	139.992	36.512	36.098	28.575	3.6	3.2	175	262	2 700	3 600	**575R**	**572**	1.64	0.779

Note 1) Bearings identified by prefix J feature special designed accuracy.

Remark) Inch series tapered roller bearings with bore diameter larger than 200 mm are shown in catalogue "large size ball & roller bearings," CAT. NO. 211E.

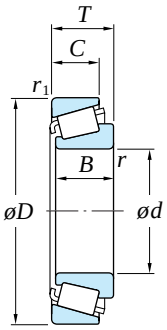
d (76.200) – (101.600) mm

Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min⁻¹)		Bearing No.[1)]		(Refer.) Mass (kg)	
d	*D*	*T*	*B*	*C*	*r* min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.	Cone	Cup	Cone	Cup
76.200	150.089	44.450	46.672	36.512	3.6	3.2	264	368	2 500	3 400	**748SR**	**742**	2.51	1.06
	161.925	49.212	46.038	31.750	3.6	3.2	246	286	2 100	2 900	**9285R**	**9220**	3.00	1.38
77.788	117.475	25.400	25.400	19.050	3.6	3.2	101	166	3 100	4 100	**LM814849**	**LM814810**	0.619	0.295
	121.442	24.608	23.012	17.462	3.6	2.0	90.0	127	3 000	4 000	**34306**	**34478**	0.583	0.313
	127.000	30.162	31.000	22.225	3.6	3.2	143	225	2 400	3 200	**42690**	**42620**	1.00	0.434
79.375	190.500	57.150	57.531	46.038	3.6	3.2	440	602	2 000	2 700	**HH221431**	**HH221410**	6.16	2.21
80.000	130.000	35.000	34.000	28.500	3.2	2.5	168	256	2 800	3 800	**JM515649**	**JM515610**	1.19	0.575
80.962	133.350	30.162	29.769	22.225	3.6	3.2	133	198	2 700	3 600	**496**	**492A**	1.12	0.429
82.550	125.412	25.400	25.400	19.845	3.6	1.6	101	162	2 900	3 800	**27687**	**27620**	0.710	0.344
	133.350	30.162	29.769	22.225	3.6	3.2	133	198	2 700	3 600	**495**	**492A**	1.08	0.429
	133.350	33.338	33.338	26.195	3.6	0.8	154	245	2 700	3 700	**47686R**	**47620A**	1.13	0.577
	133.350	39.688	39.688	32.545	6.7	3.2	177	306	2 800	3 700	**HM516448**	**HM516410**	1.33	0.763
	139.700	36.512	36.098	28.575	3.6	3.2	175	262	2 700	3 600	**580R**	**572X**	1.41	0.765
	139.992	36.512	36.098	28.575	3.6	3.2	175	262	2 700	3 600	**580R**	**572**	1.41	0.779
	139.992	36.512	36.098	28.575	6.7	3.2	175	262	2 700	3 600	**582R**	**572**	1.40	0.779
	146.050	41.275	41.275	31.750	3.6	3.2	208	301	2 600	3 400	**663**	**653**	1.91	0.880
	150.089	44.450	46.672	36.512	3.6	3.2	264	368	2 500	3 400	**749AR**	**742**	2.23	1.06
83.345	125.412	25.400	25.400	19.845	3.6	1.6	101	162	2 900	3 800	**27690**	**27620**	0.689	0.344
85.000	130.000	30.000	29.000	24.000	3.0	2.5	142	228	2 800	3 700	**JM716649**	**JM716610**	0.937	0.456
	140.000	39.000	38.000	31.500	3.0	2.5	203	308	2 700	3 500	**JHM516849**	**JHM516810**	1.54	0.759
85.026	150.089	44.450	46.672	36.512	3.6	3.2	264	368	2 500	3 400	**749R**	**742**	2.12	1.06
85.725	133.350	30.162	29.769	22.225	3.6	3.2	133	198	2 700	3 600	**497**	**492A**	0.978	0.429
	142.138	42.862	42.862	34.133	4.8	3.2	219	351	2 600	3 500	**HM617049**	**HM617010**	1.72	0.902
	146.050	41.275	41.275	31.750	3.6	3.2	208	301	2 600	3 400	**665**	**653**	1.77	0.880
	146.050	41.275	41.275	31.750	6.4	3.2	208	301	2 600	3 400	**665A**	**653**	1.76	0.880
	152.400	39.688	36.322	30.162	3.6	3.2	183	287	2 400	3 300	**596**	**592A**	1.83	1.04
	161.925	47.625	48.260	38.100	3.6	3.2	273	391	2 400	3 200	**758**	**752**	2.67	1.59
88.900	152.400	39.688	39.688	30.162	6.4	3.2	248	359	2 400	3 200	**HM518445**	**HM518410**	2.10	0.768
	161.925	47.625	48.260	38.100	3.6	3.2	273	391	2 400	3 200	**759**	**752**	2.50	1.59
	161.925	53.975	55.100	42.862	3.6	3.2	316	471	2 400	3 200	**6580R**	**6535**	3.09	1.65
89.974	146.975	40.000	40.000	32.500	7.1	3.6	206	310	2 500	3 300	**HM218248**	**HM218210**	1.66	0.784
95.000	150.000	35.000	34.000	27.000	3.0	2.5	187	294	2 400	3 300	**JM719149**	**JM719113**	1.43	0.766
95.250	128.588	15.875	15.083	11.908	1.6	1.6	58.0	93.0	2 600	3 500	**LL319349**	**LL319310**	0.393	0.147
	147.638	35.717	36.322	26.192	5.2	0.8	183	287	2 400	3 300	**594A**	**592XE**	1.45	0.62
100.000	155.000	36.000	35.000	28.000	3.0	2.5	204	328	2 300	3 100	**JM720249**	**JM720210**	1.64	0.763
	160.000	41.000	40.000	32.000	3.0	2.5	237	378	2 300	3 000	**JHM720249**	**JHM720210**	2.11	0.964
100.012	157.162	36.512	36.116	26.195	3.6	3.2	180	288	2 300	3 000	**52393**	**52618**	1.74	0.694
101.600	157.162	36.512	36.116	26.195	3.6	3.2	180	288	2 300	3 000	**52400**	**52618**	1.67	0.694
	157.162	36.512	36.116	26.195	7.9	3.2	180	288	2 300	3 000	**52401**	**52618**	1.64	0.694
	168.275	41.275	41.275	30.162	3.6	3.2	224	349	2 200	3 000	**687**	**672**	2.15	1.22

Note 1) Bearings identified by prefix J feature special designed accuracy.

Remark) Inch series tapered roller bearings with bore diameter larger than 200 mm are shown in catalogue "large size ball & roller bearings," CAT. NO. 211E.

Tapered roller bearings
inch series
d (101.600) – 200.000 mm



Boundary dimensions (mm)							Basic load ratings (kN)		Limiting speeds (min⁻¹)		Bearing No.[1]		(Refer.) Mass (kg)	
d	*D*	*T*	*B*	*C*	*r* min.	r_1 min.	C_r	C_{0r}	Grease lub.	Oil lub.	Cone	Cup	Cone	Cup
101.600	180.975	47.625	48.006	38.100	3.6	3.2	288	438	2 100	2 800	**780**	**772**	3.09	1.92
	190.500	57.150	57.531	44.450	7.9	3.2	385	565	2 100	2 700	**861R**	**854**	4.20	2.66
	190.500	57.150	57.531	46.038	7.9	3.2	440	602	2 000	2 700	**HH221449**	**HH221410**	4.72	2.21
104.775	180.975	47.625	48.006	38.100	3.6	3.2	288	438	2 100	2 800	**782**	**772**	2.90	1.92
106.362	165.100	36.512	36.512	26.988	3.6	3.2	195	325	2 200	2 900	**56418R**	**56650**	1.84	0.852
107.950	146.050	21.432	21.432	16.670	1.6	1.6	86.4	167	2 300	3 100	**L521949R**	**L521910**	0.665	0.325
	158.750	23.020	21.438	15.875	3.6	3.2	104	169	2 200	3 000	**37425**	**37625**	0.893	0.484
	165.100	36.512	36.512	26.988	3.6	3.2	195	325	2 200	2 900	**56425R**	**56650**	1.76	0.852
109.538	158.750	23.020	21.438	15.875	6.4	6.4	104	169	2 200	3 000	**37431**	**37625**	0.848	0.484
109.987	159.987	34.925	34.925	26.988	3.6	3.2	184	319	2 200	2 900	**LM522549**	**LM522510**	1.55	0.784
110.000	165.000	35.000	35.000	26.500	3.0	2.5	195	325	2 200	2 900	**JM822049**	**JM822010**	1.64	0.826
114.300	177.800	41.275	41.275	30.162	3.6	3.2	234	380	2 000	2 700	**64450R**	**64700**	2.45	1.10
	190.500	47.625	49.212	34.925	3.6	3.2	303	483	1 900	2 600	**71450**	**71750**	3.33	1.72
	212.725	66.675	66.675	53.975	7.1	3.2	513	699	1 800	2 400	**HH224346**	**HH224310**	6.64	3.03
	212.725	66.675	66.675	53.975	7.1	3.2	450	674	1 800	2 400	**938**	**932**	5.96	4.07
	228.600	53.975	49.428	38.100	3.6	3.2	430	651	1 300	1 900	**HM926740**	**HM926710**	7.26	2.78
114.976	212.725	66.675	66.675	53.975	7.1	3.2	513	699	1 800	2 400	**HH224349**	**HH224310**	6.58	3.03
115.087	190.500	47.625	49.212	34.925	3.6	3.2	303	483	1 900	2 600	**71453**	**71750**	3.28	1.72
117.475	180.975	34.925	31.750	25.400	3.6	3.2	171	247	2 000	2 700	**68462**	**68712**	1.75	1.04
170.000	230.000	39.000	38.000	31.000	3.0	2.5	291	558	1 400	1 900	**JHM534149**	**JHM534110**	3.17	1.29
180.000	250.000	47.000	45.000	37.000	3.0	2.5	365	705	1 300	1 700	**JM736149**	**JM736110**	4.47	2.10
190.000	260.000	46.000	44.000	36.500	3.0	2.5	369	723	1 200	1 700	**JM738249**	**JM738210**	4.71	2.18
196.850	254.000	28.575	27.783	21.433	1.6	1.6	188	387	1 200	1 600	**L540049**	**L540010**	2.34	1.02
200.000	300.000	65.000	62.000	51.000	3.6	2.5	617	1 140	1 100	1 500	**JHM840449**	**JHM840410**	9.97	5.13

Note 1) Bearings identified by prefix J feature special designed accuracy.

Remark) Inch series tapered roller bearings with bore diameter larger than 200 mm are shown in catalogue "large size ball & roller bearings," CAT. NO. 211E.