



## ALTERNATOR SPECIFICATIONS

|   |   |                      |
|---|---|----------------------|
| GENERAL<br><br>DATAS                          | Manufacturer / Type                                   | LEROY SOMER LSA432L8 |
|   | 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                       | 1.6 AC               |
|   | Total harmonics (TGH/THC)                             | < 2%                 |
|   | 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                      | 80 kVA               |
|   | Standby rating @ 27°C                                 | 88 kVA               |
|   | Efficiencies @ 4/4 load                               | 90.5 %               |
|   | Air flow  | 0.27m3/s [572.09cfm] |
|   | Short circuit ratio;50 (Kcc)                          | 0.41                 |
|   | Direct axis synchro reactance unsaturated (Xd)        | 284 %                |
|   | Quadra axis synchro reactance unsaturated (Xq)        | 170 %                |
|   | Open circuit time constant;50 (T'do)                  | 1431 ms              |
|   | Direct axis transient reactance saturated (X'd)       | 9.9 %                |
|   | Short circuit transient time constant (T'd)           | 50 ms                |
|   | Direct axis subtransient reactance saturated (X''d)   | 5 %                  |
|   | Subtransient time constant (T''d)                     | 5 ms                 |
|   | Quadra axis subtransient reactance saturated (X''q)   | 6.3 %                |
|   | Zero sequence reactance unsaturated (Xo)              | 0.1 %                |
|   | Negative sequence reactance saturated (X2)            | 5.7 %                |
|   | Armature time constant (Ta)                           | 8 ms                 |
|   | No load excitation current (io)                       | 0.4 A                |
|   | Full load excitation current (ic)                     | ic                   |
|   | Full load excitation voltage (uc)                     | 29 V                 |
|   | Recovery time (Delta U = 20% transitoire)             | 500 ms               |
| Motor start (Delta = 20% perm. Or 50% trans.) | 240 kVA   |                      |
| Transient dip (4/4 charge) – PF : 1.8 AR      | 11.6 %  |                      |
| No load losses                                | 1.41kW [1.41Kw]                                       |                      |
| Heat rejection                                | 6.64 kW   |                      |