



## Changzhou Suma Precision Machinery Co.,Ltd

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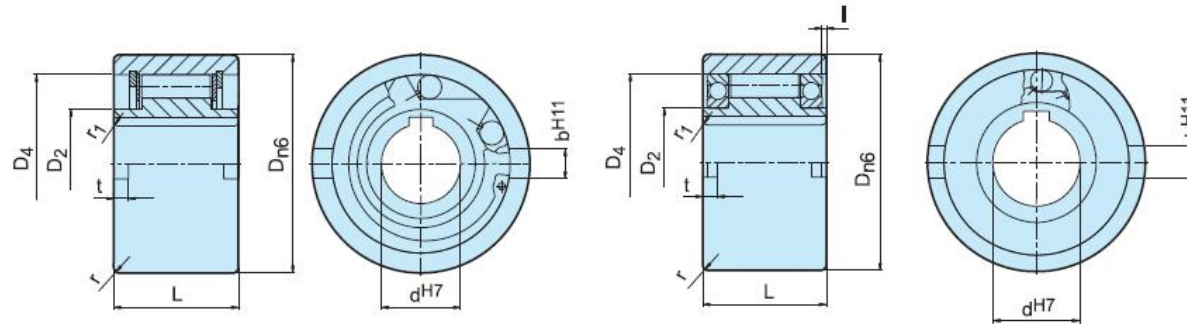
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### NFR Technical Parameter

Type NFR is a bearing supported roller type freewheel without any sealing. Lubrication and sealing must be provided by the installation. Standard lubrication is oil. Size 8 to 20 units use steel on steel bearing support from the inner race. Above size 25, two 160.. series ball bearings are used, giving a higher overrunning speed capacity. A typical arrangement is shown overleaf.

The inner race is keyed to the shaft. The outer race has a positive n6 tolerance to give a press fit in a housing to H7. Additional side notches provide for positive torque transmission. The housing must be strong enough to not expand after assembly .



**NFR 8-20\***

**NFR 25-130\*\***

| Type | Size             |                        | Overrunning speeds                      |                                         | Bearing | DIMENSIONS       |               |               |             |             |             |                   |             |               | Weight |
|------|------------------|------------------------|-----------------------------------------|-----------------------------------------|---------|------------------|---------------|---------------|-------------|-------------|-------------|-------------------|-------------|---------------|--------|
|      | $d^{H7}$<br>(mm) | $T_{KN}^{-1}$<br>(Nm ) | $N_{imax}^{2)}$<br>(min <sup>-1</sup> ) | $N_{amax}^{3)}$<br>(min <sup>-1</sup> ) |         | $D_{n6}$<br>(mm) | $D_2$<br>(mm) | $D_4$<br>(mm) | $L$<br>(mm) | $l$<br>(mm) | $t$<br>(mm) | $b^{H11}$<br>(mm) | $r$<br>(mm) | $r_1$<br>(mm) | (kg)   |
| NFR  | 8                | 20                     | 1000                                    | 1000                                    | *       | 37               | 20            | 30            | 20          |             | 3           | 6                 | 1           | 1.5           | 0.1    |
|      | 12               | 20                     | 1000                                    | 1000                                    | *       | 37               | 20            | 30            | 20          |             | 3           | 6                 | 1           | 1.5           | 0.1    |
|      | 15               | 78                     | 850                                     | 850                                     | *       | 47               | 26            | 37            | 30          |             | 3.5         | 7                 | 1.5         | 1.5           | 0.3    |
|      | 20               | 188                    | 650                                     | 650                                     | *       | 62               | 37            | 52            | 36          |             | 3.5         | 8                 | 2           | 2             | 0.6    |
|      | 25               | 250                    | 2100                                    | 3600                                    | 16008** | 80               | 40            | 68            | 40          | 0.2         | 4           | 9                 | 2.5         | 2             | 1.2    |
|      | 30               | 500                    | 1700                                    | 3200                                    | 16009** | 90               | 45            | 75            | 48          | 0.2         | 5           | 12                | 2.5         | 2             | 1.8    |
|      | 35               | 663                    | 1550                                    | 3000                                    | 16010** | 100              | 50            | 80            | 53          | 1.2         | 6           | 13                | 2.5         | 2.5           | 2.4    |
|      | 40               | 1100                   | 1150                                    | 2600                                    | 16011** | 110              | 55            | 90            | 63          | 2.2         | 7           | 15                | 3           | 2.5           | 3.3    |
|      | 45               | 1500                   | 1000                                    | 2400                                    | 16012** | 120              | 60            | 95            | 63          | 2.2         | 7           | 16                | 3           | 2.5           | 4      |
|      | 50               | 2375                   | 800                                     | 2150                                    | 16014** | 130              | 70            | 110           | 80          | 2.7         | 8.5         | 17                | 3.5         | 3             | 5.7    |
|      | 55               | 2550                   | 750                                     | 2000                                    | 16015** | 140              | 75            | 115           | 80          | 4.2         | 9           | 18                | 3.5         | 3             | 6.5    |
|      | 60               | 4250                   | 650                                     | 1900                                    | 16016** | 150              | 80            | 125           | 95          | 3.2         | 9           | 18                | 3.5         | 3.5           | 8.9    |
|      | 70               | 5875                   | 550                                     | 1750                                    | 16018** | 170              | 90            | 140           | 110         | 1.1         | 9           | 20                | 3.5         | 3.5           | 13.5   |
|      | 80               | 10000                  | 500                                     | 1600                                    | 16021** | 190              | 105           | 160           | 125         | 0           | 9           | 20                | 4           | 3.5           | 19     |
|      | 90               | 17250                  | 450                                     | 1450                                    | 16024** | 215              | 120           | 180           | 140         | 0.6         | 11.5        | 24                | 4           | 4             | 27.2   |
|      | 100              | 79625                  | 350                                     | 1250                                    | 16028** | 260              | 140           | 210           | 150         | 2.6         | 14.5        | 28                | 4           | 4             | 44.5   |
|      | 130              | 34750                  | 250                                     | 1000                                    | 16032** | 300              | 160           | 240           | 180         | 2           | 17.5        | 32                | 5           | 5             | 68     |

### Notes :

- 1)  $T_{max} = 2 \times T_{KN}$
- 2) 2 Keyways 120° offset

