NACHi

# 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

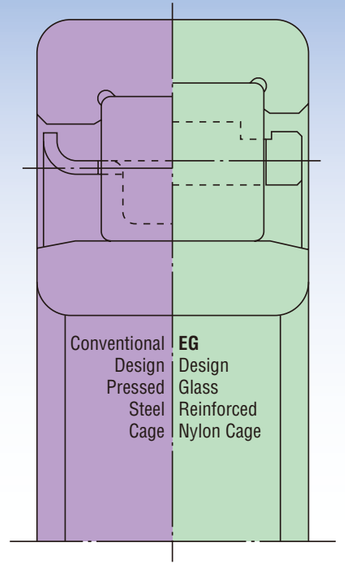
**NACHI EG** series of cylindrical roller bearings have maximized load capacity for the same standard boundary dimensions by adopting an optimum design of roller with larger diameters and increased length.

## High Reliability

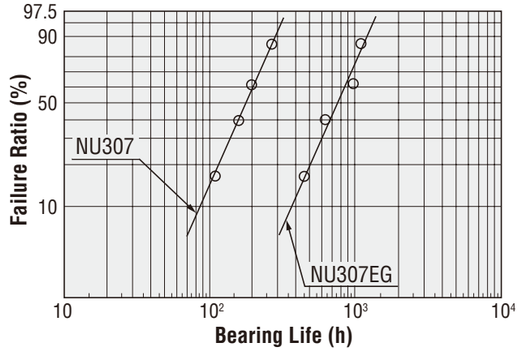
This high capacity bearing allows you to plan a more compact design by selecting smaller bearings or to improve the reliability of the existing bearing arrangement.
Contributing to the design is **NACHI EXCEL CROWNING** (PAT. pending) which optimizes the internal geometry in the contacting area between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




### < Weibull Distribution Chart >




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

● **Test conditions**

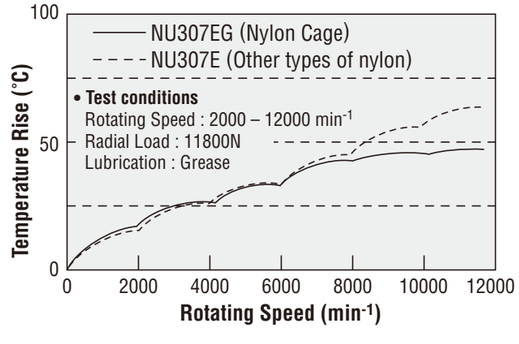
(1) Test bearing
NU307 (Pressed Steel Cage)
NU307EG (Glass Reinforced Nylon Cage)
(2) Rotating Speed : 2000 $min^{-1}$
(3) Radial Load : 19600 N
(4) Lubricating Oil : 75W10 (Oil Bath)

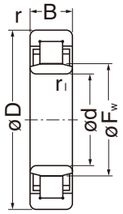
● **Calculated and measured service life**

Unit : h

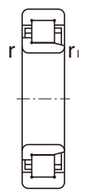
| | Calculated service life | Measured service life |
|---|---|---|
| NU307 | 1 | 1 |
| NU307EG | 3.2 times | 3.5 times or more |

### < Temperature rise test >

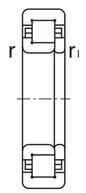




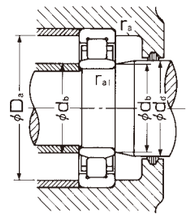

NU Type

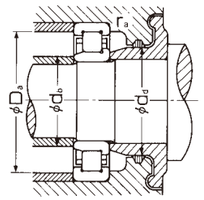



NJ Type




NUP Type




| Boundary dimensions (mm) | | | | | | Bearing No. | Dynamic Load Rating | Static Load Rating | Speed Ratings (rpm) | | Adutment and Fillet Dimensions (mm) | | | | | | | Reference Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| d | D | B | Fw | r (Min.) | r1 (Min.) | NU, NJ, NUP | Cr (N) | Cor (N) | 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.

# NACHI-FUJIKOSHI CORP.

URL:http://www.nachi-fujikoshi.co.jp
E-mail:webmaster@nachi-fujikoshi.co.jp

**Tokyo Head Office** : Shiodome Sumitomo Bldg. 17F 1-9-2 Higashi-shinbashi, Minato-ku, Tokyo 105-0021, Japan
Phone: +81-(0)3-5568-5111 Fax. +81-(0)3-5568-5206

**Toyama Head Office :** 1-1-1 Fujikoshi-Honmachi, Toyama, Japan 930-8511 Phone: +81-(0)76-423-5111 Fax. +81-(0)76-493-5211

## Overseas Sales Companies

### AMERICA

**● NACHI AMERICA INC.HEADQUARTERS**
17500 Twenty-Three Mile Road, Macomb, Michigan, 48044, U.S.A.
Phone: +1-586-226-5151 Fax. +1-888-383-8665
URL: http://www.nachi.com/

**INDIANA BRANCH**
715 Pushville Road, Greenwood, Indiana, 46143, U.S.A.
Phone: +1-317-535-5527 Fax. +1-317-535-3659

**WEST COAST BRANCH**
12652 E. Alondra Blvd. Cerritos, California, 90703, U.S.A.
Phone: +1-562-802-0055 Fax. +1-562-802-2455

**MIAMI BRANCH - LATIN AMERICA DIV.**
2315 N.W. 107th Ave., Doral, Florida, 33172, U.S.A.
Phone: +1-305-591-0054/0059/2604
Fax. +1-305-591-3110

**ATLANTA SALES OFFICE**
Six Concourse Parkway, Suite 2995 Atlanta, GA 30328, U.S.A.
Phone: +1-770-393-0270 Fax. +1-770-393-0271

**● NACHI ROBOTIC SYSTEMS INC.**
22285 Roethel Drive, Novi, Michigan, 48375, U.S.A.
Phone: +1-248-305-6545 Fax. +1-248-305-6542
URL: http://www.nachirobotics.com/

**KENTUCKY SERVICE CENTER**
116 Collision Center Drive, Suite-1, Frankfort, KY 40601, U.S.A.
Phone: +1-502-695-4816 Fax. +1-502-695-4818

**● NACHI CANADA INC.**
89 Courtland Ave., Unit No.2, Concord, Ontario, L4K 3T4, CANADA
Phone: +1-905-660-0088 Fax. +1-905-660-1146
URL:http://www.nachicanada.com/

**● NACHI MEXICANA, S.A. DE C.V.**
Gral. Mariano Arista No.54, Local 5, Col. Argentina C.P. 11230, Mexico D.F. MEXICO
Phone: +52-55-5386-1396 Fax. +52-55-5386-1336

### EUROPE

**● NACHI EUROPE GmbH**
Bischofstrasse 99, 47809, Krefeld, GERMANY
Phone: +49-(0)2151-65046-0
Fax. +49-(0)2151-65046-90
URL: http://www.nachi.de/

**SPAIN BRANCH**
Av.Alberto Alcocer 28, 1-A, 28036, Madrid, SPAIN
Phone: +34-(0)91-302-6440 Fax. +34-(0)91-383-9486

**BARCELONA OFFICE**
Josep Tarradellas, 58, 1-5, 08029 Barcerona, SPAIN
Phone: +34-(0)93-430-6247
Fax. +34-(0)93-419-0897

**BILBAO OFFICE**
Gran Via 44, 7-D, 48011 Bilbao, SPAIN
Phone: +34-(0)94-443-7319
Fax. +34-(0)94-410-5263

**CZECH BRANCH**
Mostni 73, Kolin 4, 28002, CZECH
Phone: +420-321-710-200
Fax. +420-321-710-200

**U.K. BRANCH**
Unit 7, Junction Six Industrial Estate, Electric Avenue, Birmingham B6 7JJ, U.K.
Phone: +44-(0)121-250-1890
Fax. +44-(0)121-250-1899
URL: http://www.nachi.co.uk/

**● NACHI-FUJIKOSHI CORP. ITALY REPRESENTATIVE OFFICE**
Via delle Lame 75, 3 piano-interno 8
40122, Bologna, ITALY
Phone: +39-051-649-4808
Fax. +39-051-528-2149

### ASIA and OCEANIA

**● NACHI-FUJIKOSHI CORP. THAILAND REPRESENTATIVE OFFICE**
Chai-ho Wongwaiwat Bldg. 889 Srinakarin Road, Samutprakarn, THAILAND 10270
Phone: +66-2-748-7322~4
Fax. +66-2-748-7325

**● NACHI SINGAPORE PTE. LTD.**
No.2 Joo Koon Way, Jurong Town, Singapore 628943, SINGAPORE
Phone: +65-65587393 Fax. +65-65587371

**VIETNAM OFFICE**
Room 1608, 16/F Saigon Tower 29 Le Duan Street, District 1, Ho Chi Minh City, VIETNAM
Phone: +84-8-823-6299
Fax. +84-8-823-6288

**● FUJIKOSHI-NACHI (MALAYSIA) SDN. BHD.**
No.17, Jalan USJ 21/3, 47630 UEP Subang Jaya, Selangor Darul Ehsan, MALAYSIA
Phone: +60-(0)3-80247900
Fax. +60-(0)3-80235884

**● P.T.NACHI INDONESIA**
Jl.H.R.Rasuna Said Kav.X-O
Kuningan, Jakarta 12950, INDONESIA
Phone: +62-012-527-2841 Fax. +62-021-527-3029

**● NACHI PILIPINAS INDUSTRIES, INC.**
1st Avenue, Manalac Compound, Sta. Maria Industrial Estate, Bagumbayan, Taguig, Metro Manila, PHILIPPINES
Phone: +63-(0)2-838-3620 Fax. +63-(0)2-838-3623

**MANILA OFFICE**
Km23 East Service Road, Capang Muntinlupa, City Metro Manila, PHILIPPINES
Phone: +63-(0)2-850-0864 Fax. +63-(0)2-850-0864

**● 那智不二越（上海）贸易有限公司 NACHI (Shanghai) CO.,LTD.**
Rm No.1602, Ocean Towers No. 550, Yanan Road .E. Huangpu District, Shanghai, CHINA
Post Code 200001
Phone: +86-(0)21-6360-3680
Fax. +86-(0)21-6360-3682

**● NACHI-FUJIKOSHI CORP. TAIPEI REPRESENTATIVE OFFICE**
3F No.276, Sec3, Chung Ching N.Road, Taipei, TAIWAN
Phone: +886-(0)2-2596-0118
Fax. +886-(0)2-2596-5346

**● NACHI-FUJIKOSHI CORP. KOREA REPRESENTATIVE OFFICE**
2F Dongsan Bldg. 276-4, Sungsu 2GA-3DONG Sungdong-Ku. Seoul 133-123, KOREA
Phone: +82-(0)2-469-2254
Fax. +82-(0)2-469-2264

**● NACHI (AUSTRALIA) PTY. LTD.**
Unit 1, 23-29 South Street, Rydalmere, N.S.W, 2116, AUSTRALIA
Phone: +61-(0)2-9898-1511
Fax. +61-(0)2-9898-1678
URL: http://www.nachi.com.au/

## Overseas Manufacturing Companies

### AMERICA

**● NACHI TECHNOLOGY INC.**
713 Pushville Road, Greenwood, Indiana, 37008, U.S.A.
Phone: +1-317-535-5000
Fax. +1-317-535-8484
URL: http://nachitech.com/

**● NACHI MACHINING TECHNOLOGY CO.**
17500 Twenty-three Mile Road, Macomb, Michigan, 48044, U.S.A.
Phone: +1-586-263-0100
Fax. +1-586-263-4571
URL: http://www.nachimtc.com/

**● NACHI BRASIL LTDA.**
Avenida João XX III, No.2330, Jardim São Pedro, Mogi das Cruzes, S.P., BRAZIL, CEP 08830-000
Phone: +55-11-4793-8800
Fax. +55-11-4793-8870
URL: http://www.nachi.com.br/

### EUROPE

**● NACHI INDUSTRIAL, S.A.**
Pol. Industrial, El Montalvo, Parc. 74 37008, Salamanca, SPAIN
Phone: +34-(0)923-190516
Fax. +34-(0)923-194320

**● NACHI CZECH S.R.O**
Prumyslova 2732, 44001 Louny, CZECH
Phone: +420-415-930-630
Fax. +420-415-930-940

### ASIA and OCEANIA

**● NACHI INDUSTRIES PTE. LTD.**
No.2 Joo Koon Way, Jurong Town, Singapore 628943, SINGAPORE
Phone: +65-68613944
Fax. +65-68611153
URL: http://www.nachinip.com.sg/

**● NACHI TECHNOLOGY (THAILAND) CO., LTD.**
3/16 M, 2, Rojana Industrial Estate
Nongbua, Ban Khai, Rayong, 21120, THAILAND
Phone: +66-38-961-682
Fax. +66-38-961-683

**● 建越工業股份有限公司 NACHI C.Y. CORP.**
No.109, Kao Young North Rd, Lung-Tan Hsin, Tao-Yuan Hsien, TAIWAN
Phone: +886-(0)3-47l-7651
Fax. +886-(0)3-471-8402

**● 东莞建越精密轴承有限公司 DONGGUAN NACHI C.Y. CORP.**
Dangyong Village, Hongmei Town Dongguan Cily, Guangdong, CHINA
Phone: +86-(0)769-843-1300
Fax. +86-(0)769-843-1330

**● 대성나찌 유압공업(주) DAESUNG-NACHI HYDRAULICS CO., LTD.**
289-22, Yousan-Dong, Yangsan-Si Kyungnam 626-800, KOREA
Phone: +82-(0)55-385-7891~3
Fax. +82-(0)55-384-3270

**● 上海不二越精密轴承有限公司 SHANGHAI NACHI BEARINGS CO.,LTD.**
258, Fengmao Rd. Malu Town, Jiading, Shanghai, CHINA
Phone: +86-(0)21-6915-6200
Fax. +86-(0)21-6915-6202

| CATALOG NO. | B1040E-4 |
|---|---|

2006.02.X-ABE-ABE