

# RE.0444L - Light

Direct Current Tachometer generator

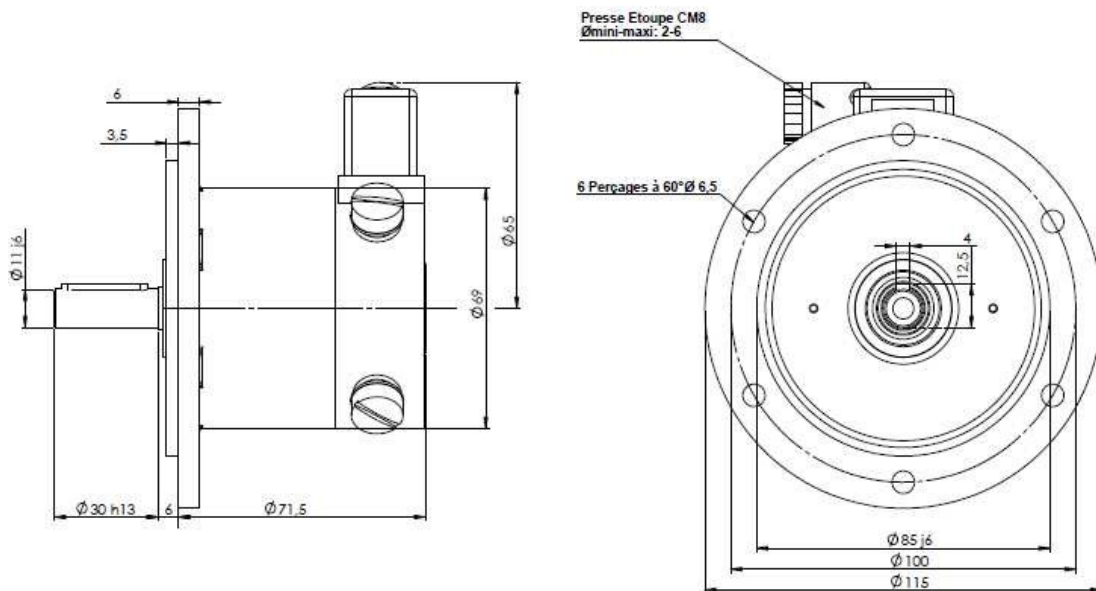


Applications : Industry  
Speed control & regulation

Features : Compact design  
Good quality signal  
DIN connector



## MOUNTING FORM



## MAIN CHARACTERISTICS

| DESCRIPTION                        | SYMB  | VALUE                   | CONSTRUCTION DETAILS     |  |
|------------------------------------|-------|-------------------------|--------------------------|--|
| Max. speed                         | $n_m$ | 8 000 rpm               | Number of poles          | 4                                      |
| Moment of inertia                  | J     | 0,62 Kg cm <sup>2</sup> | Armature slots number    | 33                                     |
| No-load driving torque             | $M_r$ | 0,4 N.cm                | Commutator blades number | 33                                     |
| Max. radial shaft stress           |       |                         | Insulation class         | B (IEC 34-1)                           |
| 7x30 mm                            | F     | 0,4 da N                | Operating temperature    | -20 +80 °C                             |
| 11x30 mm                           | F     | 1,0 da N                | Climatic protection      | C <sub>a</sub> (IEC 68-1)              |
| Maximum E.M.F.                     | $E_m$ | 300 V                   | Ingress protection       | IP44 (IEC 34-5)                        |
| Maximum linearity error            | E     | $\leq 0,15 \% E_T$      | Direction of rotation    | reversible                             |
| Overall ripple rate (peak to peak) | $E_c$ | $\leq 1 \% E_c$         | Excitation               | Permanent magnets -<br>Samarium cobalt |
| Rotation harmonics (f=2 p.n)       | $E_p$ | $\leq 0,3 \% E_c$       |                          |  |
| Slots harmonics (f=Z.n.)           | $E_z$ | $\leq 0,7 \% E_c$       |                          |  |
| Calibration precision              | $E_o$ | $\pm 1,5 \% E_{T0}$     |                          |  |
| E.M.F. temperature drift           | $E_c$ | 0,03 %/°C               |                          |  |
| Time constant                      | $C_t$ | 0,2 ms                  |                          |  |
| Filter :                           |       |                         |                          |  |
| Time constant of filter            |       | 1 ms                    |                          |  |
| Load current                       | $L_c$ | 3 mA                    |                          |  |
| Speed                              | n     | 3000 rpm                |                          |  |
|                                    |       |                         | Weight                   | 1 kg                                   |



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## MECHANICAL OPTIONS

|                | MOUNTING SIDE |        |                |
|----------------|---------------|--------|----------------|
|                | D (mm)        | L (mm) | Ball-bearing   |
| Standard shaft | 7             | 30     | 8 x 22 x 7 ZZ  |
|                | 11            | 30     | 12 x 28 x 8 ZZ |
| Special shaft  | 14 max        | 30     | 15 x 32 x 9 ZZ |



Markings and polarity of terminals (cables) for counter-clockwise rotation, seen from the shaft

A1 : +  
A2 : -

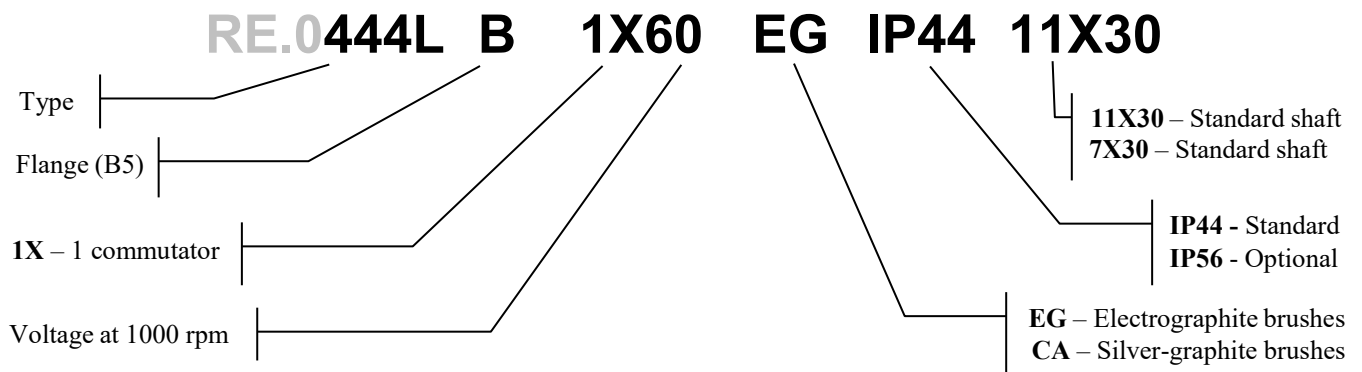
## ELECTRICAL OPTIONS

| DESCRIPTION         | SYMB     | UNIT  | VALUES     |      |
|---------------------|----------|-------|------------|------|
| E.M.F at 1 000 rpm  | $E_n$    | V     | <b>60</b>  |      |
| Voltage gradient    | $C_v$    | V/rpm | 0,06       |      |
| Armature resistance | $R_a$    |       | 160        |      |
| Max thermal load    | $I_{th}$ | A     | 0,1        |      |
| Max. Allowed speed  | $n_a$    | rpm   | EG brushes | 5000 |
|                     |          |       | CA brushes | 5000 |

## BRUSHES

| GRADE                | PART NO  | MAX OUTPUT VOLTAGE | DIMENSIONS     | QUANTITY |
|----------------------|----------|--------------------|----------------|----------|
| EG - Electrographite | /0011987 | < 300 V            | 6 x 4 x 9,9 mm | 4        |
| CA - Silver-graphite | /0003341 |                    |                |          |

## PRODUCT DESCRIPTION



When inquiring, please advise the serial number of the tachogenerator to be replaced.