

Model: X3300C

Engine: MTU, 20V4000G63LE

Alternator: LEROY SOMER, LSA54M9

Specifications

- Electronic governor
- Mechanically welded chassis with anti-vibration suspension
- Air cooler for wiring T° of 38/40°C max with electric fan
- Exhaust outlet with flexible and flanges
- 24 V charging alternator and starter
- Supplied with oil
- User manual and commissioning guide



Generator Ratings

| Voltage | Power ESP kW/kVA | Power RRP kW/kVA | Standby Amps | Dimensions | Weight |
|---------|---------------------|------------------------|-----------------|---------------------------------------------|------------------------------|
| 415/240 | 2640/ 3300 | 2400/ 3000 | 4591 | Length: 5730 Width: 2250 Height: 2454 | 18685kg Net 19296kg Gross |
| 400/230 | 2640/ 3300 | 2400/ 3000 | 4763 | | |
| 380/220 | 2640/ 3300 | 2400/ 3000 | 5014 | | |

RRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. A 10% overload capability is available for a period of 1 hour within 12hour period of operation, in accordance with ISO 3046-1.

ESP: The standby power rating is applicable for supplying emergency power in variable load applications in accordance with ISO 8528-1. Overload is not allowed.

Terms of Use: Standard reference conditions 25 °C Air Inlet Temp, 100m A.S.L 60% relative humidity. All engine performance data based on the above mentioned continuous ratings.

Engine Data

| | |
|------------------------------------|------------------------------------|
| Manufacturer/Model | MTU 20V4000G63LE, 4-strokes, Turbo |
| Cylinder arrangement | 20 x V |
| Displacement | 95.4L [5821.7C.I.] |
| Bore and stroke | 170mm [6.7in.] X 210mm [8.3in.] |
| Compression ratio | 16.5 |
| Rated RPM | 1500 Rpm |
| Piston speed | 10.5m/s [34.4ft./s] |
| Max. standby power at rated RPM | 2849kW [3818BHP] |
| Frequency regulation, steady state | +/- 0.5% |
| BMEP | 21.7bar [314psi] |
| Governor: type | ELEC |

Exhaust System

| | |
|---------------------|---------------------|
| Exhaust temperature | 585°C [1085°F] |
| Exhaust gas flow | 8800L/s [18648cfm] |
| Max back pressure | 300mm CE [12in. WG] |

Fuel System

| | |
|---------------------------|-----------------------|
| 110% (Stand by power) | 692L/h [182.8gal/hr] |
| 100% (of the Prime Power) | 644L/h [170.1gal/hr] |
| 75% (of the Prime Power) | 481L/h [127.1gal/hr] |
| 50% (of the Prime Power) | 322L/h [85.1gal/hr] |
| Total fuel flow | 1440L/h [380.4gal/hr] |

Oil System

| | |
|------------------------------|-----------------------|
| Total oil capacity w/filters | 390L [103.0gal] |
| Oil Pressure low idle | 4.9bar [71.0psi] |
| Oil Pressure rated RPM | 7.7bar [111.6psi] |
| Oil consumption 100% load | 3.22L/h [0.851gal/hr] |
| Oil capacity carter | 340L [89.8gal] |

Thermal balance 100% load

| | |
|---------------------------|--------------------|
| Heat rejection to exhaust | [N/A] |
| Radiated heat to ambient | 105kW [5970Btu/mn] |
| Heat rejection to coolant | [N/A] |

Air intake

| | |
|-------------------------|--------------------|
| Max. intake restriction | 150mm CE [6in. WG] |
| Engine air flow | 3300L/s [6993cfm] |

Coolant system

| | |
|-----------------------------------|---------------|
| Radiator & engine capacity | [N/A] |
| Max water temperature | 104°C [219°F] |
| Outlet water temperature | 100°C [212°F] |
| Fan power | [N/A] |
| Fan air flow w/o restriction | [N/A] |
| Available restriction on air flow | [N/A] |
| Type of coolant | Coolelf mdx |
| Thermostat | 79/92 °C |

Emissions

| | |
|-----|-----------------------------|
| PM | 50 mg/Nm ³ Max |
| CO | 300 mg/Nm ³ Max |
| Nox | 1700 mg/Nm ³ Max |
| HC | 150 mg/Nm ³ Max |

Alternator Specifications

| | |
|-------------------------------------|-----------------------|
| Manufacturer/Type | LEROY SOMER (LSA54M9) |
| NUMBER OF PHASE | 3 |
| POWER FACTOR (Cos Phi) | 0.8 |
| ALTITUDE | < 1000 m |
| OVERSPEED | 2160 rpm |
| POLE: NUMBER | 4 |
| EXCITER TYPE | AREP |
| INSULATION: CLASS, TEMPERATURE RISE | H/H |
| VOLTAGE REGULATOR | R449 |
| SUSTAINED SHORT CIRCUIT CURRENT | [N/A] |
| TOTAL HARMONICS (TGH/THC) | < 4% |
| WAVE FROM : NEMA = TIF- TGH/THC | < 50 |
| WAVE FROM: CEI = FHT - TGH/THC | < 2% |
| BEARING: NUMBER | 1 |

Alternator Specifications Continued

| | |
|------------------------------------------------------|--------|
| COUPLING | Direct |
| VOLTAGE REGULATION 0 TO 100% LOAD | +/- 1% |
| RECOVERY TIME (20% VOLT DIP) MS | [N/A] |
| SKVA WITH 90% OF NORMAL SUSTAINED VOLTAGE (AT 0.4PF) | [N/A] |

Other Alternator Data

| | |
|----------------------------------------------------|----------|
| CONTINUOUS NOMINAL RATING @ 40° C | 3250 kVA |
| STANDBY RATING @ 27° C | 3575 kVA |
| EFFICIENCIES @ 4/4 LOAD | 96.7 % |
| AIR FLOW | [N/A] |
| SHORT CIRCUIT RATIO: 50 (Kcc) | 0.44 |
| DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd) | 244 % |
| QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq) | 146 % |
| OPEN CIRCUIT TIME CONSTANT: 50 (T'do) | 3000 ms |
| DIRECT AXIS TRANSIENT REACTANCE SATURATED (X'd) | 26.4 % |
| SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd) | 320 ms |
| DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED (X'd) | 15 % |
| SUBTRANSIENT TIME CONSTANT (T'd) | 27 ms |
| QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED (X'q) | 18.7 % |
| ZERO SEQUENCE REACTANCE UNSATURATED (Xo) | 3 % |
| NEGATIVE SEQUENCE REACTANCE SATURATED (X2) | 16.9 % |
| ARMATURE TIME CONSTANT (Ta) | 76 ms |
| NO LOAD EXCITATION CURRENT (io) | [N/A] |
| FULL LOAD EXCITATION CURRENT (ic) | [N/A] |
| FULL LOAD EXCITATION VOLTAGE (uc) | [N/A] |
| RECOVERY TIME (DELTA U = 20% TRANSITOIRE) | [N/A] |

Other Alternator Data Continued

| | |
|-----------------------------------------------|-------|
| MOTOR START (DELTA = 20% PERM. OR 50% TRANS.) | [N/A] |
| TRANSIENT DIP (4/4 CHARGE) - PF : 1.8AR | [N/A] |
| NO LOAD LOSSES | [N/A] |
| HEAT REJECTION | [N/A] |