



## ALTERNATOR SPECIFICATIONS

|   |   |                       |
|---|---|-----------------------|
| GENERAL<br><br>DATAS                                  | Manufacturer / Type                                 | LERROY SOMER LSA472L9 |
|   | Number of phase                                     | 3                     |
|   | Power factor (Cos Phi)                              | 0.8                   |
|   | Altitude  | < 1000 m              |
|   | Overspeed   | 2250 rpm              |
|   | Pole : number                                       | 4                     |
|   | Exciter type  | SHUNT                 |
|   | Insulation : class, temperature rise                | H / H                 |
|   | Voltage regulator                                   | R230                  |
|   | Sustained short circuit current                     | 3.7 AC                |
|   | Total harmonics (TGH/THC)                           | < 4%                  |
|   | Wave form : NEMA = TIF – TGH/THC                    | < 50                  |
|   | Wave form : CEI = FHT – TGH/THC                     | < 2%                  |
|   | Bearing : number                                    | 1                     |
|   | Coupling  | Direct                |
|   | Voltage regulation 0 to 100% load                   | +/- 0.5%              |
|   | Recovery time (20% Volt dip) ms                     | 500 ms                |
| SkVA with 90% of nominal sustained voltage (at 0.4PF) | skva  |                       |
| OTHER<br><br>DATAS                                    | Continuous nominal rating @ 40°C                    | 600 kVA               |
|   | Standby rating @ 27°C                               | 660 kVA               |
|   | Efficiencies @ 4/4 load                             | 94.5 %                |
|   | Air flow  | 0.9m3/s [1906.98cfm]  |
|   | Short circuit ratio;50 (Kcc)                        | 0.37                  |
|   | Direct axis synchro reactance unsaturated (Xd)      | 330 %                 |
|   | Quadra axis synchro reactance unsaturated (Xq)      | 198 %                 |
|   | Open circuit time constant;50 (T'do)                | 1997 ms               |
|   | Direct axis transient reactance saturated (X'd)     | 16.5 %                |
|   | Short circuit transient time constant (T'd)         | 100 ms                |
|   | Direct axis subtransient reactance saturated (X''d) | 13.2 %                |
|   | Subtransient time constant (T''d)                   | 10 ms                 |
|   | Quadra axis subtransient reactance saturated (X''q) | 17.4 %                |
|   | Zero sequence reactance unsaturated (Xo)            | 0.9 %                 |
|   | Negative sequence reactance saturated (X2)          | 15.4 %                |
|   | Armature time constant (Ta)                         | 15 ms                 |
|   | No load excitation current (io)                     | 0.9 A                 |
|   | Full load excitation current (ic)                   | ic                    |
|   | Full load excitation voltage (uc)                   | 36 V                  |
|   | Recovery time (Delta U = 20% transitoire)           | 500 ms                |
| Motor start (Delta = 20% perm. Or 50% trans.)         | 1400 kVA  |                       |
| Transient dip (4/4 charge) – PF : 1.8 AR              | 12.2 %  |                       |
| No load losses  | 6.78kW [6.78Kw]                                     |                       |
| Heat rejection  | 27.49 kW  |                       |