

Tapered Roller Bearing

Features

Tapered roller bearings consist of an inner ring, an outer ring, a window cage, and tapered rollers. Inner and outer rings with roller and cage assemblies can be mounted separately.

According to the number of rows, tapered roller bearings can be divided into single row tapered roller bearings, double row tapered roller bearings and so on. KMR can provide metric and inch bearings, and those with the letter K in the model number are inch bearings. In new designs, metric tapered roller bearings are preferred.

Cage

Tapered roller bearings use stamped steel cages by default.

Contact angle

The axial load capacity depends on the contact angle, that is, the larger the contact angle, the greater the axial load that the bearing can bear.

Angle misalignment compensation

The improved contact line between the tapered rollers and the inner and outer ring raceways optimizes the stress distribution at the contact point. So that prevent edge stress and allows compensation of bearing misalignment.

When the load ratio $P/Cr < 0.2$, the relative inclination angle of the inner and outer rings of the bearing cannot exceed $4'$.

paired bearing

Tapered roller bearings with the suffix DF are face-to-face paired bearing sets that can withstand large bidirectional axial loads. Tapered roller bearings with the suffix DB are back-to-back paired bearing sets that can withstand bidirectional axial loads. It can also withstand overturning moment. Tapered roller bearings with the suffix DT are bearing groups arranged in series. This configuration can be used when the bearing capacity of a single set of bearings is insufficient. This configuration can only bear one-way axial force.

The internal axial clearance of matched bearings is determined by the spacer ring between the two outer rings.

Radial and axial load carrying capacity

Tapered roller bearings can bear axial loads in one direction and high radial loads. Usually two tapered roller bearings are paired in a symmetrical arrangement.

Lubricating

Standard design and paired tapered roller bearings can be lubricated with oil or grease.

Operating temperature

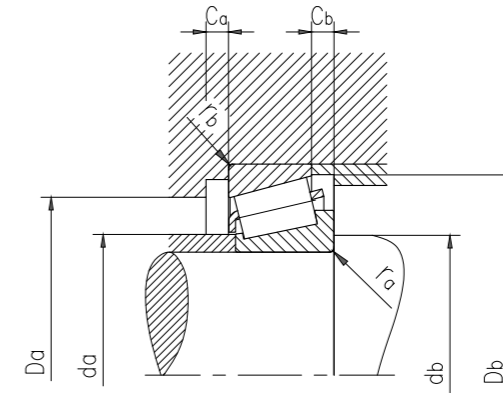
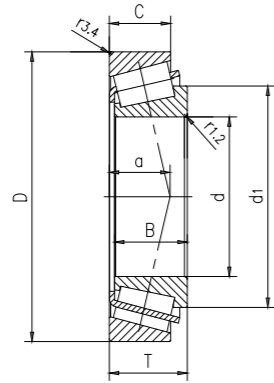
The applicable operating temperature range of tapered roller bearings is -30°C to $+150^{\circ}\text{C}$.



Suffix for an existing design

Suffix	Meaning
A C D	Deviating or modified internal design, combinations are possible
B	Steep contact angle
E	KMR Explorer bearing (only for double row bearings)
G	Helical groove in the inner ring bore (only for double row bearings)
R	Flanged outer ring
T..	A number immediately following the T identifies the total width of matched bearings,
X	arranged back-to-back or in tandem.
TN9	Glass fibre reinforced PA66 cage, roller centred
TNH	Glass fibre reinforced PEEK cage, roller centred
HA1	Case-hardened inner and outer rings
HA2	Case-hardened outer ring
HA3	Case-hardened inner ring
HA4	Case-hardened inner and outer rings and rollers
HA5	Case-hardened rollers
HA6	Case-hardened outer ring(s) and rollers
HA7	Case-hardened inner ring(s) and rollers
HB1	Bainite-hardened inner and outer rings
HB2	Bainite-hardened outer ring(s)
HN3	Inner ring with special surface heat treatment
L4B	Bearing rings and rollers with special surface coating
/1	Deviating width tolerances of cups and cones for inch bearings (table 4, page 678)
C...	Axial internal clearance (only for double row bearings) The three- or four-digit number immediately following the C is the mean axial internal clearance in μm .
CLO	Geometrical tolerances to ABMA tolerance class 0 (inch bearing)
CLOO	Geometrical tolerances to ABMA tolerance class 00 (inch bearing)
P5	Geometrical tolerances to P5 tolerance class
U..	U combined with a one- or two-digit number identifies tighter total width tolerance, e.g.: $U2 \rightarrow +5/0 \mu\text{m}$ $U4 \rightarrow +10/0 \mu\text{m}$
W	Modified ring width tolerance to $+5/0 \mu\text{m}$
DB..	Two bearings matched for mounting back-to-back. A number immediately following the DB identifies the design of the ring spacers.
DF..	Two bearings matched for mounting face-to-face. A number immediately following the DF identifies the design of the ring spacer.
DT..	Two bearings matched for mounting in tandem. A number immediately following the DT identifies the design of the ring spacers.
C...	Special clearance The two- or three-digit number immediately following the C is the mean axial internal clearance in μm . The range remains the same as specified in table 6, page 679.

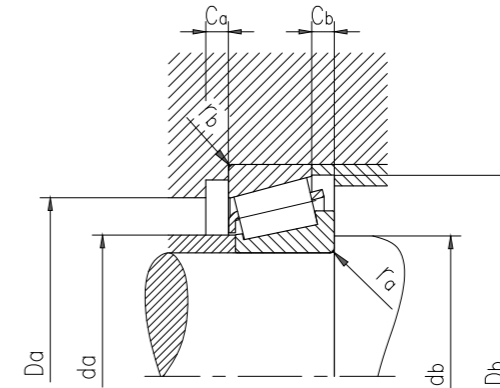
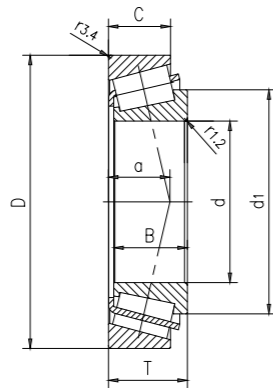
Metric single row tapered roller bearings



Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d ₁	B	C	r _{1,2}	r _{3,4}	a	d _a	d _b	D _a	D _a	D _b	C _a	C _b	r _a	r _b
		mm			mm						mm								
30202	2CC	15	35	11.75	25.6	11	9.25	0.6	0.6	8	20	20.5	30	30.5	32	2	2.5	0.6	0.6
30302	2FB	15	42	14.25	27.8	13	11	1	1	9	22	21.5	36	36.5	38	2	3	1	1
30203	2DB	17	40	13.25	29	12	11	1	1	9	23	23.5	34	34.5	37	2	2	1	1
30303	2FB	17	47	15.25	30.5	14	12	1	1	10	25	23.5	40	41.5	42	2	3	1	1
32303	2FD	17	47	20.25	30.7	19	16	1	1	12	24	23.5	39	41.5	43	3	4	1	1
32004X	3CC	20	42	15	32.1	15	12	0.6	0.6	10	25	25.5	36	37.5	39	3	3	0.6	0.6
30204	2DB	20	47	15.25	33.7	14	12	1	1	11	28	26.5	40	41.5	43	2	3	1	1
30304	2FB	20	52	16.25	34.4	15	13	1.5	1.5	11	28	27.5	44	45.5	47	2	3	1.5	1.5
32304	2FD	20	52	22.25	34.6	21	18	1.5	1.5	13	27	27.5	43	45.5	47	3	4	1.5	1.5
320/22X	3CC	22	44	15	34.3	15	11.5	0.6	0.6	10	27	27.5	38	39	41	3	3.5	0.6	0.6
32005X	4CC	25	47	15	37.5	15	11.5	0.6	0.6	11	30	31	40	42	44	3	3.5	0.6	0.6
30205	3CC	25	52	16.25	38	15	13	1	1	12	32	31.5	44	46	48	2	3	1	1
32205B	5CD	25	52	19.25	41.5	18	15	1	1	15	30	32	41	46.5	50	3	4	1	1
32205	2CD	25	52	19.25	38.4	18	16	1	1	13	31	32	44	46	50	3	3	1	1
33205	2CE	25	52	22	38.7	22	18	1	1	13	31	32	43	46	49	4	4	1	1
31305	7FB	25	62	18.25	45.8	17	13	1.5	1.5	19	34	33	47	55	59	3	5	1.5	1.5
30305	2FB	25	62	18.25	41.5	17	15	1.5	1.5	12	35	33	54	55	57	2	3	1.5	1.5
32305	2FD	25	62	25.25	41.7	24	20	1.5	1.5	15	33	33	52	55	57	3	5	1.5	1.5
320/28X	4CC	28	52	16	41.3	16	12	1	1	12	34	35	45	46	49	3	4	1	1
302/28	3DC	28	58	17.25	42	16	14	1	1	13	35	35	50	52	54	2	3	1	1
322/28B	5CD	28	58	20.25	43.9	19	16	1	1	16	33	35	46	52	55	3	4	1	1
32006X	4CC	30	55	17	43.6	17	13	1	1	13	36	37	48	49	52	3	4	1	1
30206	3DB	30	62	17.25	45.3	16	14	1	1	13	38	37	53	56	57	2	3	1	1
32206	3DC	30	62	21.25	45.2	20	17	1	1	15	37	37	52	56	58	3	4	1	1
33206	2DE	30	62	25	45.8	25	19.5	1	1	15	37	37	53	56	59	4	5.5	1	1
31306	7FB	30	72	20.75	52.7	19	14	1.5	1.5	22	40	38.5	55	65	68	3	6.5	1.5	1.5
30306	2FB	30	72	20.75	48.4	19	16	1.5	1.5	14	41	38	62	64	66	3	4.5	1.5	1.5
32306	2FD	30	72	28.75	48.7	27	23	1.5	1.5	17	39	38	59	65	66	4	5.5	1.5	1.5
JL26749/710	L26700	32	53	14.5	43.6	15	11.5	3.6	1.3	11	38	44	48	46.5	50	2	3	3.6	1.3
320/32X	4CC	32	58	17	46.2	17	13	1	1	13	38	39	50	52	55	3	4	1	1
32007X	4CC	35	62	18	49.6	18	14	1	1	14	41	42	54	56	59	4	4	1	1
30207	3DB	35	72	18.25	51.9	17	15	1.5	1.5	14	44	43.5	62	64	67	3	3	1.5	1.5
32207	3DC	35	72	24.25	52.4	23	19	1.5	1.5	17	43	43.5	61	64	67	3	5	1.5	1.5
33207	2DE	35	72	28	53.4	28	22	1.5	1.5	18	43	43.5	61	64	68	5	6	1.5	1.5
31307	7FB	35	80	22.75	59.6	21	15	2	1.5	24	45	44.5	62	72	76	3	7.5	2	1.5
30307	2FB	35	80	22.75	54.5	21	18	2	1.5	16	46	44.5	70	72	74	3	4.5	2	1.5
32307B	5FE	35	80	32.75	59.3	31	25	2	1.5	24	43	44.5	61	72	76	4	7.5	2	1.5

Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Weight	Basic load rating		Fatigue load limit P _u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C ₀		reference speed	Maximum speed	e	Y	Y ₀
		kg	kN		r/min					
30202	2CC	0.055	19.425	15.33	1.5015	17850	21000	0.35	1.7	0.9
30302	2FB	0.094	29.085	21	2.184	15750	18900	0.28	2.1	1.1
30203	2DB	0.079	24.57	19.53	1.9215	15750	18900	0.35	1.7	0.9
30303	2FB	0.13	35.91	26.25	2.835	13650	16800	0.28	2.1	1.1
32303	2FD	0.17	44.94	35.175	3.8325	12600	16800	0.28	2.1	1.1
32004X	3CC	0.099	31.185	28.35	2.7825	13650	16800	0.37	1.6	0.9
30204	2DB	0.12	35.805	29.4	3.15	12600	15750	0.35	1.7	0.9
30304	2FB	0.17	43.995	34.125	3.7275	12600	14700	0.3	2	1.1
32304	2FD	0.23	57.015	47.775	5.25	11550	14700	0.3	2	1.1
320/22X	3CC	0.1	32.445	30.45	2.9925	13650	15750	0.4	1.5	0.8
32005X	4CC	0.11	34.86	34.125	3.4125	12600	14700	0.43	1.4	0.8
30205	3CC	0.15	40.005	35.175	3.6225	11550	13650	0.37	1.6	0.9
32205B	5CD	0.19	46.725	46.2	4.8825	10500	13650	0.57	1.05	0.6
32205	2CD	0.19	52.92	47.775	5.145	11550	13650	0.35	1.7	0.9
33205	2CE	0.22	60.795	58.8	6.3	10500	13650	0.35	1.7	0.9
31305	7FB	0.27	48.93	42	4.62	8925	11550	0.83	0.72	0.4
30305	2FB	0.26	58.065	45.15	4.9875	9975	12600	0.3	2	1.1
32305	2FD	0.36	77.805	66.15	7.455	9450	12600	0.3	2	1.1
320/28X	4CC	0.14	40.95	39.9	4.2	10500	13650	0.43	1.4	0.8
302/28	3DC	0.2	48.93	43.575	4.62	10500	12600	0.37	1.6	0.9
322/28B	5CD	0.25	54.495	52.5	5.775	9975	12600	0.57	1.05	0.6
32006X	4CC	0.17	46.095	46.2	4.7775	10500	12600	0.43	1.4	0.8
30206	3DB	0.23	52.5	46.2	5.04	9450	11550	0.37	1.6	0.9
32206	3DC	0.29	64.89	59.85	6.615	9450	11550	0.37	1.6	0.9
33206	2DE	0.35	83.685	80.325	8.925	8925	11550	0.35	1.7	0.9
31306	7FB	0.39	61.215	52.5	5.985	7875	9975	0.83	0.72	0.4
30306	2FB	0.38	72.66	58.8	6.72	8400	10500	0.31	1.9	1.1
32306	2FD	0.55	99.75	89.25	10.1325	7875	10500	0.31	1.9	1.1
JL26749/710	L26700	0.12	34.65	37.275	3.8325	10500	12600	0.33	1.8	1
320/32X	4CC	0.19	47.355	48.825	5.04	9450	11550	0.46	1.3	0.7
32007X	4CC	0.23	54.915	56.7	6.1425	8925	10500	0.46	1.3	0.7
30207	3DB	0.33	66.36	58.8	6.405	8400	9975	0.37	1.6	0.9
32207	3DC	0.44	85.26	81.9	8.925	8400	9975	0.37	1.6	0.9
33207	2DE	0.53	109.2	111.3	12.39	7350	9975	0.35	1.7	0.9
31307	7FB	0.52	79.17	70.35	8.19	6615	8925	0.83	0.72	0.4
30307	2FB	0.51	93.345	77.175	8.715	7875	9450	0.31	1.9	1.1
32307B	5FE	0.8	120.75	119.7	13.545	6615	8925	0.54	1.1	0.6

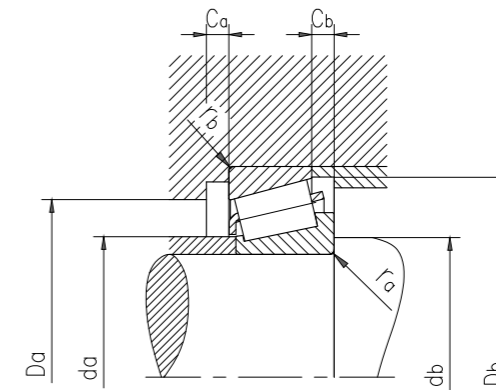
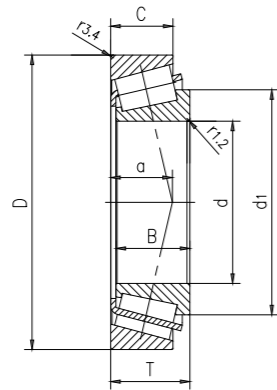
Metric single row tapered roller bearings



Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d ₁	B	C	r _{1,2}	r _{3,4}	a	d _a max.	d _b min.	D _a min.	D _a max.	D _b min.	C _a min.	C _b min.	r _a max.	r _b max.
-	-	mm			mm						mm								
32307	2FE	35	80	32.75	54.8	31	25	2	1.5	20	44	44.5	66	72	74	4	7.5	2	1.5
JL69349/310	L69300	38	63	17	52.2	17	13.5	3.6	1.3	14	44	50.5	55	56	60	3	3.5	3.6	1.3
JL69345/310	L69300	38	63	17	52.2	19	13.5	3.6	1.3	14	44	50.5	55	56	60	3	3.5	3.6	1.3
JL69349A/310	L69300	38	63	17	52.2	17	13.5	1.3	1.3	14	44	46	55	56	60	3	3.5	1.3	1.3
JL69349X/310	L69300	38	63	17	52.2	17	13.5	2.3	1.3	14	44	48	55	56	60	3	3.5	2.3	1.3
32008X	3CD	40	68	19	54.7	19	14.5	1	1	14	46	47.5	60	61	65	4	4.5	1	1
33108	2CE	40	75	26	57.5	26	20.5	1.5	1.5	17	47	48.5	65	67	71	4	5.5	1.5	1.5
30208	3DB	40	80	19.75	57.5	18	16	1.5	1.5	16	49	48.5	69	72	74	3	3.5	1.5	1.5
32208	3DC	40	80	24.75	58.4	23	19	1.5	1.5	18	49	48.5	68	72	75	3	5.5	1.5	1.5
33208	2DE	40	80	32	59.7	32	25	1.5	1.5	20	47	48.5	67	72	76	5	7	1.5	1.5
T2EE040	2EE	40	85	33	61.2	32.5	28	2.5	2	21	48	50.5	70	76	80	5	5	2.5	2
31308	7FB	40	90	25.25	67.1	23	17	2	1.5	28	51	50	71	82	86	3	8	2	1.5
30308	2FB	40	90	25.25	62.5	23	20	2	1.5	19	53	49.5	77	82	82	3	5	2	1.5
32308B	5FD	40	90	35.25	67.1	33	27	2	1.5	27	50	50	67	82	84	4	8	2	1.5
32308	2FD	40	90	35.25	62.9	33	27	2	1.5	22	51	49.5	73	82	82	4	8	2	1.5
32009X	3CC	45	75	20	60.7	20	15.5	1	1	16	52	52.5	67	68	72	4	4.5	1	1
33109	3CE	45	80	26	63	26	20.5	1.5	1.5	18	52	53.5	69	72	77	4	5.5	1.5	1.5
30209	3DB	45	85	20.75	63.1	19	16	1.5	1.5	17	54	53.5	74	77	80	3	4.5	1.5	1.5
32209	3DC	45	85	24.75	64.1	23	19	1.5	1.5	19	54	53.5	73	77	80	3	5.5	1.5	1.5
33209	3DE	45	85	32	65.3	32	25	1.5	1.5	21	52	53.5	72	77	81	5	7	1.5	1.5
T7FC045	7FC	45	95	29	73.4	26.5	20	2.5	2.5	32	54	56	71	85	91	3	9	2.5	2.5
T2ED045	2ED	45	95	36	68.7	35	30	2.5	2.5	23	55	56	80	85	89	6	6	2.5	2.5
31309	7FB	45	100	27.25	74.7	25	18	2	1.5	31	57	55	79	92	95	4	9	2	1.5
30309	2FB	45	100	27.25	70.2	25	22	2	1.5	20	59	55	86	92	92	3	5	2	1.5
32309B	5FD	45	100	38.25	76.1	36	30	2	1.5	29	56	55	76	92	94	5	8	2	1.5
32309	2FD	45	100	38.25	71.1	36	30	2	1.5	24	57	55	82	92	93	4	8	2	1.5
32910	2BC	50	72	15	62.2	15	12	1	1	13	56	57.5	66	65	69	3	3	1	1
32010X	3CC	50	80	20	65.9	20	15.5	1	1	17	57	57.5	72	73	77	4	4.5	1	1
33010	2CE	50	80	24	65.3	24	19	1	1	17	57	57.5	72	73	76	4	5	1	1
JLM104948	LM104900	50	82	21.5	65.1	21.5	17	3.6	1.2	15	57	63	74	75	78	4	4.5	3.6	1.2
JLM104945/910	LM104900	50	82	21.501	65.2	27.7	17	3	0.5	15	57	61.5	74	76	78	4	4.5	3	0.5
33110	3CE	50	85	26	68	26	20	1.5	1.5	20	57	59	74	77	82	4	6	1.5	1.5
30210	3DB	50	90	21.75	68	20	17	1.5	1.5	19	59	59	79	82	85	3	4.5	1.5	1.5
32210	3DC	50	90	24.75	68.6	23	19	1.5	1.5	20	58	59	78	82	85	3	5.5	1.5	1.5
JM205149/110	M205100	50	90	28	68.8	28	23	3	2.5	20	58	62	78	80	85	5	5	3	2.5
JM205149/110A	M205100	50	90	28	68.8	28	23	3	0.8	20	58	62	78	83	85	5	5	3	0.8
33210	3DE	50	90	32	70.8	32	24.5	1.5	1.5	22	57	59	77	82	87	5	7.5	1.5	1.5

Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Weight	Basic load rating		Fatigue load limit P _u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C ₀		reference speed	Maximum speed	e	Y	Y ₀
-	-	kg	kN			r/min		-		
32307	2FE	0.75	122.85	111.3	12.81	7035	9450	0.31	1.9	1.1
JL69349/310	L69300	0.2	47.985	54.6	5.67	8925	10500	0.43	1.4	0.8
JL69345/310	L69300	0.21	47.985	54.6	5.67	8925	10500	0.43	1.4	0.8
JL69349A/310	L69300	0.21	47.985	54.6	5.67	8925	10500	0.43	1.4	0.8
JL69349X/310	L69300	0.21	47.985	54.6	5.67	8925	10500	0.43	1.4	0.8
32008X	3CD	0.28	67.935	74.55	8.0325	7875	9975	0.37	1.6	0.9
33108	2CE	0.5	102.375	109.2	11.97	7350	9450	0.35	1.7	0.9
30208	3DB	0.42	79.59	71.4	8.0325	7350	8925	0.37	1.6	0.9
32208	3DC	0.53	96.18	90.825	10.29	7350	8925	0.37	1.6	0.9
33208	2DE	0.73	134.4	138.6	15.75	6615	8925	0.35	1.7	0.9
T2EE040	2EE	0.9	157.5	157.5	18.165	7035	8400	0.35	1.7	0.9
31308	7FB	0.72	95.655	85.575	9.975	5880	7875	0.83	0.72	0.4
30308	2FB	0.73	111.3	99.75	11.34	6615	8400	0.35	1.7	0.9
32308B	5FD	1.1	140.7	147	16.8	5880	7875	0.54	1.1	0.6
32308	2FD	1.05	150.15	147	16.8	6300	8400	0.35	1.7	0.9
32009X	3CC	0.34	75.285	84	9.24	7350	8925	0.4	1.5	0.8
33109	3CE	0.55	109.2	119.7	13.545	7035	8400	0.37	1.6	0.9
30209	3DB	0.47	85.68	80.325	9.0825	6615	8400	0.4	1.5	0.8
32209	3DC	0.58	103.635	102.9	11.55	6615	8400	0.4	1.5	0.8
33209	3DE	0.79	138.6	150.15	17.115	6300	7875	0.4	1.5	0.8
T7FC045	7FC	0.93	115.5	117.6	13.335	5565	7350	0.88	0.68	0.4
T2ED045	2ED	1.2	191.1	195.3	21.84	6300	7350	0.33	1.8	1
31309	7FB	0.95	118.65	107.1	13.125	5250	7035	0.83	0.72	0.4
30309	2FB	0.97	138.6	126	15.015	5880	7350	0.35	1.7	0.9
32309B	5FD	1.5	174.3	184.8	21	5250	7035	0.54	1.1	0.6
32309	2FD	1.4	181.65	178.5	21.42	5565	7350	0.35	1.7	0.9
32910	2BC	0.19	43.365	55.65	5.88	7350	8925	0.35	1.7	0.9
32010X	3CC	0.38	78.855	92.4	10.1325	6615	8400	0.43	1.4	0.8
33010	2CE	0.45	89.04	107.1	11.97	6615	8400	0.31	1.9	1.1
JLM104948	LM104900	0.43	93.345	105	11.55	6615	8400	0.3	2	1.1
JLM104945/910	LM104900	0.46	93.345	105	11.55	6615	8400	0.3	2	1.1
33110	3CE	0.58	111.3	128.1	14.07	6300	7875	0.4	1.5	0.8
30210	3DB	0.54	97.755	96.075	10.92	6300	7875	0.43	1.4	0.8
32210	3DC	0.62	106.05	105	11.97	6300	7875	0.43	1.4	0.8
JM205149/110	M205100	0.75	136.5	147	16.8	6300	7875	0.33	1.8	1
JM205149/110A	M205100	0.75	136.5	147	16.8	6300	7875	0.33	1.8	1
33210	3DE	0.86	149.1	168	19.215	5565	7350	0.4	1.5	0.8

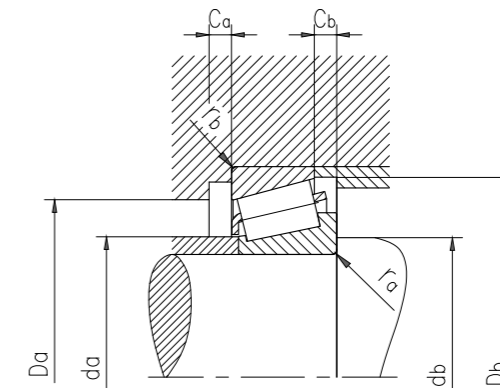
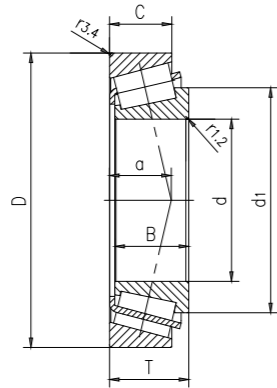
Metric single row tapered roller bearings



Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d ₁	B	C	r _{1,2}	r _{3,4}	a	d _a	d _b	D _a	D _a	D _b	C _a	C _b	r _a	r _b
		mm			mm						mm								
T2ED050	2ED	50	100	36	73.5	35	30	2.5	2.5	24	59	61	84	90	94	6	6	2.5	2.5
T7F050	7FC	50	105	32	81.3	29	22	3	3	35	60	62	78	94	100	4	10	3	3
31310	7FB	50	110	29.25	81.5	27	19	2.5	2	33	63	61	87	101	104	4	10	2.5	2
30310	2FB	50	110	29.25	77.2	27	23	2.5	2	22	66	61	95	101	102	4	6	2.5	2
32310B	5FD	50	110	42.25	83.1	40	33	2.5	2	33	62	61.5	83	101	103	5	9	2.5	2
32310	2FD	50	110	42.25	77.7	40	33	2.5	2	27	63	61	90	101	102	5	9	2.5	2
32911	2BC	55	80	17	68.8	17	14	1	1	14	62	62.5	73	73	76	3	3	1	1
32011X	3CC	55	90	23	73.3	23	17.5	1.5	1.5	19	63	64	81	82	86	4	5.5	1.5	1.5
33011	2CE	55	90	27	73.1	27	21	1.5	1.5	19	64	64	81	82	86	5	6	1.5	1.5
33111	3CE	55	95	30	75.1	30	23	1.5	1.5	22	63	64	83	87	91	5	7	1.5	1.5
30211	3DB	55	100	22.75	74.7	21	18	2	1.5	20	64	65	88	92	94	4	4.5	2	1.5
32211	3DC	55	100	26.75	75.3	25	21	2	1.5	22	64	65	87	92	95	4	5.5	2	1.5
33211	3DE	55	100	35	78.1	35	27	2	1.5	24	63	65	85	92	96	6	8	2	1.5
T2ED055	2ED	55	110	39	80.9	39	32	2.5	2.5	26	65	66	93	100	104	7	7	2.5	2.5
T7FC055	7FC	55	115	34	89.5	31	23.5	3	3	38	66	67.5	86	104	109	4	10.5	3	3
31311	7FB	55	120	31.5	88.4	29	21	2.5	2	37	68	66.5	94	111	113	4	10.5	2.5	2
30311	2FB	55	120	31.5	84	29	25	2.5	2	23	72	66.5	104	110	111	4	6.5	2.5	2
32311B	5FD	55	120	45.5	90.5	43	35	2.5	2	36	67	66.5	91	111	112	5	10.5	2.5	2
32311	2FD	55	120	45.5	84.6	43	35	2.5	2	29	68	66.5	99	110	111	5	10.5	2.5	2
32912	2BC	60	85	17	73.8	17	14	1	1	15	67	68	78	78	81	3	3	1	1
32012X	4CC	60	95	23	77.8	23	17.5	1.5	1.5	20	67	69	85	87	91	4	5.5	1.5	1.5
JLM508748/710	LM508700	60	95	24	78.5	24	19	5	2.5	20	68	76	84	85	91	4	5	5	2.5
33012	2CE	60	95	27	77.2	27	21	1.5	1.5	19	67	69	85	87	90	5	6	1.5	1.5
33112	3CE	60	100	30	80.5	30	23	1.5	1.5	23	68	69	88	92	96	5	7	1.5	1.5
30212	3EB	60	110	23.75	80.9	22	19	2	1.5	21	70	70	96	101	103	3	4.5	2	1.5
32212	3EC	60	110	29.75	81.9	28	24	2	1.5	24	69	70.5	95	102	104	4	5.5	2	1.5
33212	3EE	60	110	38	85.3	38	29	2	1.5	27	69	70.5	93	102	105	6	9	2	1.5
T2EE060	2EE	60	115	40	85.6	39	33	2.5	2.5	27	70	71.5	98	104	109	6	7	2.5	2.5
T7FC060	7FC	60	125	37	97.2	33.5	26	3	3	40	72	72.5	94	113	119	4	11	3	3
31312	7FB	60	130	33.5	96	31	22	3	2.5	39	74	72.5	103	119	123	5	11.5	3	2.5
30312	2FB	60	130	33.5	91.8	31	26	3	2.5	25	77	72.5	112	119	120	5	7.5	3	2.5
32312B	5FD	60	130	48.5	98.6	46	37	3	2.5	38	73	72.5	99	119	122	6	11.5	3	2.5
32312	2FD	60	130	48.5	91.9	46	37	3	2.5	31	74	72.5	107	119	120	6	11.5	3	2.5
32913	2BC	65	90	17	78.8	17	14	1	1	16	71	73	83	83	86	3	3	1	1
32013X	4CC	65	100	23	83.3	23	17.5	1.5	1.5	22	73	74	90	92	97	4	5.5	1.5	1.5
33013	2CE	65	100	27	82.6	27	21	1.5	1.5	21	72	74	89	92	96	5	6	1.5	1.5
JLM710949/910	LM710900	65	105	24	84.1	23	18.5	3	1	23	73	77.5	93	97	101	4	5.5	3	1

Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Weight	Basic load rating		Fatigue load limit P _u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C ₀		reference speed	Maximum speed	e	Y	Y ₀
		kg	kN		r/min					
T2ED050	2ED	1.3	198.45	210	23.52	5880	7035	0.35	1.7	0.9
T7F050	7FC	1.25	140.7	143.85	16.8	5040	6615	0.88	0.68	0.4
31310	7FB	1.2	137.55	126	15.015	4725	6300	0.83	0.72	0.4
30310	2FB	1.25	161.7	147	17.43	5565	6615	0.35	1.7	0.9
32310B	5FD	1.95	205.8	226.8	25.725	4725	6300	0.54	1.1	0.6
32310	2FD	1.85	221.55	222.6	25.2	5040	6615	0.35	1.7	0.9
32911	2BC	0.28	54.285	72.975	7.56	6615	7875	0.31	1.9	1.1
32011X	3CC	0.56	104.37	121.8	13.545	5880	7350	0.4	1.5	0.8
33011	2CE	0.66	116.55	143.85	16.065	5880	7350	0.31	1.9	1.1
33111	3CE	0.85	142.8	163.8	18.48	5880	7035	0.37	1.6	0.9
30211	3DB	0.7	116.55	111.3	12.6	5565	7035	0.4	1.5	0.8
32211	3DC	0.84	136.5	135.45	15.75	5565	7035	0.4	1.5	0.8
33211	3DE	1.15	178.5	199.5	22.68	5040	6615	0.4	1.5	0.8
T2ED055	2ED	1.7	231	243.6	27.3	5250	6300	0.35	1.7	0.9
T7FC055	7FC	1.6	162.75	171.15	20.265	4515	5880	0.88	0.68	0.4
31311	7FB	1.55	156.45	143.85	17.43	4515	5880	0.83	0.72	0.4
30311	2FB	1.55	184.8	171.15	20.265	5040	5880	0.35	1.7	0.9
32311B	5FD	2.5	244.65	273	31.5	4515	5880	0.54	1.1	0.6
32311	2FD	2.35	257.25	262.5	29.925	4515	5880	0.35	1.7	0.9
32912	2BC	0.3	55.86	78.75	8.19	6300	7350	0.33	1.8	1
32012X	4CC	0.59	106.05	128.1	14.07	5565	7035	0.43	1.4	0.8
JLM508748/710	LM508700	0.62	108.15	138.6	15.75	5565	7035	0.4	1.5	0.8
33012	2CE	0.7	118.65	150.15	16.8	5565	7035	0.33	1.8	1
33112	3CE	0.92	151.2	178.5	20.58	5565	6615	0.4	1.5	0.8
30212	3EB	0.88	126	119.7	13.86	5250	6300	0.4	1.5	0.8
32212	3EC	1.15	162.75	168	19.53	5250	6300	0.4	1.5	0.8
33212	3EE	1.55	217.35	247.8	27.825	4725	6300	0.4	1.5	0.8
T2EE060	2EE	1.85	250.95	273	31.5	5040	5880	0.33	1.8	1
T7FC060	7FC	2.05	199.5	214.2	25.725	4200	5565	0.83	0.72	0.4
31312	7FB	1.9	185.85	174.3	21.42	3990	5565	0.83	0.72	0.4
30312	2FB	1.95	218.4	205.8	24.78	4515	5565	0.35	1.7	0.9
32312B	5FD	3.1	284.55	320.25	37.275	3990	5250	0.54	1.1	0.6
32312	2FD	2.9	296.1	304.5	35.7	4200	5565	0.35	1.7	0.9
32913	2BC	0.32	57.435	84	8.5575	5880	7035	0.35	1.7	0.9
32013X	4CC	0.63	108.15	133.35	14.7	5250	6300	0.46	1.3	0.7
33013	2CE	0.75	124.95	160.65	18.165	5250	6615	0.35	1.7	0.9
JLM710949/910	LM710900	0.76	128.1	143.85	16.8	5250	6300	0.46	1.3	0.7

Metric single row tapered roller bearings



Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Main dimensions			Dimensions						Shoulder and chamfer dimensions								
		d	D	T	d ₁	B	C	r _{1,2} min.	r _{3,4} min.	a	d _a max.	d _b min.	D _a min.	D _a max.	D _b min.	C _a min.	C _b min.	r _a max.	r _b max.
		mm			mm						mm								
JM511946/910	M511900	65	110	28	87.9	28	22.5	3	2.5	23	75	77.5	96	99	104	5	5.5	3	2.5
T2DD065	2DD	65	110	31	85.7	31	25	2	2	23	74	75.5	97	100	105	5	6	2	2
33113	3DE	65	110	34	88.3	34	26.5	1.5	1.5	25	74	74.5	96	101	106	6	7.5	1.5	1.5
30213	3EB	65	120	24.75	89	23	20	2	1.5	23	78	75.5	106	111	113	4	4.5	2	1.5
32213	3EC	65	120	32.75	90.3	31	27	2	1.5	26	76	75.5	104	111	115	4	5.5	2	1.5
33213	3EE	65	120	41	92.5	41	32	2	1.5	29	75	75.5	102	111	115	6	9	2	1.5
T7FC065	7FC	65	130	37	102	33.5	26	3	3	44	77	78	98	118	124	4	11	3	3
31313	7GB	65	140	36	103	33	23	3	2.5	42	80	78	111	129	132	5	13	3	2.5
30313	2GB	65	140	36	98.7	33	28	3	2.5	27	84	78	122	129	130	5	8	3	2.5
32313B	5GD	65	140	51	105	48	39	3	2.5	41	79	78	107	129	131	6	12	3	2.5
32313	2GD	65	140	51	99.2	48	39	3	2.5	33	81	78	117	129	130	6	12	3	2.5
32914	2BC	70	100	20	84.7	20	16	1	1	17	77	78	93	92	96	4	4	1	1
32014X	4CC	70	110	25	89.9	25	19	1.5	1.5	23	78	79.5	98	101	105	5	6	1.5	1.5
33014	2CE	70	110	31	88.9	31	25.5	1.5	1.5	22	78	79.5	99	101	105	5	5.5	1.5	1.5
33114	3DE	70	120	37	95.3	37	29	2	1.5	27	80	80.5	104	111	115	6	8	2	1.5
30214	3EB	70	125	26.25	94	24	21	2	1.5	25	82	80.5	110	116	118	4	5	2	1.5
32214	3EC	70	125	33.25	95	31	27	2	1.5	28	81	80.5	108	116	119	4	6	2	1.5
33214	3EE	70	125	41	97.4	41	32	2	1.5	30	80	80.5	107	116	120	6	9	2	1.5
T2ED070	2ED	70	130	43	98.1	42	35	3	2.5	30	81	82.5	111	119	123	7	8	3	2.5
T7FC070	7FC	70	140	39	110	35.5	27	3	3	46	82	83	106	128	133	5	12	3	3
31314	7GB	70	150	38	111	35	25	3	2.5	45	85	83	118	139	141	5	13	3	2.5
30314	2GB	70	150	38	105	35	30	3	2.5	29	90	83	130	139	140	5	8	3	2.5
32314B	5GD	70	150	54	113	51	42	3	2.5	43	85	83	115	139	141	7	12	3	2.5
32314	2GD	70	150	54	106	51	42	3	2.5	35	87	83	125	139	140	6	12	3	2.5
32915	2BC	75	105	20	89.7	20	16	1	1	18	82	83.5	98	97	101	4	4	1	1
32015X	4CC	75	115	25	95.1	25	19	1.5	1.5	24	83	84.5	103	106	110	5	6	1.5	1.5
33015	2CE	75	115	31	95	31	25.5	1.5	1.5	23	84	84.5	104	106	110	6	5.5	1.5	1.5
JM714249/210	M714200	75	120	31	98.1	29.5	25	3	2.5	28	84	87.5	104	109	115	5	6	3	2.5
33115	3DE	75	125	37	100	37	29	2	1.5	28	84	85.5	109	116	120	6	8	2	1.5
30215	4DB	75	130	27.25	99.8	25	22	2	1.5	26	87	85.5	115	121	124	4	5	2	1.5
32215	4DC	75	130	33.25	100	31	27	2	1.5	29	85	85.5	114	121	125	4	6	2	1.5
33215	3DE	75	130	41	102	41	31	2	1.5	31	84	86	111	121	125	6	10	2	1.5
JH415647/610	H415600	75	145	51	111	51	42	3	2.5	35	89	88	123	134	139	9	9	3	2.5
T3FE075	3FE	75	145	52	111	51	43	5	3	39	88	92	117	133	138	7	9	5	3
T7FC075	7FC	75	150	42	116	38	29	3	3	50	88	88	114	138	143	5	13	3	3
31315	7GB	75	160	40	118	37	26	3	2.5	48	91	88	127	149	151	5	14	3	2.5
30315	2GB	75	160	40	112	37	31	3	2.5	30	96	88	139	149	149	5	9	3	2.5

Type	Dimensions this column conforms to ISO 355 standard (ABMA)	Weight	Basic load rating		Fatigue load limit P _u	Rated speed		Calculate the coefficient		
			Dynamic C	Static C ₀		reference speed	Maximum speed	e	Y	Y ₀
		kg	kN		r/min					
JM511946/910	M511900	1.05	159.6	192.15	22.26	5040	5880	0.4	1.5	0.8
T2DD065	2DD	1.15	178.5	202.65	23.52	5040	6300	0.33	1.8	1
33113	3DE	1.3	183.75	218.4	25.2	5040	5880	0.4	1.5	0.8
30213	3EB	1.1	148.05	140.7	17.115	4725	5880	0.4	1.5	0.8
32213	3EC	1.5	195.3	202.65	23.94	4725	5880	0.4	1.5	0.8
33213	3EE	2	250.95	283.5	32.025	4200	5565	0.4	1.5	0.8
T7FC065	7FC	2.2	203.7	226.8	26.775	3990	5250	0.88	0.68	0.4
31313	7GB	2.35	213.15	202.65	24.78	3780	5040	0.83	0.72	0.4
30313	2GB	2.4	252	239.4	28.875	4200	5040	0.35	1.7	0.9
32313B	5GD	3.75	320.25	362.25	42	3780	5040	0.54	1.1	0.6
32313	2GD	3.5	339.15	351.75	42	3780	5040	0.35	1.7	0.9
32914	2BC	0.49	90.09	117.6	13.335	5250	6300	0.31	1.9	1.1
32014X	4CC	0.85	131.25	160.65	18.165	4725	5880	0.43	1.4	0.8
33014	2CE	1.05	166.95	205.8	23.94	5040	5880	0.28	2.1	1.1
33114	3DE	1.7	221.55	262.5	29.925	4515	5565	0.37	1.6	0.9
30214	3EB	1.25	162.75	163.8	18.9	4515	5565	0.43	1.4	0.8
32214	3EC	1.6	204.75	218.4	25.725	4515	5565	0.43	1.4	0.8
33214	3EE	2.1	259.35	299.25	34.125	3990	5250	0.4	1.5	0.8
T2ED070	2ED	2.5	303.45	341.25	39.9	4200	5250	0.33	1.8	1
T7FC070	7FC	2.65	229.95	252	28.875	3570	4725	0.88	0.68	0.4
31314	7GB	2.85	240.45	231	28.35	3570	4725	0.83	0.72	0.4
30314	2GB	2.95	284.55	273	32.55	3990	4725	0.35	1.7	0.9
32314B	5GD	4.55	363.3	420	47.25	3570	4515	0.54	1.1	0.6
32314	2GD	4.3	381.15	399	47.25	3570	4725	0.35	1.7	0.9
32915	2BC	0.51	91.14	121.8	13.86	5040	5880	0.33	1.8	1
32015X	4CC	0.91	136.5	171.15	19.53	4515	5565	0.46	1.3	0.7
33015	2CE	1.2	175.35	239.4	27.3	4515	5565	0.3	2	1.1
JM714249/210	M714200	1.3	178.5	226.8	26.25	4515	5565	0.44	1.35	0.8
33115	3DE	1.8	226.8	278.25	31.5	4200	5250	0.4	1.5	0.8
30215	4DB	1.4	179.55	184.8	21.42	4200	5250	0.43	1.4	0.8
32215	4DC	1.65	206.85	222.6	25.725	4200	5250	0.43	1.4	0.8
33215	3DE	2.2	267.75	315	35.7	3780	5040	0.43	1.4	0.8
JH415647/610	H415600	3.9	399	472.5	53.55	3780	4725	0.37	1.6	0.9
T3FE075	3FE	3.95	382.2	472.5	52.5	3780	4725	0.43	1.4	0.8
T7FC075	7FC	3.25	261.45	294	32.55	3360	4515	0.88	0.68	0.4
31315	7GB	3.4	267.75	257.25	30.45	3360	4515	0.83	0.72	0.4
30315	2GB	3.5	316.05	304.5	35.7	3570	4515	0.35	1.7	0.9