

# TX-Motoren



**Baureihe ECM — Motoren mit Schneckengetriebe**

| <b>Indice</b>                | <b>Index</b>                      | Pag.<br>Page |
|------------------------------|-----------------------------------|--------------|
| Caratteristiche tecniche     | <i>Technical features</i>         | <b>N2</b>    |
| Designazione                 | <i>Classification</i>             | <b>N2</b>    |
| Simbologia                   | <i>Symbols</i>                    | <b>N2</b>    |
| Lubrificazione               | <i>Lubrication</i>                | <b>N3</b>    |
| Carichi radiali              | <i>Radial loads</i>               | <b>N3</b>    |
| Dati di dentatura            | <i>Toothing data</i>              | <b>N4</b>    |
| Rendimento                   | <i>Efficiency</i>                 | <b>N4</b>    |
| Dati tecnici per servizio S2 | <i>Technical data for S2 duty</i> | <b>N5</b>    |
| Motori applicabili           | <i>IEC Motor adapters</i>         | <b>N6</b>    |
| Dimensioni                   | <i>Dimensions</i>                 | <b>N7</b>    |
| Opzioni                      | <i>Options</i>                    | <b>N17</b>   |
| Accessori                    | <i>Accessories</i>                | <b>N17</b>   |

## Caratteristiche tecniche

Le caratteristiche principali dei motoriduttori a corrente continua della serie ECM sono:

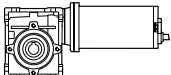
- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder
- Potenze motore disponibili da 100 a 800W S2
- Magneti in ferrite
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico.

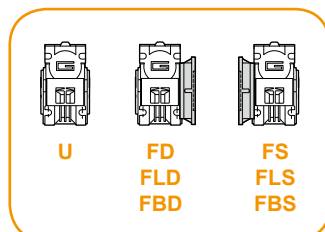
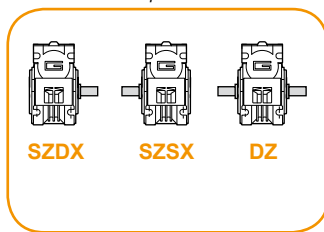
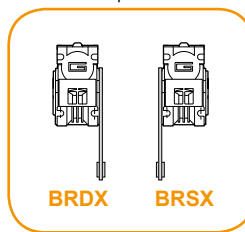
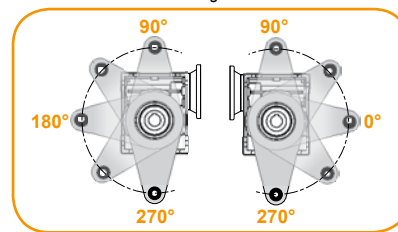
The main features of ECM D.C. gearmotor range are:

- Low voltage power supply 12/24 Vdc
- Suitable for encoder assembly
- Motor power ratings available from 100 to 800W S2
- Ferrite magnets
- Die-cast aluminum housing
- Permanent synthetic oil long-life lubrication.

## Designazione

## Classification

| MOTORIDUTTORE / GEARMOTOR   |                    |                               |  |                               |                               |                               |   |  |                                  |                                   |                           |                                  |                    |
|---|--------------------|-------------------------------|--|-------------------------------|-------------------------------|-------------------------------|---|--|----------------------------------|-----------------------------------|---------------------------|----------------------------------|--------------------|
| ECM   | 070/026            |                               |  |                               |                               |                               | U   | 10                                     | SZDX                             | BRSX                              | 90                        | 240                              | VS                 |
| Tipo<br>Type  | Grandezza<br>Size  |                               |  |                               |                               |                               | Versione Riduttore<br>Gearbox Version     | Rapporto<br>Ratio                      | Albero di uscita<br>Output shaft | Braccio di reazione<br>Torque arm | Angolo<br>Angle           | Versione Motore<br>Motor Version | Opzioni<br>Options |
| <br>ECM | 070/026<br>070/030 | 100/026<br>100/030<br>100/040 | 180/026<br>180/030<br>180/040<br>180/050 | 250/030<br>250/040<br>250/050 | 350/030<br>350/040<br>350/050 | 600/040<br>600/050<br>600/063 | U<br>FD<br>FS<br>FLD<br>FLS<br>FBD<br>FBS | Vedere<br>tabella<br><br>See<br>tables | SZDX<br>SZSX<br>DZ               | BRDX<br>BRSX                      | 0°<br>90°<br>180°<br>270° | 120<br>240<br>24E                | VS                 |

 Versione Riduttore  
Gearbox Version

 Albero di uscita  
Output shaft

 Braccio di reazione  
Torque arm

 Angolo  
Angle


## Simbologia

## Symbols

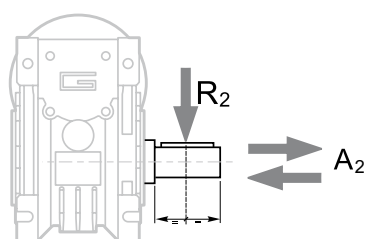
|       |                      |   |         |     |   |
|-------|----------------------|---|---------|-----|---|
| $n_1$ | [min <sup>-1</sup> ] | Velocità in ingresso / Input speed                                      | $R_d$   | %   | Rendimento dinamico / Dynamic efficiency                            |
| $n_2$ | [min <sup>-1</sup> ] | Velocità in uscita / Output speed                                       | $A_2$   | [N] | Carico assiale ammissibile in uscita / Permitted output axial load  |
| $i$   |                      | Rapporto di riduzione / Ratio   | $R_s$   | %   | Rendimento statico / Static efficiency                              |
| $P_1$ | [kW]                 | Potenza in entrata / Input power  | $R_2$   | [N] | Carico radiale ammissibile in uscita / Permitted output radial load |
| $M_2$ | [Nm]                 | Coppia in uscita in funzione di $P_1$ / Output torque referred to $P_1$ | $Z$     |     | Numero di principi della vite / Worm starts                         |
| $sf$  |                      | Fattore di servizio / Service factor                                    | $\beta$ |     | Angolo d'elica / Helix angle  |

**Lubrificazione**

I riduttori a vite senza fine della serie CM sono lubrificati a vita con olio sintetico di viscosità 320 e possono essere installati in qualunque posizione di montaggio.

*Permanent synthetic oil long-life lubrication allow to use CM wormgearbox range in all mounting position.*

| Quantità di olio (litri) / Oil quantity (litres) |    |    |    |    |    |      |  |
|--|----|----|----|----|----|------|--|
|  | B3 | B8 | B6 | B7 | V5 | V6   |  |
| CM026  |    |    |    |    |    | 0.02 | Lubrificazione<br>a vita<br>Life lubrication |
| CM030  |    |    |    |    |    | 0.03 |  |
| CM040  |    |    |    |    |    | 0.07 |  |
| CM050  |    |    |    |    |    | 0.10 |  |
| CM063  |    |    |    |    |    | 0.25 |  |

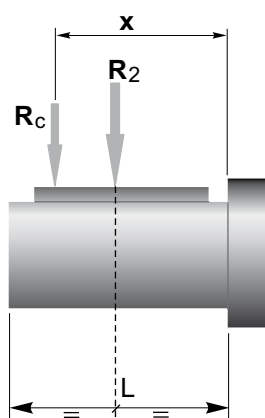
**Carichi radiali**
**Radial loads**


$$A_2 = R_2 \times 0.2$$

| $n_2$<br>[min <sup>-1</sup> ] | $R_2$ [N] |       |       |       |       |
|-------------------------------|-----------|-------|-------|-------|-------|
|                               | CM026     | CM030 | CM040 | CM050 | CM063 |
| 187                           | 400       | 674   | 1264  | 1770  | 2445  |
| 140                           | 490       | 743   | 1392  | 1949  | 2692  |
| 93                            | 580       | 851   | 1596  | 2234  | 3085  |
| 70                            | 610       | 936   | 1754  | 2456  | 3392  |
| 56                            | 610       | 1008  | 1890  | 2646  | 3654  |
| 47                            | 610       | 1069  | 2004  | 2805  | 3874  |
| 35                            | 610       | 1179  | 2210  | 3095  | 4273  |
| 28                            | 610       | 1270  | 2381  | 3334  | 4603  |
| 23                            | 610       | 1356  | 2542  | 3559  | 4915  |
| 18                            | 610       | 1471  | 2759  | 3862  | 5334  |
| 14                            | 610       | 1600  | 3000  | 4200  | 5800  |

Quando il carico radiale risultante non è applicato sulla mezza-ria dell'albero occorre calcolare quello effettivo con la seguente formula:

*When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:*



$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

$$R \leq R_c$$

*a, b = valori riportati nella tabella*  
*a, b = values given in the table*

|            | CM  |      |      |      |      |
|------------|-----|------|------|------|------|
|            | 026 | 030  | 040  | 050  | 063  |
| a          | 56  | 65   | 84   | 101  | 120  |
| b          | 43  | 50   | 64   | 76   | 95   |
| $R_{2MAX}$ | 610 | 1600 | 3000 | 4200 | 5800 |

## Dati di dentatura

|       | Dati della coppia vite-corona<br>Worm wheel data | Rapporto / Ratio |         |         |         |         |        |        |        |        |        |        |        |
|-------|--|------------------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|
|       |  | 5                | 7.5     | 10      | 15      | 20      | 25     | 30     | 40     | 50     | 60     | 80     | 100    |
| CM026 | Z  | 6                | 4       | 3       | 2       | 2       |        | 1      | 1      | 1      | 1      |        |        |
|       | $\beta$  | 34° 35'          | 24° 41' | 19° 1'  | 12° 57' | 10° 30' |        | 6° 33' | 5° 17' | 4° 26' | 3° 49' |        |        |
| CM030 | Z  | 6                | 4       | 3       | 2       | 2       | 2      | 1      | 1      | 1      | 1      | 1      | 1      |
|       | $\beta$  | 27° 4'           | 24° 28' | 18° 50' | 12° 49' | 10° 23' | 8° 43' | 6° 29' | 5° 14' | 4° 23' | 3° 46' | 2° 57' | 2° 25' |
| CM040 | Z  | 6                | 4       | 3       | 2       | 2       | 2      | 1      | 1      | 1      | 1      | 1      | 1      |
|       | $\beta$  | 34° 19'          | 24° 28' | 18° 50' | 12° 49' | 10° 23' | 8° 43' | 6° 29' | 5° 14' | 4° 23' | 3° 46' | 2° 57' | 2° 25' |
| CM050 | Z  | 6                | 4       | 3       | 2       | 2       | 2      | 1      | 1      | 1      | 1      | 1      | 1      |
|       | $\beta$  | 33° 37'          | 23° 54' | 18° 23' | 12° 29' | 10° 6'  | 8° 28' | 6° 19' | 5° 5'  | 4° 15' | 3° 39' | 2° 51' | 2° 20' |
| CM063 | Z  | 6                | 4       | 3       | 2       | 2       | 2      | 1      | 1      | 1      | 1      | 1      | 1      |
|       | $\beta$  | 34° 23'          | 24° 31' | 18° 53' | 12° 50' | 10° 24' | 8° 44' | 6° 30' | 5° 14' | 4° 23' | 3° 47' | 2° 57' | 2° 25' |

## Rendimento

## Efficiency

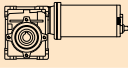
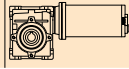
|       | $n_1$<br>[min <sup>-1</sup> ] | Rendimento<br>Efficiency | Rapporto / Ratio |     |    |    |    |    |    |    |    |    |    |     |
|-------|-------------------------------|--------------------------|------------------|-----|----|----|----|----|----|----|----|----|----|-----|
|       |                               |                          | 5                | 7.5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 80 | 100 |
| CM026 | 2800                          | Rd                       | 89               | 87  | 85 | 83 | 80 |    | 73 | 68 | 64 | 60 |    |     |
|       | 1400                          |                          | 87               | 84  | 83 | 78 | 74 |    | 66 | 61 | 57 | 53 |    |     |
|       | 900                           |                          | 84               | 83  | 80 | 75 | 71 |    | 61 | 57 | 52 | 48 |    |     |
|       |                               |                          | Rs               | 72  | 71 | 68 | 61 | 56 |    | 46 | 41 | 36 | 34 |     |
| CM030 | 2800                          | Rd                       | 89               | 88  | 86 | 84 | 81 | 78 | 74 | 70 | 65 | 62 | 57 | 52  |
|       | 1400                          |                          | 86               | 85  | 84 | 79 | 75 | 72 | 67 | 62 | 58 | 55 | 48 | 43  |
|       | 900                           |                          | 84               | 83  | 81 | 75 | 71 | 68 | 62 | 58 | 53 | 49 | 43 | 39  |
|       |                               |                          | Rs               | 72  | 67 | 63 | 55 | 50 | 43 | 39 | 35 | 31 | 27 | 23  |
| CM040 | 2800                          | Rd                       | 90               | 89  | 87 | 84 | 83 | 80 | 77 | 73 | 69 | 66 | 60 | 56  |
|       | 1400                          |                          | 88               | 86  | 84 | 81 | 78 | 74 | 70 | 65 | 60 | 58 | 52 | 46  |
|       | 900                           |                          | 86               | 84  | 82 | 77 | 74 | 70 | 66 | 60 | 57 | 53 | 46 | 41  |
|       |                               |                          | Rs               | 74  | 71 | 67 | 60 | 55 | 51 | 45 | 40 | 36 | 32 | 28  |
| CM050 | 2800                          | Rd                       | 91               | 90  | 88 | 86 | 84 | 82 | 78 | 74 | 71 | 68 | 62 | 58  |
|       | 1400                          |                          | 89               | 87  | 85 | 82 | 79 | 76 | 72 | 67 | 63 | 60 | 54 | 49  |
|       | 900                           |                          | 87               | 85  | 84 | 79 | 75 | 72 | 68 | 62 | 59 | 55 | 48 | 43  |
|       |                               |                          | Rs               | 73  | 70 | 66 | 59 | 55 | 51 | 44 | 39 | 35 | 32 | 27  |
| CM063 | 2800                          | Rd                       | 91               | 90  | 88 | 86 | 84 | 83 | 79 | 76 | 73 | 70 | 65 | 60  |
|       | 1400                          |                          | 90               | 88  | 86 | 84 | 81 | 78 | 75 | 70 | 66 | 63 | 57 | 52  |
|       | 900                           |                          | 89               | 86  | 84 | 81 | 78 | 75 | 70 | 65 | 61 | 58 | 52 | 47  |
|       |                               |                          | Rs               | 73  | 71 | 67 | 60 | 55 | 51 | 45 | 40 | 36 | 33 | 28  |



Rendimento teorico del riduttore dopo il rodaggio

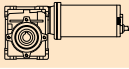
Theoretical efficiency of the gearbox after the first running period

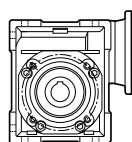
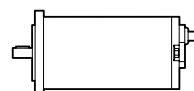
**Dati tecnici per servizio S2**
**Technical data for S2 duty**

| $P_1$<br>[W]              | $n_2$<br>[min <sup>-1</sup> ] | $M_2$<br>[Nm] | sf  | i      |  | Versione motore<br>Motor version | $P_1$<br>[W]              | $n_2$<br>[min <sup>-1</sup> ] | $M_2$<br>[Nm] | sf     | i     |  | Versione motore<br>Motor version |            |         |            |
|---------------------------|-------------------------------|---------------|-----|--------|---|----------------------------------|---------------------------|-------------------------------|---------------|--------|-------|---|----------------------------------|------------|---------|------------|
| <b>100</b>                |                               |               |     |        |   |                                  | <b>250</b>                |                               |               |        |       |   |                                  |            |         |            |
| (3000 min <sup>-1</sup> ) | 600                           | 1.4           | 7.1 | 5.00   | ECM070/026  | 120/240                          | (3000 min <sup>-1</sup> ) | 200                           | 10            | 3.5    | 15.00 | ECM180/040  | 120/240/24E                      |            |         |            |
|                           | 400                           | 2.1           | 5.3 | 7.50   |   |                                  |                           |                               | 150           | 13     | 2.3   |   |                                  | 20.00      |         |            |
|                           | 300                           | 2.7           | 4.1 | 10.00  |   |                                  |                           |                               | 120           | 16     | 1.8   |   |                                  | 25.00      |         |            |
|                           | 200                           | 4.0           | 2.8 | 15.00  |   |                                  |                           |                               | 100           | 18     | 2.1   |   |                                  | 30.00      |         |            |
|                           | 150                           | 5.1           | 2.2 | 20.00  |   |                                  |                           |                               | 75            | 23     | 1.5   |   |                                  | 40.00      |         |            |
|                           | 100                           | 7.0           | 1.7 | 30.00  |   |                                  |                           |                               | 60            | 27     | 1.2   |   |                                  | 50.00      |         |            |
|                           | 75                            | 8.7           | 1.3 | 40.00  |   |                                  |                           |                               | 50            | 32     | 0.9   |   |                                  | 60.00      |         |            |
|                           | 60                            | 10            | 1.0 | 50.00  |   |                                  |                           |                               | 38            | 38     | 0.7   |   |                                  | 80.00      |         |            |
|                           | 50                            | 11            | 0.8 | 60.00  |   |                                  |                           |                               | 30            | 34     | 0.7   |   |                                  | 100.00     |         |            |
|                           | 600                           | 1.4           | 9.2 | 5.00   |   |                                  | ECM070/030                |                               |               | 75     | 24    |   |                                  | 2.5        | 40.00   | ECM180/050 |
|                           | 400                           | 2.1           | 7.1 | 7.50   |   |                                  |                           |                               | 60            | 28     | 2.0   | 50.00   |                                  |            |         |            |
|                           | 300                           | 2.7           | 5.8 | 10.00  |   |                                  |                           |                               | 50            | 32     | 1.6   | 60.00   |                                  |            |         |            |
|                           | 200                           | 4.0           | 4.0 | 15.00  |   |                                  |                           |                               | 38            | 39     | 1.2   | 80.00   |                                  |            |         |            |
|                           | 150                           | 5.2           | 2.7 | 20.00  |   |                                  |                           |                               | 30            | 46     | 0.9   | 100.00  |                                  |            |         |            |
|                           | 120                           | 6.2           | 2.4 | 25.00  |   |                                  |                           |                               |               |        |       |   |                                  |            |         |            |
|                           | 100                           | 7.1           | 2.5 | 30.00  |   |                                  |                           |                               |               |        |       |   |                                  |            |         |            |
|                           | 75                            | 8.9           | 1.8 | 40.00  |   |                                  |                           |                               |               |        |       |   |                                  |            |         |            |
|                           | 60                            | 10            | 1.4 | 50.00  |   |                                  |                           |                               |               |        |       |   |                                  |            |         |            |
|                           | 50                            | 12            | 1.2 | 60.00  |   |                                  |                           |                               |               |        |       |   |                                  |            |         |            |
|                           | 38                            | 15            | 0.8 | 80.00  |   |                                  |                           |                               |               |        |       |   |                                  |            |         |            |
|                           | 30                            | 17            | 0.7 | 100.00 |   |                                  |                           |                               |               |        |       |   |                                  |            |         |            |
| <b>140</b>                |                               |               |     |        |   |                                  | <b>350</b>                |                               |               |        |       |   |                                  |            |         |            |
| (3000 min <sup>-1</sup> ) | 600                           | 2.0           | 5.0 | 5.00   | ECM100/026  | 120/240/24E                      | (3000 min <sup>-1</sup> ) | 600                           | 5.0           | 2.6    | 5     | ECM250/030  | 120/240                          |            |         |            |
|                           | 400                           | 2.9           | 3.8 | 7.50   |   |                                  |                           |                               | 400           | 7.4    | 2.0   |   |                                  | 7.5        |         |            |
|                           | 300                           | 3.8           | 2.9 | 10.00  |   |                                  |                           |                               | 300           | 10     | 1.7   |   |                                  | 10         |         |            |
|                           | 200                           | 5.5           | 2.0 | 15.00  |   |                                  |                           |                               | 200           | 14     | 1.1   |   |                                  | 15         |         |            |
|                           | 150                           | 7.1           | 1.5 | 20.00  |   |                                  |                           |                               | 150           | 18     | 0.8   |   |                                  | 20         |         |            |
|                           | 100                           | 10            | 1.2 | 30.00  |   |                                  |                           |                               | 120           | 22     | 0.7   |   |                                  | 25         |         |            |
|                           | 75                            | 12            | 0.9 | 40.00  |   |                                  |                           |                               | 100           | 25     | 0.7   |   |                                  | 30         |         |            |
|                           | 60                            | 14            | 0.7 | 50.00  |   |                                  |                           |                               | 75            | 22     | 0.7   |   |                                  | 40         |         |            |
|                           | 50                            | 13            | 0.7 | 60.00  |   |                                  |                           |                               | 60            | 21     | 0.7   |   |                                  | 50         |         |            |
|                           | 200                           | 5.6           | 2.8 | 15.00  |   |                                  | ECM100/030                |                               |               | 200    | 14    |   |                                  | 2.5        | 15      | ECM250/040 |
|                           | 150                           | 7.2           | 1.9 | 20.00  |   |                                  |                           |                               | 150           | 18     | 1.7   | 20  |                                  |            |         |            |
|                           | 120                           | 8.7           | 1.7 | 25.00  |   |                                  |                           |                               | 120           | 22     | 1.3   | 25  |                                  |            |         |            |
|                           | 100                           | 10            | 1.8 | 30.00  |   |                                  |                           |                               | 100           | 26     | 1.5   | 30  |                                  |            |         |            |
|                           | 75                            | 12            | 1.3 | 40.00  |   |                                  |                           |                               | 75            | 33     | 1.0   | 40  |                                  |            |         |            |
|                           | 60                            | 14            | 1.0 | 50.00  |   |                                  |                           |                               | 60            | 38     | 0.8   | 50  |                                  |            |         |            |
|                           | 50                            | 17            | 0.8 | 60.00  |   |                                  |                           |                               | 50            | 44     | 0.7   | 60  |                                  |            |         |            |
|                           | 38                            | 20            | 0.6 | 80.00  |   |                                  |                           |                               | 37.5          | 38     | 0.7   | 80  |                                  |            |         |            |
|                           | 30                            | 16            | 0.7 | 100.00 |   |                                  |                           |                               | 30            | 35     | 0.7   | 100   |                                  |            |         |            |
|                           | 100                           | 10            | 3.7 | 30.00  | ECM100/040  |                                  |                           |                               |               | 150    | 19    | 2.9   | 20                               | ECM250/050 | 120/240 |            |
|                           | 75                            | 13            | 2.6 | 40.00  |   |                                  |                           |                               | 120           | 23     | 2.2   | 25  |                                  |            |         |            |
|                           | 60                            | 15            | 2.1 | 50.00  |   |                                  |                           |                               | 100           | 26     | 2.6   | 30  |                                  |            |         |            |
|                           | 50                            | 18            | 1.6 | 60.00  |   |                                  |                           |                               | 75            | 33     | 1.8   | 40  |                                  |            |         |            |
|                           | 38                            | 21            | 1.3 | 80.00  |   |                                  |                           |                               | 60            | 40     | 1.4   | 50  |                                  |            |         |            |
|                           | 30                            | 25            | 1.0 | 100.00 |   |                                  |                           |                               | 50            | 45     | 1.1   | 60  |                                  |            |         |            |
|                           | 100                           | 10            | 3.7 | 30.00  |   |                                  |                           |                               | 37.5          | 55     | 0.8   | 80  |                                  |            |         |            |
|                           | 75                            | 13            | 2.6 | 40.00  |   |                                  |                           |                               | 30            | 65     | 0.7   | 100   |                                  |            |         |            |
|                           | 60                            | 15            | 2.1 | 50.00  |   |                                  |                           |                               |               |        |       |   |                                  |            |         |            |
|                           | 50                            | 18            | 1.6 | 60.00  |   |                                  |                           |                               |               |        |       |   |                                  |            |         |            |
|                           | 38                            | 21            | 1.3 | 80.00  |   |                                  |                           |                               |               |        |       |   |                                  |            |         |            |
|                           | 30                            | 25            | 1.0 | 100.00 |   |                                  |                           |                               |               |        |       |   |                                  |            |         |            |
| <b>250</b>                |                               |               |     |        |   |                                  | <b>500</b>                |                               |               |        |       |   |                                  |            |         |            |
| (3000 min <sup>-1</sup> ) | 600                           | 3.5           | 2.8 | 5.00   | ECM180/026  | 120/240                          | (3000 min <sup>-1</sup> ) | 600                           | 7.1           | 1.8    | 5.00  | ECM350/030  | 120/240                          |            |         |            |
|                           | 400                           | 5.2           | 2.1 | 7.50   |   |                                  |                           |                               | 400           | 11     | 1.4   |   |                                  | 7.50       |         |            |
|                           | 300                           | 6.8           | 1.6 | 10.00  |   |                                  |                           |                               | 300           | 14     | 1.2   |   |                                  | 10.00      |         |            |
|                           | 200                           | 10            | 1.1 | 15.00  |   |                                  |                           |                               | 200           | 20     | 0.8   |   |                                  | 15.00      |         |            |
|                           | 150                           | 13            | 0.9 | 20.00  |   |                                  |                           |                               | 150           | 20     | 0.7   |   |                                  | 20.00      |         |            |
|                           | 100                           | 17            | 0.7 | 30.00  |   |                                  |                           |                               | 120           | 21     | 0.7   |   |                                  | 25.00      |         |            |
|                           | 75                            | 16            | 0.7 | 40.00  |   |                                  |                           |                               | 100           | 26     | 0.7   |   |                                  | 30.00      |         |            |
|                           | 60                            | 14            | 0.7 | 50.00  |   |                                  |                           |                               | 75            | 23     | 0.7   |   |                                  | 40.00      |         |            |
|                           | 50                            | 13            | 0.7 | 60.00  |   |                                  |                           |                               | 60            | 21     | 0.7   |   |                                  | 50.00      |         |            |
|                           | 600                           | 3.5           | 3.7 | 5.00   |   |                                  | ECM180/030                | 120/240/24E                   |               | 600    | 7.2   |   |                                  | 4.0        | 5.00    | ECM350/040 |
|                           | 400                           | 5.3           | 2.9 | 7.50   |   |                                  |                           |                               | 400           | 11     | 2.9   | 7.50  |                                  |            |         |            |
|                           | 300                           | 6.8           | 2.3 | 10.00  |   |                                  |                           |                               | 300           | 14     | 2.4   | 10.00   |                                  |            |         |            |
|                           | 200                           | 10            | 1.6 | 15.00  |   |                                  |                           |                               | 200           | 20     | 1.7   | 15.00   |                                  |            |         |            |
|                           | 150                           | 13            | 1.1 | 20.00  |   |                                  |                           |                               | 150           | 26     | 1.2   | 20.00   |                                  |            |         |            |
|                           | 120                           | 16            | 1.0 | 25.00  |   |                                  |                           |                               | 120           | 32     | 0.9   | 25.00   |                                  |            |         |            |
|                           | 100                           | 18            | 1.0 | 30.00  |   |                                  |                           |                               | 100           | 37     | 1.0   | 30.00   |                                  |            |         |            |
|                           | 75                            | 22            | 0.7 | 40.00  |   |                                  |                           |                               | 75            | 46     | 0.7   | 40.00   |                                  |            |         |            |
|                           | 60                            | 21            | 0.7 | 50.00  |   |                                  |                           |                               | 60            | 46     | 0.7   | 50.00   |                                  |            |         |            |
|                           | 50                            | 20            | 0.7 | 60.00  |   |                                  |                           |                               | 50            | 41     | 0.7   | 60.00   |                                  |            |         |            |
|                           | 38                            | 17            | 0.7 | 80.00  |   |                                  | 38                        | 39                            | 0.7           | 80.00  |       |   |                                  |            |         |            |
|                           | 30                            | 16            | 0.7 | 100.00 |   |                                  | 30                        | 34                            | 0.7           | 100.00 |       |   |                                  |            |         |            |
|                           | 200                           | 21            | 3.0 | 15.00  | ECM350/050  | 120/240                          |                           | 200                           | 21            | 3.0    | 15.00 |   |                                  |            |         |            |
|                           | 150                           | 27            | 2.1 | 20.00  |   |                                  |                           |                               | 150           | 27     | 2.1   | 20.00   |                                  |            |         |            |
|                           | 120                           | 33            | 1.6 | 25.00  |   |                                  |                           |                               | 120           | 33     | 1.6   | 25.00   |                                  |            |         |            |
|                           | 100                           | 37            | 1.8 | 30.00  |   |                                  |                           |                               | 100           | 37     | 1.8   | 30.00   |                                  |            |         |            |
|                           | 75                            | 47            | 1.3 | 40.00  |   |                                  |                           |                               | 75            | 47     | 1.3   | 40.00   |                                  |            |         |            |
|                           | 60                            | 57            | 1.0 | 50.00  |   |                                  |                           |                               | 60            | 57     | 1.0   | 50.00   |                                  |            |         |            |
|                           | 50                            | 65            | 0.8 | 60.00  |   |                                  |                           |                               | 50            | 65     | 0.8   | 60.00   |                                  |            |         |            |
|                           | 38                            | 66            | 0.7 | 80.00  |   |                                  |                           |                               | 38            | 66     | 0.7   | 80.00   |                                  |            |         |            |
|                           | 30                            | 61            | 0.7 | 100.00 |   |                                  |                           |                               | 30            | 61     | 0.7   | 100.00  |                                  |            |         |            |

**ECM**

**Dati tecnici per servizio S2**
**Technical data for S2 duty**

| $P_1$<br>[W]              | $n_2$<br>[min <sup>-1</sup> ] | $M_2$<br>[Nm] | sf  | i      |  | Versione motore<br>Motor version |
|---------------------------|-------------------------------|---------------|-----|--------|---|----------------------------------|
| <b>800</b>                |                               |               |     |        |   |                                  |
| (3000 min <sup>-1</sup> ) | <b>600</b>                    | 11            | 2.5 | 5.00   | <b>ECM600/040</b>   | 120/240                          |
|                           | <b>400</b>                    | 17            | 1.8 | 7.50   |   |                                  |
|                           | <b>300</b>                    | 22            | 1.5 | 10.00  |   |                                  |
|                           | <b>200</b>                    | 32            | 1.1 | 15.00  |   |                                  |
|                           | <b>150</b>                    | 42            | 0.7 | 20.00  |   |                                  |
|                           | <b>120</b>                    | 40            | 0.7 | 25.00  |   |                                  |
|                           | <b>100</b>                    | 54            | 0.7 | 30.00  |   |                                  |
|                           | <b>75</b>                     | 49            | 0.7 | 40.00  |   |                                  |
|                           | <b>600</b>                    | 11            | 4.9 | 5.00   | <b>ECM600/050</b>   | 120/240                          |
|                           | <b>400</b>                    | 17            | 3.3 | 7.50   |   |                                  |
|                           | <b>300</b>                    | 22            | 2.7 | 10.00  |   |                                  |
|                           | <b>200</b>                    | 33            | 1.9 | 15.00  |   |                                  |
|                           | <b>150</b>                    | 43            | 1.3 | 20.00  |   |                                  |
|                           | <b>120</b>                    | 52            | 1.0 | 25.00  |   |                                  |
|                           | <b>100</b>                    | 60            | 1.1 | 30.00  |   |                                  |
|                           | <b>75</b>                     | 75            | 0.8 | 40.00  |   |                                  |
|                           | <b>60</b>                     | 81            | 0.7 | 50.00  |   |                                  |
|                           | <b>50</b>                     | 74            | 0.7 | 60.00  |   |                                  |
|                           | <b>38</b>                     | 66            | 0.7 | 80.00  |   |                                  |
|                           | <b>200</b>                    | 33            | 3.5 | 15.00  | <b>ECM600/063</b>   | 120/240                          |
|                           | <b>150</b>                    | 43            | 2.4 | 20.00  |   |                                  |
|                           | <b>120</b>                    | 53            | 1.8 | 25.00  |   |                                  |
|                           | <b>100</b>                    | 60            | 2.1 | 30.00  |   |                                  |
|                           | <b>75</b>                     | 77            | 1.4 | 40.00  |   |                                  |
|                           | <b>60</b>                     | 93            | 1.1 | 50.00  |   |                                  |
|                           | <b>50</b>                     | 107           | 0.9 | 60.00  |   |                                  |
|                           | <b>38</b>                     | 132           | 0.7 | 80.00  |   |                                  |
|                           | <b>30</b>                     | 114           | 0.7 | 100.00 |   |                                  |

**Motori applicabili**
**IEC Motor adapters**


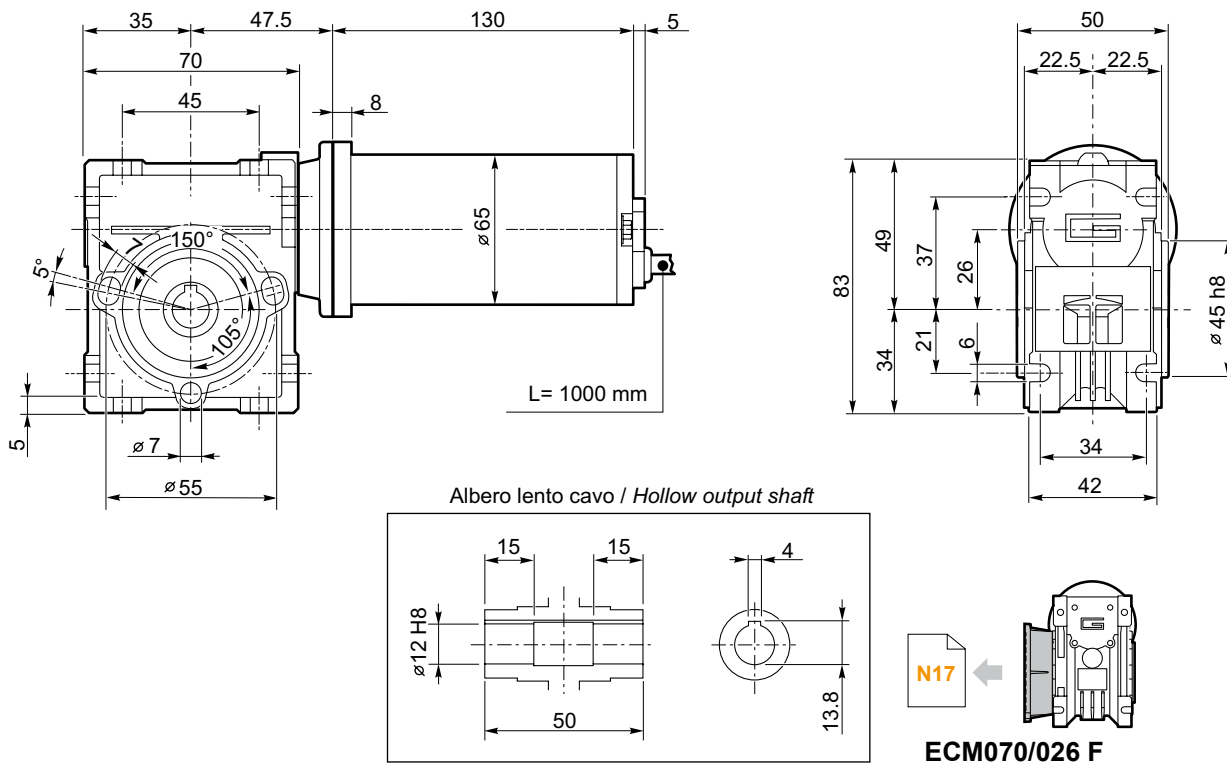
|           |            | EC                 |                               |                    |         |                    |                    |                    |
|-----------|------------|--------------------|-------------------------------|--------------------|---------|--------------------|--------------------|--------------------|
|           |            | 070.120<br>070.240 | 100.120<br>100.240<br>100.24E | 180.120<br>180.240 | 180.24E | 250.120<br>250.240 | 350.120<br>350.240 | 600.120<br>600.240 |
| <b>CM</b> | <b>026</b> | 5-60               | 5-60                          | 5-60               |         |                    |                    |                    |
|           | <b>030</b> | 5-100              | 5-100                         | 5-100              | 5-50    | 5-50               | 5-50               |                    |
|           | <b>040</b> |                    | 5-100                         | 5-100              | 5-100   | 5-100              | 5-100              | 5-40               |
|           | <b>050</b> |                    |                               | 40-100             | 5-100   | 5-100              | 15-100             | 5-80               |
|           | <b>063</b> |                    |                               |                    |         |                    |                    | 5-100              |

5-100

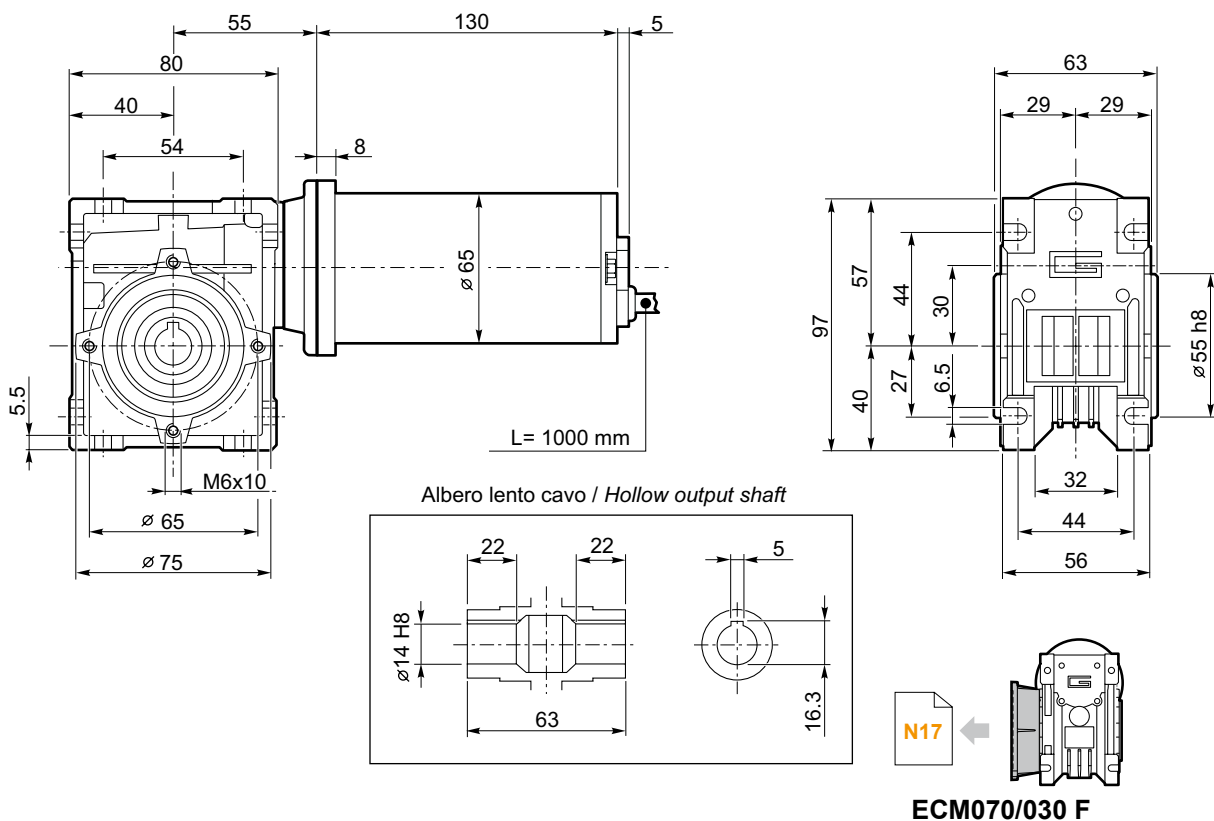
 Rapporti di riduzione i  
Ratio i

Dimensioni

ECM070/026 U



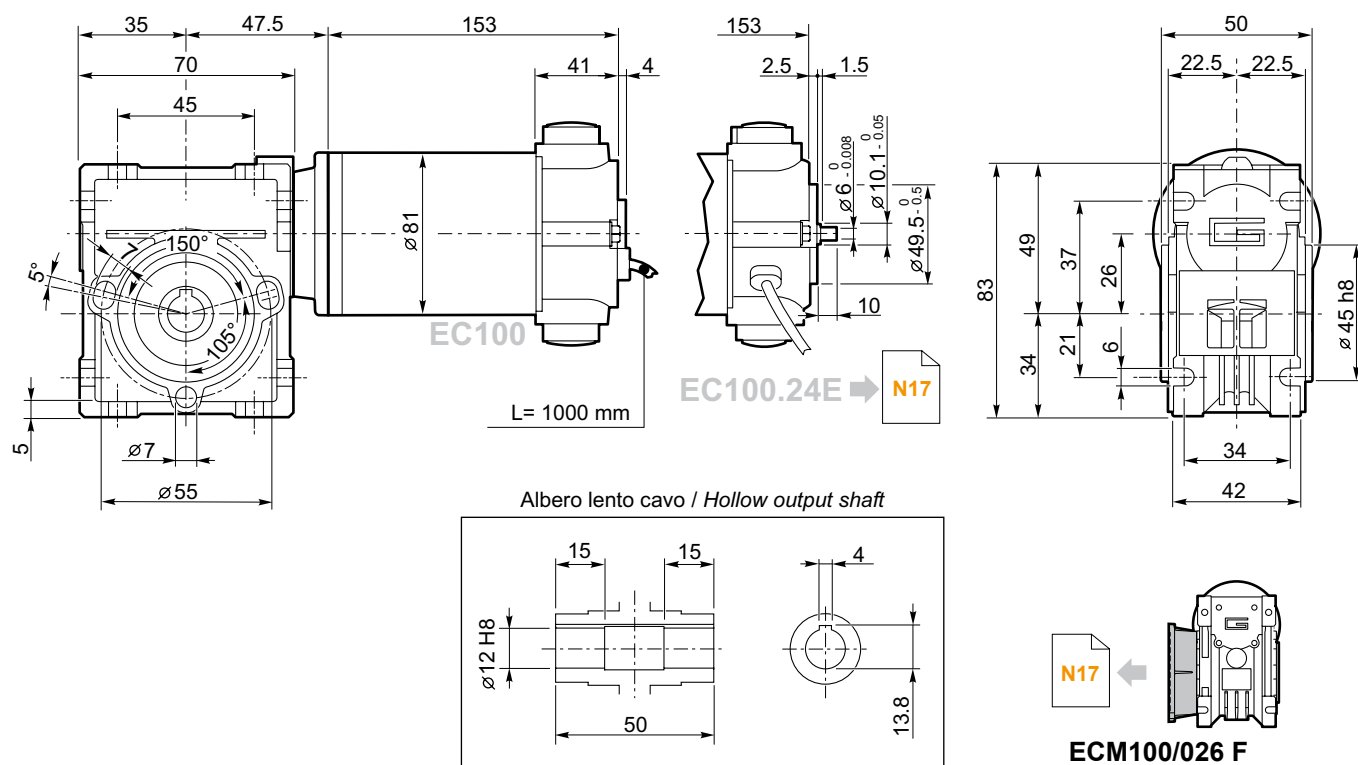
ECM070/030 U



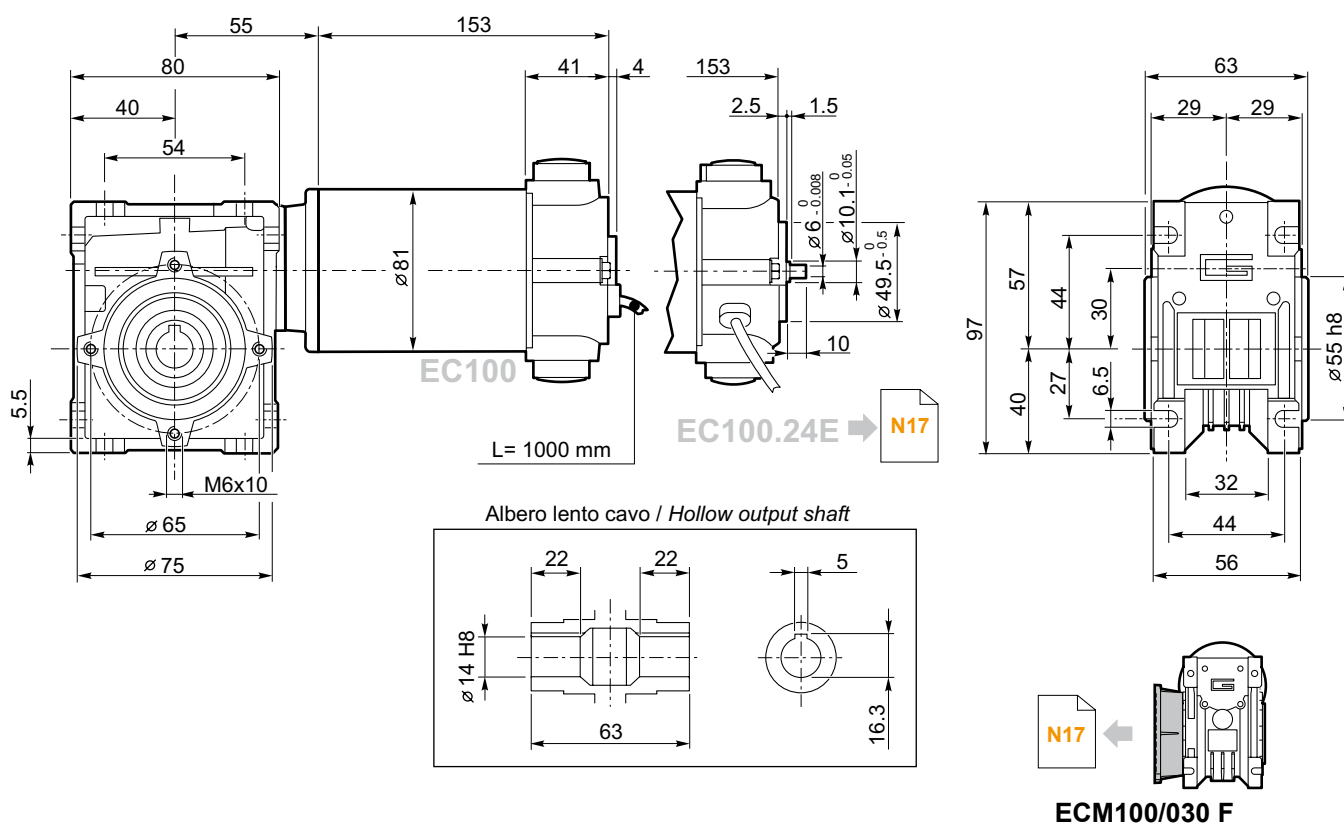


Dimensioni

ECM100/026 U

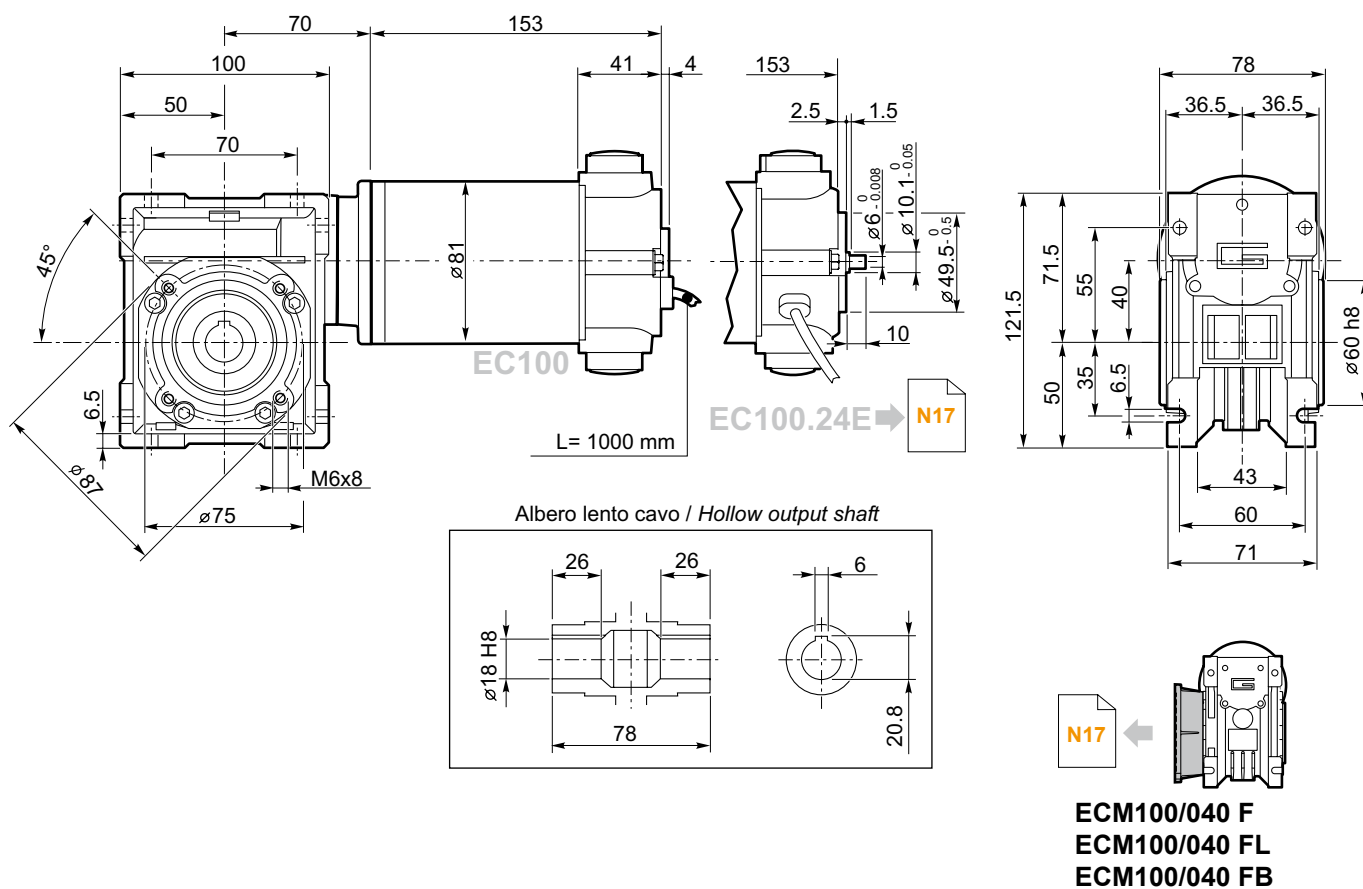


ECM100/030 U



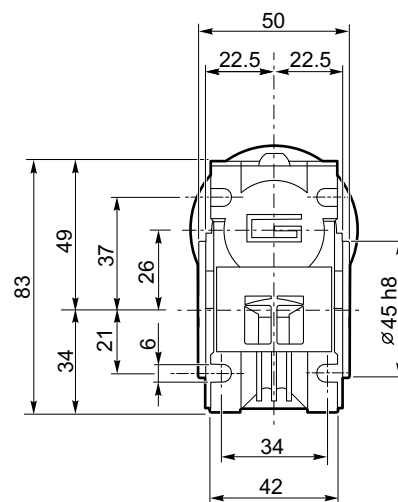
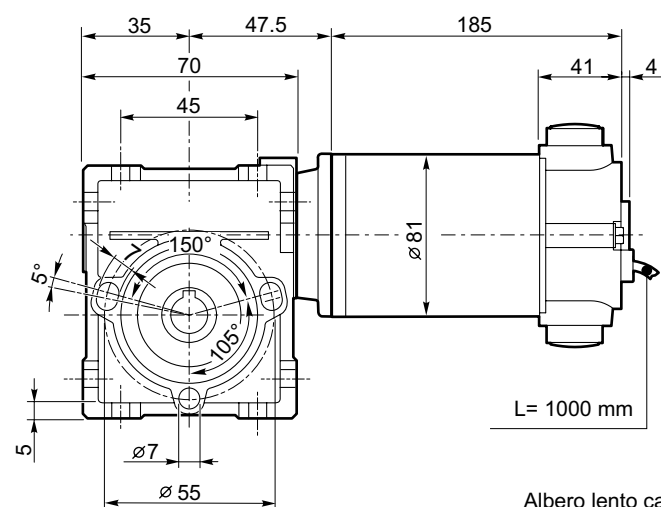
Dimensioni

ECM100/040 U

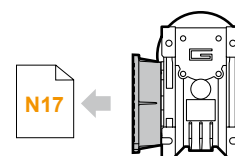
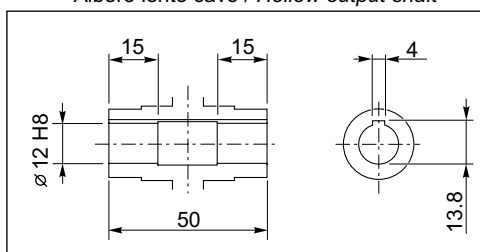


Dimensioni

ECM180/026 U

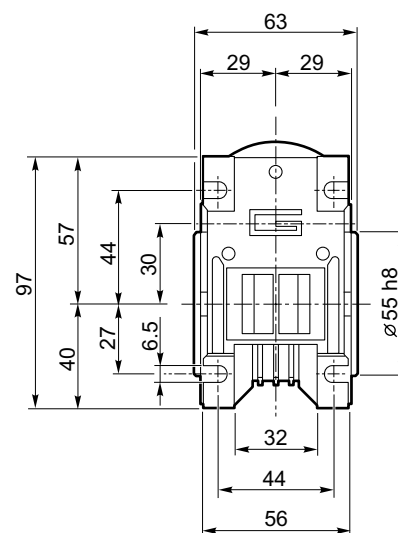
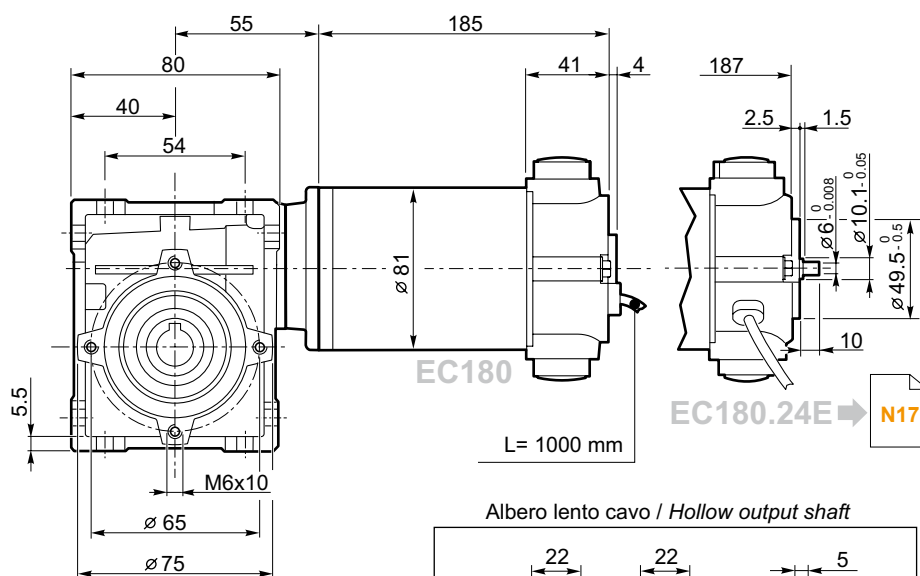


Albero lento cavo / Hollow output shaft

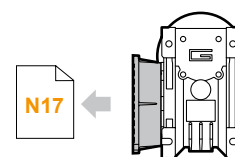
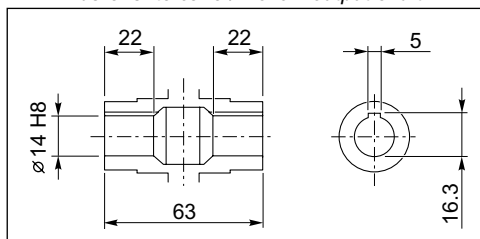


ECM180/026 F

ECM180/030 U



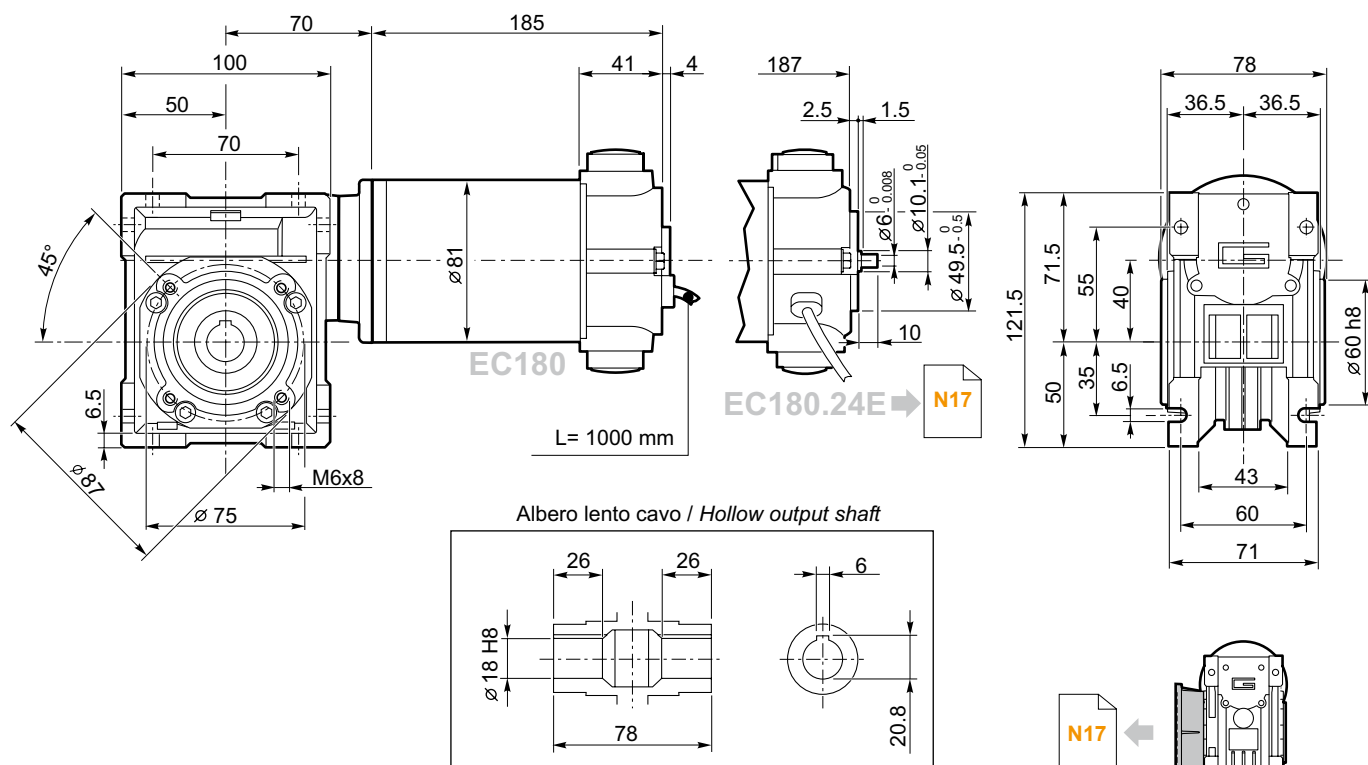
Albero lento cavo / Hollow output shaft



ECM180/030 F

Dimensioni

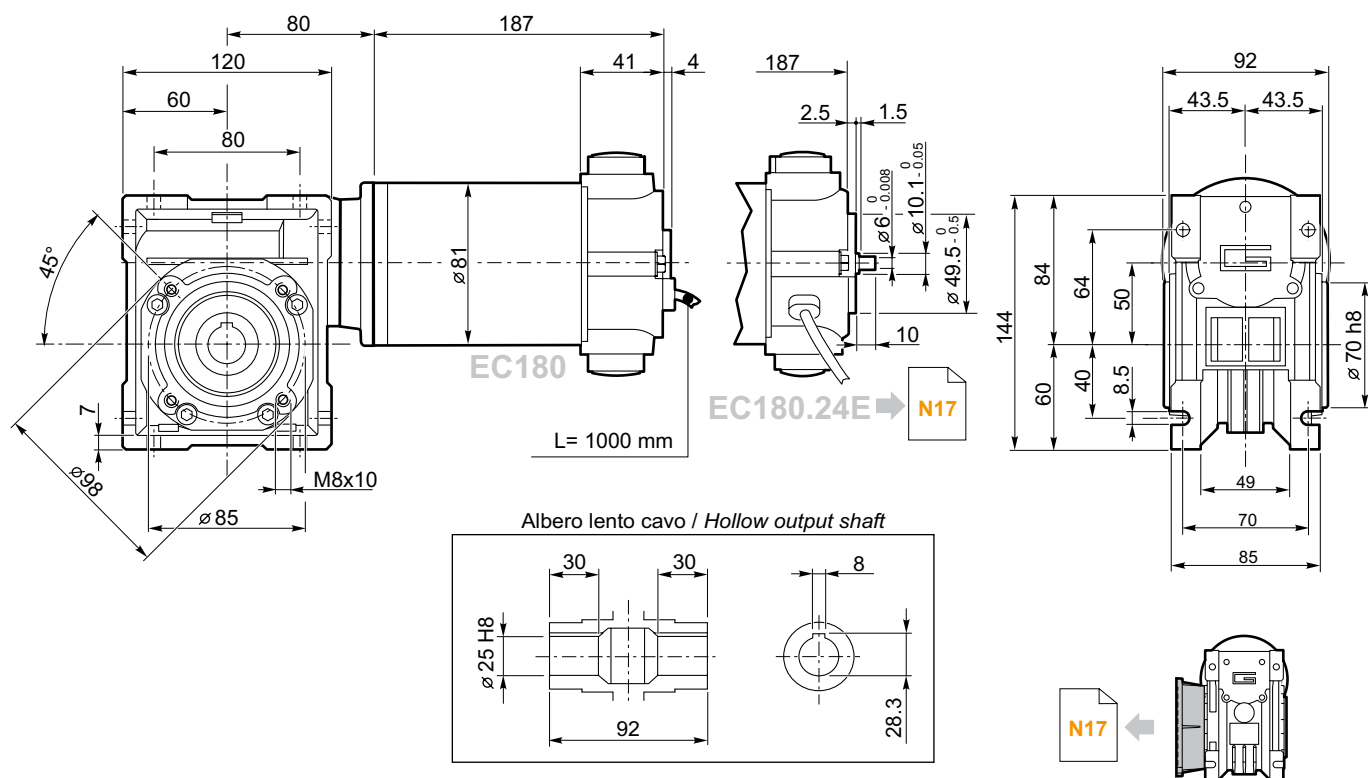
ECM180/040 U



Albero lento cavo / Hollow output shaft

ECM180/040 F  
ECM180/040 FL  
ECM180/040 FB

ECM180/050 U

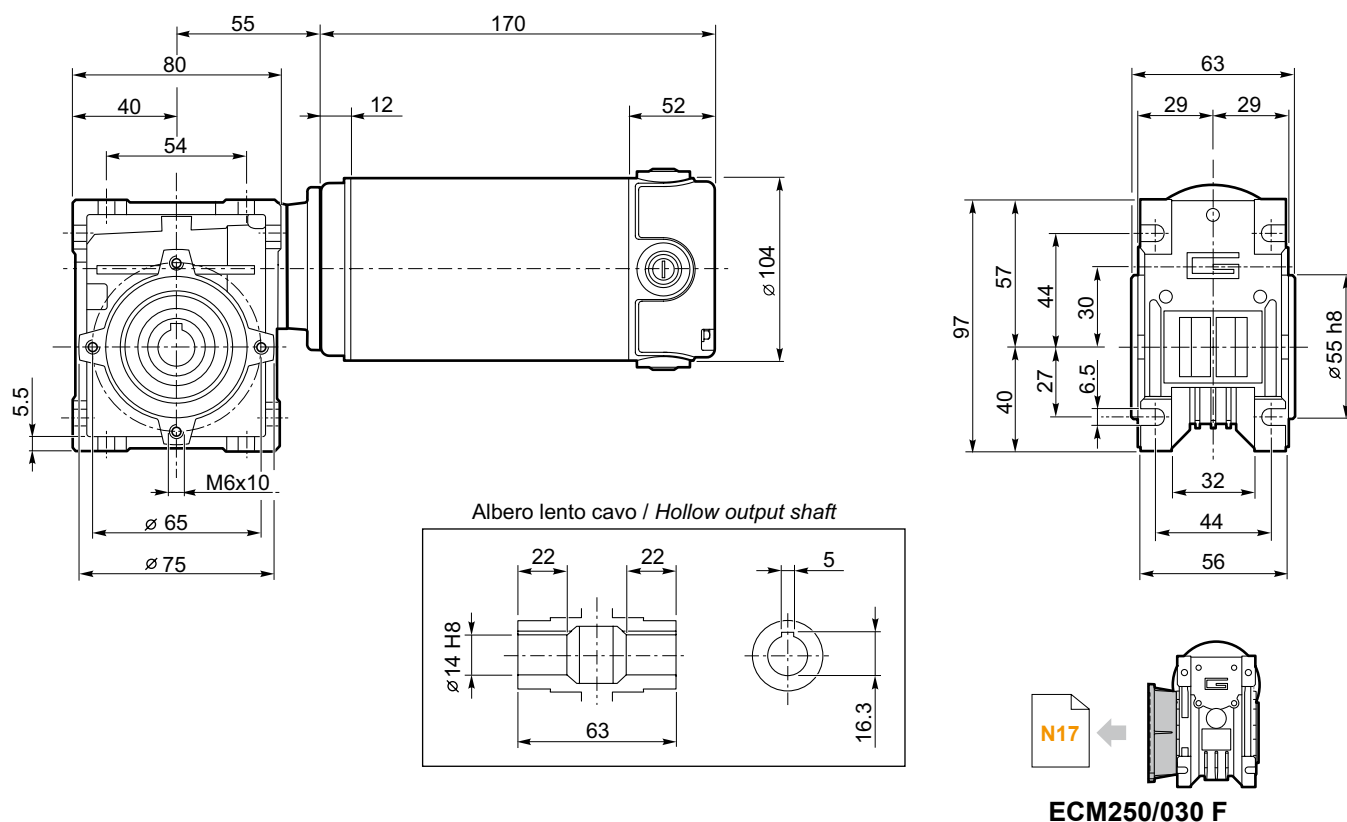


Albero lento cavo / Hollow output shaft

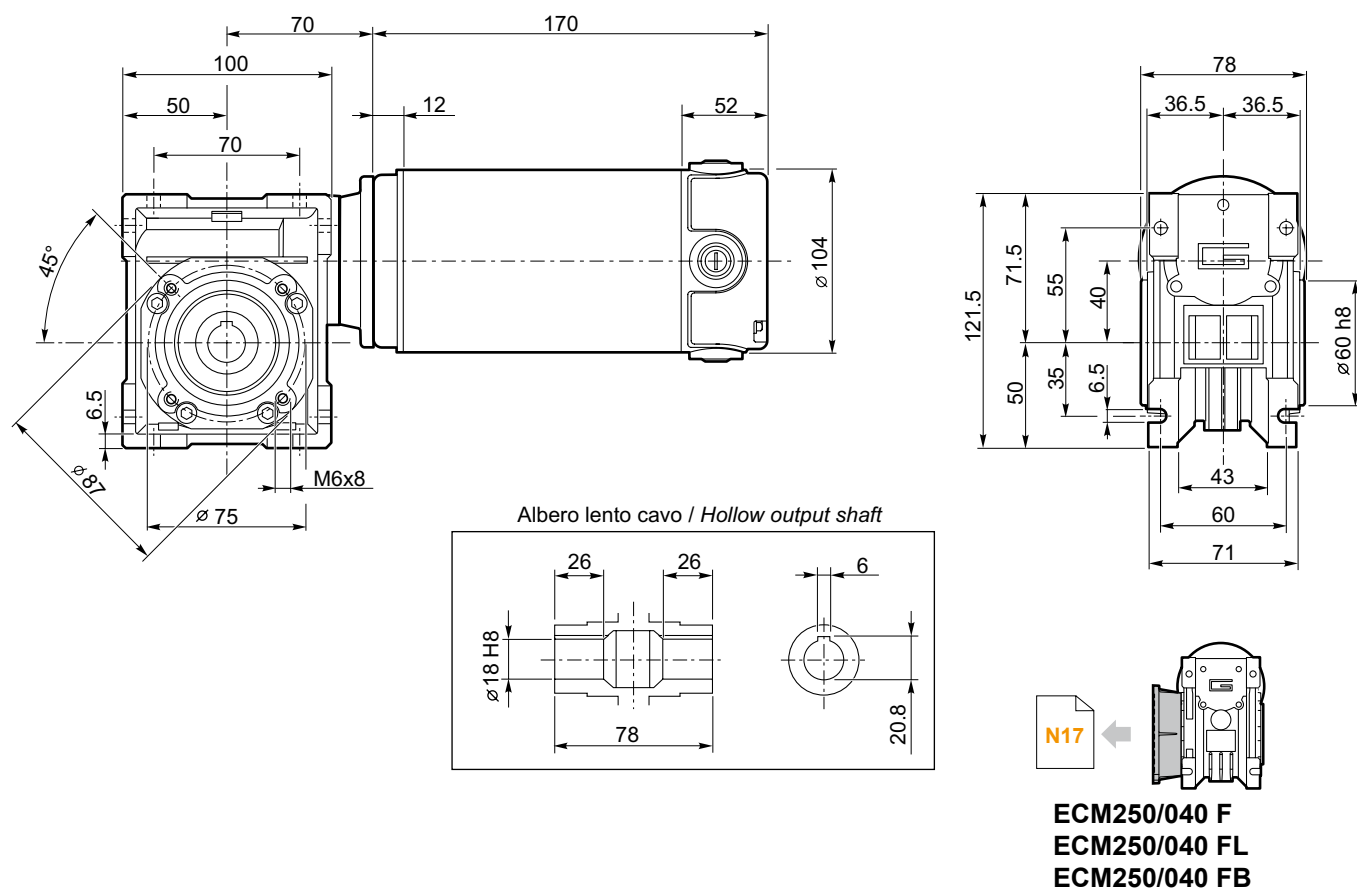
ECM180/050 F  
ECM180/050 FL  
ECM180/050 FB

Dimensioni

ECM250/030 U

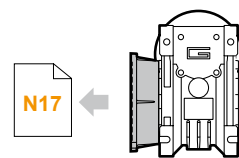
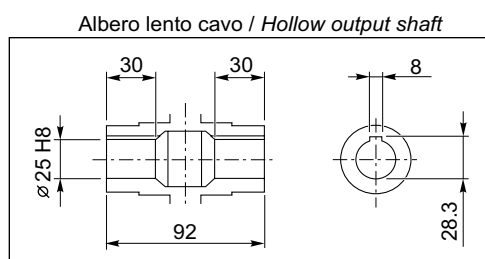
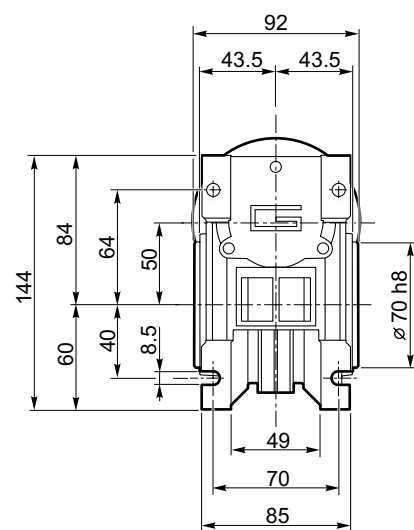
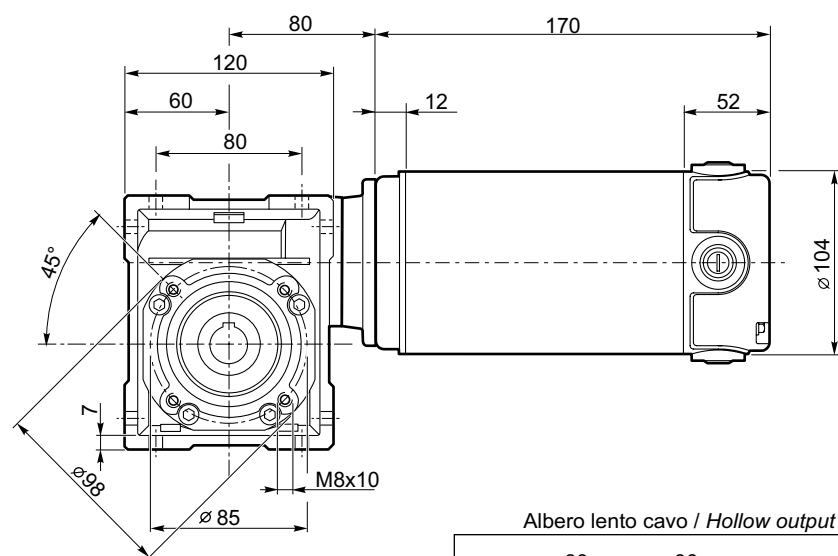


ECM250/040 U



Dimensioni

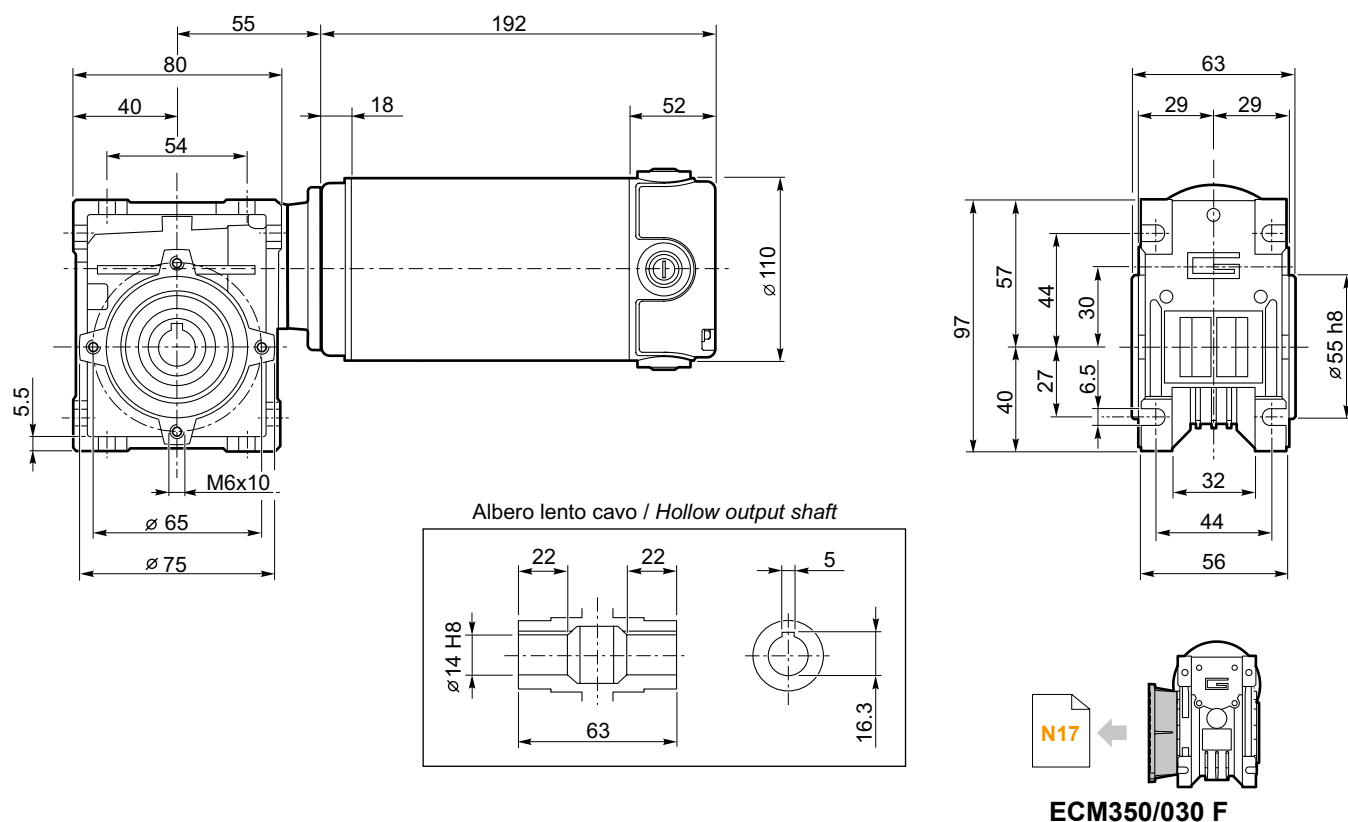
ECM250/050 U



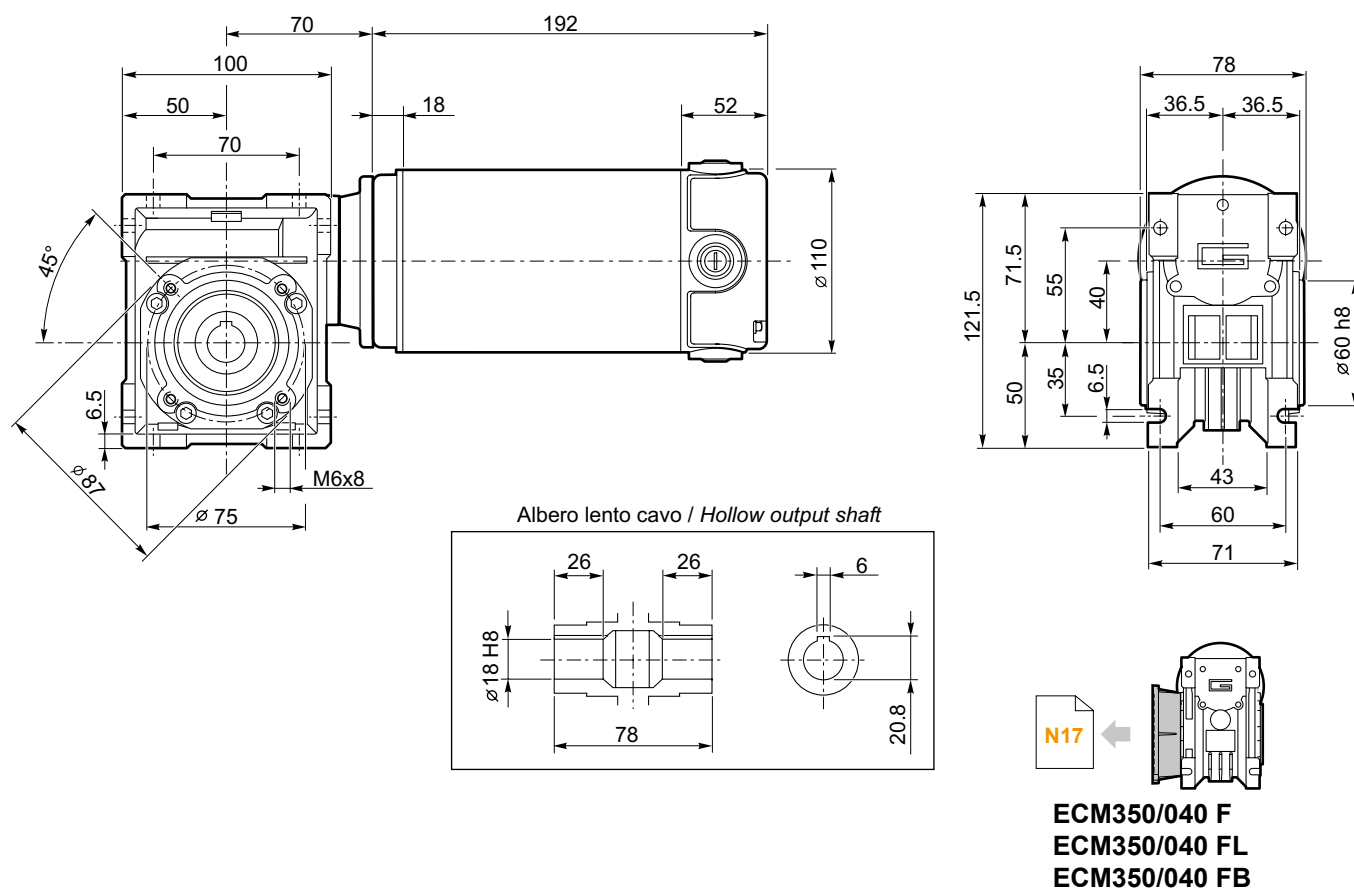
ECM250/050 F  
 ECM250/050 FL  
 ECM250/050 FB

Dimensioni

ECM350/030 U

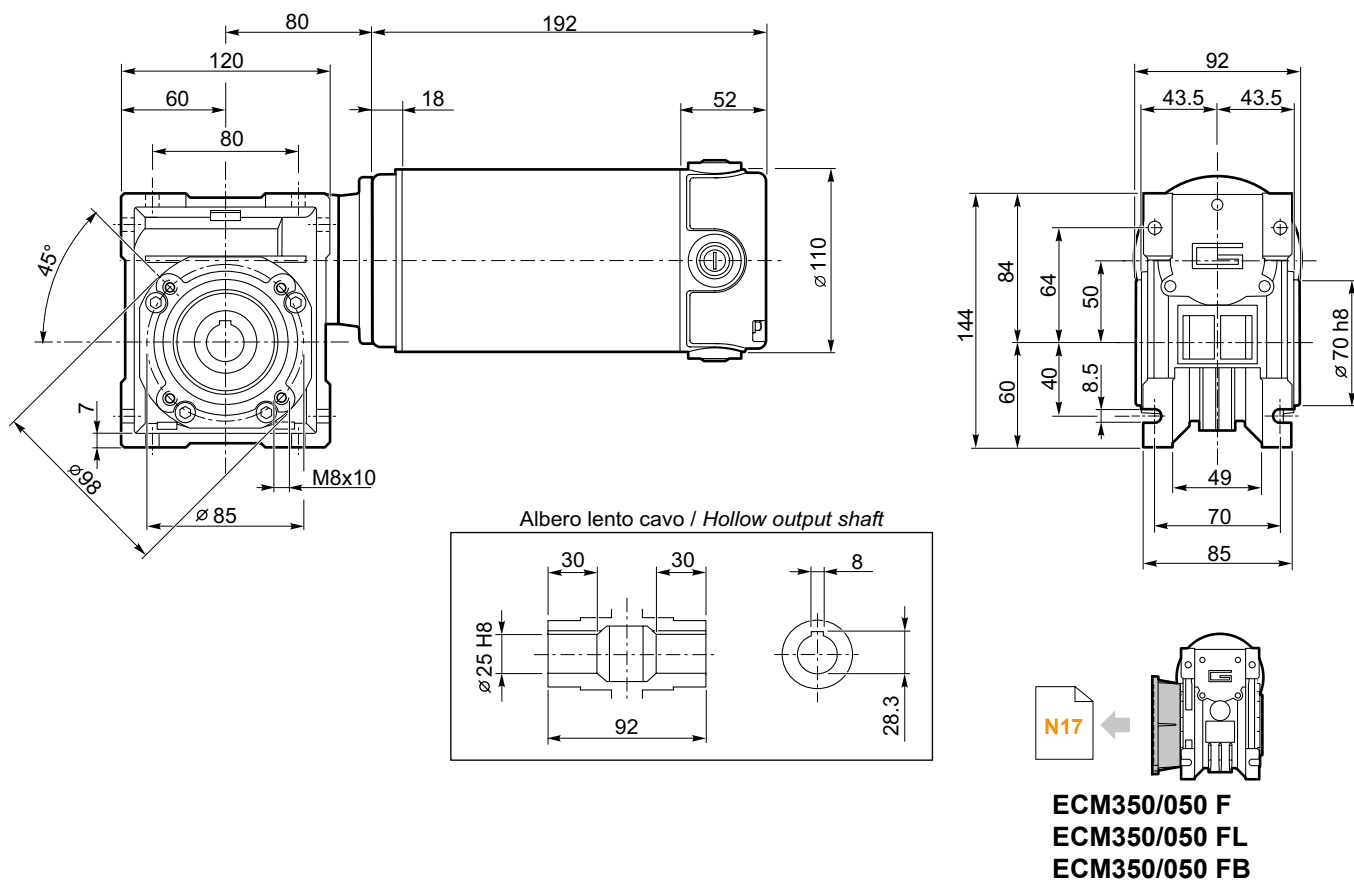


ECM350/040 U

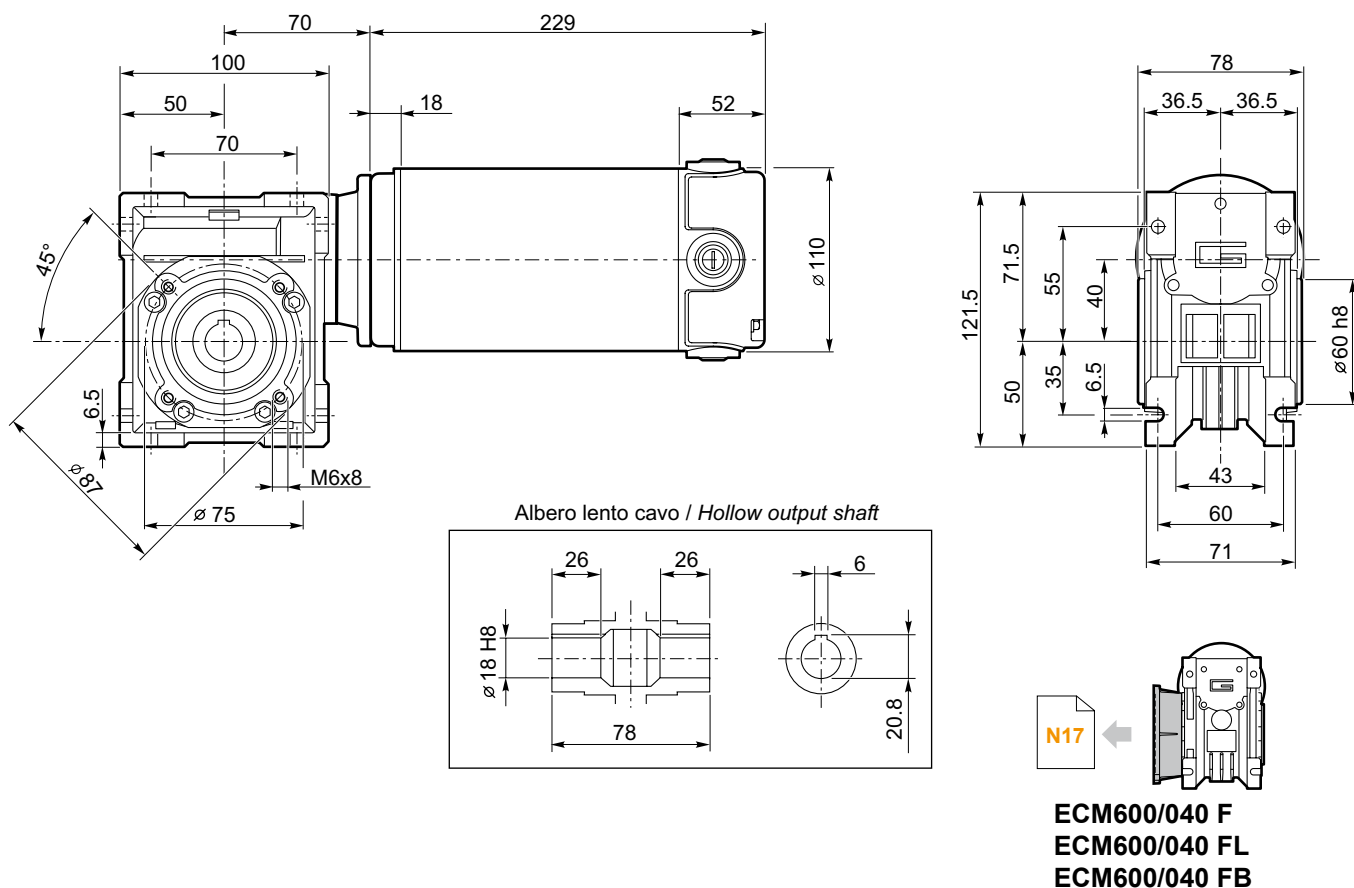


Dimensioni

ECM350/050 U



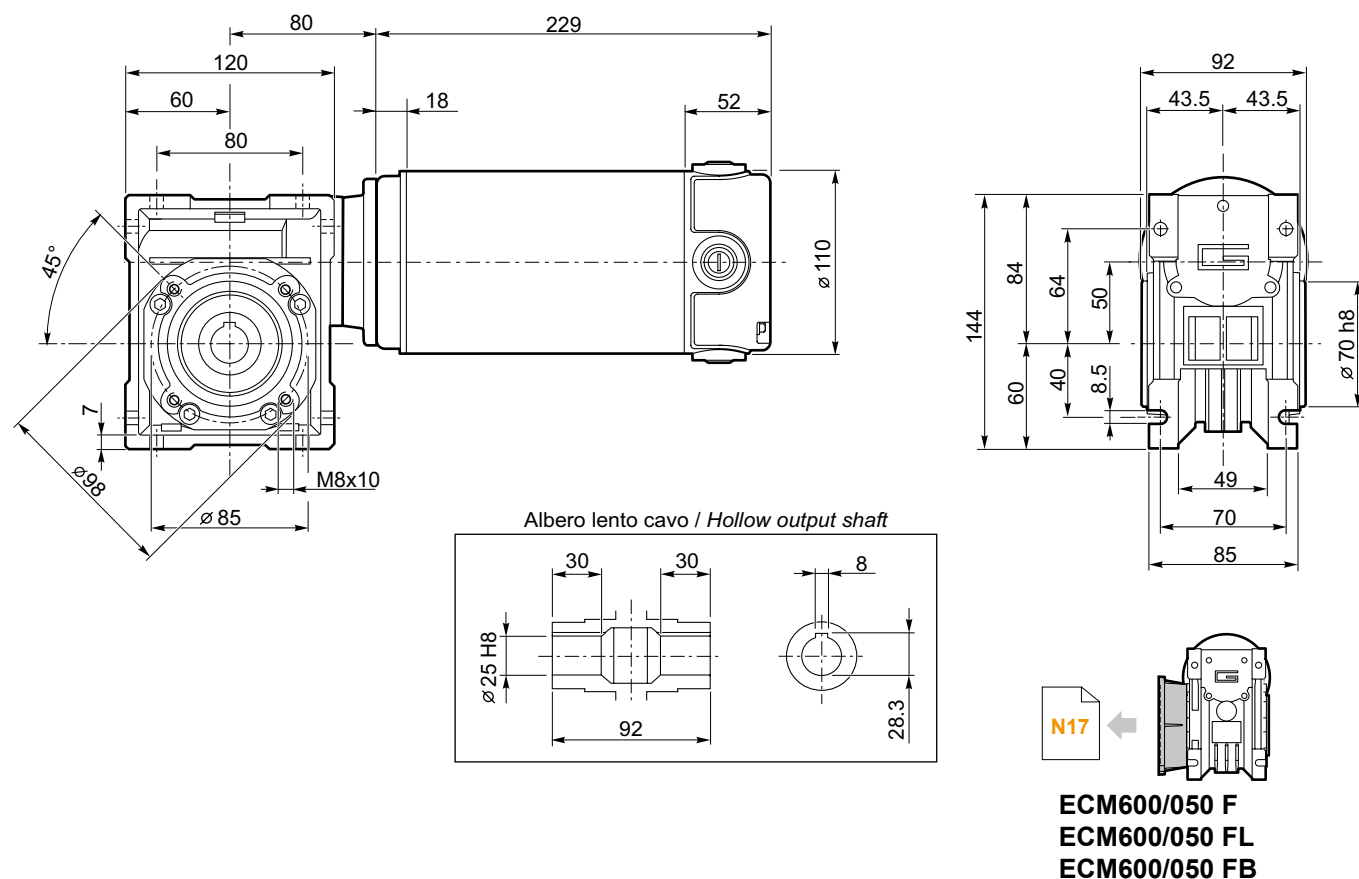
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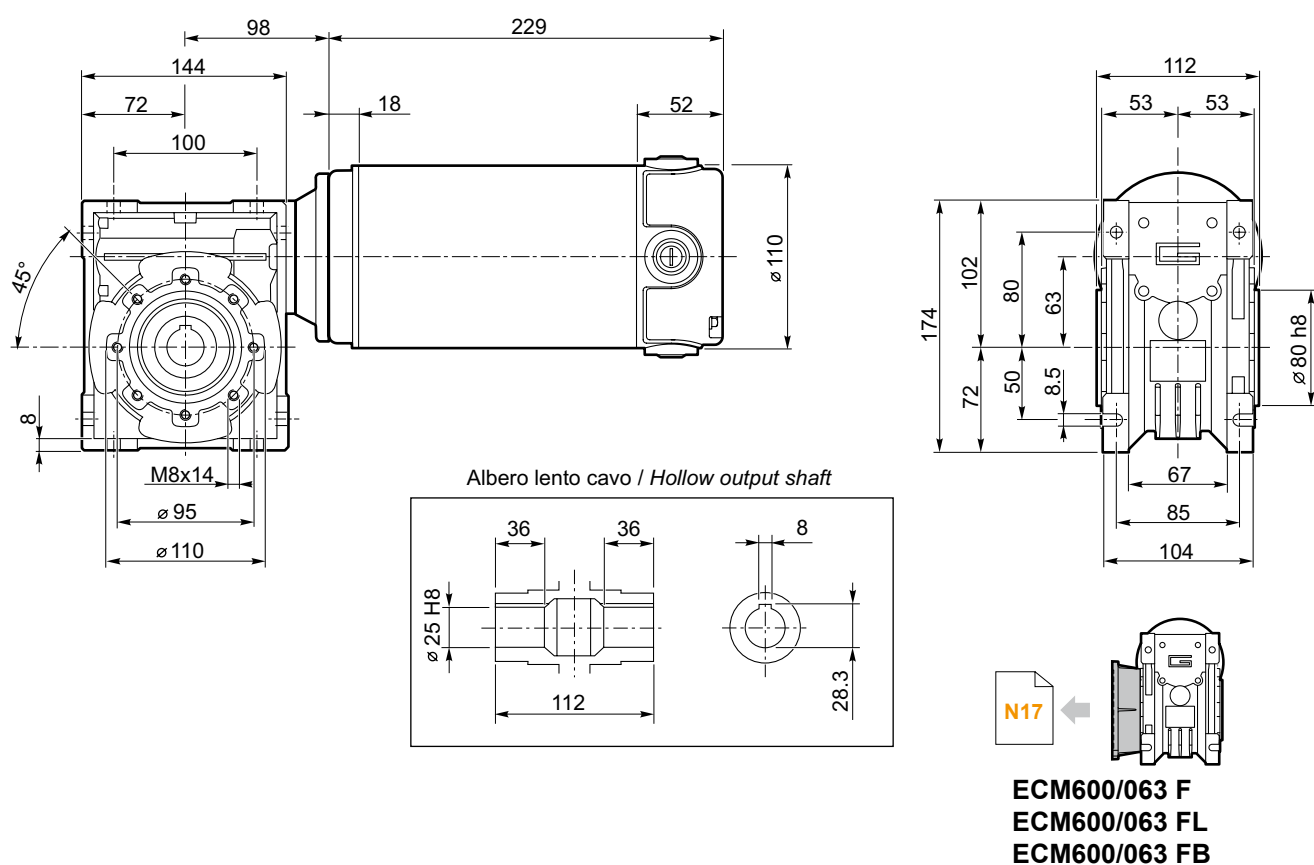


Dimensioni

**ECM600/050 U**

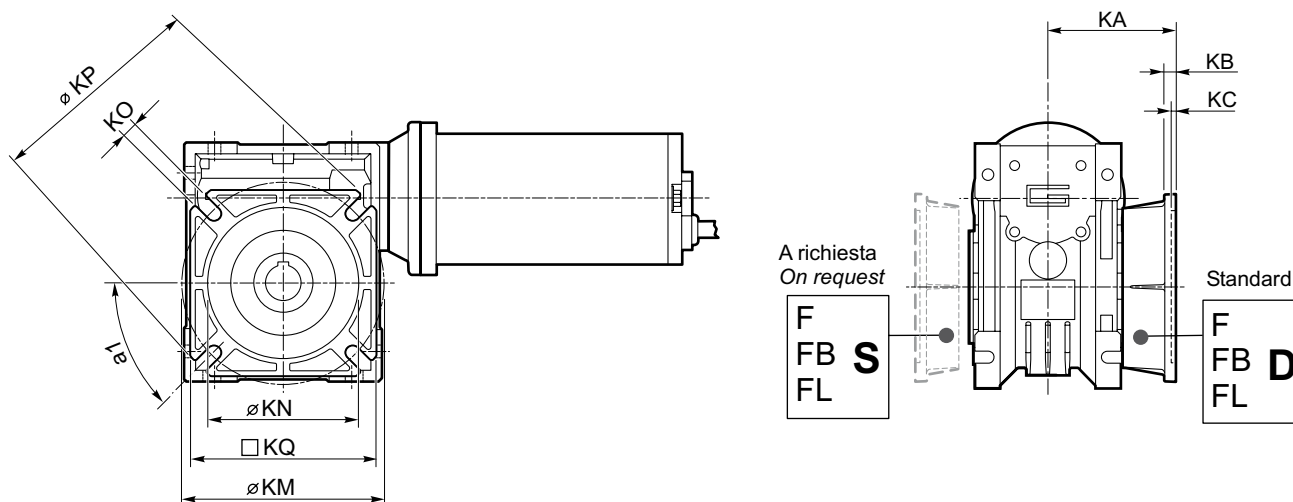


**ECM600/063 U**

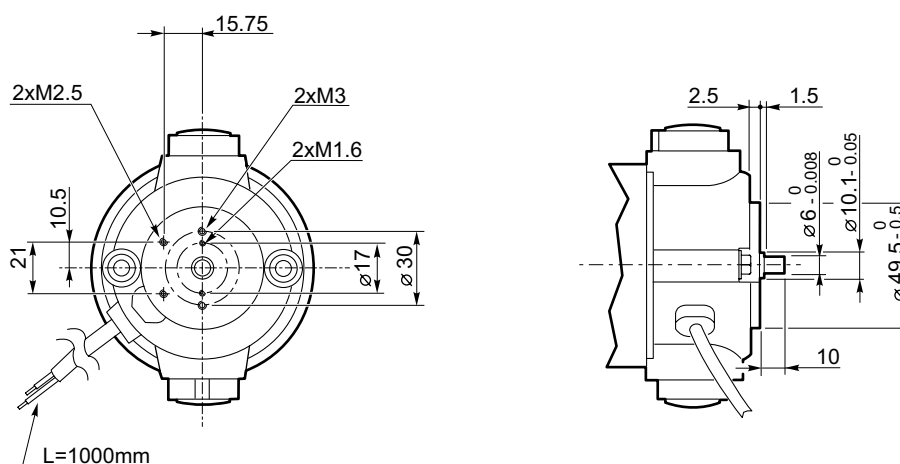


## Dimensioni

## ECM.../... F... Flange uscita / Output flanges



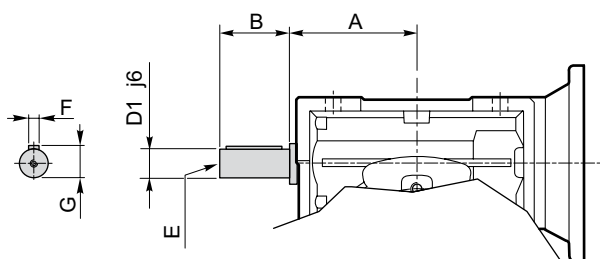
| CM  | CM..F |      |     |     |         |                  |          |     |     | CM..FB |     |    |         |                  |          | CM..FL |     |     |     |     |         |                  |         |     |     |
|-----|-------|------|-----|-----|---------|------------------|----------|-----|-----|--------|-----|----|---------|------------------|----------|--------|-----|-----|-----|-----|---------|------------------|---------|-----|-----|
|     | a1    | KA   | KB  | KC  | KM      | KN <sub>H8</sub> | KO       | KP  | KQ  | KA     | KB  | KC | KM      | KN <sub>H8</sub> | KO       | KP     | KQ  | KA  | KB  | KC  | KM      | KN <sub>H8</sub> | KO      | KP  | KQ  |
| 026 | 45°   | 45   | 6   | 4.5 | 55-69   | 40               | 6.5(n.4) | 75  | 70  | —      | —   | —  | —       | —                | —        | —      | —   | —   | —   | —   | —       | —                | —       | —   | —   |
| 030 | 45°   | 54.5 | 6   | 4   | 68      | 50               | 6.5(n.4) | 80  | 70  | —      | —   | —  | —       | —                | —        | —      | —   | —   | —   | —   | —       | —                | —       | —   | —   |
| 040 | 45°   | 67   | 7.5 | 4   | 80-95   | 60               | 9(n.4)   | 110 | 95  | 80     | 8.5 | 5  | 115-125 | 95               | 9.5(n.4) | 140    | 112 | 97  | 7.5 | 4.5 | 80-95   | 60               | 9(n.4)  | 110 | 95  |
| 050 | 45°   | 90   | 9   | 5   | 90-110  | 70               | 11(n.4)  | 125 | 110 | 89     | 9   | 5  | 130-145 | 110              | 9.5(n.4) | 160    | 132 | 120 | 9   | 5   | 90-110  | 70               | 11(n.4) | 125 | 110 |
| 063 | 45°   | 82   | 10  | 6   | 150-160 | 115              | 11(n.4)  | 180 | 142 | 98     | 10  | 5  | 165-180 | 130              | 11(n.4)  | 200    | 160 | 112 | 10  | 6   | 150-160 | 115              | 11(n.4) | 180 | 142 |

 EC100.24E  
 EC180.24E


Opzioni

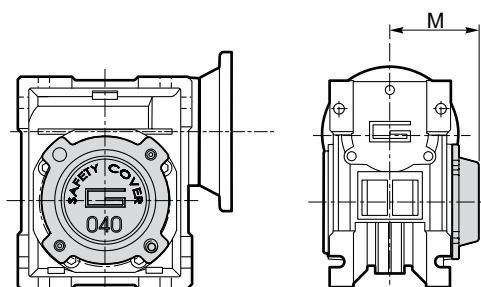
Options

**VS - Vite sporgente / Extended input shaft**



|        | A  | B  | D <sub>1</sub><br>j6 | E  | F | G    |
|--------|----|----|----------------------|----|---|------|
| CM 030 | 45 | 20 | 9                    | M4 | 3 | 10.2 |
| CM 040 | 53 | 23 | 11                   | M5 | 4 | 12.5 |
| CM 050 | 64 | 30 | 14                   | M6 | 5 | 16   |
| CM 063 | 75 | 40 | 19                   | M6 | 6 | 21.5 |

**SC - Safety cover**



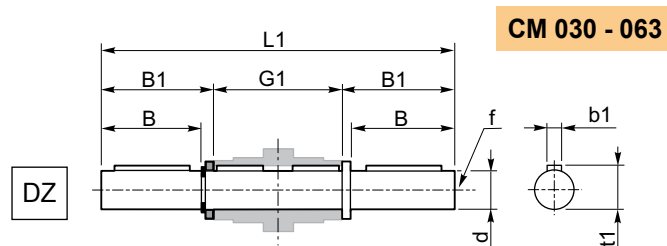
|        | M    |
|--------|------|
| CM 030 | 47   |
| CM 040 | 54.5 |
| CM 050 | 62.5 |
| CM 063 | 73   |

Accessori

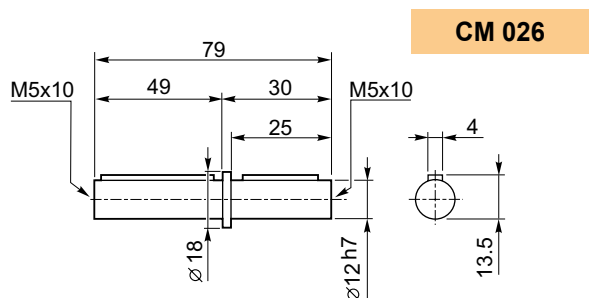
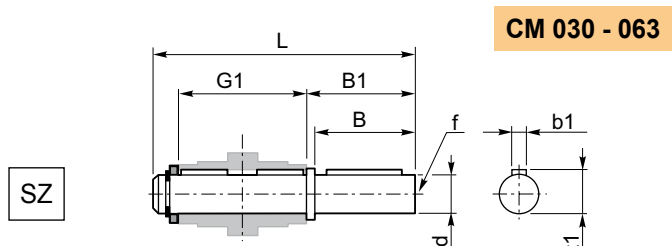
Accessories

Albero lento

Output shaft



|        | d<br>h7 | B  | B1   | G1  | L   | L1  | f   | b1 | t1   |
|--------|---------|----|------|-----|-----|-----|-----|----|------|
| CM 030 | 14      | 30 | 32.5 | 63  | 102 | 128 | M6  | 5  | 16   |
| CM 040 | 18      | 40 | 43   | 78  | 128 | 164 | M6  | 6  | 20.5 |
| CM 050 | 25      | 50 | 53.5 | 92  | 153 | 199 | M10 | 8  | 28   |
| CM 063 | 25      | 50 | 53.5 | 112 | 173 | 219 | M10 | 8  | 28   |



Braccio di reazione

Torque arm

|        | K1  | G  | KG   | KH | R  |
|--------|-----|----|------|----|----|
| CM 030 | 85  | 14 | 23   | 8  | 15 |
| CM 040 | 100 | 14 | 31   | 10 | 18 |
| CM 050 | 100 | 14 | 38   | 10 | 18 |
| CM 063 | 150 | 14 | 47.5 | 10 | 18 |

