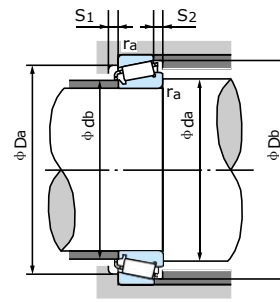
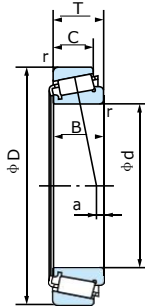


# Tapered Roller Bearings Metric Series

Bore Diameter : 15~35mm



• Dynamic equivalent radial load  
Pr=XFr+YFa

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y <sub>1</sub>
1	0	0.4	Y <sub>1</sub>

• Static equivalent radial load  
Larger value of following to be used:  
Por=0.5Fr+YoFa  
Por=Fr

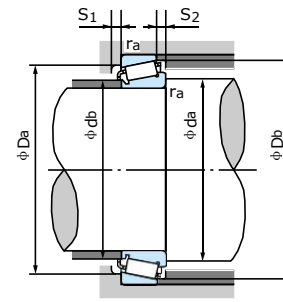
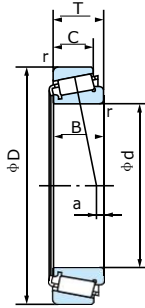
• Values e, Y<sub>1</sub>, and Yo from table.

Boundary dimensions (mm)							Bearing No.	(Ref.) ISO355 series	Basic dynamic load rating Cr(N)	Basic static load rating Cor(N)	Limitingspeed (rpm)		Abutment and fillet dimensions (mm)						Load center (mm)		Axial load factor		Mass (Kg) Reference	Bearing No.		
d	D	T	R	C	Cone Cup r (min)	Grease					Oil	d <sub>a</sub>	d <sub>b</sub>	D <sub>a</sub>	D <sub>b</sub>	S <sub>1</sub>	S <sub>2</sub>	Cone Cup r <sub>a</sub> (max)	Constant e	Y	Y <sub>1</sub>					
1N=0.102kgf																										
15	35	11.75	11	10	0.6	0.6	H-F30207	—	15800	14500	11000	15000	20	20	28	33	2	2	0.6	0.6	3.4	0.32	1.88	1.04	0.053	H-F30207
	42	14.25	13	11	1	1	H-E30302J	2FB	21900	19200	10000	14000	21	22	35	38	2	3	1	1	4.3	0.29	2.11	1.16	0.095	H-E30302J
17	40	13.25	12	11	1	1	E30203J	2DB	20400	20200	10000	13000	23	22	33	36.5	2	2.5	1	1	3.4	0.35	1.74	0.96	0.070	E30203J
	40	17.25	16	13	1	1	32203	—	25400	24600	10000	13000	23	21	33	36.5	2	5	1	1	6.3	0.32	1.88	1.04	0.180	32203
	47	15.25	14	12	1	1	E30303J	2FB	30000	27600	9000	12000	23	23.5	39	42	2	5	1	1	4.8	0.29	2.11	1.16	0.130	E30303J
	47	20.25	19	16	1	1	32303	—	30500	33000	9000	12000	23	24	39	42	2	5	1	1	9.3	0.31	1.97	1.08	0.170	32303
20	42	15	15	12	0.6	0.6	E32004J	3CC	25100	28200	9200	12000	25	24	35	39	3	3.5	0.6	0.6	4.6	0.37	1.60	0.88	0.100	E32004J
	47	15.25	14	12	1	1	E30204J	2DB	29500	30500	8500	11500	26	26	39	43	2	3.5	1	1	3.9	0.35	1.74	0.95	0.120	E30204J
	47	19.25	18	15	1	1	32204	—	27500	28000	8500	11500	26	26	39	43	2	5	1	1	6.3	0.35	1.73	0.95	0.230	32204
25	52	16.25	15	13	1.5	1.5	E30304J	2FB	35000	35500	8000	10700	27	27	43	47	2	5	1.5	1.5	4.7	0.30	2.00	1.10	0.170	E30304J
	52	22.25	21	18	1.5	1.5	H-E32304J	2FD	45100	46700	8400	11000	28.5	27	43	47	3	4	1.5	1.5	7.8	0.30	2.00	1.10	0.239	H-E32304J
	47	15	15	11.5	0.6	0.6	E32005J	4CC	28000	34000	8000	10700	30	28.5	40	44	3	3.5	0.6	0.6	3.3	0.43	1.39	0.77	0.110	E32005J
	47	17	17	14	0.6	0.6	E33005J	2CE	27500	37000	8000	10700	32	32	41	44	3	4	0.6	0.6	5.7	0.29	2.07	1.14	0.140	E33005J
30	52	16.25	15	13	1	1	H-E30205J	3CC	31500	33700	7500	10000	31	30	43	48	2	3.5	1	1	3.5	0.37	1.60	0.88	0.152	H-30205J
	52	19.25	18	15	1.1	1.1	32205	—	32500	35000	7500	10000	31	30	43	48	2	5	1	1	5.4	0.37	1.60	0.88	0.180	32205
	62	18.25	17	15	1.5	1.5	H-E30305J	2FB	48200	46900	6800	9000	33.5	34	54	57	2	3	1.5	1.5	5.4	0.30	2.00	1.10	0.265	H-E30305J
	62	18.25	17	13	1.5	1.5	H-E30305DJ	7FB	39800	42500	5700	8000	33.5	34	47	58.5	3	5	1.5	1.5	-2.2	0.83	0.73	0.40	0.267	H-E30305DJ
35	62	25.25	24	20	1.5	1.5	H-E32305J	2FD	61200	64100	6900	9100	33.5	33	52	57	3	5	1.5	1.5	8.7	0.30	2.00	1.10	0.378	H-E32305J
	55	17	17	13	1	1	E32006J	4CC	37500	46500	6700	9100	36	34	48	52	3	4	1	1	3.5	0.43	1.39	0.77	0.170	E32006J
	55	20	20	16	1	1	E33006J	2CE	39500	59500	6700	9100	38	38	48	52	3	4	1	1	6.7	0.29	2.06	1.13	0.220	E33006J
	62	17.25	16	14	1	1	E30206J	3DB	43500	48000	6200	8400	36	36.5	52	57	2	3.5	1	1	3.2	0.37	1.60	0.88	0.220	E30206J
	62	21.25	20	17	1	1	E32206J	3DC	53000	61500	6200	8400	36	35.5	52	57	2	5	1	1	5.5	0.37	1.60	0.88	0.280	E32206J
	72	20.75	19	16	1.5	1.5	H-E30306J	2FB	59600	60100	5800	7700	38.5	40	62	66	3	4.5	1.5	1.5	5.1	0.31	1.90	1.05	0.399	H-E30306J
35	72	20.75	19	14	1.5	1.5	E30306DJ	7FB	50900	54900	4900	6800	38.5	40	55	68	3	6.5	1.5	1.5	-2.9	0.83	0.73	0.04	0.395	E30306DJ
	72	28.75	27	23	1.5	1.5	H-E32306J	2FD	82200	91600	5900	7900	38.5	39	59	66	3	5.5	1.5	1.5	9.8	0.31	1.90	1.05	0.579	H-E32306J
	55	14	14	11.5	0.6	0.6	E32907J	2BD	26200	40000	6300	8500	41	41	50	52	3	4	0.6	0.6	3.2	0.29	2.06	1.13	0.130	E32907J
	62	18	18	14	1	1	E32007J	4CC	44500	57500	6000	8000	41	39	54	59	4	4	1	1	2.8	0.45	1.32	0.73	0.220	E32007J
	62	21	21	17	1	1	E33007J	2CE	46000	71000	6000	8000	43	43	54	59	3	4	1	1	6.2	0.31	1.97	1.08	0.520	E33007J
	72	18.25	17	15	1.5	1.5	E30207J	3DB	54500	60500	5400	7200	42	42.5	61	67	3	3.5	1.5	1.5	2.8	0.37	1.60	0.88	0.320	E30207J
	72	24.25	23	19	1.5	1.5	E32207J	3DC	70000	86000	5400	7200	42	41.5	61	67	3	5.5	1.5	1.5	6.4	0.37	1.60	0.88	0.430	E32207J
	72	28	28	22	1.5	1.5	H-E33207J	2DE	86700	107000	5700	7500	43.5	42	61	68	5	6	1.5	1.5	9.6	0.35	1.70	0.93	0.542	H-E33207J
	80	22.75	21	18	2	1.5	E30307J	2FB	76000	79000	5000	6700	44	43	68	74	3	6	2	1.5	5.8	0.31	1.90	1.05	0.540	E30307J
	80	22.75	21	15	2	1.5	E30307DJ	7FB	63100	69100	4300	6000	45	44	66	76.5	3	7.5	2	1.5	-4.1	0.83	0.73	0.40	0.528	E30307DJ
	80	32.75	31	25	2	1.5	E32307J	2FE	101000	114000	5300	7000	45	44	66	74	3	7.5	2	1.5	12.2	0.31	1.90	1.05	0.758	E32307J

Note: Minus value of load center indicates center is outside cone backface.

# Tapered Roller Bearings Metric Series

Bore Diameter : 40~50mm



• Dynamic equivalent radial load  
Pr=XFr+YFa

$Fa \leq e$		$Fa > e$	
$\frac{Fr}{X}$	$\frac{Fr}{Y}$	$\frac{Fr}{X}$	$\frac{Fr}{Y_1}$
1	0	0.4	$Y_1$

• Static equivalent radial load  
Larger value of following to be used:  
Por=0.5Fr+YoFa  
Por=Fr

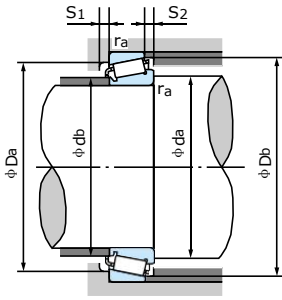
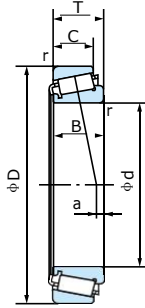
• Values e, Y<sub>1</sub>, and Yo from table.

Boundary dimensions (mm)							Bearing No.	(Ref.) ISO355	Basic dynamic load rating	Basic static load rating	Limiting speed (rpm)		Abutment and fillet dimensions (mm)							Load center (mm)		Axial load factor		Mass (Kg) Reference	Bearing No.	
d	D	T	R	C	Cone Cup						Dimension series	Grease	Oil	d <sub>a</sub>	d <sub>b</sub>	D <sub>a</sub>	D <sub>b</sub>	S <sub>1</sub>	S <sub>2</sub>	Cone Cup		Constant e	Y			Y <sub>0</sub>
					r (min)	r (min)					Cor(N)	lubrication	lubrication	(min)	(max)	(min)	(min)	(min)	(min)	ra (max)	a <sup>(1)</sup>					
	62	15	15	12	0.6	0.6	E32908J	2BC	32000	46000	5600	7600	46	46	56	59	3	5	0.6	0.6	3.2	0.29	2.07	1.14	0.180	E32908J
	68	19	19	14.5	1	1	E32008J	3CD	52500	71500	5300	7200	46	45	60	65	4	4.5	4.1	0.38	1.58	0.87	0.270	E32008J		
	68	22	22	18	1	1	E33008J	2BE	59000	82000	5300	7200	48	48	60	65	4	5	1	1	6.8	0.28	2.12	1.17	0.330	E33008J
	75	26	26	20.5	1.5	1.5	E33108J	2CE	77500	102000	5000	6700	47	47	65	72	4	5	1.5	1.5	7.3	0.36	1.69	0.93	0.520	E33108J
J	80	19.75	18	16	1.5	1.5	E30208J	3DB	63500	70500	4800	6500	47	47.5	68	75	3	3.5	1.5	1.5	2.6	0.37	1.60	0.88	0.420	E30208J
	80	24.75	23	19	1.5	1.5	E32208J	3DC	78000	91500	4800	6500	47	47	68	75	3	3.5	1.5	1.5	5.6	0.37	1.60	0.88	0.530	E32208J
	80	32	32	25	1.5	1.5	H-E33208J	2DE	108000	139000	5000	6700	48.5	47	67	76	5	7	1.5	1.5	11.3	0.36	1.68	0.92	0.747	H-E33208J
	90	25.25	23	20	2	1.5	E30308J	2FB	90600	101000	4500	6100	50	52	77	82	3	5	2	1.5	5.4	0.35	1.74	0.96	0.756	E30308J
	90	25.25	23	17	2	1.5	E30308DJ	7FB	80500	90200	3800	5300	50	51	80	86	3	8	2	1.5	-4.6	0.83	0.73	0.40	0.744	E30308DJ
	90	35.25	33	27	2	1.5	E32308J	2FD	116000	139000	4600	6200	50	50	73	82	3	8	2	1.5	10.9	0.35	1.74	0.96	1.04	E32308J
	68	15	15	12	0.6	0.6	E32909J	2BC	34500	57000	5100	6800	51	51	61	65	3	5	0.6	0.6	2.7	0.32	1.88	1.04	0.20	E32909J
	75	20	20	15.5	1	1	E32009J	3CC	59500	83000	4800	6500	51	50.5	67	72	4	4.5	1	1	3.6	0.39	1.53	0.84	0.34	E32009J
	75	24	24	19	1	1	E33009J	2CE	64500	99000	4800	6500	53	53	66	71	4	5	1	1	7.3	0.29	2.04	1.12	0.44	E33009J
	80	26	26	20.5	1.5	1.5	E33109J	3CE	79500	108000	4600	6200	52	52	69	77	4	5	1.5	1.5	6.1	0.38	1.57	0.85	0.56	E33109J
5	85	20.75	19	16	1.5	1.5	E30209J	3DB	69500	81500	4400	6000	52	52.5	73	80	3	4.5	1.5	1.5	2.3	0.40	1.48	0.81	0.47	E30209J
	85	24.75	23	19	1.5	1.5	E32209J	3DC	83500	102000	4400	6000	52	52	73	80	3	5.5	1.5	1.5	4.4	0.40	1.48	0.81	0.58	E32209J
	85	32	32	25	1.5	1.5	E33209J	3DE	112000	149000	4600	6200	53.5	52	76.5	81	5	7	1.5	1.5	10.2	0.39	1.56	0.86	0.803	E33209J
	100	27.25	25	22	2	1.5	E30309J	2FB	113000	128000	4100	5400	55	59	86	92	3	5	2	1.5	5.9	0.35	1.74	0.96	0.999	E30309J
	100	27.25	25	18	2	1.5	E30309DJ	7FB	95100	107000	3400	4700	55	56	90	96	3	9	2	1.5	-5.7	0.83	0.73	0.40	0.964	E30309DJ
	100	38.25	36	30	2	1.5	E32309J	2FD	146000	180000	4100	5500	55	55	82	93	3	8	2	1.5	11.4	0.35	1.74	0.96	1.40	E32309J
	72	15	15	12	0.6	0.6	E32910J	2BC	35500	60500	4700	6300	56	56	65	69	3	5	0.6	0.6	1.5	0.34	1.76	0.97	0.21	E32910J
	80	20	20	15.5	1	1	E32010J	3CC	62000	90500	4400	6000	56	55	72	77	4	4.5	1	1	1.9	0.42	1.42	0.78	0.37	E32010J
	80	24	24	19	1	1	E33010J	2CE	67000	107000	4400	6000	56	56	72	76	4	5	1	1	6.2	0.32	1.90	1.04	0.45	E33010J
	85	26	26	20	1.5	1.5	E33110J	3CE	84500	120000	4300	5700	56	56	74	82	5	6	1.5	1.5	4.9	0.41	1.46	0.80	0.60	E33110J
J	90	21.75	20	17	1.5	1.5	E30210J	3DB	79000	96000	4100	5500	57	56.5	78	85	3	4.5	1.5	1.5	1.9	0.42	1.43	0.79	0.53	E30210J
	90	24.75	23	19	1.5	1.5	E32210J	3DC	88500	111000	4100	5500	57	56	78	85	3	6	1.5	1.5	3.2	0.42	1.43	0.79	0.61	E32210J
	110	29.25	27	23	2.5	2	E30310J	2FB	137000	152000	3700	4900	62	65	95	102	3	6	2	2	6.4	0.35	1.74	0.96	1.29	E30310J
	110	29.25	27	19	2.5	2	E30310DJ	7FB	115000	133000	3100	4300	62	62	87	105	3	10	2	2	-5.8	0.83	0.73	0.40	1.24	E30310DJ
	110	42.25	40	33	2.5	2	E32310J	2FD	176000	220000	3700	5000	62	62	90	102	3	9	2	2	12.9	0.35	1.74	0.96	1.86	E32310J

Note: Minus value of load center indicates center is outside cone backface.

# Tapered Roller Bearings Metric Series

Bore Diameter : 55~65mm



• Dynamic equivalent radial load  
 $P_r = XFr + YFa$

$Fa \leq e$		$Fa > e$	
$\frac{Fr}{X}$	$\frac{Fr}{Y}$	$\frac{Fr}{X}$	$\frac{Fr}{Y_1}$
1	0	0.4	$Y_1$

• Static equivalent radial load  
 Larger value of following to be used:  
 $P_{0r} = 0.5Fr + Y_0Fa$   
 $P_{0r} = Fr$

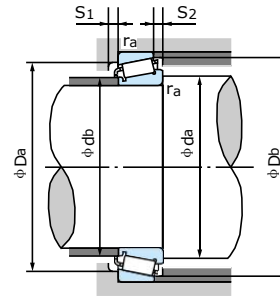
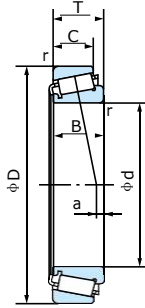
• Values  $e$ ,  $Y_1$ , and  $Y_0$  from table.

Boundary dimensions (mm)							Bearing No.	(Ref.) ISO355 series	Basic dynamic load rating Cr(N)	Basic static load rating Cor(N)	Limiting speed (rpm)		Abutment and fillet dimensions (mm)							Load center (mm)		Axial load factor		mass (Kg) Reference	Bearing No.	
d	D	T	R	C	Cone Cup r (min)	Grease lubrication					Oil lubrication	$d_a$ (min)	$d_b$ (max)	$D_a$ (min)	$D_b$ (min)	$S_1$ (min)	$S_2$ (min)	Cone Cup $r_a$ (max)	Constant $a^{(1)}$	e	Y	Y <sub>0</sub>				
55	80	17	17	14	1	1	E32911J	2BC	47000	77000	4300	5700	62	62	73	76	4	6	1	1	2.3	0.31	1.94	1.07	0.31	E32911J
	90	23	23	17.5	1.5	1.5	E32011J	3CC	82500	122000	4000	5400	62	61.5	81	86	4	5.5	1.5	1.5	3.2	0.40	1.48	0.81	0.55	E32011J
	90	27	27	21	1.5	1.5	E33011J	2CE	86500	140000	4000	5400	64	64	81	86	4	6	1.5	1.5	7.3	0.31	1.92	1.06	0.70	E33011J
	95	30	30	23	1.5	1.5	E33111J	3CE	114000	161000	3800	5200	62	62	83	91	5	7	1.5	1.5	7.7	0.37	1.60	0.88	0.86	E33111J
	100	22.75	21	18	2	1.5	E30211J	3DB	94500	113000	3700	4000	64	62.5	87	94	4	4.5	2	1.5	1.6	0.40	1.48	0.81	0.69	E30211J
	100	26.75	25	21	2	1.5	E32211J	3DC	110000	137000	3700	4000	64	62	87	94	4	6	2	1.5	3.7	0.40	1.48	0.81	0.83	E32211J
	120	31.5	29	25	2.5	2	E30311J	2FB	148000	170000	3300	4400	65	67	103	111	4	7	2	2	6.5	0.35	1.74	0.96	1.56	E30311J
	120	31.5	29	21	2.5	2	E30311DJ	7FB	129000	148000	2900	4000	67	68	94	113	4	10.5	2	2	-6.9	0.83	0.73	0.40	1.58	E30311DJ
	120	45.5	43	35	2.5	2	E32311J	2FD	200000	250000	3400	4500	67	68	99	111	4	10.5	2	2	13.1	0.35	1.74	0.96	2.35	E32311J
	60	85	17	17	14	1	1	E32912J	2BC	45500	76000	4000	5400	67	67	77	81	4	6	1	1	1.2	0.33	1.81	1.00	0.33
95		23	23	17.5	1.5	1.5	E32012J	4CC	86100	127000	3900	5200	68.5	67	85	91	4	5.5	1.5	1.5	2.0	0.43	1.39	0.77	0.609	E32012J
95		27	27	21	1.5	1.5	E33012J	2CE	92500	148000	3700	5000	68	68	85	90	5	6	1.5	1.5	6.5	0.33	1.83	1.01	0.73	E33012J
100		30	30	23	1.5	1.5	E33112J	3CE	117000	166000	3600	4900	66	66	88	97	5	7	1.5	1.5	6.5	0.40	1.51	0.83	0.94	E33112J
110		23.75	22	19	2	1.5	E30212J	3EB	104000	123000	3400	4600	69	68.5	95	102	4	4.5	2	1.5	1.2	0.40	1.48	0.81	0.86	E30212J
110		29.75	28	24	2	1.5	E32212J	3EC	131000	167000	3400	4600	69	67	95	102	4	6	2	1.5	4.7	0.40	1.48	0.81	1.14	E32212J
130		33.5	31	26	3	2.5	E30312J	2FB	173000	201000	3100	4100	74	77	112	120	4	7.5	2.5	2	6.6	0.35	1.74	0.96	2.03	E30312J
130		33.5	31	22	3	2.5	E30312DJ	7FB	153000	179000	2600	3700	74	73	103	123	4	11.5	2.5	2	-7.3	0.83	0.73	0.40	1.99	E30312DJ
130		48.5	46	37	3	2.5	E32312J	2FD	232000	295000	3000	4100	72	72	112	120	4	11	2.5	2	16.0	0.35	1.74	0.96	2.86	E32312J
65		90	17	17	14	1	1	E32913J	2BC	49500	87000	3700	5000	72	72	82	86	4	6	1	1	0.0	0.35	1.70	0.93	0.36
	100	23	23	17.5	1.5	1.5	E32013J	4CC	90000	137000	3600	4800	73.5	72	90	97	4	5.5	1.5	1.5	0.5	0.46	1.31	0.72	0.65	E32013J
	100	27	27	21	1.5	1.5	E33013J	2CE	98000	160000	3500	4700	72	72	90	96	5	6	1.5	1.5	5.4	0.35	1.72	0.95	0.78	E33013J
	110	34	34	26.5	1.5	1.5	E33113J	3DE	152000	223000	3400	4600	73.5	73	96	106	6	7.5	1.5	1.5	8.1	0.39	1.55	0.85	1.30	E33113J
	120	24.75	23	20	2	1.5	E30213J	3EB	128000	156000	3200	4300	75	77	106	113	4	4.5	2	1.5	0.6	0.40	1.48	0.81	1.16	E30213J
	120	32.75	31	27	2	1.5	E32213J	3EC	156000	200000	3100	4200	74	74	105	112	4	6	2	1.5	5.1	0.41	1.48	0.82	1.50	E32213J
	120	41	41	32	2	1.5	E33213J	3EE	200000	277000	3200	4300	75	74	102	115	7	9	2	1.5	11	0.39	1.54	0.85	2.01	E33213J
	140	36	33	28	3	2.5	E30313J	2GB	204000	239000	2800	3800	79	83	122	130	4	8	2.5	2	6.7	0.35	1.74	0.96	2.52	E30313J
	140	36	33	23	3	2.5	E30313DJ	7GB	176000	209000	2400	3400	79	79	111	130	4	13	2.5	2	-8.3	0.83	0.73	0.40	2.43	E30313DJ
	140	51	48	39	3	2.5	E32313J	2GD	276000	357000	2900	3900	79	80	117	130	4	12	2.5	2	16.3	0.35	1.74	0.96	3.64	E32313J

Note: Minus value of load center indicates center is outside cone backface.

# Tapered Roller Bearings Metric Series

Bore Diameter : 70~80mm



• Dynamic equivalent radial load  
 $P_r = XFr + YFa$

$Fa \leq e$		$Fa > e$	
$\frac{Fr}{X}$	$\frac{Fr}{Y}$	$\frac{Fr}{X}$	$\frac{Fr}{Y_1}$
1	0	0.4	$Y_1$

• Static equivalent radial load  
 Larger value of following to be used:  
 $P_{0r} = 0.5Fr + Y_0Fa$   
 $P_{0r} = Fr$

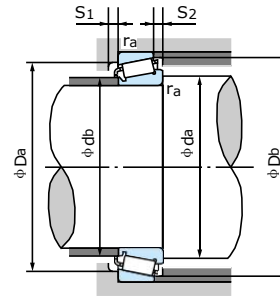
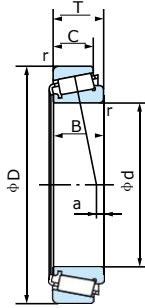
• Values  $e$ ,  $Y_1$ , and  $Y_0$  from table.

Boundary dimensions (mm)							Bearing No.	(Ref.) ISO355 Dimension series	Basic dynamic load rating Cr(N)	Basic static load rating Cor(N)	Limiting speed (rpm)		Abutment and fillet dimensions (mm)							Load center (mm)		Axial load factor		mass (Kg) Reference	Bearing No.	
d	D	T	R	C	Cone Cup r (min)						Grease lubrication	Oil lubrication	d <sub>a</sub> (min)	d <sub>b</sub> (max)	D <sub>a</sub> (min)	D <sub>b</sub> (min)	S <sub>1</sub> (min)	S <sub>2</sub> (min)	Cone Cup r <sub>a</sub> (max)		Constant e	Y	Y <sub>0</sub>			
70	100	20	20	16	1	1	E32914J	2BC	70500	114000	3400	4600	78	78	92	96	4	6	1	1	2.4	0.32	1.90	1.05	0.53	E32914J
	110	25	25	19	1.5	1.5	E32014J	4CC	108000	163000	3300	4400	78.5	78	98	105	5	6	1.5	1.5	1.4	0.43	1.38	0.76	0.87	E32014J
	110	31	31	25.5	1.5	1.5	E33014J	2CE	126000	198000	3200	4300	77	78	99	105	5	6	1.5	1.5	8.1	0.29	2.11	1.17	1.10	E33014J
	120	37	37	29	2	1.5	E33114J	3DE	171000	246000	3000	4100	78	78	106	116	6	7	2	1.5	8.4	0.38	1.58	0.87	1.72	E33114J
	125	26.25	24	21	2	1.5	E30214J	3EB	138000	173000	3100	4100	80	81	110	118	4	5	2	1.5	0.3	0.42	1.43	0.79	1.30	E30214J
	125	33.25	31	27	2	1.5	E32214J	3EC	157000	205000	3000	4000	79	78	108	117	4	6	2	1.5	4.5	0.42	1.43	0.79	1.61	E32214J
	150	38	35	30	3	2.5	E30314J	2GB	230000	273000	2600	3500	84	89	130	140	4	8	2.5	2	7.5	0.35	1.74	0.96	3.05	E30314J
	150	38	35	25	3	2.5	E30314DJ	7GB	197000	235000	2300	3200	84	84	118	142	4	13	2.5	2	-9.1	0.83	0.73	0.40	2.95	E30314DJ
	150	54	51	42	3	2.5	E32314J	2GD	317000	414000	2700	3600	84	86	125	140	4	12	2.5	2	16.6	0.35	1.74	0.96	4.43	E32314J
	75	105	20	20	16	1	1	E32915J	2BC	72000	127000	3200	4300	82	82	97	101	5	7	1	1	1.3	0.33	1.80	0.99	0.56
115		25	25	19	1.5	1.5	E32015J	4CC	110000	169000	3100	4200	83.5	83	103	110	5	6	1.5	1.5	-0.1	0.46	1.31	0.72	0.91	E32015J
115		31	31	25.5	1.5	1.5	E33015J	2CE	129000	206000	3000	4100	82	83	104	110	6	6	1.5	1.5	7.3	0.30	2.01	1.11	1.15	E33015J
125		37	37	29	2	1.5	E33115J	3DE	176000	260000	2900	3900	83	83	111	121	6	7	2	1.5	7.2	0.40	1.51	0.83	1.80	E33115J
130		27.25	25	22	2	1.5	E30215J	4DB	142000	181000	2900	3900	85	86	115	124	4	5	2	1.5	-0.3	0.44	1.38	0.76	1.39	E30215J
130		33.25	31	27	2	1.5	E32215J	4DC	165000	221000	2800	3800	84	83	113	123	4	6	2	1.5	3.4	0.44	1.38	0.76	1.70	E32215J
160		40	37	31	3	2.5	E30315J	2GB	250000	297000	2500	3300	89	95	139	149	4	9	2.5	2	8.1	0.35	1.73	0.95	3.52	E30315J
160		40	37	26	3	2.5	E30315DJ	7GB	218000	261000	2200	3000	87	88	125	152	5	12.5	2.5	2	-10.0	0.83	0.73	0.40	3.40	E30315DJ
160		58	55	45	3	2.5	E32315J	2GD	345000	469000	2500	3300	87	90	138	149	4	12.5	2.5	2	18.5	0.35	1.74	0.96	5.22	E32315J
80		110	20	20	16	1	1	E32916J	2BC	72500	130000	3000	4100	87	87	101	106	5	7	1	1	0.0	0.35	1.71	0.94	0.60
	125	29	29	22	1.5	1.5	E32016J	3CC	147000	225000	2900	3900	88.5	89	112	120	6	7	1.5	1.5	2.3	0.42	1.42	0.78	1.29	E32016J
	125	36	36	29.5	1.5	1.5	E33016J	2CE	157000	277000	2800	3800	87	90	112	119	6	6.5	1.5	1.5	10.4	0.28	2.16	1.19	1.65	E33016J
	130	37	37	29	2	1.5	E33116J	3DE	191000	294000	2800	3800	90	89	114	126	6	8	2	1.5	6.5	0.42	1.44	0.79	1.90	E33116J
	140	28.25	26	22	2.5	2	E30216J	3EB	161000	202000	2700	3600	92	91	124	132	4	6	2	2	-0.3	0.42	1.43	0.79	1.68	E30216J
	140	35.25	33	28	2.5	2	E32216J	3EC	192000	254000	2600	3500	90	88.5	122	132	4	8	2	2	3.8	0.42	1.43	0.79	2.04	E32216J
	170	42.5	39	33	3	2.5	30316	—	233000	263000	2300	3100	98	98	147	159	4	9	2.5	2	9.5	0.35	1.73	0.95	4.05	30316
	170	42.5	39	27	3	2.5	E30316DJ	7GB	236000	283000	2000	2800	92	93.5	132	160	5	12.5	2.5	2	-10.5	0.83	0.73	0.40	4.00	E30316DJ
	170	61.5	58	48	3	2.5	E32316J	2GD	380000	500000	2300	3100	92	96	147	159	4	13	2.5	2	19.1	0.35	1.74	0.96	6.12	E32316J

Note: Minus value of load center indicates center is outside cone backface.

# Tapered Roller Bearings Metric Series

Bore Diameter : 85~95mm



• Dynamic equivalent radial load  
 $P_r = XFr + YFa$

$Fa \leq e$		$Fa > e$	
$\frac{Fr}{X}$	$\frac{Fa}{Y}$	$\frac{Fr}{X}$	$\frac{Fa}{Y_1}$
1	0	0.4	$Y_1$

• Static equivalent radial load  
 Larger value of following to be used:  
 $P_{0r} = 0.5Fr + Y_0Fa$   
 $P_{0r} = Fr$

• Values e,  $Y_1$ , and  $Y_0$  from table.

Boundary dimensions (mm)							Bearing No.	(Ref.) ISO355 Dimension series	Basic dynamic load rating C <sub>r</sub> (N)	Basic static load rating C <sub>0r</sub> (N)	Limiting speed (rpm)		Abutment and fillet dimensions (mm)							Load center (mm)		Axial load factor		mass (Kg) Reference	Bearing No.	
d	D	T	R	C	Cone Cup r (min)	Grease lubrication					Oil lubrication	d <sub>a</sub> (min)	d <sub>b</sub> (max)	D <sub>a</sub> (min)	D <sub>b</sub> (min)	S <sub>1</sub> (min)	S <sub>2</sub> (min)	Cone Cup r <sub>a</sub> (max)	Constant a <sup>(1)</sup>	e	Y	Y <sub>0</sub>				
85	120	23	23	18	1.5	1.5	E32917J	2BC	95000	160000	2800	3800	93	93	111	115	6	8	1.5	1.5	2.0	0.33	1.83	1.01	0.85	E32917J
	130	29	29	22	1.5	1.5	E32017J	4CC	150000	234000	2800	3700	93.5	94	117	125	6	7	1.5	1.5	1	0.44	1.36	0.75	1.36	E32017J
	130	36	36	29.5	1.5	1.5	E33017J	2CE	172000	285000	2700	3600	92	94	118	125	6	6.5	1.5	1.5	9.4	0.29	2.06	1.13	1.74	E33017J
	140	41	41	32	2.5	2.5	E33117J	3DE	215000	325000	2600	3500	95	95	122	135	7	9	2	2	7.4	0.41	1.48	0.81	2.50	E33117J
	150	30.5	28	24	2.5	2	E30217J	3EB	182000	231000	2500	3400	97	97	132	141	5	6.5	2	2	0.1	0.42	1.43	0.79	2.12	E30217J
	150	38.5	36	30	2.5	2	E32217J	3EC	212000	280000	2500	3300	95	94	130	140	5	8	2	2	4.6	0.42	1.43	0.79	2.61	E32217J
	150	49	49	37	2.5	2	E33217J	3EE	294000	439000	2500	3400	97	95	128	144	7	12	2	2	11.9	0.42	1.43	0.79	3.62	E33217J
	180	44.5	41	34	4	3	30317	—	260000	298000	2200	3000	105	103	155	167	5	10	3	2.5	9.5	0.35	1.73	0.95	4.75	30317
	180	44.5	41	28	4	3	30317D	—	237000	278000	1900	2700	102	100	141	170	6	12.5	3	2.5	-10.5	0.81	0.74	0.41	4.60	30317D
	180	63.5	60	49	4	3	E32317J	2GD	410000	540000	2200	3000	99	101	155	167	5	14	3	2.5	19.9	0.35	1.74	0.96	6.80	E32317J
90	125	23	23	18	1.5	1.5	E32918J	2BC	92500	167000	2600	3600	97	97	116	120	6	8	1.5	1.5	2.0	0.34	1.75	0.96	0.89	E32918J
	140	32	32	24	2	1.5	E32018J	3CC	178000	267000	2600	3500	100	100	125	134	6	8	2	1.5	2.2	0.42	1.42	0.78	1.76	E32018J
	140	39	39	32.5	2	2	E33018J	2CE	216000	355000	2500	3300	99	100	127	135	7	8	2	1.5	10.6	0.27	2.23	1.23	2.20	E33018J
	150	45	45	35	2.5	2	E33118J	3DE	258000	413000	2500	3300	102	100	130	144	7	10	2	2	9.6	0.40	1.51	0.83	3.13	E33118J
	160	32.5	30	26	2.5	2	E30218J	3FB	204000	261000	2400	3200	102	103	140	150	5	6.5	2	2	-0.1	0.42	1.43	0.79	2.60	E30218J
	160	42.5	40	34	2.5	2	E32218J	3FC	255000	345000	2300	3100	100	100	138	150	5	8	2	2	6.0	0.42	1.43	0.79	3.36	E32218J
	190	46.5	43	36	4	3	30318	—	288000	330000	2000	2700	106	110	163	177	5	10	3	2.5	10.5	0.35	1.73	0.95	5.55	30318
190	46.5	43	30	4	3	30318D	—	252000	297000	1800	2500	103	105	148	179	5	11	3	2.5	-10.5	0.81	0.74	0.41	5.40	30318D	
190	67.5	64	53	4	3	32318	—	395000	500000	2000	2700	105	107	160	177	4	13	3	2.5	23.5	0.35	1.73	0.95	8.05	32318	
95	130	23	23	18	1.5	1.5	E32919J	2BC	102000	181000	2500	3400	102	102	121	125	6	8	1.5	1.5	-0.2	0.36	1.68	0.92	0.88	E32919J
	145	32	32	24	2	1.5	E32019J	4CC	182000	287000	2500	3300	105	105	130	140	6	8	2	1.5	0.8	0.44	1.36	0.75	1.84	E32019J
	145	39	39	32.5	2	1.5	E33019J	2CF	226000	382000	2500	3300	105	104	131	139	7	6.5	2	1.5	11.2	0.28	2.16	1.19	2.29	E33019J
	160	49	49	38	2.5	2.5	E33119J	3EE	287000	435000	2200	3000	105	105	141	154	8	10	2	2	10.9	0.39	1.54	0.85	3.99	E33119J
	170	34.5	32	27	3	2.5	E30219J	3FB	231000	299000	2200	3000	109	110	149	159	5	7.5	2.5	2	-0.4	0.42	1.43	0.79	3.14	E30219J
	170	45.5	43	37	3	2.5	E32219J	3FC	285000	390000	2100	2900	107	106	146	158	5	10	2.5	2	6.6	0.42	1.43	0.79	4.06	E32219J
	200	49.5	45	38	4	3	30319	—	330000	390000	1900	2600	110	114	171	186	5	11	3	2.5	10.5	0.35	1.73	0.95	6.55	30319
200	49.5	45	32	3	3	30319D	—	265000	310000	1700	2400	110	114	155	186	3	14	3	2.5	-14.4	0.81	0.74	0.41	6.45	30319D	
200	71.5	67	55	4	3	32319	—	450000	585000	1900	2600	109	111	171	186	3	14	3	2.5	24.5	0.35	1.73	0.95	11.0	32319	

Note: Minus value of load center indicates center is outside cone backface.