

# High Capacity Cylindrical Roller Bearings EG Series



# 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.

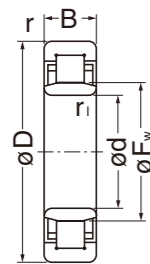
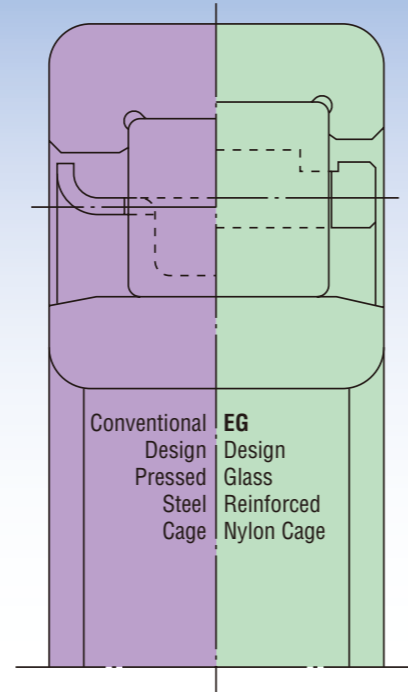
## High Reliability

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.

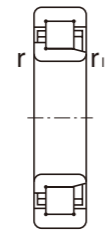
Contributing to the design is NACHI EXCEL CROWNING (PAT. pending) which optimizes the internal geometry in the contacting area between roller and raceway under various loading conditions.

## Low Noise & Less Heat Generation

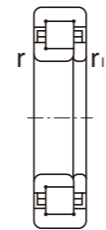
By utilizing a NACHI glass reinforced nylon cage, a lower noise and less heat generating operation is realized. In particular, the unique design of NACHI nylon cages provides the additional benefit of low temperature operation in a grease lubricated application.



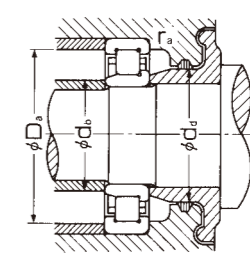
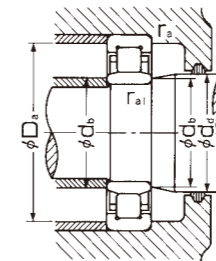
NU Type



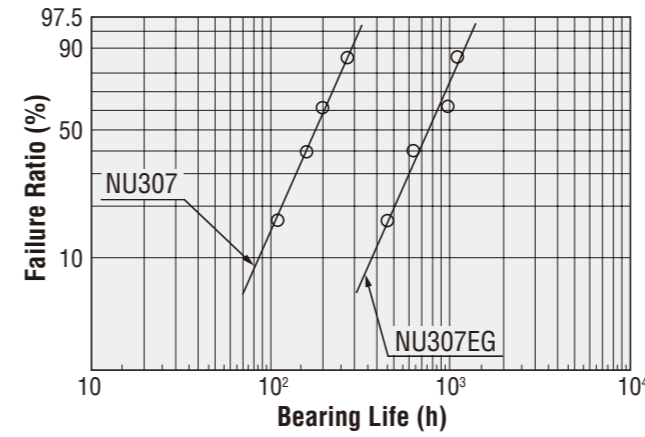
NJ Type



NUP Type



## < Weibull Distribution Chart >



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

### ● Test conditions

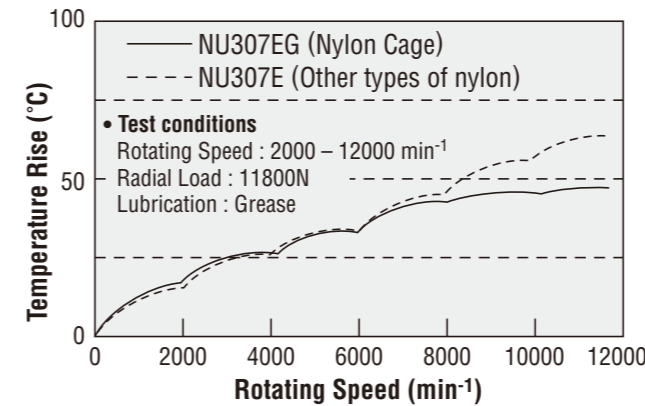
- (1) Test bearing  
NU307 (Pressed Steel Cage)  
NU307EG (Glass Reinforced Nylon Cage)
- (2) Rotating Speed : 2000 min<sup>-1</sup>
- (3) Radial Load : 19600 N
- (4) Lubricating Oil : 75W10 (Oil Bath)

### ● 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 >



### ● Test conditions

- Rotating Speed : 2000 - 12000 min<sup>-1</sup>
- Radial Load : 11800N
- Lubrication : Grease



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) NU	
d	D	B	Fw	r (Min.)	r1 (Min.)				NU, NJ, NUP	Grease Lubrication	Oil Lubrication	db		dc	dd	Da		ra
									(Min.)	(Max.)	(Min.)	(Min.)	(Max.)	(Max.)	(Max.)			
20	52	15	27.5	1.1	0.6	304EG	31500	26900	12000	15000	25	27	30	33	45	1	0.6	0.150
25	52	15	31.5	1	0.6	205EG	29300	27700	12000	14000	30	31	34	37	46	1	0.6	0.140
	52	18	31.5	1	0.6	2205EG	35000	34500	12000	14000	30	31	34	37	46	1	0.6	0.185
30	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
35	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
40	72	17	44	1.1	0.6	207EG	50500	50000	8500	10000	40	43	46	50	65	1	0.6	0.300
	72	23	44	1.1	0.6	2207EG	61500	65000	8500	10000	40	43	46	50	65	1	0.6	0.446
45	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
50	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
55	85	19	54.5	1.1	1.1	209EG	63000	66500	7000	8500	52	54	57	61	78	1	1	0.440
	85	23	54.5	1.1	1.1	2209EG	76000	84500	7000	8500	52	54	57	61	78	1	1	0.593
60	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
65	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
70	100	21	66	1.5	1.1	211EG	86500	98500	5800	7100	62	65	68	73	91.5	1.5	1	0.670
	100	25	66	1.5	1.1	2211EG	101000	122000	5800	7100	62	65	68	73	91.5	1.5	1	0.870
75	120	29	70.5	2	2	311EG	137000	143000	4800	5600	65	69	72	80	110	2	2	1.500
	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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