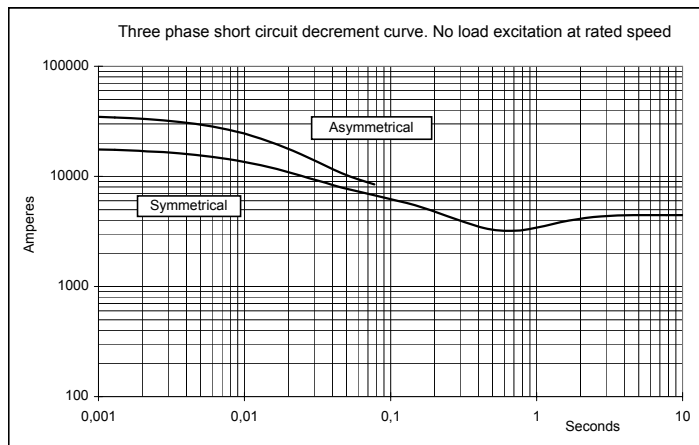
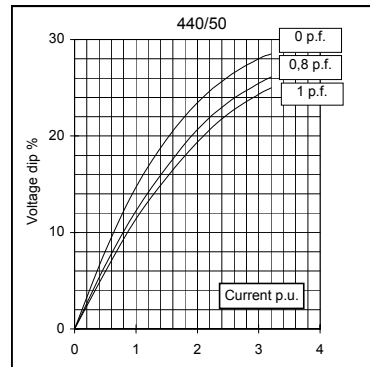
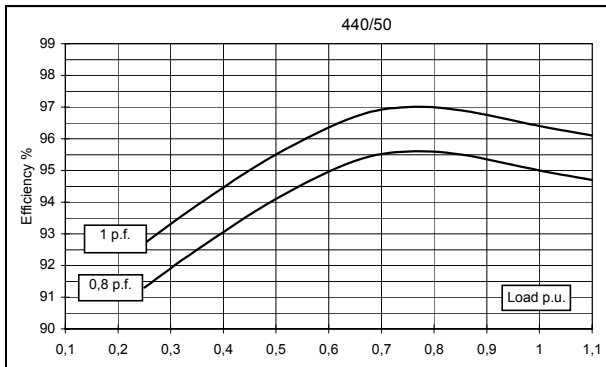
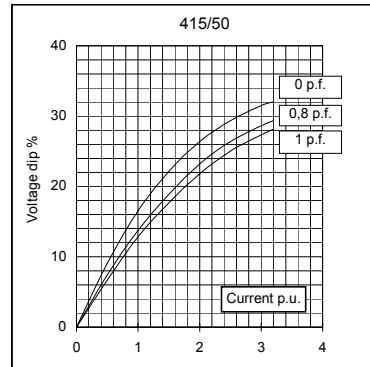
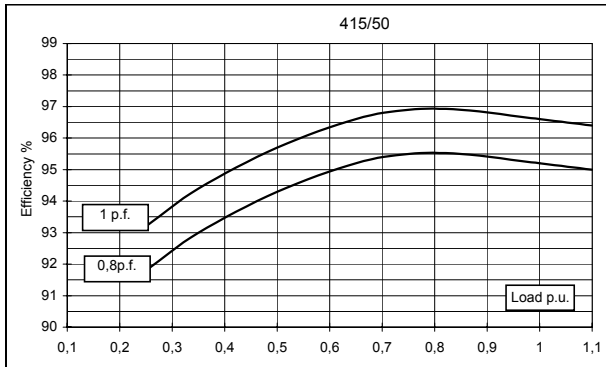
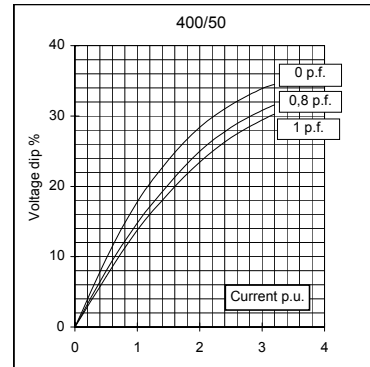
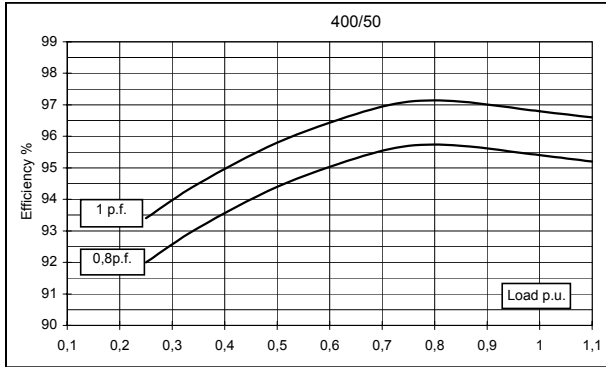
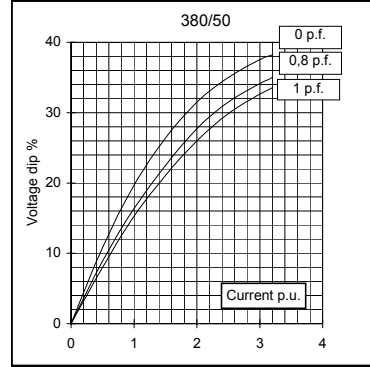
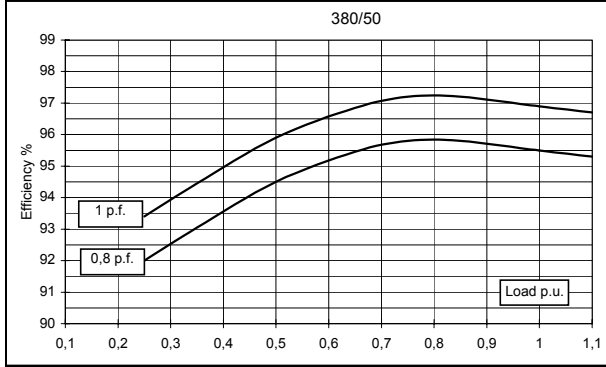


| <b>Electrical Characteristics</b>    |                     |   |   |       |       |       |                |       |       |       |
|--------------------------------------|---------------------|---|---|-------|-------|-------|----------------|-------|-------|-------|
| Frequency                            | Hz                  | 50  |   |       |       | 60    |                |       |       |       |
| Voltage (parallel star)              | V                   | 380   | 400   | 415   | 440   | 415   | 440            | 460   | 480   |       |
| Rated power class H                  | kVA                 | 930   | 930   | 930   | 840   | 1020  | 1060           | 1116  | 1116  |       |
|                                      | kW                  | 744   | 744   | 744   | 672   | 816   | 848            | 893   | 893   |       |
| Rated power class F                  | kVA                 | 850   | 850   | 850   | 770   | 935   | 969            | 1020  | 1020  |       |
|                                      | kW                  | 680   | 680   | 680   | 616,0 | 748   | 775            | 816   | 816   |       |
| Regulation with                      | DSR                 | ±1% with any power factor and speed variations between -5% +30% |   |       |       |       |                |       |       |       |
| Insulation class                     |                     | H   |   |       |       |       |                |       |       |       |
| Execution                            |                     | Brushless   |   |       |       |       |                |       |       |       |
| Stator winding                       |                     | 12 ends   |   |       |       |       |                |       |       |       |
| Rotor                                |                     | with damping cage   |   |       |       |       |                |       |       |       |
| Efficiencies class H                 | 4/4                 | %   | 95,5  | 95,4  | 95,2  | 95    | 95,2           | 95,7  | 95,9  | 95,8  |
| (see graph. for details)             | 3/4                 | %   | 95,8  | 95,7  | 95,5  | 95,6  | 95,4           | 95,6  | 96    | 95,8  |
|                                      | 2/4                 | %   | 94,5  | 94,4  | 94,3  | 94,1  | 94,5           | 94,6  | 94,8  | 94,7  |
|                                      | 1/4                 | %   | 92  | 92    | 91,8  | 91,3  | 93             | 93    | 93    | 93    |
| Reactances (f. l.cl. F)              | Xd                  | %   | 414,4   | 374   | 347,5 | 280,0 | 458,6          | 422,8 | 407,2 | 374   |
|                                      | Xd'                 | %   | 18,3  | 16,54 | 15,4  | 12,4  | 20,3           | 18,7  | 18,01 | 16,54 |
|                                      | Xd''                | %   | 8,7   | 7,81  | 7,3   | 5,8   | 9,6            | 8,8   | 8,5   | 7,81  |
|                                      | Xq                  | %   | 170,6   | 154   | 143,1 | 115,3 | 188,9          | 174,1 | 167,7 | 154   |
|                                      | Xq'                 | %   | 170,6   | 154   | 143,1 | 115,3 | 188,9          | 174,1 | 167,7 | 154   |
|                                      | Xq''                | %   | 21,5  | 19,38 | 18    | 14,5  | 23,8           | 21,9  | 21,1  | 19,38 |
|                                      | X <sub>2</sub>      | %   | 15,1  | 13,6  | 12,6  | 10,2  | 16,7           | 15,4  | 14,8  | 13,6  |
|                                      | X <sub>0</sub>      | %   | 4,1   | 3,7   | 3,4   | 2,8   | 4,5            | 4,2   | 4,03  | 3,7   |
| Short Circuit Ratio                  | Kcc                 |   | 0,28  | 0,33  | 0,38  | 0,48  | 0,19           | 0,23  | 0,28  | 0,33  |
| Time Constants                       | Td'                 | sec.  | 0,234   |       |       |       |                |       |       |       |
|                                      | Td''                | sec.  | 0,0169  |       |       |       |                |       |       |       |
|                                      | Tdo'                | sec.  | 8,30  |       |       |       |                |       |       |       |
|                                      | Tα                  | sec.  | 0,0223  |       |       |       |                |       |       |       |
| Short Circuit Current Capacity       |                     | %   | >300  |       |       |       | >350           |       |       |       |
| Excitation at no load                | Amp.                |   | 0,5   | 0,6   | 0,8   | 0,9   | 0,3            | 0,4   | 0,5   | 0,6   |
| Excitation at full load              | Amp.                |   | 2,5   | 2,8   | 3     | 3,2   | 2,3            | 2,4   | 2,5   | 2,8   |
| Overload (long-term)                 |                     | %   | 1 hour in a 6 hours period 110% rated load                      |       |       |       |                |       |       |       |
| Overload per 20 sec.                 |                     | %   | 300   |       |       |       |                |       |       |       |
| Stator Winding Resistance (20°C)     | Ω                   |   | 0,0086  |       |       |       |                |       |       |       |
| Rotor Winding Resistance (20°C)      | Ω                   |   | 2,300   |       |       |       |                |       |       |       |
| Exciter Resistance (20 °C)           | Ω                   |   | Rotor : 0,130   |       |       |       | Stator : 10,63 |       |       |       |
| Heat dissipation at f.l.cl.H         | W                   |   | 35058   | 35874 | 37513 | 35368 | 41143          | 38102 | 38170 | 39142 |
| Telephone Interference               |                     |   | THF < 2%  |       |       |       | TIF < 40       |       |       |       |
| Radio interference                   |                     |   | EN61000-6-3, EN61000-6-1. For others standards apply to factory |       |       |       |                |       |       |       |
| Waveform Distors.(THD) at f. load    | LL/LN %             |   | 2 / 2,3   |       |       |       |                |       |       |       |
| Waveform Distors.(THD) at no load    | LL/LN %             |   | 2,7 / 2,9   |       |       |       |                |       |       |       |
| <b>Mechanical characteristics</b>    |                     |   |   |       |       |       |                |       |       |       |
| Protection                           |                     |   | IP 21 (other protection on request)                             |       |       |       |                |       |       |       |
| DE bearing                           |                     |   | 6324  |       |       |       |                |       |       |       |
| NDE bearing                          |                     |   | 6322  |       |       |       |                |       |       |       |
| Weight of wound stator assembly      | kg                  |   | 731   |       |       |       |                |       |       |       |
| Weight of wound rotor assembly       | kg                  |   | 551   |       |       |       |                |       |       |       |
| Weight of complete generator         | kg                  |   | 2090  |       |       |       |                |       |       |       |
| Maximun overspeed                    | rpm                 |   | 2250  |       |       |       |                |       |       |       |
| Unbalanced magnetic pull at f.l.cl.F | kN/mm               |   | 5,7   |       |       |       |                |       |       |       |
| Cooling air requirement              | m <sup>3</sup> /min |   | 90  |       |       |       | 108            |       |       |       |
| Inertia Constant (H)                 | sec.                |   | 0,255   |       |       |       | 0,306          |       |       |       |
| Noise level at 1m/7m                 | dB(A)               |   | 95 / 84   |       |       |       | 99 / 89        |       |       |       |

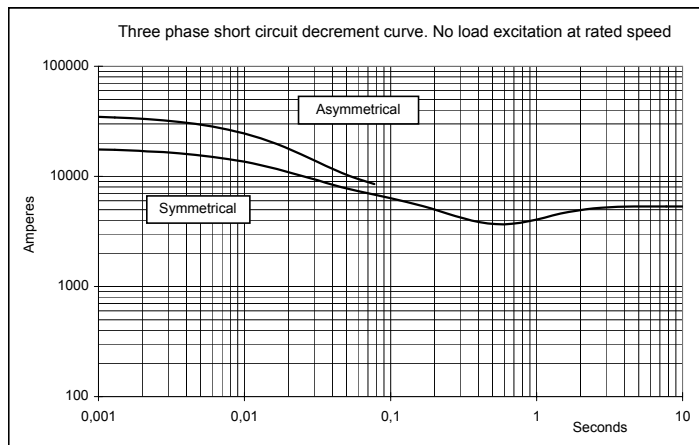
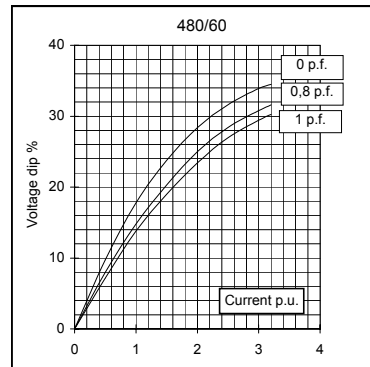
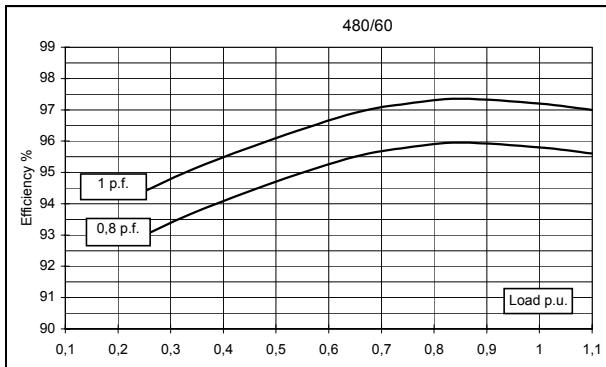
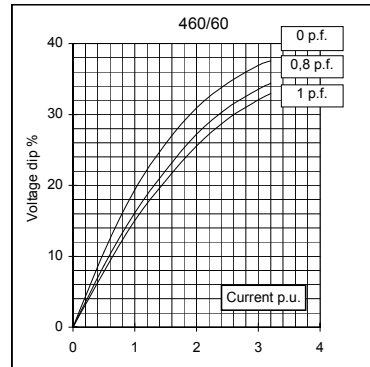
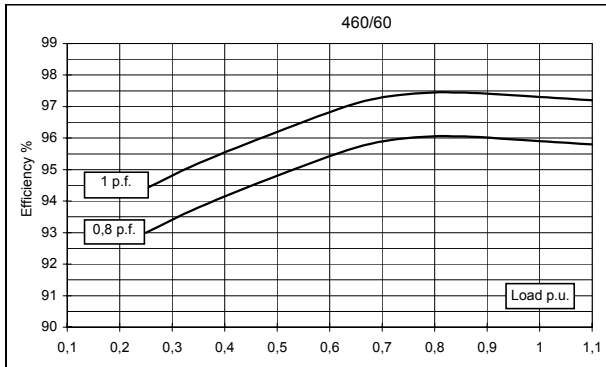
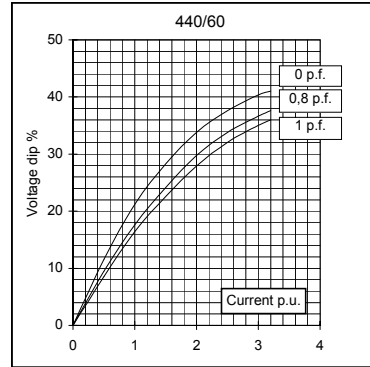
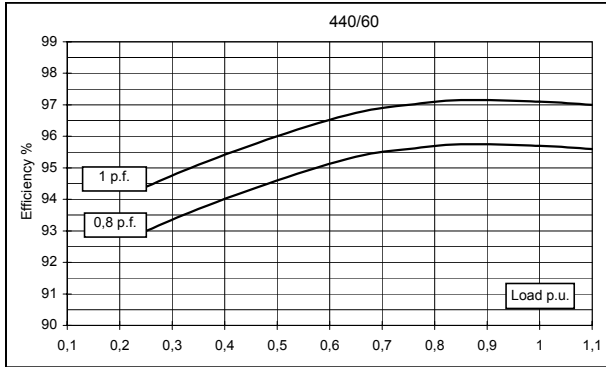
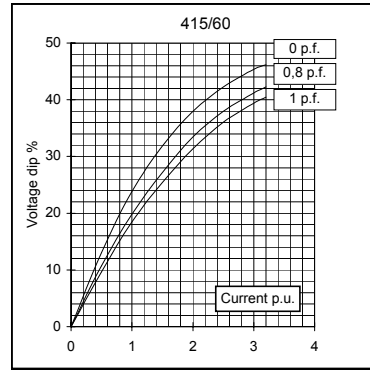
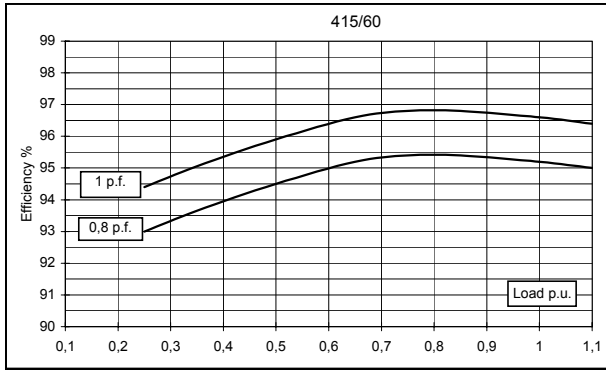
All technical data are to be considered as a reference and they can be modified without any notice.

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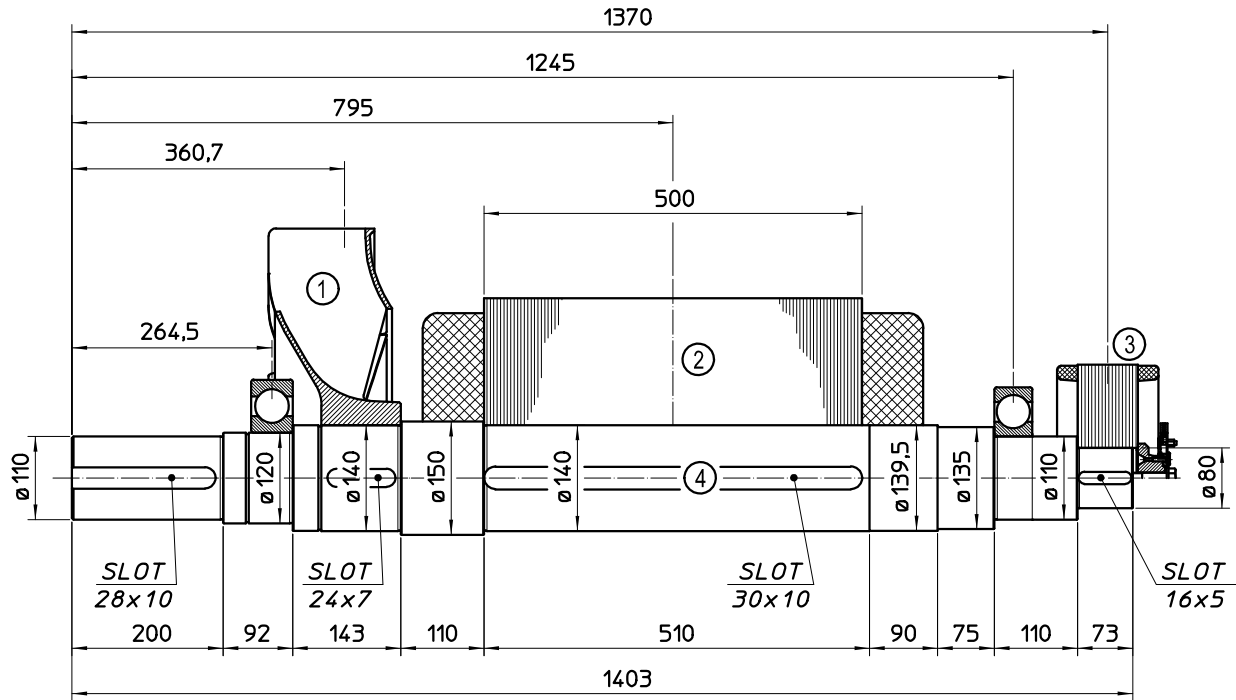
**50 Hz**



**60 Hz**

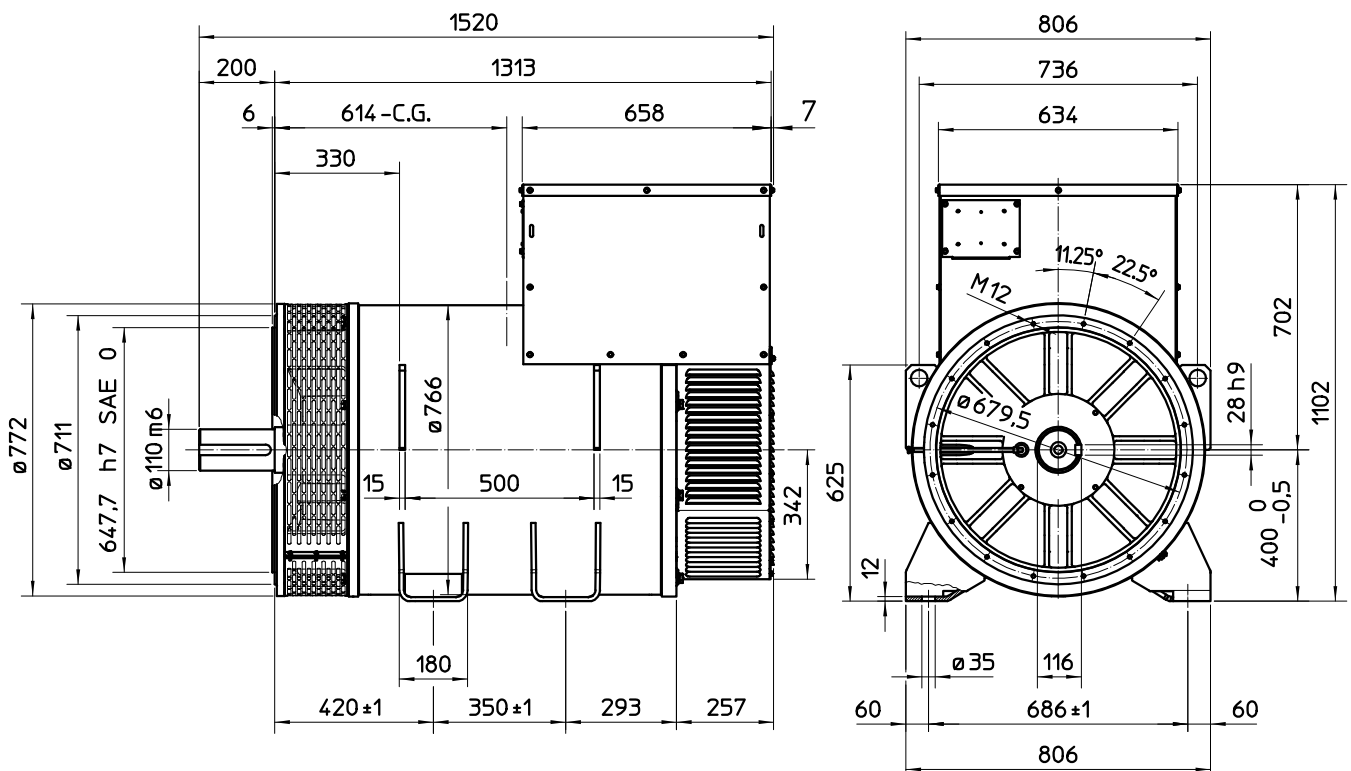


### TWO BEARING MOMENTS OF INERTIA



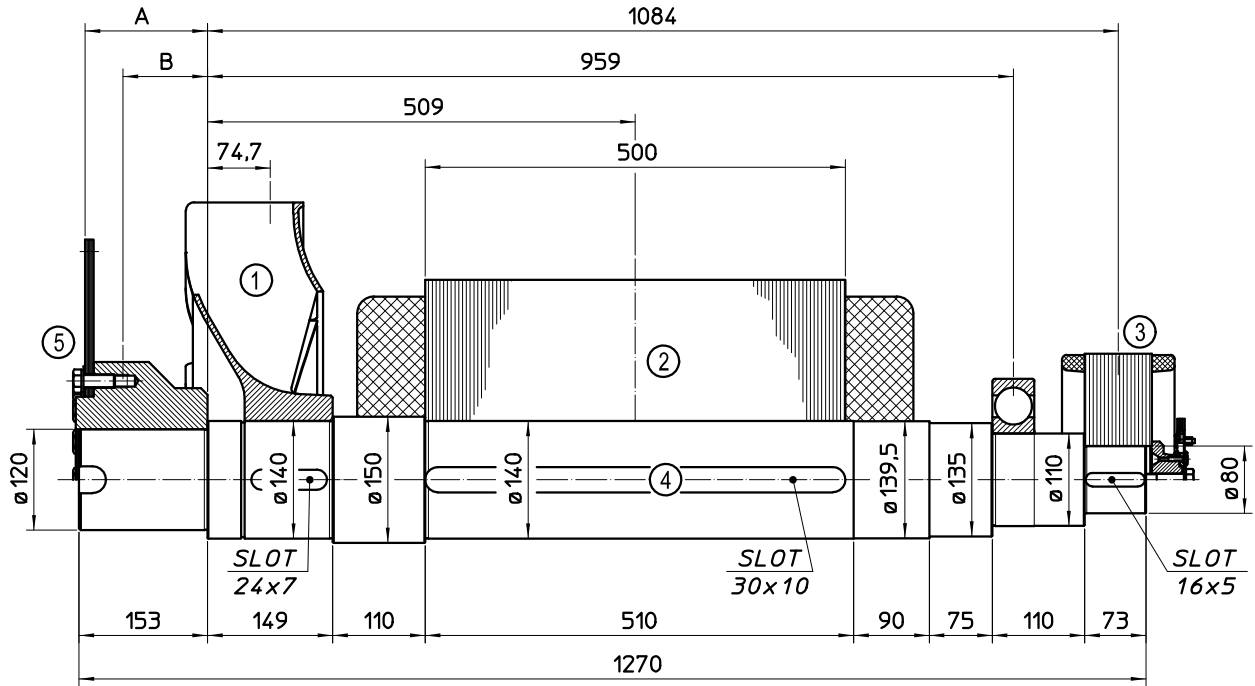
| POS.  | COMPONENT  | WEIGHT (kg) | J (kgm <sup>2</sup> ) |
|-------|------------|-------------|-----------------------|
| 1     | FAN        | 16.3        | 0.646                 |
| 2     | MAIN ROTOR | 551         | 16.965                |
| 3     | EX. ROTOR  | 40          | 0.629                 |
| 4     | SHAFT      | 147.1       | 0.426                 |
| TOTAL |            | 754.4       | 18.666                |

### TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

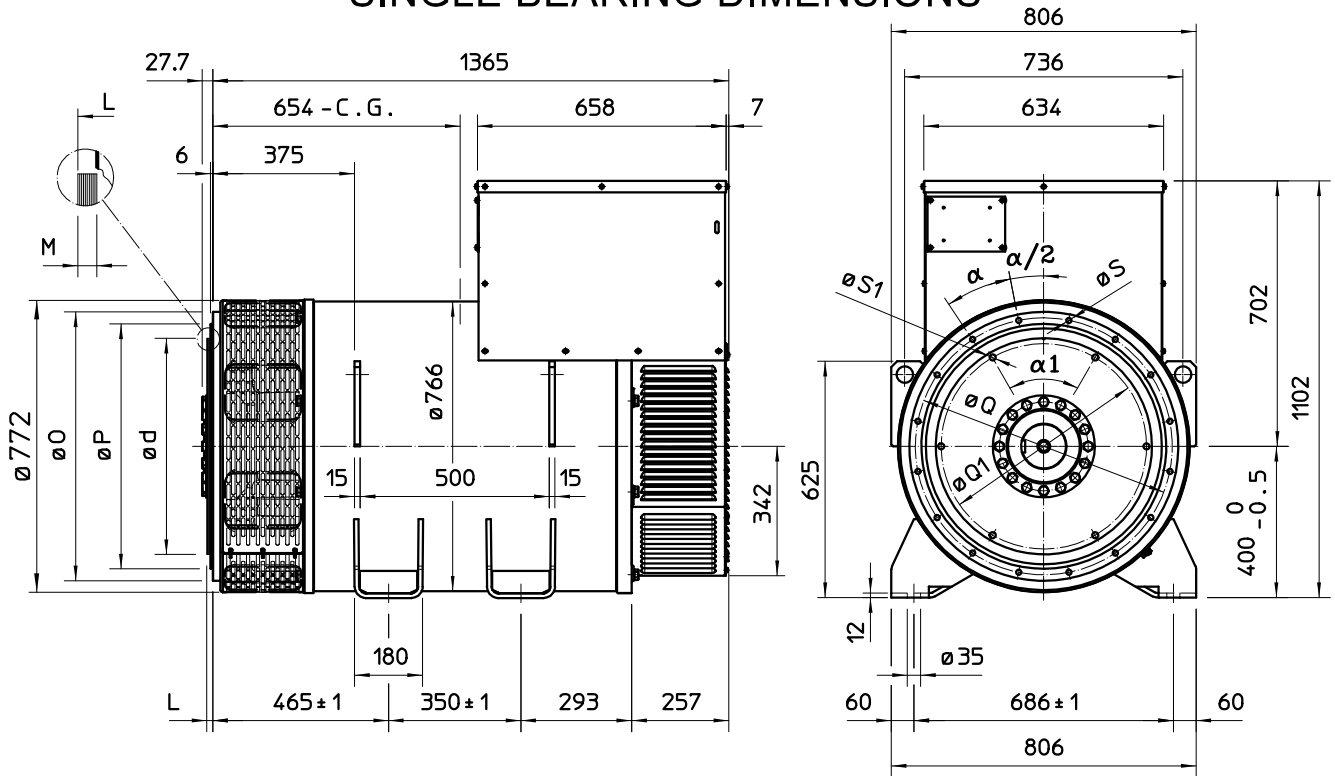
### SINGLE BEARING MOMENTS OF INERTIA



| POS.  | COMPONENT  | WEIGHT (kg) | J (kgm <sup>2</sup> ) |
|-------|------------|-------------|-----------------------|
| 1     | FAN        | 16.3        | 0.646                 |
| 2     | MAIN ROTOR | 551         | 16.965                |
| 3     | EX. ROTOR  | 40          | 0.629                 |
| 4     | SHAFT      | 136         | 0.314                 |
| TOTAL |            | 743.3       | 18.554                |

| POS. | COMPONENT                     | SAE N° | A     | B     | WEIGHT (kg) | J (kgm <sup>2</sup> ) |
|------|-------------------------------|--------|-------|-------|-------------|-----------------------|
| 5    | SHAFTS COUPLING<br>FLEX PLATE | 14     | 155.7 | 99.5  | 56.3        | 0.824                 |
|      |                               | 18     | 145.7 | 100.7 | 60.8        | 1.244                 |
|      |                               | 21     | 130   | 98.5  | 68.9        | 2.231                 |

### SINGLE BEARING DIMENSIONS



| SAE N° | FLANGE |       |       |    |          |          |
|--------|--------|-------|-------|----|----------|----------|
|        | O      | P     | Q     | S  | HOLES N° | $\alpha$ |
| 1      | 711    | 511.2 | 530.2 | 12 | 12       | 30       |
| 0      | 711    | 647.7 | 679.5 | 14 | 16       | 22.5     |
| 00     | 883    | 787.4 | 850.9 | 14 | 16       | 22.5     |

| SAE N° | DISC COUPLING |      |    |        |      |          |            |
|--------|---------------|------|----|--------|------|----------|------------|
|        | d             | L    | M  | Q1     | S1   | HOLES N° | $\alpha 1$ |
| 14     | 466.72        | 25.4 | 10 | 438.15 | 13.5 | 8        | 45         |
| 18     | 571.5         | 15.7 | 10 | 542.92 | 16.5 | 6        | 60°        |
| 21     | 673.1         | 0    | 12 | 641.35 | 16.5 | 12       | 30°        |

C.G.= GRAVITY CENTER