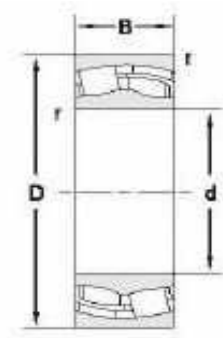
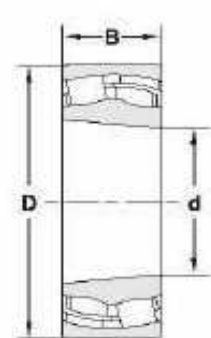


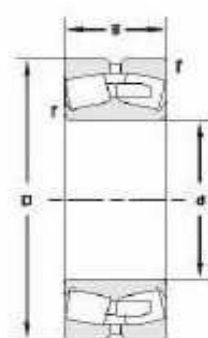
rolamento autocompensador de rolos



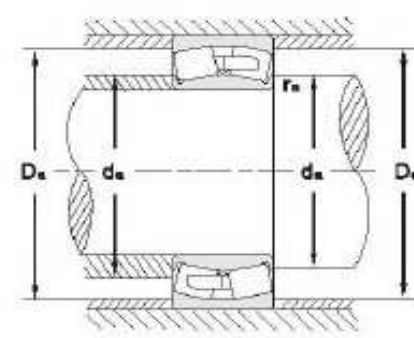
Cylindrical bore



Tapered bore



With oil hole and oil groove



Main dimensions(mm)				Constante	Model		Basic dynamic load ratings C(N)	Basic static load rating Co(N)	Permissible revolutions(rpm)		Assembly dimension (mm)			Axial load factor			Reference weight (kg)
d	D	B	r (Min)		Cylindrical bore	Tapered bore			Grease lubrication	Oil lubrication	da (Min)	Da (Max)	ra (Max)	Y ₁	Y ₂	Y ₀	
20	52	15.0	1.1	0.31	21304E	21304EK	34000	33500	7300	9000	27.00	45	1.0	2.20	3.27	2.15	0.21
25	52	18.0	1.0	0.35	22205E	22205EK	36000	34000	7000	9000	30.00	46	1.0	1.95	2.90	1.91	0.18
25	62	17.0	1.1	0.28	21305E	21305EK	45000	46500	6200	7800	32.00	53	1.0	2.39	3.56	2.34	0.25
30	62	20.0	1.0	0.33	22206E	22206EK	49000	47000	6000	7500	36.00	56	1.0	2.07	3.09	2.03	0.28
30	72	19.0	1.1	0.27	21306E	21306EK	58500	61500	5300	6600	38.00	65	1.0	2.49	3.71	2.43	0.38
35	72	23.0	1.1	0.32	22207E	22207EK	63500	64500	5000	6300	42.00	65	1.0	2.12	3.15	2.07	0.43
35	80	21.0	1.5	0.27	21307E	21307EK	71000	74500	4700	5900	44.00	71	1.5	2.49	3.71	2.43	0.51
35	80	31.0	1.5	0.42	22307E	22307EK	105000	107000	5100	6700	43.50	71	1.5	1.59	2.37	1.55	0.52
40	80	23.0	1.1	0.29	22208E	22208EK	74000	77000	4500	5600	47.00	73	1.0	2.35	3.50	2.30	0.52
40	90	23.0	1.5	0.26	21308E	21308EK	84500	94000	4000	5200	50.00	81	1.5	2.55	3.80	2.50	0.71
40	90	33.0	1.5	0.38	22308E	22308EK	113000	115000	4000	5300	49.00	81	1.5	1.78	2.65	1.73	1.00
45	85	23.0	1.1	0.26	22209E	22209EK	77500	83500	4300	5300	52.00	78	1.0	2.55	3.80	2.50	0.56
45	100	25.0	1.5	0.26	21309E	21309EK	106000	123000	3700	4600	55.00	92	1.5	2.62	3.90	2.56	0.95
45	100	36.0	1.5	0.37	22309E	22309EK	138000	150000	3500	4800	54.00	91	1.5	1.82	2.70	1.78	1.35
50	90	23.0	1.1	0.24	22210E	22210EK	80000	90000	3800	4800	57.00	83	1.0	2.79	4.15	2.73	0.61
50	110	27.0	2.0	0.25	21310E	21310EK	126000	149000	3300	4200	61.00	101	2.0	2.71	4.04	2.65	1.20
50	110	40.0	2.0	0.37	22310E	22310EK	177000	191000	3200	4300	60.00	100	2.0	1.82	2.70	1.78	1.85
55	100	25.0	1.5	0.24	22211E	22211EK	99500	112000	3400	4300	64.00	91	1.5	2.87	4.27	2.80	0.82
55	100	25.0	1.5	0.28	22211ES	22211ESK	92500	105000	3600	4700	64.00	91	1.5	2.43	3.62	2.37	0.86
55	120	29.0	2.0	0.25	21311E	21311EK	138000	161000	2400	3200	65.00	110	2.0	2.74	4.08	2.68	1.50
55	120	43.0	2.0	0.37	22311E	22311EK	203000	236000	3000	3800	65.00	110	2.0	1.85	2.76	1.81	2.35
55	120	43.0	2.0	0.41	22311ES	22311ESK	196000	226000	3200	4100	65.00	110	2.0	1.66	2.47	1.62	2.45
60	110	28.0	1.5	0.24	22212E	22212EK	123000	140000	3200	4000	69.00	101	1.5	2.81	4.19	2.75	1.10

Main dimensions(mm)				Constante	Model		Basic dynamic load ratings C(N)	Basic static load rating Co(N)	Permissible revolutions(rpm)		Assembly dimension (mm)			Axial load factor			Reference weight (kg)
d	D	B	r (Min)		Cylindrical bore	Tapered bore			Grease lubrication	Oil lubrication	d _a (Min)	D _a (Max)	r _a (Max)	Y ₁	Y ₂	Y ₀	
60	110	28.0	1.5	0.28	22212ES	22212ESK	111000	129000	3300	4300	69.00	101	1.5	2.39	3.56	2.34	1.15
60	130	31.0	2.1	0.24	21312E	21312EK	161000	191000	2200	3000	72.00	118	2.0	2.79	4.15	2.73	1.85
60	130	46.0	2.1	0.37	22312E	22312EK	241000	284000	2800	3600	72.00	118	2.0	1.85	2.76	1.81	2.95
60	130	46.0	2.1	0.40	22312ES	22312ESK	228000	267000	2900	3800	72.00	118	2.0	1.71	2.55	1.67	3.10
65	120	31.0	1.5	0.24	22213E	22213EK	145000	169000	2800	3600	74.0	111	1.5	2.76	4.11	2.70	1.45
65	120	31.0	1.5	0.28	22213ES	22213ESK	131000	157000	3000	3900	74.0	111	1.5	2.39	3.56	2.34	1.50
65	140	33.0	2.1	0.24	21313E	21313EK	185000	225000	2000	2800	77.0	128	2.0	2.82	4.19	2.75	2.30
65	140	48.0	2.1	0.35	22313E	22313EK	260000	310000	2400	3200	77.0	128	2.0	1.94	2.88	1.89	3.55
65	140	48.0	2.1	0.39	22313ES	22313ESK	250000	294000	2700	3600	77.0	128	2.0	1.75	2.61	1.71	3.70
70	125	31.0	1.5	0.23	22214E	22214EK	150000	181000	2600	3400	79.0	116	1.5	2.92	4.35	2.86	1.55
70	125	31.0	1.5	0.27	22214ES	22214ESK	139000	171000	2900	3700	79.0	116	1.5	2.53	3.77	2.47	1.60
70	150	35.0	2.1	0.24	21314E	21314EK	212000	262000	1900	2600	82.0	138	2.0	2.84	4.23	2.78	2.85
70	150	51.0	2.1	0.35	22314E	22314EK	315000	365000	2200	3000	82.0	138	2.0	1.95	2.90	1.91	4.30
70	150	51.0	2.1	0.37	22314ES	22314ESK	288000	345000	2500	3300	82.0	138	2.0	1.82	2.70	1.78	4.50
75	130	31.0	1.5	0.22	22215E	22215EK	155000	193000	2400	3200	84.0	121	1.5	3.07	4.57	3.00	1.65
75	130	31.0	1.5	0.26	22215ES	22215ESK	144000	182000	2700	3600	84.0	121	1.5	2.64	3.93	2.58	1.75
75	160	37.0	2.1	0.23	21315E	21315EK	241000	300000	1800	2400	87.0	148	2.0	2.90	4.31	2.83	3.40
75	160	55.0	2.1	0.35	22315E	22315EK	355000	415000	2000	2800	87.0	148	2.0	1.94	2.88	1.89	5.25
75	160	55.0	2.1	0.38	22315ES	22315ESK	325000	400000	2400	3100	87.0	148	2.0	1.78	2.65	1.74	5.51
80	140	33.0	2.0	0.22	22216E	22216EK	178000	223000	2200	3000	90.0	130	2.0	3.10	4.62	3.04	2.05
80	140	33.0	2.0	0.26	22216ES	22216ESK	167000	214000	2500	3300	90.0	130	2.0	2.64	4.93	2.58	2.15
80	170	39.0	2.1	0.23	21316E	21316EK	263000	330000	1700	2200	92.0	158	2.0	2.92	4.35	2.86	3.95
80	170	58.0	2.1	0.35	22316E	22316EK	385000	475000	1900	2600	92.0	158	2.0	1.95	2.90	1.91	6.20
80	170	58.0	2.1	0.37	22316ES	22316ESK	375000	455000	2200	2900	92.0	158	2.0	1.81	2.69	1.77	6.50
85	150	36.0	2.0	0.22	22217E	22217EK	205000	258000	2000	2800	95.0	140	2.0	3.01	4.48	2.94	2.55
85	150	36.0	2.0	0.26	22217ES	22217ESK	195000	249000	2400	3100	95.0	140	2.0	2.60	3.87	2.54	2.70
85	180	41.0	3.0	0.23	21317E	21317EK	294000	375000	1700	2200	99.0	166	2.5	2.95	4.40	2.89	4.75
85	180	60.0	3.0	0.33	22317E	22317EK	420000	495000	1800	2400	99.0	166	2.5	2.03	3.02	1.99	7.25
85	180	60.0	3.0	0.36	22317ES	22317ESK	405000	495000	2100	2800	99.0	166	2.5	1.87	2.79	1.83	7.61
90	160	40.0	2.0	0.23	22218E	22218EK	245000	315000	1900	2600	100.0	150	2.0	2.90	4.31	2.83	3.25
90	160	40.0	2.0	0.27	22218ES	22218ESK	230000	300000	2200	2900	100.0	150	2.0	2.53	3.77	2.47	3.41

Main dimensions(mm)				Constante	Model		Basic dynamic load ratings C(N)	Basic static load rating Co(N)	Permissible revolutions(rpm)		Assembly dimension (mm)			Axial load factor			Reference weight (kg)
d	D	B	r (Min)		Cylindrical bore	Tapered bore			Grease lubrication	Oil lubrication	d _a (Min)	D _a (Max)	r _a (Max)	Y ₁	Y ₂	Y ₀	
90	160	52.4	2.0	0.30	23218E	23218EK	310000	435000	2000	2200	101.0	151	2.0	2.25	3.34	2.20	4.60
90	190	43.0	3.0	0.23	21318E	21318EK	325000	410000	1600	2000	104.0	176	2.5	2.95	4.40	2.89	5.50
90	190	64.0	3.0	0.34	22318E	22318EK	490000	630000	1800	2400	104.0	176	2.5	1.96	2.92	1.92	8.60
90	190	64.0	3.0	0.37	22318ES	22318ESK	465000	595000	2000	2600	104.0	176	2.5	1.84	2.74	1.80	9.00
95	170	43.0	2.1	0.24	22219E	22219EK	287000	385000	1900	2600	107.0	158	2.0	2.87	4.27	2.80	4.00
95	170	43.0	2.1	0.27	22219ES	22219ESK	278000	370000	2100	2800	107.0	158	2.0	2.49	3.71	2.43	4.20
95	200	45.0	3.0	0.23	21319E	21319EK	350000	510000	1500	1900	109.0	186	2.5	2.98	4.44	2.92	6.80
95	200	67.0	3.0	0.34	22319E	22319EK	525000	460000	1700	2200	109.0	186	2.5	1.98	2.94	1.93	10.00
95	200	67.0	3.0	0.37	22319ES	22319ESK	510000	680000	1900	2500	109.0	186	2.5	1.84	2.74	1.80	10.50
100	150	37.0	1.5	0.22	23020E	23020EK	205000	650000	1800	2400	107.0	141	1.0	3.01	4.48	2.94	2.40
100	150	37.0	1.5	0.25	23020ES	23020ESK	178000	325000	2000	2500	107.0	141	1.5	2.74	4.08	2.68	2.55
100	165	52.0	2.0	0.29	23120E	23120EK	345000	500000	1700	2200	110.0	155	1.5	2.33	3.47	2.28	4.40
100	165	52.0	2.0	0.31	23120ES	23120ESK	325000	500000	1700	2200	110.0	155	2.0	2.15	3.20	2.10	4.65
100	180	46.0	2.1	0.24	22220E	22220EK	320000	435000	1800	2400	112.0	168	2.0	2.84	4.23	2.78	4.85
100	180	46.0	2.1	0.27	22220ES	22220ESK	310000	420000	2000	2600	112.0	168	2.0	2.49	3.71	2.43	5.10
100	180	60.3	2.1	0.31	23220E	23220EK	415000	590000	1800	2000	115.0	170	2.0	2.18	3.24	2.13	6.70
100	215	47.0	3.0	0.22	21320E	21320EK	405000	535000	1400	1800	114.0	201	2.5	3.14	4.67	3.07	8.35
100	215	73.0	3.0	0.35	22320E	22320EK	625000	820000	1700	2200	114.0	201	2.5	1.95	2.90	1.91	13.00
100	215	73.0	3.0	0.37	22320ES	22320ESK	595000	770000	1800	2300	114.0	201	2.5	1.83	2.72	1.79	13.70
100	215	83.0	3.0	0.43	23320ES	23320ESK	655000	880000	1600	2000	-	-	-	1.60	2.30	1.50	15.30
110	170	45.0	2.0	0.24	23022E	23022EK	295000	475000	1800	2400	120.0	160	2.0	2.84	4.23	2.78	3.55
110	170	45.0	2.0	0.26	23022ES	23022ESK	295000	475000	1900	2400	120.0	160	2.0	2.60	3.87	2.54	3.75
110	180	56.0	2.0	0.28	23122E	23122EK	385000	610000	1600	2000	120.0	170	2.0	2.39	3.56	2.34	5.50
110	180	56.0	2.0	0.31	23122ES	23122ESK	385000	605000	1600	2000	120.0	170	2.0	2.16	3.22	2.12	5.80
110	180	69.0	2.0	0.38	24122E	24122EK	460000	725000	1600	2000	120.0	170	2.0	1.78	2.65	1.74	6.85
110	200	53.0	2.1	0.25	22222E	22222EK	415000	580000	1700	2200	122.0	188	2.0	2.71	4.04	2.65	7.00
110	200	53.0	2.1	0.28	22222ES	22222ESK	410000	565000	1800	2400	122.0	188	2.0	2.41	3.59	2.36	7.35
110	200	69.8	2.1	0.34	23222E	23222EK	525000	750000	1400	1800	122.0	188	2.0	1.98	2.94	1.93	9.70
110	200	69.8	2.1	0.37	23222ES	23222ESK	525000	790000	1600	2100	122.0	188	2.0	1.84	2.74	1.80	10.20
110	240	50.0	3.0	0.21	21322ES	21322ESK	460000	635000	1400	1600	127.0	225	2.5	3.20	4.77	3.13	12.00
110	240	80.0	3.0	0.34	22322ES	22322ESK	745000	990000	1500	1900	124.0	226	2.5	1.98	2.94	1.93	18.00

Main dimensions(mm)				Constante	Model		Basic dynamic load ratings C(N)	Basic static load rating Co(N)	Permissible revolutions(rpm)		Assembly dimension (mm)			Axial load factor			Reference weight (kg)
d	D	B	r (Min)		Cylindrical bore	Tapered bore			Grease lubrication	Oil lubrication	d _a (Min)	D _a (Max)	r _a (Max)	Y ₁	Y ₂	Y ₀	
110	240	92.1	3.0	0.43	23322ES	23322ESK	800000	1020000	1400	1800	-	-	-	1.60	2.30	1.50	21.10
120	180	46.0	2.0	0.23	23024E	23024EK	315000	515000	1700	2200	130.0	170	2.0	2.95	4.40	2.89	3.95
120	180	46.0	2.0	0.25	23024ES	23024ESK	310000	514000	1800	2200	130.0	170	2.0	2.69	4.00	2.63	4.15
120	180	60.0	2.0	0.33	24024E	24024EK30	395000	690000	1500	1900	130.0	170	2.0	2.03	3.02	1.99	5.40
120	200	62.0	2.0	0.29	23124E	23124EK	465000	720000	1400	1800	130.0	190	2.0	2.37	3.53	2.32	7.80
120	200	62.0	2.0	0.31	23124ES	23124ESK	460000	720000	1400	1800	130.0	192	2.0	2.16	3.22	2.12	8.15
120	200	80.0	2.0	0.39	24124E	24124EK30	575000	915000	1400	1800	130.0	190	2.0	1.71	2.54	1.67	10.10
120	215	58.0	2.1	0.25	22224E	22224EK	485000	690000	1600	2000	132.0	203	2.0	2.67	3.97	2.61	8.70
120	215	58.0	2.1	0.28	22224ES	22224ESK	480000	685000	1700	2200	132.0	203	2.0	2.39	3.56	2.34	9.14
120	215	76.0	2.1	0.34	21324ES	21324ESK	630000	945000	1300	1700	132.0	203	2.0	1.98	2.94	1.93	12.00
120	215	76.0	2.1	0.36	23224ES	23224ESK	615000	945000	1500	1900	132.0	203	2.0	1.87	2.79	1.83	12.60
120	260	86.0	3.0	0.34	22324ES	22324ESK	845000	1120000	1300	1700	134.0	246	2.5	1.99	2.96	1.95	22.00
120	260	106.0	3.0	0.45	23324ES	23324ESK	1000000	1370000	1300	1700	-	-	-	1.50	2.20	1.50	29.10
130	200	52.0	2.0	0.24	23026E	23026EK	400000	660000	1600	2000	140.0	190.0	2.0	2.87	4.27	2.80	5.75
130	200	52.0	2.0	0.26	23026ES	23026ESK	400000	660000	1600	2000	140.0	190.0	2.0	2.60	3.87	2.54	6.05
130	200	69.0	2.0	0.34	24026E	24026EK30	505000	900000	1300	1700	140.0	190.0	2.0	1.98	2.94	1.93	7.95
130	210	64.0	2.0	0.28	23126E	23126EK	505000	795000	1300	1700	140.0	200.0	2.0	2.43	3.62	2.37	8.55
130	210	64.0	2.0	0.31	23126ES	23126ESK	490000	790000	1300	1700	140.0	200.0	2.0	2.20	3.27	2.15	9.00
130	210	80.0	2.0	0.38	24126E	24126EK30	585000	970000	1300	1700	140.0	200.0	2.0	1.76	2.62	1.72	10.80
130	230	64.0	3.0	0.26	22226E	22226EK	560000	810000	1400	1800	144.0	216.0	2.5	2.60	3.87	2.54	11.00
130	230	64.0	3.0	0.29	22226ES	22226ESK	555000	810000	1600	2000	144.0	216.0	2.5	2.35	3.50	2.30	11.60
130	230	80.0	3.0	0.33	23226E	23226EK	700000	1070000	1200	1600	144.0	216.0	2.5	2.03	3.02	1.99	14.00
130	230	80.0	3.0	0.35	23226ES	23226ESK	690000	1070000	1300	1800	144.0	216.0	2.5	1.91	2.85	1.87	14.70
130	280	93.0	4.0	0.34	22326ES	22326ESK	975000	1320000	1200	1600	148.0	262.0	3.0	1.99	2.96	1.95	28.50
130	280	112.0	4.0	0.45	23326ES	23326ESK	1120000	1560000	1200	1600	-	-	-	1.50	2.30	1.50	35.50
140	210	53.0	2.0	0.23	23028E	23028EK	415000	710000	1500	1900	150.0	200.0	2.0	2.98	4.44	2.92	6.25
140	210	53.0	2.0	0.25	23028ES	23028ESK	415000	710000	1500	1900	150.0	200.0	2.0	2.69	4.00	2.03	6.55
140	210	69.0	2.0	0.33	24028E	24028EK30	515000	940000	1200	1600	150.0	200.0	2.0	2.06	3.06	2.01	8.45
140	225	68.0	2.1	0.31	23128E	23128EK	565000	950000	1100	1500	152.0	213.0	2.0	2.21	3.29	2.16	10.50
140	225	85.0	2.1	0.38	24128E	24128EK30	670000	1110000	1100	1500	152.0	213.0	2.0	1.78	2.65	1.74	13.00
140	250	68.0	3.0	0.26	22228ES	22228ESK	645000	915000	1300	1700	154.0	236.0	2.5	2.60	3.87	2.54	14.00

Main dimensions(mm)				Constante	Model		Basic dynamic load ratings C(N)	Basic static load rating Co(N)	Permissible revolutions(rpm)		Assembly dimension (mm)			Axial load factor			Reference weight (kg)
d	D	B	r (Min)		Cylindrical bore	Tapered bore			Grease lubrication	Oil lubrication	d _a (Min)	D _a (Max)	r _a (Max)	Y ₁	Y ₂	Y ₀	
140	250	88.0	3.0	0.36	23228ES	23228ESK	835000	1270000	1000	1400	154.0	236.0	2.5	1.86	2.77	1.82	18.50
140	300	102.0	4.0	0.37	22328ES	22328ESK	1150000	1550000	1100	1500	158.0	282.0	3.0	1.83	2.72	1.79	34.50
140	300	118.0	4.0	0.43	23328ES	23328ESK	1250000	1730000	1100	1500	-	-	-	1.60	2.30	1.50	42.50
150	225	56.0	2.1	0.22	23030E	23030EK	470000	790000	1300	1700	162.0	213.0	2.0	3.04	4.53	2.97	7.55
150	225	56.0	2.1	0.25	23030ES	23030ESK	455000	785000	1400	1800	162.0	213.0	2.0	2.74	4.08	2.68	7.95
150	225	75.0	2.1	0.33	24030E	24030EK30	595000	1110000	1100	1500	162.0	213.0	2.0	2.06	3.06	2.01	10.50
150	250	80.0	2.1	0.32	23130ES	23130ESK	740000	1220000	1000	1400	162.0	238.0	2.0	2.12	3.15	2.07	16.00
150	250	100.0	2.1	0.39	24130ES	24130ESK30	900000	1430000	1000	1400	162.0	238.0	2.0	1.71	2.54	1.67	19.50
150	270	73.0	3.0	0.26	22230ES	22230ESK	760000	1120000	1200	1600	164.0	256.0	2.5	2.64	3.93	2.58	18.00
150	270	96.0	3.0	0.36	23230ES	23230ESK	975000	1480000	950	1300	164.0	256.0	2.5	1.86	2.77	1.82	24.00
150	320	108.0	4.0	0.37	22330ES	22330ESK	1260000	1740000	1000	1400	168.0	302.0	3.0	1.82	2.70	1.78	41.50
150	320	128.0	4.0	0.43	23330ES	23330ESK	1460000	2080000	1000	1400	-	-	-	1.50	2.30	1.50	52.50
160	240	60.0	2.1	0.22	23032ES	23032ESK	525000	915000	1200	1600	172.0	228.0	2.0	3.01	4.48	2.94	9.20
160	240	80.0	2.1	0.33	24032ES	24032ESK30	685000	1280000	1000	1400	172.0	228.0	2.0	2.06	3.06	2.01	13.00
160	270	86.0	2.1	0.32	23132ES	23132ESK	860000	1410000	950	1300	172.0	258.0	2.0	2.09	3.11	2.04	20.50
160	270	109.0	2.1	0.40	24132ES	24132ESK30	1040000	1710000	950	1300	172.0	258.0	2.0	1.67	2.79	1.63	25.00
160	290	80.0	3.0	0.26	22232ES	22232ESK	910000	1330000	1000	1400	174.0	276.0	2.5	2.57	3.83	2.52	22.50
160	290	104.0	3.0	0.37	23232ES	23232ESK	1070000	1710000	900	1200	174.0	276.0	2.5	1.82	2.71	1.78	30.00
160	340	114.0	4.0	0.37	22332ES	22332ESK	1390000	1950000	950	1300	178.0	322.0	3.0	1.85	2.76	1.81	50.00
160	340	136.0	4.0	0.44	23332ES	23332ESK	1630000	2200000	1000	1400	-	-	-	1.50	2.30	1.50	61.50
170	260	67.0	2.1	0.23	23034ES	23034ESK	635000	1080000	1100	1500	182.0	248	2.0	2.90	4.31	2.83	12.50
170	260	90.0	2.1	0.34	24034ES	24034ESK30	835000	1560000	950	1300	182.0	248	2.0	1.99	2.96	1.95	17.50
170	280	88.0	2.1	0.32	23134ES	23134EWK33K	940000	1530000	900	1200	182.0	268	2.0	2.13	3.18	2.09	21.50
170	280	109.0	2.1	0.38	24134ES	24134ESK30	1070000	1820000	900	1200	182.0	268	2.0	1.76	2.62	1.72	26.50
170	310	86.0	4.0	0.29	22234ES	22234ESK	1000000	1510000	950	1300	188.0	292	3.0	2.33	3.47	2.28	28.50
170	310	110.0	4.0	0.37	23234ES	23234ESK	1230000	1970000	900	1200	188.0	292	3.0	1.85	2.76	1.81	36.50
170	360	120.0	4.0	0.37	22334ES	22334ESK	1550000	2180000	900	1200	188.0	342	3.0	1.85	2.76	1.81	61.50
180	280	74.0	2.1	0.26	23036ES	23036ESK	740000	1270000	1000	1400	192.0	268	2.0	2.64	3.93	2.58	16.50
180	280	100.0	2.1	0.35	24036ES	24036ESK30	985000	1840000	900	1200	192.0	268	2.0	1.95	2.90	1.91	23.00
180	300	96.0	3.0	0.32	23136ES	23136ESK	1060000	1810000	900	1200	194.0	286	2.5	2.12	3.15	2.07	27.50
180	300	118.0	3.0	0.39	24136ES	24136ESK30	1170000	2040000	900	1200	194.0	286	2.5	1.73	2.58	1.69	33.00

Main dimensions(mm)				Constante	Model		Basic dynamic load ratings C(N)	Basic static load rating Co(N)	Permissible revolutions(rpm)		Assembly dimension (mm)			Axial load factor			Reference weight (kg)
d	D	B	r (Min)		Cylindrical bore	Tapered bore			Grease lubrication	Oil lubrication	d _a (Min)	D _a (Max)	r _a (Max)	Y ₁	Y ₂	Y ₀	
180	320	86.0	4.0	0.28	22236ES	22236ESK	1040000	1610000	950	1300	198.0	302	3.0	2.43	3.62	2.37	29.50
180	320	112.0	4.0	0.36	23236ES	23236ESK	1280000	2100000	850	1100	198.0	302	3.0	1.87	2.79	1.83	39.00
180	380	126.0	4.0	0.36	22336ES	22336ESK	1700000	2400000	850	1100	198.0	362	3.0	1.87	2.78	1.83	72.50
190	290	75.0	2.1	0.25	23038ES	23038ESK	775000	1330000	950	1300	202.0	278	2.0	2.69	4.00	2.63	17.50
190	290	100.0	2.1	0.34	24038ES	24038ESK30	1010000	1920000	900	1200	202.0	278	2.0	1.98	2.94	1.93	24.00
190	320	104.0	3.0	0.32	23138ES	23138ESK	1240000	2120000	850	1100	204.0	306	2.5	2.09	3.11	2.04	33.50
190	320	128.0	3.0	0.40	24138ES	24138ESK30	1360000	2380000	850	1100	204.0	306	2.5	1.68	2.50	1.64	42.00
190	340	92.0	4.0	0.28	22238ES	22238ESK	1160000	1740000	900	1200	208.0	322	3.0	2.39	3.56	2.34	36.50
190	340	120.0	4.0	0.36	23238ES	23238ESK	1480000	2450000	800	1000	208.0	322	3.0	1.87	2.79	1.83	47.50
190	400	132.0	5.0	0.36	22338ES	22338ESK	1870000	2670000	850	1100	212.0	378	4.0	1.89	2.81	1.85	84.00
190	400	155.0	5.0	0.43	23338ES	23338ESK	2120000	3000000	800	1000	-	-	-	1.60	2.30	1.50	98.00
200	310	82.0	2.1	0.26	23040ES	23040ESK	890000	1560000	950	1300	212.0	298	2.0	2.64	3.93	2.58	22.00
200	310	109.0	2.1	0.35	24040ES	24040ESK30	1180000	2230000	850	1100	212.0	298	2.0	1.95	2.90	1.91	30.50
200	340	112.0	3.0	0.33	23140ES	23140ESK	1400000	2390000	800	1000	214.0	326	2.5	2.06	3.06	2.01	42.50
200	340	140.0	3.0	0.41	24140ES	24140ESK30	1590000	2820000	800	1000	214.0	326	2.5	1.63	2.43	1.60	52.00
200	360	98.0	4.0	0.29	22240ES	22240ESK	1300000	1990000	850	1100	218.0	342	3.0	2.35	3.50	2.30	43.50
200	360	128.0	4.0	0.37	23240ES	23240ESK	1640000	2750000	800	1000	218.0	342	3.0	1.85	2.75	1.81	57.00
200	420	138.0	5.0	0.35	22340ES	22340ESK	2080000	3000000	800	1000	222.0	398	4.0	1.93	2.87	1.88	97.00
200	420	165.0	5.0	0.43	23340ES	23340ESK	2360000	3450000	750	950	-	-	-	1.60	2.30	1.50	115.00
220	340	90.0	3.0	0.26	23044ES	23044ESK	1090000	1880000	950	1300	234.0	326	2.5	2.64	3.93	2.58	30.50
220	340	118.0	3.0	0.34	24044ES	24044ESK30	1390000	2670000	800	1000	234.0	326	2.5	1.98	2.95	1.94	39.50
220	370	120.0	4.0	0.33	23144ES	23144ESK	1610000	2870000	700	900	238.0	352	3.0	2.06	3.07	2.02	55.50
220	370	150.0	4.0	0.41	24144ES	24144ESK30	1810000	3250000	750	950	238.0	352	3.0	1.66	2.47	1.62	65.00
220	400	108.0	4.0	0.29	22244ES	22244ESK	1550000	2420000	800	1000	238.0	382	3.0	2.36	3.52	2.31	60.60
220	400	144.0	4.0	0.37	23244ES	23244ESK	2090000	3500000	670	850	238.0	382	3.0	1.83	2.72	1.79	83.50
220	460	145.0	5.0	0.34	22344ES	22344ESK	2430000	3600000	700	900	242.0	438	4.0	2.00	2.98	1.96	122.00
240	360	92.0	3.0	0.24	23048ES	23048ESK	1160000	2000000	800	1000	254.0	346	2.5	2.76	4.11	2.70	33.50
240	360	118.0	3.0	0.32	24048ES	24048ESK30	1420000	2800000	700	900	254.0	346	2.5	2.10	3.13	2.06	42.50
240	400	128.0	4.0	0.32	23148ES	23148ESK	1870000	3350000	670	850	258.0	382	3.0	2.13	3.17	2.08	68.50
240	400	160.0	4.0	0.40	24148ES	24148ESK30	2040000	3700000	670	850	258.0	382	3.0	1.69	2.52	1.65	80.00
240	440	120.0	4.0	0.29	22248ES	22248ESK	1890000	2930000	700	900	258.0	422	3.0	2.37	3.53	2.32	87.00

Main dimensions(mm)				Constante	Model		Basic dynamic load ratings C(N)	Basic static load rating Co(N)	Permissible revolutions(rpm)		Assembly dimension (mm)			Axial load factor			Reference weight (kg)
d	D	B	r (Min)		Cylindrical bore	Tapered bore			Grease lubrication	Oil lubrication	d _a (Min)	D _a (Max)	r _a (Max)	Y ₁	Y ₂	Y ₀	
240	440	160.0	4.0	0.37	23248ES	23248ESK	2440000	4100000	630	800	258.0	422	3.0	1.80	2.68	1.76	115.00
240	500	155.0	5.0	0.34	22348ES	22348ESK	2760000	4100000	670	850	262.0	478	4.0	2.00	2.98	1.96	160.00
260	400	104.0	4.0	0.25	23052ES	23052ESK	1450000	2530000	750	950	278.0	382	3.0	2.67	3.97	2.61	48.50
260	400	140.0	4.0	0.34	24052ES	24052ESK30	1930000	3850000	630	800	278.0	382	3.0	1.98	2.94	1.93	64.50
260	440	144.0	4.0	0.33	23152ES	23152ESK	2230000	4000000	600	750	278.0	422	3.0	2.06	3.06	2.01	95.00
260	440	180.0	4.0	0.42	24152ES	24152ESK30	2750000	4650000	600	750	278.0	422	3.0	1.60	2.38	1.56	111.00
260	480	130.0	5.0	0.28	22252ES	22252ESK	2220000	3500000	670	850	282.0	458	4.0	2.40	3.57	2.34	105.00
260	480	174.0	5.0	0.38	23252ES	23252ESK	2860000	4800000	560	700	282.0	458	4.0	1.78	2.65	1.74	140.00
260	540	165.0	6.0	0.33	22352ES	22352ESK	3150000	4750000	600	750	288.0	512	5.0	2.04	3.04	1.99	200.00
280	420	106.0	4.0	0.24	23056ES	23056ESK	1540000	2720000	700	900	298.0	402	3.0	2.79	4.15	2.73	52.50
280	420	140.0	4.0	0.32	24056ES	24056ESK30	1920000	3900000	600	750	298.0	402	3.0	2.09	3.11	2.04	68.50
280	460	146.0	5.0	0.32	23156ES	23156ESK	2300000	4200000	560	700	302.0	438	4.0	2.12	3.15	2.07	100.00
280	460	180.0	5.0	0.39	24156ES	24156ESK30	2570000	4800000	560	700	302.0	438	4.0	1.74	2.59	1.70	118.00
280	500	130.0	5.0	0.27	22256ES	22256ESK	2310000	3700000	630	800	302.0	478	4.0	2.53	3.77	2.47	100.00
280	500	176.0	5.0	0.36	23256ES	23256ESK	3000000	5200000	530	670	302.0	478	4.0	1.87	2.79	1.83	150.00
280	580	175.0	6.0	0.33	22356ES	22356ESK	3550000	6800000	560	700	308.0	552	5.0	2.07	3.09	2.03	245.00
300	460	118.0	4.0	0.25	23060ES	23060ESK	1920000	3300000	630	800	318.0	442	3.0	2.71	4.04	2.65	71.50
300	460	160.0	4.0	0.34	24060ES	24060ESK30	2400000	4850000	560	700	318.0	442	3.0	1.99	2.96	1.95	97.00
300	500	160.0	5.0	0.33	23160ES	23160ESK	2630000	4750000	530	670	322.0	478	4.0	2.06	3.06	2.01	125.00
300	500	200.0	5.0	0.40	24160ES	24160ESK30	3200000	6100000	530	670	322.0	478	4.0	1.68	2.50	1.64	157.00
300	540	140.0	5.0	0.27	22260ES	22260ESK	2660000	4300000	600	750	322.0	518	4.0	2.49	3.71	2.43	140.00
300	540	192.0	5.0	0.37	23260ES	23260ESK	3550000	6250000	480	600	322.0	518	4.0	1.84	2.74	1.80	190.00
320	480	121.0	4.0	0.24	23064ES	23064ESK	1960000	3500000	600	750	338.0	462	3.0	2.76	4.11	2.70	76.00
320	480	160.0	4.0	0.32	24064ES	24064ESK30	2460000	5100000	530	670	338.0	462	3.0	2.09	3.11	2.04	100.00
320	540	176.0	5.0	0.33	23164ES	23164ESK	3100000	5700000	480	600	342.0	518	4.0	2.03	3.02	1.99	165.00
320	540	218.0	5.0	0.41	24164ES	24164ESK30	3650000	6900000	480	600	342.0	518	4.0	1.65	2.46	1.61	210.00
320	580	150.0	5.0	0.27	22264ES	22264ESK	3100000	4900000	550	680	342.0	558	4.0	2.51	3.74	2.45	170.00
320	580	208.0	5.0	0.37	23264ES	23264ESK	4050000	7200000	450	560	342.0	558	4.0	1.83	2.72	1.79	240.00
340	520	133.0	5.0	0.25	23068ES	23068ESK	2270000	4300000	560	700	362.0	498	4.0	2.74	4.08	2.68	100.00
340	520	180.0	5.0	0.34	24068ES	24068ESK30	2940000	6050000	480	600	362.0	498	4.0	1.98	2.94	1.93	135.00
340	580	190.0	5.0	0.33	23168ES	23168ESK	3700000	6750000	450	560	362.0	558	4.0	2.03	3.02	1.99	210.00

Main dimensions(mm)				Constante	Model		Basic dynamic load ratings C(N)	Basic static load rating Co(N)	Permissible revolutions(rpm)		Assembly dimension (mm)			Axial load factor			Reference weight (kg)
d	D	B	r (Min)		Cylindrical bore	Tapered bore			Grease lubrication	Oil lubrication	d _a (Min)	D _a (Max)	r _a (Max)	Y ₁	Y ₂	Y ₀	
340	580	243.0	5.0	0.42	24168ES	24168ESK30	4350000	8300000	450	560	362.0	558	4.0	1.62	2.42	1.59	270.00
340	620	165.0	6.0	0.28	22268ES	22268ESK	3550000	5430000	440	590	368.0	592	5.0	2.43	3.61	2.37	259.00
340	620	224.0	6.0	0.37	23268ES	23268ESK	4500000	8000000	400	530	368.0	592	5.0	1.82	2.70	1.78	295.00
360	540	134.0	5.0	0.24	23072ES	23072ESK	2390000	4500000	530	670	382.0	518	4.0	2.84	4.23	2.78	110.00
360	540	180.0	5.0	0.33	24072ES	24072ESK30	3000000	6350000	450	560	382.0	518	4.0	2.06	3.06	2.01	145.00
360	600	192.0	5.0	0.33	23172ES	23172ESK	3850000	7250000	430	530	382.0	578	4.0	2.07	3.09	2.03	220.00
360	600	243.0	5.0	0.42	24172ES	24172ESK30	4450000	8750000	430	530	382.0	578	4.0	1.60	2.39	1.57	285.00
360	650	170.0	6.0	0.27	22272ES	22272ESK	3770000	5830000	410	550	388.0	622	5.0	2.47	3.68	2.42	248.00
360	650	232.0	6.0	0.37	23272ES	23272ESK	5000000	9000000	380	500	388.0	622	5.0	1.82	2.70	1.78	335.00
380	560	135.0	5.0	0.23	23076ES	23076ESK	2500000	4700000	400	630	402.0	538	4.0	2.92	4.35	2.86	115.00
380	560	180.0	5.0	0.31	24076ES	24076ESK30	3100000	6650000	450	560	402.0	538	4.0	2.15	3.20	2.10	150.00
380	620	194.0	5.0	0.32	23176ES	23176ESK	3850000	7400000	400	500	402.0	598	4.0	2.13	3.18	2.09	230.00
380	620	243.0	5.0	0.40	24176ES	24176ESK30	4600000	9300000	400	500	402.0	598	4.0	1.69	2.52	1.65	300.00
380	680	240.0	6.0	0.36	23276ES	23276ESK	5400000	9800000	360	480	408.0	652	5.0	1.86	2.71	1.82	370.00
400	600	148.0	5.0	0.24	23080ES	23080ESK	2990000	5500000	480	600	422.0	578	4.0	2.82	4.19	2.75	145.00
400	600	200.0	5.0	0.33	24080ES	24080ESK30	3600000	7650000	400	500	422.0	578	4.0	2.03	3.02	1.99	195.00
400	650	200.0	6.0	0.31	23180ES	23180ESK	4100000	7900000	380	480	428.0	622	5.0	2.18	3.25	2.13	265.00
400	650	250.0	6.0	0.39	24180ES	24180ESK30	5000000	9850000	380	480	428.0	622	5.0	1.75	2.61	1.71	340.00
400	720	256.0	6.0	0.36	23280ES	23280ESK	6050000	11100000	340	450	428.0	692	5.0	1.86	2.71	1.82	450.00
420	620	150.0	5.0	0.23	23084ES	23084ESK	3000000	5850000	450	560	442.0	598	4.0	2.92	4.35	2.86	155.00
420	620	200.0	5.0	0.32	24084ES	24084ESK30	3700000	8000000	380	480	442.0	598	4.0	2.09	3.11	2.04	205.00
420	700	224.0	6.0	0.33	23184ES	23184ESK	4850000	9250000	360	450	448.0	672	5.0	2.06	3.06	2.01	350.00
420	700	280.0	6.0	0.41	24184ES	24184ESK30	5950000	12000000	360	450	448.0	672	5.0	1.66	2.47	1.62	445.00
420	760	272.0	7.5	0.37	23284ES	23284ESK	6750000	12500000	340	430	456.0	724	6.0	1.84	2.74	1.80	535.00