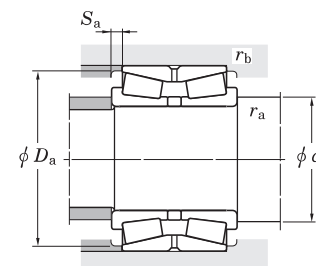
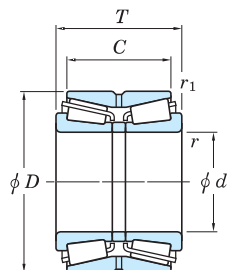


Double-row tapered roller bearings

TDO type

d 25 ~ (60) mm



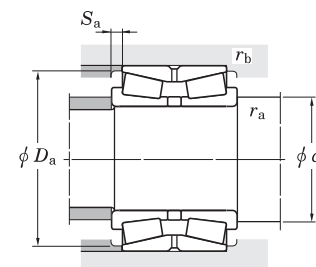
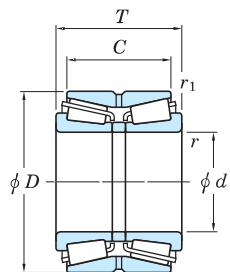
Boundary dimensions (mm)						Basic load ratings (kN)		Fatigue load limit (kN)	Limiting speeds (min ⁻¹)		Bearing No.	Mounting dimensions (mm)					Con-stant	Axial load factors			(Refer.) Mass (kg)
d	D	T	C	r _{min.}	r _{1 min.}	C _r	C _{0r}	C _u	Grease lub.	Oil lub.		d _{a min.}	D _{a min.}	S _{a min.}	r _{a max.}	r _{b max.}	e	Y ₂	Y ₃	Y ₀	
25	62	40	29.5	1.5	0.6	85.2	84.9	5.80	4 500	6 400	46T30305DJR/29.5	33.5	58.5	5	1.5	0.6	0.83	0.82	1.22	0.8	0.592
30	72	45	31.5	1.5	0.6	109	110	7.70	3 900	5 400	46T30306DJR/31.5	38.5	68	6.5	1.5	0.6	0.83	0.82	1.22	0.8	0.872
35	80	51	35.5	2	0.6	135	138	9.85	3 400	4 800	46T30307DJR/35.5	45	76.5	7.5	2	0.6	0.83	0.82	1.22	0.8	1.2
40	80	45	37.5	1.5	0.6	134	138	10.3	4 000	5 300	46T30208JR/37.5	48.5	75	3.5	1.5	0.6	0.37	1.8	2.68	1.76	0.954
	80	55	43.5	1.5	0.6	166	182	13.6	4 000	5 300	46T32208JR/43.5	48.5	75	5.5	1.5	0.6	0.37	1.8	2.68	1.76	1.19
	90	56	39.5	2	0.6	172	180	13.1	3 000	4 200	46T30308DJR/39.5	50	86.5	8	2	0.6	0.83	0.82	1.22	0.8	1.67
	90	56	45.5	2	0.6	194	202	15.5	3 600	4 900	46T30308JR/45.5	50	82	5	2	0.6	0.35	1.96	2.91	1.91	1.67
45	85	47	37.5	1.5	0.6	144	155	11.6	3 700	4 900	46T30209JR/37.5	53.5	80	4.5	1.5	0.6	0.4	1.67	2.48	1.63	1.1
	85	55	43.5	1.5	0.6	180	207	15.6	3 700	4 900	46T32209JR-1/43.5	53.5	81	5.5	1.5	0.6	0.4	1.67	2.48	1.63	1.31
	100	60	41.5	2	0.6	204	214	15.8	2 700	3 800	46T30309DJR/41.5	55	96	9	2	0.6	0.83	0.82	1.22	0.8	2.15
	100	60	49.5	2	0.6	242	256	19.9	3 300	4 300	46T30309JR/49.5	55	93	5	2	0.6	0.35	1.96	2.91	1.91	2.2
50	90	49	39.5	1.5	0.6	164	183	13.8	3 400	4 600	46T30210JR/39.5	58.5	85	4.5	1.5	0.6	0.42	1.61	2.39	1.57	1.22
	90	55	43.5	1.5	0.6	182	211	15.9	3 500	4 600	46T32210JR/43.5	58.5	85	5.5	1.5	0.6	0.42	1.61	2.39	1.57	1.39
	110	64	51.5	2	0.6	295	305	24.0	3 000	4 000	46T30310JR/51.5	62	102	6	2	0.6	0.35	1.96	2.91	1.91	2.68
	110	73	52.5	2	0.6	247	266	19.8	2 500	3 500	46T30310DJR/52.5	62	105	10	2	0.6	0.83	0.82	1.22	0.8	3.11
	110	90	71.5	2	0.6	378	440	34.2	3 000	4 000	46T32310JR/71.5	62	102	9	2	0.6	0.35	1.96	2.91	1.91	3.95
55	100	51	41.5	2	0.6	203	226	17.3	3 100	4 100	46T30211JR/41.5	65	94	4.5	2	0.6	0.4	1.67	2.48	1.63	1.6
	100	60	48.5	2	0.6	230	266	20.5	3 100	4 100	46T32211JR-1/48.5	65	95	5.5	2	0.6	0.4	1.67	2.48	1.63	1.87
	120	70	49	2	0.6	276	297	22.3	2 300	3 200	46T30311DJR/49	67	113	10.5	2	0.6	0.83	0.82	1.22	0.8	3.54
	120	70	57	2	0.6	320	341	27.0	2 700	3 600	46T30311JR/57	67	111	6.5	2	0.6	0.35	1.96	2.91	1.91	3.57
	120	97	76	2	0.6	429	500	39.1	2 700	3 600	46T32311JR/76	67	111	10.5	2	0.6	0.35	1.96	2.91	1.91	4.98
60	110	53	43.5	2	0.6	228	254	19.7	2 800	3 800	46T30212JR/43.5	70	103	4.5	2	0.6	0.4	1.67	2.48	1.63	2.04
	110	66	54.5	2	0.6	282	334	25.9	2 800	3 800	46T32212JR/54.5	70	104	5.5	2	0.6	0.4	1.67	2.48	1.63	—
	130	74	51	2.5	1	327	359	27.1	2 100	2 900	46T30312DJR/51	74	124	11.5	2.5	1	0.83	0.82	1.22	0.8	4.45
	130	74	59	2.5	1	372	401	31.9	2 500	3 300	46T30312JR/59	74	120	7.5	2.5	1	0.35	1.96	2.91	1.91	4.46

[Remark] Bearings not shown above (e.g. inch series) are shown in catalog "large size ball & roller bearings".

Double-row tapered roller bearings

TDO type

d (60) ~ (90) mm



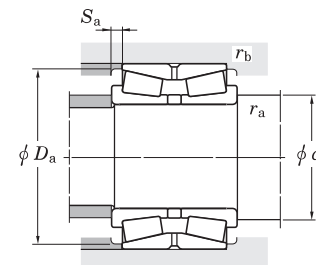
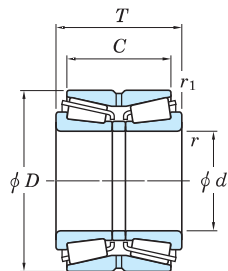
Boundary dimensions (mm)						Basic load ratings (kN)		Fatigue load limit (kN)	Limiting speeds (min ⁻¹)		Bearing No.	Mounting dimensions (mm)					Con-stant	Axial load factors			(Refer.) Mass (kg)
d	D	T	C	r _{min.}	r _{1 min.}	C _r	C _{0r}	C _u	Grease lub.	Oil lub.		d _{a min.}	D _{a min.}	S _{a min.}	r _{a max.}	r _{b max.}	e	Y ₂	Y ₃	Y ₀	
60	130	104	81	2.5	1	524	629	44.1	2 500	3 300	46T32312JR/81	74	120	11.5	2.5	1	0.35	1.96	2.91	1.91	6.45
65	120	56	46.5	2	0.6	275	311	24.3	2 600	3 400	46T30213JR/46.5	75	113	4.5	2	0.6	0.4	1.67	2.48	1.63	—
	120	73	61.5	2	0.6	337	406	31.7	2 600	3 400	46T32213JR/61.5	75	115	5.5	2	0.6	0.4	1.67	2.48	1.63	3.4
	140	79	53	2.5	1	377	417	31.4	1 900	2 700	46T30313DJR/53	79	133	13	2.5	1	0.83	0.82	1.22	0.8	5.3
	140	79	63	2.5	1	437	478	37.6	2 300	3 000	46T30313JR/63	79	130	8	2.5	1	0.35	1.96	2.91	1.91	5.51
	140	108	84	2.5	1	593	714	49.6	2 300	3 100	46T32313JR/84	79	130	12	2.5	1	0.35	1.96	2.91	1.91	7.71
70	125	59	48.5	2	0.6	296	346	27.1	2 400	3 300	46T30214JR/48.5	80	118	5	2	0.6	0.42	1.61	2.39	1.57	—
	125	74	61.5	2	0.6	363	450	35.2	2 400	3 300	46T32214JR/61.5	80	119	6	2	0.6	0.42	1.61	2.39	1.57	3.7
	150	83	57	2.5	1	421	470	34.9	1 800	2 500	46T30314DJR/57	84	142	13	2.5	1	0.83	0.82	1.22	0.8	6.48
	150	83	67	2.5	1	493	546	42.2	2 100	2 800	46T30314JR/67	84	140	8	2.5	1	0.35	1.96	2.91	1.91	6.65
	150	116	92	2.5	1	679	829	57.2	2 200	2 900	46T32314JR/92	84	140	12	2.5	1	0.35	1.96	2.91	1.91	9.46
75	115	30	26	1.5	0.6	89.9	105	7.30	2 500	3 300	46215	83.5	106.5	2	1.5	0.6	0.32	2.12	3.15	2.07	0.994
	115	38	30	1.5	0.6	153	207	15.6	2 500	3 300	46215A	83.5	107.4	4	1.5	0.6	0.32	2.12	3.15	2.07	1.32
	130	62	51.5	2	0.6	305	362	28.2	2 300	3 100	46T30215JR/51.5	85	124	5	2	0.6	0.44	1.55	2.31	1.52	3.12
	130	74	61.5	2	0.6	373	469	36.4	2 300	3 100	46T32215JR/61.5	85	125	6	2	0.6	0.44	1.55	2.31	1.52	3.85
	160	87	69	2.5	1	557	621	44.9	2 000	2 600	46T30315JR/69	89	149	9	2.5	1	0.35	1.96	2.91	1.91	7.8
	160	125	99	2.5	1	779	963	64.6	2 000	2 700	46T32315JR/99	89	149	13	2.5	1	0.35	1.96	2.91	1.91	11.5
80	125	34	30	1.5	0.6	136	155	11.3	2 300	3 100	46216	88.5	116.9	2	1.5	0.6	0.35	1.95	2.90	1.91	1.38
	140	64	51.5	2	0.6	346	405	31.2	2 200	2 900	46T30216JR/51.5	92	132	6	2	0.6	0.42	1.61	2.39	1.57	3.76
	140	78	63.5	2	0.6	434	542	41.5	2 200	2 900	46T32216JR/63.5	92	134	7	2	0.6	0.42	1.61	2.39	1.57	4.71
	170	92	73	2.5	1	630	711	49.9	1 800	2 500	46T30316JR/73	94	159	9.5	2.5	1	0.35	1.96	2.91	1.91	9.44
85	150	70	57	2	0.6	391	463	35.1	2 000	2 700	46T30217JR/57	97	141	6.5	2	0.6	0.42	1.61	2.39	1.57	4.79
	150	86	69	2	0.6	498	630	47.5	2 000	2 700	46T32217JR/69	97	142	8.5	2	0.6	0.42	1.61	2.39	1.57	6.05
	180	98	77	3	1	679	768	53.0	1 700	2 300	46T30317JR/77	103	167	10.5	3	1	0.35	1.96	2.91	1.91	11
	180	137	108	3	1	941	1 170	77.6	1 800	2 400	46T32317JR/108	103	167	14.5	3	1	0.35	1.96	2.91	1.91	16
90	140	37	33	2	0.6	171	199	14.4	2 100	2 800	46218	100	130.6	2	2	0.6	0.35	1.95	2.90	1.91	1.89

[Remark] Bearings not shown above (e.g. inch series) are shown in catalog "large size ball & roller bearings".

Double-row tapered roller bearings

TDO type

d (90) ~ 110 mm



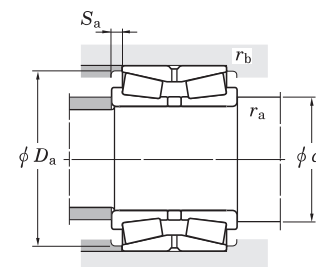
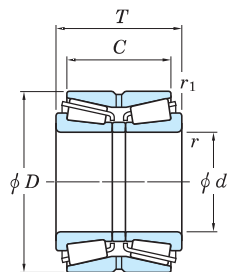
Boundary dimensions (mm)						Basic load ratings (kN)		Fatigue load limit (kN)	Limiting speeds (min ⁻¹)		Mounting dimensions (mm)	Constant e	Axial load factors			(Refer.) Mass (kg)						
d	D	T	C	r _{min.}	r _{1 min.}	C _r	C _{0r}	C _u	Grease lub.	Oil lub.			d _{a min.}	D _{a min.}	S _{a min.}		r _{a max.}	r _{b max.}	Y ₂	Y ₃	Y ₀	
90	140	46	37	2	0.6	196	266	19.6	2 000	2 700	46218A	100	129.9	4.5	2	0.6	0.32	2.12	3.15	2.07	2.37	
	160	74	61	2	0.6	438	522	39.0	1 900	2 500		46T30218JR/61	102	150	6.5	2	0.6	0.42	1.61	2.39	1.57	5.85
	160	94	77	2	0.6	565	724	53.7	1 900	2 500		46T32218JR/77	102	152	8.5	2	0.6	0.42	1.61	2.39	1.57	7.53
	190	102	81	3	1	741	841	57.1	1 600	2 200		46T30318JR/81	108	177	10.5	3	1	0.35	1.96	2.91	1.91	13
	190	144	115	3	1	989	1 230	78.7	1 700	2 200		46T32318JR/115	108	177	14.5	3	1	0.35	1.96	2.91	1.91	18.6
95	170	78	63	2.5	1	496	598	44.0	1 800	2 400	46T30219JR/63	109	159	7.5	2.5	1	0.42	1.61	2.39	1.57	7.01	
	170	100	83	2.5	1	667	877	64.1	1 800	2 400		46T32219JR/83	109	161	8.5	2.5	1	0.42	1.61	2.39	1.57	9.25
	200	108	85	3	1	798	909	60.9	1 600	2 100		46T30319JR/85	113	186	11.5	3	1	0.35	1.96	2.91	1.91	14.8
	200	151	118	3	1	1 110	1 390	89.2	1 600	2 100		46T32319JR/118	113	186	16.5	3	1	0.35	1.96	2.91	1.91	21.4
100	150	46	37	2	0.6	226	293	21.3	1 900	2 500	46220A	110	142	4.5	2	0.6	0.35	1.95	2.90	1.91	2.53	
	165	52	46	2.5	0.6	249	305	22.0	1 700	2 300		46320	112	154	3	2	0.6	0.35	1.95	2.90	1.91	4.03
	165	65	52	2.5	0.6	333	443	32.4	1 800	2 300		46320A	112	153	6.5	2	0.6	0.35	1.95	2.90	1.91	4.97
	180	83	67	2.5	1	554	676	49.1	1 700	2 200		46T30220JR/67	114	168	8	2.5	1	0.42	1.61	2.39	1.57	8.33
	180	107	87	2.5	1	745	990	63.9	1 700	2 200		46T32220JR/87	114	171	10	2.5	1	0.42	1.61	2.39	1.57	11.1
	215	112	87	3	1	906	1 040	68.0	1 500	1 900		46T30320JR/87	118	200	12.5	3	1	0.35	1.96	2.91	1.91	18.1
	215	162	127	3	1	1 240	1 570	96.9	1 500	2 000		46T32320JR/127	118	200	17.5	3	1	0.35	1.96	2.91	1.91	27.2
105	190	88	70	2.5	1	618	761	52.3	1 600	2 100	46T30221JR/70	119	178	9	2.5	1	0.42	1.61	2.39	1.57	9.87	
	190	115	95	2.5	1	840	1 130	73.0	1 600	2 100		46T32221JR/95	119	180	10	2.5	1	0.42	1.61	2.39	1.57	13.5
	225	116	91	3	1	995	1 160	73.6	1 400	1 800		46T30321JR/91	123	209	12.5	3	1	0.35	1.96	2.91	1.91	20.7
	225	170	133	3	1	1 360	1 730	107	1 400	1 900		46T32321JR/133	123	209	18.5	3	1	0.35	1.96	2.91	1.91	30.9
110	170	45	40	2.5	0.6	219	304	21.2	1 700	2 200	46222	122	158	2.5	2	0.6	0.35	1.95	2.90	1.91	3.58	
	180	56	50	2.5	0.6	308	388	27.7	1 600	2 100		46322	122	168	3	2	0.6	0.35	1.95	2.90	1.91	5.13
	180	70	56	2.5	0.6	391	533	38.1	1 600	2 100		46322A	122	168	7	2	0.6	0.35	1.92	2.86	1.88	6.43
	200	92	74	2.5	1	695	868	58.1	1 500	2 000		46T30222JR/74	124	188	9	2.5	1	0.42	1.61	2.39	1.57	11.6
	200	121	101	2.5	1	938	1 280	80.4	1 500	2 000		46T32222JR/101	124	190	10	2.5	1	0.42	1.61	2.39	1.57	15.9
	240	118	93	3	1	1 030	1 180	75.2	1 300	1 700		46T30322JR/93	128	222	12.5	3	1	0.35	1.96	2.91	1.91	23.8
	240	181	142	3	1	1 480	1 890	115	1 300	1 700		46T32322JR/142	128	222	19.5	3	1	0.35	1.96	2.91	1.91	37.3

[Remark] Bearings not shown above (e.g. inch series) are shown in catalog "large size ball & roller bearings".

Double-row tapered roller bearings

TDO type

d 120 ~ (150) mm

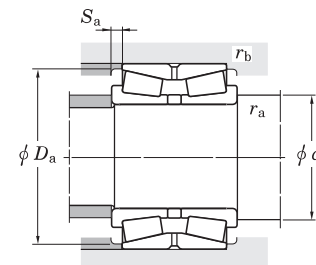
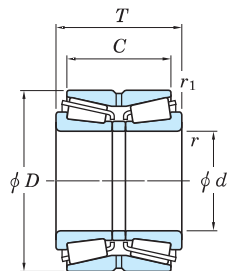


Boundary dimensions (mm)						Basic load ratings (kN)		Fatigue load limit (kN)	Limiting speeds (min ⁻¹)		Bearing No.	Mounting dimensions (mm)					Con-stant	Axial load factors			(Refer.) Mass (kg)
d	D	T	C	r _{min.}	r _{1 min.}	C _r	C _{0r}	C _u	Grease lub.	Oil lub.		d _{a min.}	D _{a min.}	S _{a min.}	r _{a max.}	r _{b max.}	e	Y ₂	Y ₃	Y ₀	
120	180	46	41	2.5	0.6	232	317	21.8	1 500	2 000	46224 46224A 46324 46324A 46324AS 46T30224JR/78 46T32224JR/109 46T30324JR/101 46T32324JR/145	132	170	2.5	2	0.6	0.35	1.95	2.90	1.91	3.81
	180	58	46	2.5	0.6	309	460	32.2	1 500	2 100		132	169	6	2	0.6	0.35	1.95	2.90	1.91	4.66
	200	62	55	2.5	0.6	367	470	32.8	1 400	1 900		132	184	3.5	2	0.6	0.35	1.95	2.90	1.91	7.28
	200	78	62	2.5	0.6	486	672	47.0	1 400	1 900		132	185	8	2	0.6	0.35	1.95	2.90	1.91	9.14
	200	100	84	2.5	0.6	670	1 010	62.5	1 400	1 900		132	190	8	2	0.6	0.35	1.95	2.90	1.91	12.0
	215	97	78	2.5	1	745	945	61.7	1 400	1 800		134	203	9.5	2.5	1	0.44	1.55	2.31	1.52	13.9
	215	132	109	2.5	1	1 010	1 380	84.0	1 400	1 900		134	204	11.5	2.5	1	0.44	1.55	2.31	1.52	19.8
	260	128	101	3	1	1 220	1 430	89.9	1 200	1 600		138	239	13.5	3	1	0.35	1.96	2.91	1.91	30.6
	260	188	145	4	1.5	1 720	2 210	131	1 200	1 600		142	239	21.5	4	1.5	0.35	1.96	2.91	1.91	45.9
130	200	52	46	2.5	0.6	299	425	28.9	1 400	1 800	46226 46226A 46326 46326A 46T30226JR/78.5 46T32226JR/117.5 46T30326JR/107.5	142	187	3	2	0.6	0.35	1.95	2.90	1.91	5.57
	200	65	52	2.5	0.6	400	618	42.5	1 400	1 900		142	185	6.5	2	0.6	0.35	1.95	2.90	1.91	7.06
	210	64	57	2.5	0.6	404	535	36.8	1 400	1 800		142	196	3.5	2	0.6	0.36	1.87	2.79	1.83	7.81
	210	80	64	2.5	0.6	513	723	49.7	1 300	1 800		142	198	8	2	0.6	0.36	1.87	2.79	1.83	9.57
	230	98	78.5	3	1	809	1 020	65.7	1 300	1 700		148	218	9.5	3	1	0.44	1.55	2.31	1.52	15.7
	230	145	117.5	3	1	1 190	1 660	99.9	1 300	1 700		148	219	14	3	1	0.44	1.55	2.31	1.52	24.1
	280	137	107.5	4	1.5	1 410	1 670	102	1 100	1 400		152	255	15	4	1.5	0.35	1.96	2.91	1.91	38.1
	140	210	53	47	2.5	0.6	299	404	27.3	1 300		1 800	46228 46228A 46328 46328A 46T30228JR/82.5 46T32228JR/125.5 46T30328JR/115.5	152	196	3	2	0.6	0.33	2.03	3.02
210		66	53	2.5	0.6	452	639	43.4	1 300	1 800	152	199		6.5	2	0.6	0.47	1.43	2.12	1.40	7.18
225		68	61	3	1	423	564	38.1	1 200	1 700	154	210		3.5	2.5	1	0.35	1.95	2.90	1.91	9.56
225		85	68	3	1	597	836	56.6	1 200	1 700	154	212		8	2.5	1	0.35	1.95	2.90	1.91	11.8
250		102	82.5	3	1	902	1 140	71.8	1 200	1 500	158	237		9.5	3	1	0.44	1.55	2.31	1.52	19.7
250		153	125.5	3	1	1 360	1 920	112	1 200	1 600	158	238		14	3	1	0.44	1.55	2.31	1.52	30.2
300		145	115.5	4	1.5	1 610	1 920	114	1 000	1 300	162	273		15	4	1.5	0.35	1.96	2.91	1.91	46.6
150		225	56	50	3	1	348	476	31.6	1 200	1 600	46230 46230A 46330 46330A 46T30230JR/87		164	213	3	2.5	1	0.33	2.03	3.02
	225	70	56	3	1	472	703	47.0	1 200	1 600	164		213	7	2.5	1	0.33	2.03	3.02	1.98	8.82
	250	80	71	3	1	587	786	49.2	1 100	1 500	164		233	4.5	2.5	1	0.35	1.95	2.90	1.91	14.6
	250	100	80	3	1	748	1 070	66.2	1 100	1 500	164		234	10	2.5	1	0.35	1.95	2.90	1.91	17.6
	270	109	87	3	1	1 040	1 330	80.9	1 100	1 400	168		255	11	3	1	0.44	1.55	2.31	1.52	24.6

[Remark] Bearings not shown above (e.g. inch series) are shown in catalog "large size ball & roller bearings".

Double-row tapered roller bearings
TDO type

d (150) ~ (200) mm



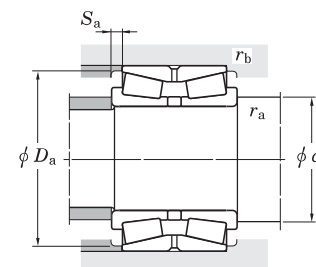
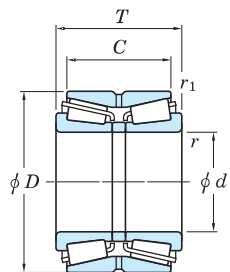
Boundary dimensions (mm)						Basic load ratings (kN)		Fatigue load limit (kN)	Limiting speeds (min ⁻¹)		Bearing No.	Mounting dimensions (mm)					Con-stant	Axial load factors			(Refer.) Mass (kg)
d	D	T	C	$r_{min.}$	$r_{1 min.}$	C_r	C_{0r}	C_u	Grease lub.	Oil lub.		d_a min.	D_a min.	S_a min.	r_a max.	r_b max.	e	Y_2	Y_3	Y_0	
150	270	164	130	3	1	1 510	2 130	122	1 100	1 400	46T32230JR/130 46T30330JR/120	168	254	17	3	1	0.44	1.55	2.31	1.52	38
	320	154	120	4	1.5	1 800	2 160	129	930	1 200		172	292	17	4	1.5	0.35	1.96	2.91	1.91	56
160	240	60	53	3	1	405	565	37.0	1 100	1 500	46232 46232A 46332 46332A 46T30232JR/91 46T32232JR/144	174	228	3.5	2.5	1	0.33	2.03	3.02	1.98	8.71
	240	75	60	3	1	508	756	49.8	1 100	1 500		174	226	7.5	2.5	1	0.33	2.03	3.02	1.98	10.6
	270	86	76	3	1	695	950	57.5	1 000	1 400		174	252	5	2.5	1	0.35	1.95	2.90	1.91	18.8
	270	108	86	3	1	871	1 270	75.1	1 000	1 400		174	252	11	2.5	1	0.35	1.95	2.90	1.91	23.1
	290	115	91	3	1	1 160	1 500	89.3	980	1 300		178	269	12	3	1	0.44	1.55	2.31	1.52	29.9
	290	178	144	3	1	1 700	2 420	137	1 000	1 300		178	274	17	3	1	0.44	1.55	2.31	1.52	47.6
170	260	67	60	3	1	480	642	41.7	1 000	1 400	46234 46234A 46334 46334A 46T30234JR/97 46T32234JR/152	184	243	3.5	2.5	1	0.33	2.03	3.02	1.98	11.4
	260	84	67	3	1	629	969	62.6	1 000	1 400		184	244	8.5	2.5	1	0.33	2.03	3.02	1.98	14.7
	280	88	78	3	1	754	1 050	62.5	970	1 300		184	263	5	2.5	1	0.33	2.06	3.06	2.01	19.8
	280	110	88	3	1	938	1 390	81.5	980	1 300		184	260	11	2.5	1	0.33	2.06	3.06	2.01	24.7
	310	125	97	4	1.5	1 330	1 730	103	900	1 200		192	288	14	4	1.5	0.44	1.55	2.31	1.52	37.5
	310	192	152	4	1.5	1 930	2 760	152	910	1 200		192	294	20	4	1.5	0.44	1.55	2.31	1.52	58.8
180	280	74	66	3	1	582	801	49.4	950	1 300	46236 46236A 46336 46336A 46T30236JR/99 46T32236JR/152	194	263	4	2.5	1	0.33	2.03	3.02	1.98	15.5
	280	93	74	3	1	732	1 080	65.6	960	1 300		194	261	9.5	2.5	1	0.33	2.03	3.02	1.98	19.0
	300	96	85	4	1.5	872	1 240	74.5	910	1 200		198	277	5.5	3	1.5	0.33	2.06	3.06	2.01	25.8
	300	120	96	4	1.5	1 080	1 630	95.1	900	1 200		198	279	12	3	1.5	0.33	2.06	3.06	2.01	31.3
	320	127	99	4	1.5	1 320	1 740	102	860	1 200		202	297	14	4	1.5	0.45	1.5	2.23	1.47	40.1
	320	192	152	4	1.5	2 060	3 030	164	880	1 200		202	303	20	4	1.5	0.45	1.5	2.23	1.47	62.5
190	290	75	67	3	1	610	866	52.9	910	1 200	46238 46238A 46338 46338A 46T30238JR/105 46T32238JR/160	204	272	4	2.5	1	0.32	2.12	3.15	2.07	16.5
	290	94	75	3	1	793	1 170	70.2	900	1 200		204	274	9.5	2.5	1	0.33	2.03	3.02	1.98	20.0
	320	104	92	4	1.5	1 020	1 450	84.1	830	1 100		208	298	6	3	1.5	0.35	1.95	2.90	1.91	31.9
	320	130	104	4	1.5	1 230	1 860	106	840	1 100		208	298	13	3	1.5	0.35	1.95	2.90	1.91	39.0
	340	133	105	4	1.5	1 560	2 060	118	800	1 100		212	318	14	4	1.5	0.44	1.55	2.31	1.52	47.8
	340	204	160	4	1.5	2 340	3 480	187	810	1 100		212	323	22	4	1.5	0.44	1.55	2.31	1.52	75.1
200	310	82	73	3	1	716	1 040	61.6	850	1 100	46240	214	288	4.5	2.5	1	0.32	2.12	3.15	2.07	21.4

[Remark] Bearings not shown above (e.g. inch series) are shown in catalog "large size ball & roller bearings".

Double-row tapered roller bearings

TDO type

d (200) ~ (300) mm



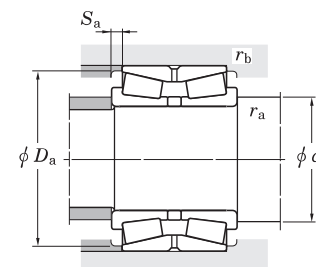
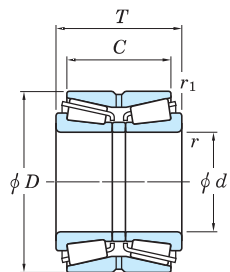
Boundary dimensions (mm)						Basic load ratings (kN)		Fatigue load limit (kN)	Limiting speeds (min ⁻¹)		Bearing No.	Mounting dimensions (mm)					Constant e	Axial load factors			(Refer.) Mass (kg)
d	D	T	C	r _{min.}	r _{1 min.}	C _r	C _{0r}	C _u	Grease lub.	Oil lub.		d _{a min.}	D _{a min.}	S _{a min.}	r _{a max.}	r _{b max.}		Y ₂	Y ₃	Y ₀	
200	310	103	82	3	1	893	1 380	80.2	840	1 100	46240A 46340 46340A 46T30240JR/110 46T32240JR/174	214	289	10.5	2.5	1	0.32	2.12	3.15	2.07	26.3
	340	112	100	4	1.5	1 100	1 580	90.2	780	1 000		218	316	6	3	1.5	0.35	1.95	2.90	1.91	39.6
	340	140	112	4	1.5	1 350	2 040	113	770	1 000		218	319	14	3	1.5	0.35	1.95	2.90	1.91	48.2
	360	142	110	4	1.5	1 700	2 240	126	750	1 000		222	336	16	4	1.5	0.44	1.55	2.31	1.52	56.5
	360	218	174	4	1.5	2 660	3 760	200	770	1 000		222	340	22	4	1.5	0.41	1.66	2.47	1.62	88.2
220	340	90	80	4	1.5	849	1 240	71.0	750	990	46244 46244A 46344 46344A 46T30244JR/114	238	319	5	3	1.5	0.32	2.12	3.15	2.07	27.8
	340	113	90	4	1.5	1 040	1 620	91.5	750	1 000		238	318	11.5	3	1.5	0.32	2.12	3.15	2.07	34.2
	370	120	107	5	1.5	1 260	1 810	101	700	930		242	346	6.5	4	1.5	0.35	1.95	2.90	1.91	49.1
	370	150	120	5	1.5	1 600	2 470	136	710	940		242	343	15	4	1.5	0.35	1.95	2.90	1.91	60.1
	400	150	114	4	1.5	2 170	2 880	160	660	890		242	371	18	4	1.5	0.42	1.61	2.39	1.57	75.8
240	360	92	82	4	1.5	962	1 430	79.7	690	920	46248 46248A 46348 46348A	258	338	5	3	1.5	0.32	2.12	3.15	2.07	29.6
	360	115	92	4	1.5	1 240	1 980	108	690	920		258	341	11.5	3	1.5	0.32	2.12	3.15	2.07	36.9
	400	128	114	5	1.5	1 490	2 180	121	630	840		262	377	7	4	1.5	0.35	1.95	2.90	1.91	59.0
	400	160	128	5	1.5	1 940	3 060	162	630	850		262	373	16	4	1.5	0.35	1.95	2.90	1.91	76.2
260	400	104	92	5	1.5	1 170	1 830	100	610	820	46252 46252A 46352 46352A	282	373	6	4	1.5	0.33	2.03	3.02	1.98	44.6
	400	130	104	5	1.5	1 520	2 480	133	610	810		282	376	13	4	1.5	0.32	2.12	3.15	2.07	54.8
	440	144	128	5	1.5	1 900	2 880	151	560	750		282	410	8	4	1.5	0.35	1.95	2.90	1.91	83.8
	440	180	144	5	1.5	2 430	3 960	204	570	760		282	409	18	4	1.5	0.35	1.95	2.90	1.91	105
280	420	106	94	5	1.5	1 260	1 970	106	570	760	46256 46256A 46356 46356A	302	395	6	4	1.5	0.33	2.03	3.02	1.98	46.9
	420	133	106	5	1.5	1 570	2 610	139	570	760		302	394	13.5	4	1.5	0.33	2.03	3.02	1.98	58.9
	460	146	130	6	2	1 950	2 930	154	530	700		308	430	8	5	2	0.35	1.95	2.90	1.91	90.0
	460	183	146	6	2	2 470	3 940	203	520	690		308	434	18.5	5	2	0.35	1.95	2.90	1.91	111
300	460	118	105	5	1.5	1 630	2 400	127	500	670	46260 46260A 46360 46360A	322	436	6.5	4	1.5	0.32	2.12	3.15	2.07	64.6
	460	148	118	5	1.5	2 050	3 230	165	510	680		322	433	15	4	1.5	0.32	2.12	3.15	2.07	80.2
	500	160	142	6	2	2 320	3 540	183	470	620		328	469	9	5	2	0.35	1.95	2.90	1.91	116
	500	200	160	6	2	2 860	4 630	231	470	630		328	466	20	5	2	0.35	1.95	2.90	1.91	144

[Remark] Bearings not shown above (e.g. inch series) are shown in catalog "large size ball & roller bearings".

Double-row tapered roller bearings

TDO type

d (300) ~420 mm



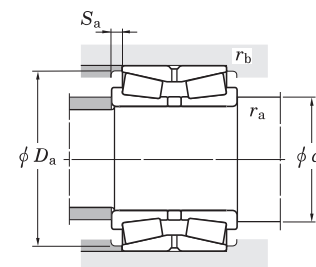
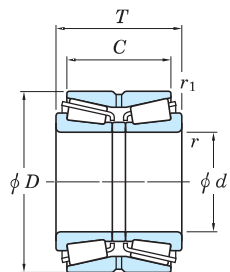
Boundary dimensions (mm)						Basic load ratings (kN)		Fatigue load limit (kN)	Limiting speeds (min ⁻¹)		Bearing No.	Mounting dimensions (mm)					Con-stant	Axial load factors			(Refer.) Mass (kg)
d	D	T	C	$r_{min.}$	$r_{1 min.}$	C_r	C_{0r}	C_u	Grease lub.	Oil lub.		d_a min.	D_a min.	S_a min.	r_a max.	r_b max.	e	Y_2	Y_3	Y_0	
300	500	200	160	6	1.5	3 140	4 650	237	—	—	46360D	328	475	20	5	1.5	0.40	1.68	2.50	1.64	139
320	480	121	108	5	1.5	1 800	2 700	142	480	640	46264	342	452	6.5	4	1.5	0.32	2.12	3.15	2.07	71.6
	480	151	121	5	1.5	2 060	3 410	171	470	630	46264A	342	454	15	4	1.5	0.32	2.12	3.15	2.07	87.7
	540	176	157	6	2	2 880	4 570	228	420	560	46364	348	502	9.5	5	2	0.35	1.95	2.90	1.91	154
	540	220	176	6	2	3 280	5 390	264	430	570	46364A	348	497	22	5	2	0.35	1.95	2.90	1.91	190
340	520	133	118	6	2	1 940	3 070	157	420	570	46268	368	489	7.5	5	2	0.32	2.12	3.15	2.07	95.3
	520	165	133	6	2	2 420	4 060	203	420	560	46268A	368	491	16	5	2	0.32	2.12	3.15	2.07	117
	580	190	169	6	2	2 980	4 620	227	380	510	46368	368	539	10.5	5	2	0.35	1.95	2.90	1.91	198
	580	238	190	6	2	3 820	6 340	303	370	500	46368A	368	543	24	5	2	0.35	1.95	2.90	1.91	244
360	540	134	120	6	2	2 070	3 290	166	400	530	46272	388	510	7	5	2	0.32	2.12	3.15	2.07	93.0
	540	169	134	6	2	2 530	4 230	210	390	530	46272A	388	512	17.5	5	2	0.32	2.12	3.15	2.07	124
	600	192	171	6	2	3 600	4 880	264	360	480	46372	388	557	10.5	5	2	0.35	1.95	2.90	1.91	206
	600	240	192	6	2	4 590	7 230	345	360	480	46372A	388	568	24	5	2	0.39	1.74	2.59	1.70	254
380	560	135	122	6	2	2 190	3 560	177	370	500	46276	408	530	6.5	5	2	0.32	2.12	3.15	2.07	100
	560	171	135	6	2	2 810	4 670	228	380	500	46276A	408	531	18	5	2	0.39	1.74	2.59	1.70	129
	620	194	173	6	2	3 380	5 220	250	340	450	46376	408	582	10.5	5	2	0.39	1.74	2.59	1.70	215
	620	243	194	6	2	4 390	7 360	342	330	440	46376A	408	587	24.5	5	2	0.35	1.95	2.90	1.91	265
400	600	148	132	6	2	2 350	3 720	183	340	460	46280	428	560	8	5	2	0.32	2.12	3.15	2.07	135
	600	185	148	6	2	3 030	5 150	245	340	460	46280A	428	563	18.5	5	2	0.32	2.12	3.15	2.07	167
	650	200	178	6	3	3 740	5 920	283	320	420	46380	428	605	11	5	2.5	0.35	1.95	2.90	1.91	243
	650	250	200	6	3	5 110	8 850	406	310	420	46380A	428	610	25	5	2.5	0.35	1.95	2.90	1.91	306
420	620	150	134	6	2	2 520	4 130	200	320	420	46284	448	590	8	5	2	0.33	2.03	3.02	1.98	142
	620	188	150	6	2	3 390	5 660	267	320	430	46284A	448	589	19	5	2	0.39	1.74	2.59	1.70	176
	700	224	200	6	3	4 650	6 880	324	290	380	46384	448	656	12	5	2.5	0.39	1.74	2.59	1.70	325
	700	280	224	6	3	6 040	9 620	430	290	380	46384A	448	659	28	5	2.5	0.39	1.74	2.59	1.70	400

[Remark] Bearings not shown above (e.g. inch series) are shown in catalog "large size ball & roller bearings".

Double-row tapered roller bearings

TDO type

d 440 ~ 500 mm



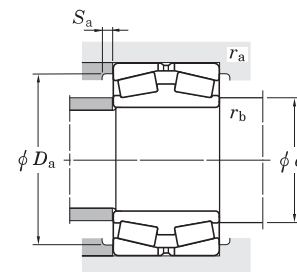
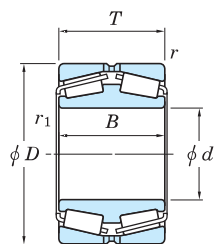
Boundary dimensions (mm)						Basic load ratings (kN)		Fatigue load limit (kN) C _u	Limiting speeds (min ⁻¹)		Bearing No.	Mounting dimensions (mm)					Constant e	Axial load factors			(Refer.) Mass (kg)
d	D	T	C	r _{min.}	r _{1 min.}	C _r	C _{0r}		Grease lub.	Oil lub.		d _{a min.}	D _{a min.}	S _{a min.}	r _{a max.}	r _{b max.}		Y ₂	Y ₃	Y ₀	
440	650	157	140	6	3	2 840	4 430	212	300	390	46288 46288A 46388 46388A	468	622	8.5	5	2.5	0.33	2.03	3.02	1.98	156
	650	196	157	6	3	3 770	6 370	300	300	400		468	620	19.5	5	2.5	0.39	1.74	2.59	1.70	198
	720	226	201	6	3	4 950	8 110	372	270	360		468	676	12.5	5	2.5	0.39	1.74	2.59	1.70	354
	720	283	226	6	3	6 210	10 100	447	270	360		468	679	28.5	5	2.5	0.40	1.68	2.51	1.65	418
460	680	163	145	6	3	3 130	5 340	253	280	370	46292 46292A 46392 46392A	488	637	9	5	2.5	0.37	1.83	2.72	1.78	196
	680	204	163	6	3	4 040	6 850	317	280	370		488	646	20.5	5	2.5	0.39	1.74	2.59	1.70	232
	760	240	214	7.5	4	5 460	9 000	408	250	330		496	710	13	6	3	0.39	1.74	2.59	1.70	424
	760	300	240	7.5	4	7 130	11 600	504	250	330		496	718	30	6	3	0.39	1.74	2.59	1.70	506
480	700	165	147	6	3	3 180	5 300	247	260	340	46296 46296A 46396 46396A	508	672	9	5	2.5	0.33	2.03	3.02	1.98	186
	700	206	165	6	3	4 040	7 230	333	260	340		508	666	20.5	5	2.5	0.33	2.03	3.02	1.98	240
	790	248	221	7.5	4	5 820	8 920	405	230	310		516	742	13.5	6	3	0.39	1.74	2.59	1.70	457
	790	310	248	7.5	4	7 530	12 400	528	230	310		516	749	31	6	3	0.39	1.74	2.59	1.70	560
500	720	167	149	6	3	3 230	5 690	265	250	330	462/500 462/500A 463/500 463/500A	528	679	9	5	2.5	0.40	1.71	2.54	1.67	210
	720	209	167	6	3	4 390	7 850	356	250	330		528	690	21	5	2.5	0.42	1.62	2.41	1.58	258
	830	264	235	7.5	4	6 570	10 900	477	210	280		536	776	14.5	6	3	0.39	1.74	2.59	1.70	559
	830	330	264	7.5	4	8 510	14 000	586	210	280		536	784	33	6	3	0.39	1.74	2.59	1.70	669

[Remark] Bearings not shown above (e.g. inch series) are shown in catalog "large size ball & roller bearings".

Double-row tapered roller bearings

TDI type

d 100 ~ (220) mm



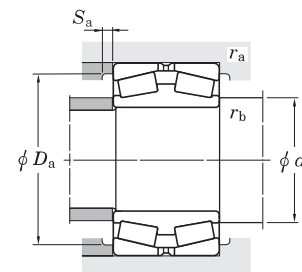
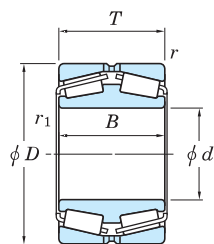
Boundary dimensions (mm)						Basic load ratings (kN)		Fatigue load limit (kN)	Limiting speeds (min ⁻¹)		Bearing No.	Mounting dimensions (mm)					Constant e	Axial load factors			(Refer.) Mass (kg)	
d	D	B	T	$r_{min.}$	$r_{1 min.}$	C_r	C_{0r}	C_u	Grease lub.	Oil lub.		d_a max.	D_a max.	S_a min.	r_a max.	r_b max.		Y_2	Y_3	Y_0		
100	165	52	52	2	2.5	298	384	28.0	1 800	2 300	45320	119	155	148	3.9	2	2	0.35	1.95	2.90	1.91	4.26
110	180	56	56	2	2.5	378	505	36.1	1 600	2 100	45322	128	170	160	4	2	2	0.35	1.95	2.90	1.91	5.40
120	180	46	46	2	2.5	286	424	29.7	1 500	2 100	45224	138	170	163	4	2	2	0.26	2.55	3.80	2.50	4.08
	200	62	62	2	2.5	444	598	41.7	1 400	1 900	45324	142	190	178	4	2	2	0.35	1.95	2.90	1.91	7.92
130	200	52	52	2	2.5	376	548	37.8	1 400	1 800	45226	152	190	179	4	2	2	0.27	2.47	3.67	2.41	5.96
	210	64	64	2	2.5	476	657	45.2	1 300	1 800	45326	153	200	185	4	2	2	0.36	1.87	2.79	1.83	8.41
140	210	53	53	2	2.5	390	564	38.5	1 300	1 800	45228	159	200	188	4	2	2	0.27	2.47	3.67	2.41	6.45
	225	68	68	2.5	3	611	807	51.3	1 200	1 700	45328	160	213	210	4	2	2.5	0.40	1.68	2.50	1.64	10.0
150	225	56	56	2.5	3	445	686	45.8	1 200	1 600	45230	174	213	203	4	2	2.5	0.26	2.55	3.80	2.50	7.87
	250	80	80	2.5	3	684	955	59.8	1 100	1 500	45330	179	238	220	4	2	2.5	0.35	1.95	2.90	1.91	15.5
160	240	60	60	2.5	3	488	705	46.6	1 100	1 500	45232	184	228	217	5	2	2.5	0.24	2.79	4.15	2.73	9.22
	270	86	86	2.5	3	832	1 100	73.2	1 000	1 400	45332	193	258	237	4	2	2.5	0.35	1.95	2.90	1.91	19.8
170	260	67	67	2.5	3	654	956	62.1	1 000	1 400	45234	195	248	233	5	2	2.5	0.31	2.21	3.29	2.16	12.4
	280	88	88	2.5	3	834	1 210	72.7	970	1 300	45334	201	268	247	5	2	2.5	0.33	2.03	3.02	1.98	21.6
180	280	74	74	2.5	3	722	1 050	62.5	950	1 300	45236	208	268	250	5	2	2.5	0.28	2.43	3.61	2.37	16.8
	300	96	96	3	4	992	1 370	81.2	910	1 200	45336	210	286	263	5	2.5	3	0.35	1.95	2.90	1.91	26.5
190	290	75	75	2.5	3	751	1 130	66.3	900	1 200	45238	219	278	260	5	2	2.5	0.26	2.55	3.80	2.50	17.7
	320	104	104	3	4	1 130	1 590	91.3	840	1 100	45338	224	306	280	5	2.5	3	0.35	1.95	2.90	1.91	34.0
200	310	82	82	2.5	3	913	1 410	83.1	830	1 100	45240	234	298	280	5	2	2.5	0.26	2.55	3.80	2.50	22.9
	340	112	112	3	4	1 250	1 840	104	770	1 000	45340	244	326	300	5	2.5	3	0.35	1.95	2.90	1.91	41.9
220	340	90	90	3	4	933	1 460	83.4	740	990	45244	259	326	306	5	2.5	3	0.28	2.43	3.61	2.37	28.5

[Remark] Bearings not shown above (e.g. inch series) are shown in catalog "large size ball & roller bearings".

Double-row tapered roller bearings

TDI type

d (220) ~ (420) mm



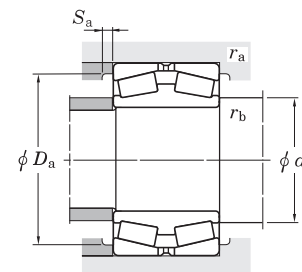
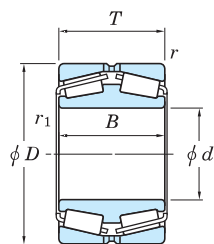
Boundary dimensions (mm)						Basic load ratings (kN)		Fatigue load limit (kN)	Limiting speeds (min ⁻¹)		Bearing No.	Mounting dimensions (mm)					Constant e	Axial load factors			(Refer.) Mass (kg)	
d	D	B	T	$r_{min.}$	$r_{1 min.}$	C_r	C_{0r}	C_u	Grease lub.	Oil lub.		d_a max.	D_a max.	S_a min.	r_a max.	r_b max.		Y_2	Y_3	Y_0		
220	370	120	120	4	5	1 400	2 060	113	700	930	45344	263	352	324	5	3	4	0.35	1.95	2.90	1.91	50.8
230	350	90	90	3	4	991	1 560	88.6	710	950	45246	267	336	318	6	2.5	3	0.28	2.43	3.61	2.37	30.6
240	360	92	92	3	4	1 150	1 790	99.8	690	920	45248	271	346	325	5	2.5	3	0.32	2.12	3.15	2.07	32.2
	400	128	128	4	5	1 650	2 470	133	630	840	45348	286	382	354	5	3	4	0.35	1.95	2.90	1.91	65.4
260	400	104	104	4	5	1 320	2 120	113	610	810	45252	302	382	360	6	3	4	0.25	2.74	4.08	2.68	48.1
	440	144	144	4	5	2 180	3 440	179	560	750	45352	313	422	386	6	3	4	0.35	1.95	2.90	1.91	92.2
280	420	106	106	4	5	1 490	2 470	133	560	750	45256	321	402	370	6	3	4	0.25	2.69	4.00	2.63	51.9
	460	146	146	5	6	2 310	3 320	175	520	700	45356	323	438	409	6	4	5	0.39	1.74	2.59	1.70	93.1
300	460	118	118	4	5	1 870	3 150	162	500	670	45260	350	442	418	6	3	4	0.25	2.74	4.08	2.68	78.5
	500	160	160	5	6	2 670	4 240	216	470	630	45360	356	478	440	6	4	5	0.35	1.95	2.90	1.91	129
320	480	121	121	4	5	1 830	3 180	161	470	630	45264	368	462	434	6	3	4	0.26	2.55	3.80	2.50	77.8
	540	176	176	5	6	3 380	5 280	264	430	570	45364R	378	518	474	6	4	5	0.32	2.12	3.15	2.07	167
340	520	133	133	5	6	2 380	3 850	186	420	570	45268	398	498	464	6	4	5	0.26	2.55	3.80	2.50	104
	580	190	190	5	6	3 790	5 470	269	390	510	45368	401	558	515	6	4	5	0.32	2.12	3.15	2.07	202
360	540	134	134	5	6	2 370	3 910	196	400	540	45272	408	518	488	11	4	5	0.32	2.12	3.15	2.07	101
	600	192	192	5	6	4 230	6 750	324	360	490	45372	419	578	528	10	4	5	0.32	2.12	3.15	2.07	228
380	560	135	135	5	6	2 300	3 790	185	380	500	45276	428	538	510	6	4	5	0.27	2.47	3.67	2.41	112
	620	194	194	5	6	3 860	6 360	303	340	450	45376	445	598	545	6	4	5	0.32	2.12	3.15	2.07	234
400	600	148	148	5	6	3 020	4 960	239	340	450	45280	452	578	545	6	4	5	0.33	2.03	3.02	1.98	143
	650	200	200	6	6	4 840	7 810	368	320	420	45380	458	622	580	11	5	5	0.39	1.74	2.59	1.70	265
420	620	150	150	5	6	3 010	5 200	248	320	430	45284	475	598	564	6	4	5	0.33	2.03	3.02	1.98	152

[Remark] Bearings not shown above (e.g. inch series) are shown in catalog "large size ball & roller bearings".

Double-row tapered roller bearings

TDI type

d (420) ~ 500 mm



Boundary dimensions (mm)						Basic load ratings (kN)		Fatigue load limit (kN) C_u	Limiting speeds (min^{-1})		Bearing No.	Mounting dimensions (mm)					Constant e	Axial load factors			(Refer.) Mass (kg)	
d	D	B	T	r_{min}	$r_{1\text{min}}$	C_r	C_{0r}		Grease lub.	Oil lub.		d_a max.	D_a max.	S_a min.	r_a max.	r_b max.		Y_2	Y_3	Y_0		
420	700	224	224	6	6	5 430	8 380	389	280	380	45384	488	672	623	7	5	5	0.39	1.74	2.59	1.70	352
	720	226	226	6	6	5 750	9 130		256	300		390	500	622	592	10	5	5	0.28	2.43	3.61	
440	650	157	157	6	6	3 190	5 500	256	300	390	45288	500	622	592	10	5	5	0.28	2.43	3.61	2.37	182
	720	226	226	6	6	5 750	9 130		417	270		360	506	692	642	7	5	5	0.39	1.74	2.59	
460	680	163	163	6	6	3 480	5 660	265	280	370	45292	510	652	616	6	5	5	0.39	1.74	2.59	1.70	197
	760	240	240	7.5	7.5	6 570	10 400		463	250		330	532	724	677	7	6	6	0.39	1.74	2.59	
480	700	165	165	6	6	3 830	6 710	307	260	350	45296	531	672	625	6	5	5	0.40	1.68	2.50	1.64	215
500	720	167	167	6	6	4 300	7 350	340	250	330	452/500	545	692	645	8	5	5	0.39	1.74	2.59	1.70	222
	830	264	264	7.5	7.5	7 970	12 300		555	210		280	587	794	729	7	6	6	0.33	2.03	3.02	

[Remark] Bearings not shown above (e.g. inch series) are shown in catalog "large size ball & roller bearings".