



Single row cylindrical roller bearings for traction motors d = 35 to 150 mm

Dimensions							Basic Load Rating		Fatigue Load Limit	Limiting Speed for Lubrication with	
							Dynamic	Static			
d	D	B	r _s	r _{1s}	F	s ¹⁾	C _r	C _{or}	P _u	Grease	Oil
			min	min							
mm							kN		kN	min ⁻¹	
35	62	14	1	0.6	42	1	22.6	23.2	2.83	11 000	13 000
40	68	15	1	0.6	47	1	27.3	29	3.54	10 000	12 000
45	75	16	1	0.6	52.5	1	32.5	35.5	4.33	9 000	11 000
50	80	16	1	0.6	57.5	1.5	32	36	4.39	8 000	10 000
55	90	18	1.1	1	64.5	1.5	37.5	44	5.37	7 500	9 000
60	95	18	1.1	1	69.5	2	41	51	6.22	6 700	8 500
65	100	18	1.1	1	74.5	2	44	57	6.95	6 300	8 000
70	110	20	1.1	1	80	2	59	71	8.66	6 000	7 100
	125	24	1.5	1.5	83.5	1.2	139	141	17.2	5 600	6 700
	125	24	1.5	1.5	83.5	1.2	139	141	17.2	5 600	6 700
	150	35	2.1	2.1	89	1.8	239	226	26.8	4 200	5 000
	150	35	2.1	2.1	89	1.8	239	226	26.8	4 200	5 000
75	115	20	1.1	1	85	2.5	60	74.5	9.23	5 600	6 700
	130	25	1.5	1.5	88.5	1.2	151	161	19.5	4 700	5 600
	130	25	1.5	1.5	88.5	1.2	151	161	19.5	4 700	5 600
	160	37	2.1	2.1	95	1.8	280	268	31.1	3 800	4 500
	160	37	2.1	2.1	95	1.8	280	268	31.1	3 800	4 500
80	125	22	1.1	1	91.5	2.5	72.5	90.5	11	5 300	6 300
	140	26	2	2	95.3	1.4	162	171	20.3	4 500	5 300
	140	26	2	2	95.3	1.4	162	171	20.3	4 500	5 300
	170	39	2.1	2.1	101	2.1	302	291	33.2	3 500	4 200
	170	39	2.1	2.1	101	2.1	302	291	33.2	3 500	4 200
85	150	28	2	2	100.5	1.5	192	201	23.4	4 200	5 000
	150	28	2	2	100.5	1.5	192	201	23.4	4 200	5 000
	180	41	3	3	108	2.3	343	341	38.2	3 300	4 000
	180	41	3	3	108	2.3	343	341	38.2	3 300	4 000
90	160	30	2	2	107	1.8	213	225	25.7	4 000	4 700
	160	30	2	2	107	1.8	213	225	25.7	4 000	4 700
	190	43	3	3	113.5	2.9	368	360	39.7	3 200	3 800
	190	43	3	3	113.5	2.9	368	360	39.7	3 200	3 800

¹⁾ Permissible axial displacement

** Bearing ZKL NEW FORCE



Bearing Designation		Abutment and Fillet Dimensions							Weight
Standard	Electrically insulated	d	d _a	d _a	d _b	D _a	r _a	r _b	~
			min	max	min	max	max	max	
		mm							kg
NU1007M	NU1007M TM01	35	38,2	41	44	56	1	0.6	0.18
NU1008M	NU1008M TM01	40	43,2	45	49	63.4	1	0.6	0.23
NU1009M	NU1009M TM01	45	48,2	51	54	70.4	1	0.6	0.28
NU1010M	NU1010M TM01	50	53,2	56	60	75.4	1	0.6	0.3
NU1011M	NU1011M TM01	55	59,6	63	67	84	1	1	0.45
NU1012M	NU1012M TM01	60	64,6	68	72	89	1	1	0.48
NU1013M	NU1013M TM01	65	69,6	72	77	94	1	1	0.52
NU1014M	NU1014M TM01	70	74,6	78	82	104	1	1	0.7
NU214EM**	NU214EM TM01**		77	82	86	117	1.5	1.5	1.15
NJ214EM**	NJ214EM TM01**		77	82	86	117	1.5	1.5	1.15
NU314EM**	NU314EM TM01**		81	85	92	139	2	2	2.7
NJ314EM**	NJ314EM TM01**		81	85	92	139	2	2	2.85
NU1015M	NU1015M TM01	75	79,6	83	87	109	1	1	0.74
NU215EM**	NU215EM TM01**		82	85	90	122	1.5	1.5	1.25
NJ215EM**	NJ215EM TM01**		82	85	90	122	1.5	1.5	1.3
NU315EM**	NU315EM TM01**		86	93	97	149	2	2	3.3
NJ315EM**	NJ315EM TM01**		86	93	97	149	2	2	3.3
NU1016M	NU1016M TM01	80	86	90	94	119	1	1	1
NU216EM**	NU216EM TM01**		90	92	97	131	2	2	1.55
NJ216EM**	NJ216EM TM01**		90	92	97	131	2	2	1.6
NU316EM**	NU316EM TM01**		99	97	105	159	2	2	3.9
NJ316EM**	NJ316EM TM01**		99	97	105	159	2	2	4
NU217EM**	NU217EM TM01**	85	95	99	104	141	2	2	1.9
NJ217EM**	NJ217EM TM01**		95	99	104	141	2	2	1.9
NU317EM**	NU317EM TM01**		98	103	110	166	2.5	2.5	4.6
NJ317EM**	NJ317EM TM01**		98	103	110	166	2.5	2.5	4.75
NU218EM**	NU218EM TM01**	90	100	105	109	151	2	2	2.3
NJ218EM**	NJ218EM TM01**		100	105	109	151	2	2	2.4
NU318EM**	NU318EM TM01**		103	110	117	177	2.5	2.5	5.25
NJ318EM**	NJ318EM TM01**		103	110	117	177	2.5	2.5	5.4



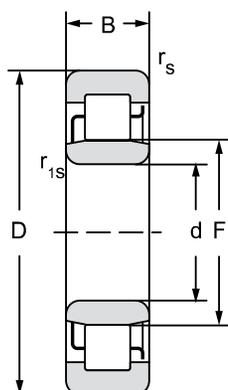
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Dimensions							Basic Load Rating		Fatigue Load Limit	Limiting Speed for Lubrication with	
							Dynamic	Static		Grease	Oil
d	D	B	r _s	r _{1s}	F	s ¹⁾	C _r	C _{or}	P _u		
			min	min							
mm							kN		kN	min ⁻¹	
95	170	32	2.1	2.1	112.5	1.7	255	270	30.3	3 800	4 500
	170	32	2.1	2.1	112.5	1.7	255	270	30.3	3 800	4 500
	200	45	3	3	121.5	2.9	393	389	42.2	3 200	3 800
	200	45	3	3	121.5	2.9	393	389	42.2	3 200	3 800
100	180	34	2.1	2.1	119	1.7	288	311	34.3	3 500	4 200
	180	34	2.1	2.1	119	1.7	288	311	34.3	3 500	4 200
	215	47	3	3	127.5	2.9	452	445	47.4	2 800	3 300
	215	47	3	3	127.5	2.9	452	445	47.4	2 800	3 300
110	240	50	3	3	143	3	532	542	55.9	2 500	3 000
	240	50	3	3	143	3	532	542	55.9	2 500	3 000
120	260	55	3	3	154	3.7	615	621	62.5	2 400	2 800
	260	55	3	3	154	3.7	615	621	62.5	2 400	2 800
130	280	58	4	4	167	3.7	718	747	73.4	2 200	2 400
	280	58	4	4	167	3.7	718	747	73.4	2 200	2 400
140	300	62	4	4	180	3.7	788	831	80	2 000	2 400
	300	62	4	4	180	3.7	788	831	80	2 000	2 400
150	320	65	4	4	193	4	888	944	89.1	1 900	2 200
	320	65	4	4	193	4	888	944	89.1	1 900	2 200

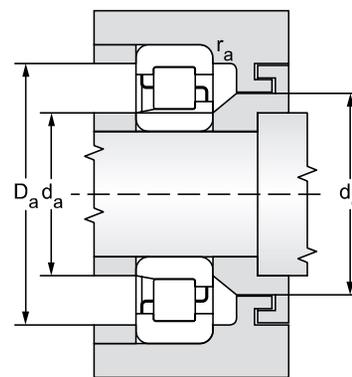
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^{**} Bearing ZKL NEW FORCE



NJ



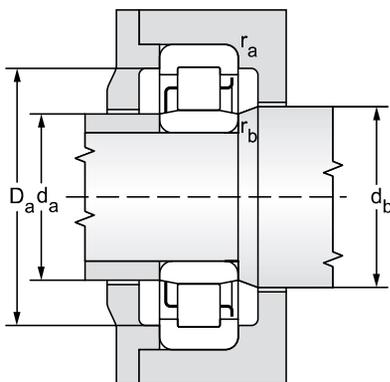
NU



NJ



Bearing Designation		Abutment and Fillet Dimensions							Weight
Standard	Electrically insulated	d	d _a	d _a	d _b	D _a	r _a	r _b	~
			min	max	min	max	max	max	
		mm							kg
NU219EM**	NU219EM TM01**	95	107	111	116	159	2	2	2.8
NJ219EM**	NJ219EM TM01**		107	111	116	159	2	2	2.85
NU319EM**	NU319EM TM01**		109	119	124	187	2.5	2.5	6.2
NJ319EM**	NJ319EM TM01**		109	119	124	187	2.5	2.5	6.25
NU220EM**	NU220EM TM01**	100	112	117	122	169	2	2	3.4
NJ220EM**	NJ220EM TM01**		112	117	122	169	2	2	3.5
NU320EM**	NU320EM TM01**		113	125	132	202	2	2	7.45
NJ320EM**	NJ320EM TM01**		113	125	132	202	2	2	7.65
NU322EM**	NU322EM TM01**	110	124	135	145	227	2.5	2.5	10.3
NJ322EM**	NJ322EM TM01**		124	135	145	227	2.5	2.5	10.5
NU324EM**	NU324EM TM01**	120	134	145	156	247	2.5	2.5	13
NJ324EM**	NJ324EM TM01**		134	145	156	247	2.5	2.5	13.3
NU326EM**	NU326EM TM01**	130	148	155	169	263	3	3	16.1
NJ326EM**	NJ326EM TM01**		148	155	169	263	3	3	16.5
NU328EM**	NU328EM TM01**	140	158	166	182	283	3	3	22
NJ328EM**	NJ328EM TM01**		158	166	182	283	3	3	22.5
NU330EM**	NU330EM TM01**	150	168	185	195	303	3	3	26.3
NJ330EM**	NJ330EM TM01**		168	185	195	303	3	3	27



NU