

## MODEL : GS 500 UC

500 kW / 625 kVA  
Stand-by Power @ 60Hz

455 kW / 568 kVA  
Prime Power @ 60Hz



### Standard Features :

- Engine EPA/CARB, electric starter, charge alternator 12V , mech. Gov.
- Single bearing alternator IP21, insulation class H/H
- Radiator 50°C (122°F) max. T° air inlet with coolant cap
- Skid and vibration isolators
- Dry type air filter
- Main line circuit breaker
- 12V battery, rack and cable
- Industrial silencer (loose)
- User manual
- CSA Certified

- We provide a full line of products with high quality recognized engines and alternators.
- Each and every unit is factory tested. All generator sets are also prototype tested.
- A one year limited warranty covers all systems and components. Two and five years extended are also available.
- Service and parts are available from our distributors as a single source of responsibility.

### GENERATOR RATINGS

| Voltage  | Hz | Phase | P.F | Standby Amps | Standby Ratings kW / kVA | Prime Ratings kW / kVA |
|----------|----|-------|-----|--------------|--------------------------|------------------------|
| 480/277V | 60 | 3     | 0.8 | 752          | 500 / 625                | 455 / 568              |
| 440/254V | 60 | 3     | 0.8 | 820          | 500 / 625                | 455 / 568              |
| 220/127V | 60 | 3     | 0.8 | 1640         | 500 / 625                | 455 / 568              |
| 208/120V | 60 | 3     | 0.8 | 1735         | 500 / 625                | 455 / 568              |
| 600/347V | 60 | 3     | 0.8 | 601          | 500 / 625                | 455 / 568              |

Stand-By ratings are continuous for the duration of any power outage. No overload capacity is specified at this ratings. Prime ratings are continuous per BS 5514, DIN 6271, ISO-3046 and IEC 34-1 with 10% overload capacity one hour in twelve hours.

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### ENGINE DATA

|  |                         |   |                       |
|--|-------------------------|---|-----------------------|
| Manufacturer :                               |                         | VOLVO                                   |                       |
| Model :                                      |                         | TAD1631GE , 4-cycle, Turbo , Air/Air DC |                       |
| Cylinder Arrangement :                       |                         | 6 X L                                   |                       |
| Displacement :                               |                         | 16.12 L (982.9 C.I.)                    |                       |
| Bore and Stroke :                            |                         | 144 mm (5.7 in.)X 165 mm (6.5 in.)      |                       |
| Compression ratio :                          |                         | 15 : 1                                  |                       |
| Rated RPM :                                  |                         | 1800 Rpm                                |                       |
| Piston Speed :                               |                         | 9.9 m/s (32.5 ft./s)                    |                       |
| Max. stand by Power at rated RPM :           |                         | 532.4 kW (713 BHP)                      |                       |
| Frequency regulation, no load to full load : |                         | NA                                      |                       |
| Frequency regulation, steady state :         |                         | 0.25 %                                  |                       |
| BMEP :                                       |                         | 21 bar (304 psi)                        |                       |
| Governor : type :                            |                         | Electronic                              |                       |
| <b>Exhaust System</b>                        |                         | <b>Air intake</b>                       |                       |
| Exhaust gas flow                             | 1750 L/s (3708 cfm)     | Max. intake restriction                 | 500 mm CE (20 in. WG) |
| Exhaust temperature                          | 520 °C (968 °F)         | Engine air flow                         | 655 L/s (1388 cfm)    |
| Max back pressure                            | 700 mm CE (28 in. WG)   | <b>Coolant System</b>                   |                       |
| <b>Fuel System</b>                           |                         | Radiator & engine capacity Max          | 64 L (16.9 gal)       |
| 100% (Stand By power)                        | 122.1 L/h (32.2 gal/hr) | water temperature                       | 103 °C (217 °F)       |
| 75% (Stand By power)                         | 87.8 L/h (23.2 gal/hr)  | Outlet water temperature                | 93 °C (199 °F)        |
| 50% (Stand By power)                         | 59.7 L/h (15.8 gal/hr)  | Fan power                               | 19 kW                 |
| 25% (Stand By power)                         | NA                      | Fan air flow                            | 10 m3/s (21191 cfm)   |
| Total fuel flow                              | 215 L/h (56.8 gal/hr)   | Engine heat rejection                   | 415 kW (23597 Btu/mn) |
| <b>Oil System</b>                            |                         | <b>Emissions</b>                        |                       |
| Total oil capacity w/filters                 | 64 L (16.9 gal)         | HC, gr/kwh (gr/BHPH)                    | 0.38 (0.28)           |
| Oil Pressure low idle                        | 0.7 bar (10.1 psi)      | CO, gr/kwh (gr/BHPH)                    | 0.56 (0.42)           |
| Oil Pressure rated RPM                       | 5 bar (72.5 psi)        | NOx, gr/kwh (gr/BHPH)                   | 8.12 (6.06)           |
| Oil consumption 100% load                    | 0.16 L/h (0.042 gal/hr) |   |                       |

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### ALTERNATOR SPECIFICATIONS

|   |             |  |
|---|-------------|--|
| Manufacturer :  | Leroy Somer | <ul style="list-style-type: none"> <li>Leroy Somer is a branch of Emerson Electric</li> <li>Compliance with NEMA MG21, UTE NF C51.111, VDE 0530, BS 4999, CSA standards.</li> <li>2/3 pitch, 12 leads reconnectable.</li> <li>Low reactance (<math>X''d &lt; 12\%</math>).</li> <li>Vacuum-impregnated windings with epoxy varnish. IP21 drip proof</li> </ul> |
| Type :  | LSA471L9    |  |
| Pole : number   | 4           |  |
| Exciter type :  | AREP        |  |
| Insulation : class, temperature rise                      | H / H       |  |
| Voltage regulator :                                       | R448        |  |
| Bearing : number, type :                                  | 1           |  |
| Coupling :  | Direct      |  |
| Voltage regulation 0 to 100% load :                       | +/- 1%      |  |
| Recovery time (20% Volt dip) ms :                         | < 500 ms    |  |
| SkVA with 90 % of nominal sustained voltage (at 0.4 PF) : | 1660        |  |

### CONTROL PANEL

Microprocessor control panel is available on all the models. Compatible with 12 or 24 Volts Engine electrical systems.



Standard features :

AC voltmeter, AC ammeter, Frequency meter,

Engine shutdown : Oil pressure, High water temperature, Low water level, Overspeed, Overcrank.

Engine parameters : Oil pressure, Water temperature, Fuel level, Running time meter, Battery voltage.

Emergency Stop Button, Internal clock.

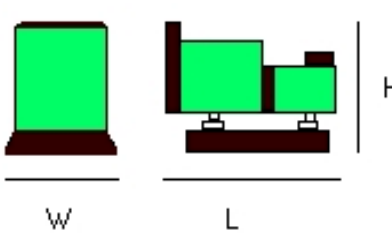
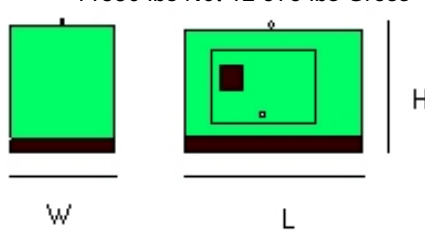
Communication via a RS485 for remote management (software is an option)

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### OPTIONS

|  |   |   |
|--|---|---|
| <p><b>Engine and Radiator</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Isochronous governor</li> <li><input type="checkbox"/> Heat shield protection</li> <li><input type="checkbox"/> Oil drain extension</li> <li><input type="checkbox"/> Heavy duty air filter</li> <li><input type="checkbox"/> Lube oil drain pump</li> <li><input type="checkbox"/> Radiator core guard</li> <li><input type="checkbox"/> Battery charger</li> <li><input type="checkbox"/> Block heater</li> </ul> <p><b>Fuel</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Day tank</li> <li><input type="checkbox"/> Subbase fuel tanks UL</li> <li><input type="checkbox"/> Water separator fuel filter</li> </ul> | <p><b>Alternator</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Anti condensation heater</li> <li><input type="checkbox"/> Enforced impregnation</li> <li><input type="checkbox"/> Oversized alternator</li> </ul> <p><b>Exhaust</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Residential silencer</li> <li><input type="checkbox"/> Critical silencer</li> <li><input type="checkbox"/> Flexible exhaust conn.</li> </ul> <p><b>Enclosure M426 Esi</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Silent 74db @ 23 Ft (stby)</li> </ul> | <p><b>Control panel</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Oil temperature shutdown</li> <li><input type="checkbox"/> Key start panel</li> </ul> <p><b>Literature</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Parts</li> <li><input type="checkbox"/> Maintenance</li> </ul> |
|--|---|---|

### WEIGHT AND DIMENSIONS

|  |   |  |
|--|---|--|
| <p><b>Open model</b></p> <p><u>Overall size l x w x h :</u><br/>3635 mm x 1270 mm x 1950 mm<br/>143 in. x 49 in. x 76 in.</p> <p><u>Weight :</u><br/>3370 Kg Net 3910 Kg Gross<br/>7427 lbs Net 8617 lbs Gross</p>  | <p><b>Sound attenuated (silencer mounted inside)</b></p> <p><u>Overall size l x w x h :</u><br/>6038 mm x 1680 mm x 2400 mm<br/>238 in. x 66 in. x 94.5 in</p> <p><u>Weight :</u><br/>5162 Kg Net 5704 Kg Gross<br/>11380 lbs Net 12 575 lbs Gross</p>  |  |
| <p><b>Distributed By :</b></p>   | <p>Gurston Generators<br/>Chicago, IL USA<br/>1-800-939-7480<br/>www.gurston.com</p>  |  |