

# RE.0588 US



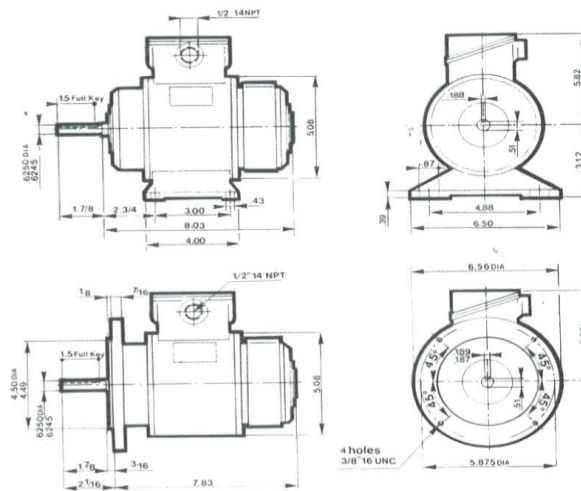
**Destination :** • Industrial applicatoins

**Description :**

- DC tachometer generator derived from our RE.0588
- Designed for the market of North America
- Only with one commutator
- UL listed

|               |           |             |
|---------------|-----------|-------------|
| <b>Weight</b> | <b>kg</b> | <b>17,4</b> |
|---------------|-----------|-------------|

## SCHEMAS



## GENERAL DATA

| DESIGNATION                       | SYMB         | VALUE                   | CONSTRUCTION DETAILS          |                           |
|-----------------------------------|--------------|-------------------------|-------------------------------|---------------------------|
| Max. speed (mechanical)           | $n_m$        | 8 000 rpm               | Number of poles               | 2                         |
| Moment of inertia                 | J            | 7.50 Kg cm <sup>2</sup> | Number of armature slots      | 29                        |
| No load driving torque            | Mr           | 4.50 N.cm               | Number of commutator blades   | 87                        |
| Max. radial shaft stress          | F            | 3.0 da N                | Insulation class              | B (IEC 34-1)              |
| Maximum E.M.F                     | $E_m$        | 600 V                   | Operating temperature         | -30 +130 °C               |
| Maximum linearity error           | $\Delta E$   | $\leq 0,15 \% E_T$      | Climatic protection           | C <sub>a</sub> (IEC 68-1) |
| Overall ripple rate               | $\Delta E_c$ | $\leq 0,4 \% E_c$       | Protection degree             | IP54 (IEC 34-5)           |
| Rotation harmonics (f=2 p.n)      | $\Delta E_p$ | $\leq 0,1 \% E_c$       | Direction of rotation         | reversible                |
| Slot harmonics (f=Z.n.)           | $\Delta E_z$ | $\leq 0,3 \% E_c$       | Excitation: permanent magnets | Alnico                    |
| Calibration precision             | $\Delta E_o$ | $\pm 1 \% E_{T_o}$      |                               |                           |
| E.M.F temp. drift                 |              |                         |                               |                           |
| • Not compensated                 | $\Delta E_e$ | -                       |                               |                           |
| • Compensated                     |              | 0,005 %/°C              |                               |                           |
| Time constant                     | $C_t$        | 7,5 ms                  |                               |                           |
| *Filter : Time constant of filter |              | 1 ms                    |                               |                           |
| Load current                      |              | 5 mA                    |                               |                           |
| Speed                             |              | 1 000 rpm               |                               |                           |

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## MECHANICAL OPTIONS

### SHAFT ENDS AND BEARINGS

|          | MOUNTING SIDE |        |                 | OPPOSITE MOUNTING SIDE |        |                 |
|----------|---------------|--------|-----------------|------------------------|--------|-----------------|
|          | D (in)        | L (in) | Bearings        | D (mm)                 | L (mm) | Bearings        |
| Standard | 625           | 1.87   | 17 x 35 x 10 ZZ | 625                    | -      | 17 x 35 x 10 ZZ |
| Max      |               |        |                 |                        |        |                 |

Brides spéciales et divers adaptateurs disponibles pour le montage d'appareils complémentaires.

### Options

- Different shaft ends

### Available options on 2<sup>nd</sup> SHAFT END

- No adaptation possible

### Marking and Polarity of terminals (cables) for counter-clockwise rotation viewing the mounting face

| 1 COMMUTATOR | 2 COMMUTATORS |
|--------------|---------------|
| A1 : +       |               |
| A2 : -       |               |

## ELECTRICAL OPTIONS

| DESCRIPTION         | SYMB            | UNIT | VALUE   |       |          |          |       |          |       |          |       |           |       |       |
|---------------------|-----------------|------|---------|-------|----------|----------|-------|----------|-------|----------|-------|-----------|-------|-------|
|                     |                 |      | Min.    |       |          |          |       |          |       |          |       |           |       | Max.  |
| E.M.F at 1000 rpm   | E <sub>n</sub>  | V    | 1 coll. | 30    | 60       | 100      | 110   | 120      | 150   | 200      | 300   | 600       | 700   | 1 000 |
|                     |                 |      | 2 coll. |       | 2 x 60   | 2 x 100  |       | 2 x 120  |       | 2 x 200  |       | 2 x 600   |       |       |
| Voltage gradient    | C <sub>v</sub>  | Rpm  | 1 coll. | 0,03  | 0,06     | 0,10     | 0,11  | 0,12     | 0,15  | 0,20     | 0,30  | 0,60      | 0,70  | 1,00  |
|                     |                 |      | 2 coll. |       | 2 x 0,06 | 2 x 0,10 |       | 2 x 0,12 |       | 2 x 0,20 |       | 2 x 0,60  |       |       |
| Armature resistance | R <sub>a</sub>  | Ω    | 1 coll. | 4     | 12       | 35       | 40    | 50       | 75    | 130      | 300   | 1 300     | 1 900 | 2 600 |
|                     |                 |      | 2 coll. |       | 2 x 25   | 2 x 80   |       | 2 x 100  |       | 2 x 300  |       | 2 x 1700  |       |       |
| Max thermal load    | I <sub>th</sub> | A    | 1 coll. | 1.80  | 0,90     | 0,55     | 0,45  | 0,45     | 0,35  | 0,30     | 0,18  | 0,09      | 0,07  | 0,06  |
|                     |                 |      | 2 coll. |       | 2 x 0,45 | 2 x 0,5  |       | 2 x 0,25 |       | 2 x 0,10 |       | 2 x 0,045 |       |       |
| Max. allowed speed  | n <sub>a</sub>  | Rpm  | 1 coll. | 8 000 | 5 000    | 3 000    | 2 700 | 2 500    | 2 000 | 1 500    | 1 000 | 500       | 425   | 300   |
|                     |                 |      | 2 coll. |       | 5 000    | 3 000    |       | 2 500    |       | 1 500    |       | 500       |       |       |

## BRUSHES

| GRADE                | REF      | APPLICATION LIMITS                            | SIZES             | NUMBER |
|----------------------|----------|---|-------------------|--------|
| EG - Electrographite | 31-41-EG | Recommended for high speed and E.M.F. < 300 V | 3,1 x 4,1 x 10 mm | 4      |
| CA - Silver-graphite | 31-41-CA | Standard for normal use at E.M.F < 300V.      |                   |        |