Cylindrical Roller Bearings

NACHI

High Capacity Cylindrical Roller Bearings EG Series

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Large Rollers Provide High Load Capacity, Low Temperature Rise and Long Life
High Capacity Cylindrical Roller Bearings EG Series

High Capacity

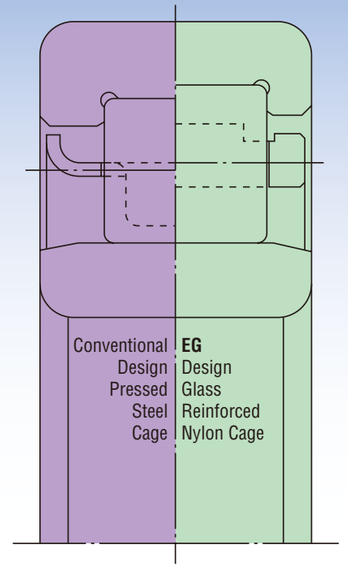
NACHI EG series of cylindrical roller bearings have maximized load capacity for the same standard boundary dimensions by adopting an optimum design of roller with larger diameters and increased length.

High Reliability

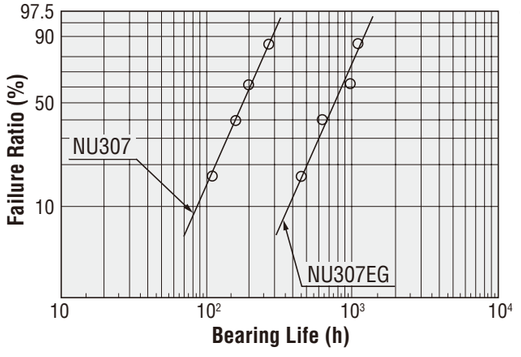
This high capacity bearing allows you to plan a more compact design by selecting smaller bearings or to improve the reliability of the existing bearing arrangement.
Contributing to the design is **NACHI EXCEL CROWNING** (PAT. pending) which optimizes the internal geometry in the contacting area between roller and raceway under various loading conditions.

Low Noise & Less Heat Generation

By utilizing a **NACHI** glass reinforced nylon cage, a lower noise and less heat generating operation is realized. In particular, the unique design of **NACHI** nylon cages provides the additional benefit of low temperature operation in a grease lubricated application.



< Weibull Distribution Chart >



Test evaluation for high capacity cylindrical roller bearing (EG-Series)

● **Test conditions**

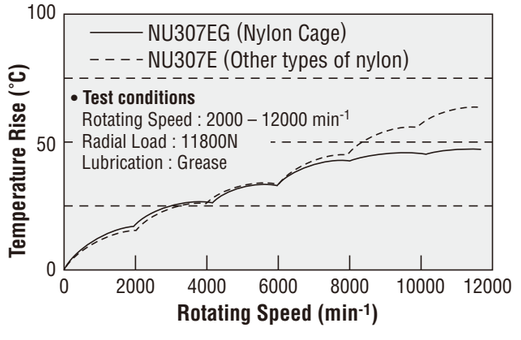
(1) Test bearing
NU307 (Pressed Steel Cage)
NU307EG (Glass Reinforced Nylon Cage)
(2) Rotating Speed : 2000 min^{-1}
(3) Radial Load : 19600 N
(4) Lubricating Oil : 75W10 (Oil Bath)

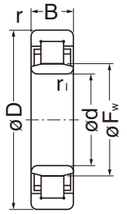
● **Calculated and measured service life**

Unit : h

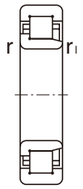
	Calculated service life	Measured service life
NU307	1	1
NU307EG	3.2 times	3.5 times or more

< Temperature rise test >

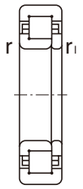




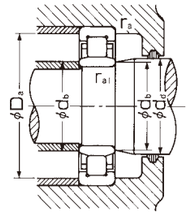
NU Type

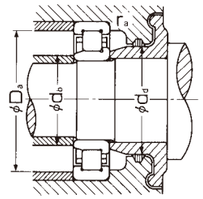


NJ Type



NUP Type





Boundary dimensions (mm)						Bearing No.	Dynamic Load Rating Cr (N)	Static Load Rating Cor (N)	Speed Ratings (rpm)		Adutment and Fillet Dimensions (mm)							Reference Weight (kg)
d	D	B	Fw	r (Min.)	r1 (Min.)	NU, NJ, NUP			Grease Lubrication	Oil Lubrication	db (Min.)	db (Max.)	dc (Min.)	dd (Min.)	Da (Max.)	ra (Max.)	ra1 (Max.)	NU
20	52	15	27.5	1.1	0.6	**304EG**	31500	26900	12000	15000	25	27	30	33	45	1	0.6	0.150
	52	15	31.5	1	0.6	**205EG**	29300	27700	12000	14000	30	31	34	37	46	1	0.6	0.140
25	52	18	31.5	1	0.6	**2205EG**	35000	34500	12000	14000	30	31	34	37	46	1	0.6	0.185
	62	17	34	1.1	1.1	**305EG**	41500	37500	10000	12000	32	33	37	40	55	1	1	0.240
	62	16	37.5	1	0.6	**206EG**	39000	37500	9500	12000	35	37	40	44	56	1	0.6	0.210
30	62	20	37.5	1	0.6	**2206EG**	49000	50000	9500	12000	35	37	40	44	56	1	0.6	0.295
	72	19	40.5	1.1	1.1	**306EG**	53000	50000	8500	10000	37	40	44	48	65	1	1	0.370
	72	17	44	1.1	0.6	**207EG**	50500	50000	8500	10000	40	43	46	50	65	1	0.6	0.300
35	72	23	44	1.1	0.6	**2207EG**	61500	65000	8500	10000	40	43	46	50	65	1	0.6	0.446
	80	21	46.2	1.5	1.1	**307EG**	66500	65500	7500	9500	42	45	48	53	71.5	1.5	1	0.490
	80	18	49.5	1.1	1.1	**208EG**	55500	55500	9500	9000	47	49	52	56	73	1	1	0.380
40	80	23	49.5	1.1	1.1	**2208EG**	72500	77500	7500	9000	47	49	52	56	73	1	1	0.743
	90	23	52	1.5	1.5	**308EG**	83000	81500	6700	8000	48.5	51	55	60	81.5	1.5	1.5	0.670
	85	19	54.5	1.1	1.1	**209EG**	63000	66500	7000	8500	52	54	57	61	78	1	1	0.440
45	85	23	54.5	1.1	1.1	**2209EG**	76000	84500	7000	8500	52	54	57	61	78	1	1	0.593
	100	25	58.5	1.5	1.5	**309EG**	97500	98500	6000	7500	53.5	57	60	66	91.5	1.5	1.5	0.910
	90	20	59.5	1.1	1.1	**210EG**	69000	76500	6400	7700	57	58	62	67	83	1	1	0.490
50	90	23	59.5	1.1	1.1	**2210EG**	83500	97000	6400	8000	57	58	62	67	83	1	1	0.632
	110	27	65	2	2	**310EG**	110000	113000	5400	6500	60	63	67	73	100	2	2	1.170
	100	21	66	1.5	1.1	**211EG**	86500	98500	5800	7100	62	65	68	73	91.5	1.5	1	0.670
55	100	25	66	1.5	1.1	**2211EG**	101000	122000	5800	7100	62	65	68	73	91.5	1.5	1	0.870
	120	29	70.5	2	2	**311EG**	137000	143000	4800	5600	65	69	72	80	110	2	2	1.500
60	130	31	77	2.1	2.1	**312EG**	150000	157000	4300	5000	72	75	79	86	118	2	2	1.870

Note: (1) The dimension table shows limiting speed for bearings made with machined cages. For bearings made with pressed steel cages, multiply the table limits by 0.8.

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