



X1100K

DIESEL GENSET

| MODEL | X1100K |
|-----------------------|-------------------|
| Stand-by Power @ 50Hz | 880kW / 1100 kVA |
| Prime Power @ 50Hz | 800 kW / 1000 kVA |

Standard Features

General features :

- Engine (MTU , 18V2000G63E)
- Charge alternator 24 V , Governor: Elec
- Alternator (LEROY SOMER , LSA50.1S4)
- Single bearing alternator IP 23 , insulation class H /H
- Radiator 40°C [104°F]°C max. T° air inlet with coolant cap
- Skid and vibration isolators
- Dry type air filter
- Main line circuit breaker
- Microprocessor control panel
- User manual



Generator Ratings

| Voltage | HZ | Phase | P.F | Standby Amps | Standby Ratings kW/kVA | Prime Ratings kW/kVA |
|---------|----|-------|-----|--------------|------------------------|----------------------|
| 415/240 | 50 | 3 | 0.8 | 1530 | 880 / 1100 | 800 / 1000 |
| 400/230 | 50 | 3 | 0.8 | 1588 | 880 / 1100 | 800 / 1000 |
| 380/220 | 50 | 3 | 0.8 | 1671 | 880 / 1100 | 800 / 1000 |

PRP : 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 12-hour 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.

Conditions of sale

- SDMO provides a full line of products with high quality recognized engines and alternators.
- Service and parts are available from SDMO distributors as a single source of responsibility.
- Electronic governor MDEC is available on all models from the XS range.
- Each and every units is factory tested. All generator sets are also prototype tested.
- Warranty according to our standard conditions. Five years extended also available



ENGINE DATA

| | |
|------------------------------------|-----------------------------------------------|
| Manufacturer / Model | MTU 18V2000G63E , 4-cycle, Turbo , Air/Air DC |
| Cylinder Arrangement | 18 X V |
| Displacement | 35.8L [2184.6C.I.] |
| Bore and Stroke | 130mm [5.1in.] X 150mm [5.9in.] |
| Compression ratio | 16 : 1 |
| Rated RPM | 1500 Rpm |
| Piston Speed | 7.5m/s [24.6ft./s] |
| Max. stand by Power at rated RPM* | 938kW [1257BHP]* |
| Frequency regulation, steady state | +/-0. 5% |
| BMEP | 20bar [290psi] |
| Governor : type | Elec |

Exhaust System

| | |
|---------------------|---------------------|
| Exhaust gas flow | 3600L/s [7629cfm] |
| Exhaust temperature | 580°C [1076°F] |
| Max back pressure | 500mm CE [20in. WG] |

Fuel System

| | |
|---------------------------|----------------------|
| 110% (Stand By power) | 246L/h [65.0gal/hr] |
| 100% (of the Prime Power) | 224L/h [59.2gal/hr] |
| 75% (of the Prime Power) | 165L/h [43.6gal/hr] |
| 50% (of the Prime Power) | 111L/h [29.3gal/hr] |
| Total fuel flow | 450L/h [118.9gal/hr] |

Oil System

| | |
|------------------------------|---------------------|
| Total oil capacity w/filters | 130L [34.3gal] |
| Oil Pressure low idle | 4.5bar [65.2psi] |
| Oil Pressure rated RPM | 7.2bar [104.3psi] |
| Oil consumption 100% load | 1.12L/h [0.3gal/hr] |
| Oil capacity carter | N/A |

Thermal balance 100% load

| | |
|---------------------------|---------------------|
| Heat rejection to exhaust | 829kW [47137Btu/mn] |
| Radiated heat to ambient | 55kW [3127Btu/mn] |
| Heat rejection to coolant | 340kW [19332Btu/mn] |

Air intake

| | |
|-------------------------|--------------------|
| Max. intake restriction | 150mm CE [6in. WG] |
| Engine air flow | 1300L/s [2755cfm] |

Coolant System

| | |
|-----------------------------------|----------------------------------|
| Radiator & engine capacity | 302L [79.8gal] |
| Max water temperature | 97°C [207°F] |
| Outlet water temperature | 93°C [199°F] |
| Fan power | 45 kW |
| Fan air flow | 23.2m ³ /s [49163cfm] |
| Available restriction on air flow | 20mm CE [0.8in. WG] |
| Type of coolant | Coolelf mdx |
| Thermostat | 75-x °C |

Emissions

| | |
|-----|-----|
| HC | N/A |
| CO | N/A |
| Nox | N/A |
| PM | N/A |

* For the 2000 series engines, the powers expressed are the net engine powers (cooling system as standard)
For the 4000 series engines, the powers expressed are the gross engine powers (cooling system optional, compact version)



ALTERNATOR SPECIFICATIONS

GENERAL DATA

- Compliance with NEMA MG21, UTE NF C51.111, VDE 0530, BS 4999, CSA standards.
- Vacuum-impregnated windings with epoxy varnish.
- IP21 drip proof.

ALTERNATOR DATA

| | |
|---------------------------------------------------------|------------------------|
| Manufacturer / Type | LERROY SOMER LSA50.1S4 |
| Number of phase | 3 |
| Power factor (Cos Phi) | 0.8 |
| Altitude | < 1000 m |
| Overspeed | 2250 rpm |
| Pole : number | 4 |
| Exciter type | AREP |
| Insulation : class, temperature rise | H / H |
| Voltage regulator | R449 |
| Sustained short circuit current | 3 IN = 10s |
| 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 | +/- 1% |
| Recovery time (20% Volt dip) ms | < 500 ms |
| SkVA with 90 % of nominal sustained voltage (at 0.4 PF) | 2800 |

OTHER ALTERNATOR DATA

| | |
|-----------------------------------------------------|-----------------------------------|
| Continuous nominal rating @ 40°C | 1130 kVA |
| Standby rating @ 27°C | 1353 kVA |
| Efficiencies @ 4/4 load | 94.7 % |
| Air flow | 1.6m ³ /s [3390.19cfm] |
| Short circuit ratio;50 (Kcc) | 0.34 |
| Direct axis synchro reactance unsaturated (Xd) | 381 % |
| Quadra axis synchro reactance unsaturated (Xq) | 229 % |
| Open circuit time constant;50 (T'do) | 2350 ms |
| Direct axis transient reactance saturated (X'd) | 28.2 % |
| Short circuit transient time constant (T'd) | 205 ms |
| Direct axis subtransient reactance saturated (X''d) | 15.5 % |
| Subtransient time constant (T''d) | 17 ms |
| Quadra axis subtransient reactance saturated (X''q) | 19.5 % |
| Zero sequence reactance unsaturated (Xo) | 3.7 % |
| Negative sequence reactance saturated (X2) | 17.5 % |
| Armature time constant (Ta) | 36 ms |
| No load excitation current (io) | 1.05 A |
| Full load excitation current (ic) | 4.85 A |
| Full load excitation voltage (uc) | 61 V |
| Recovery time (Delta U = 20% transitoire) | < 500 ms |
| Motor start (Delta = 20% perm. Or 50% trans.) | 2400 kVA |
| Transient dip (4/4 charge) – PF : 1.8 AR | 14 % |
| No load losses | 16.5 kW |
| Heat rejection | 55 kW |

Control Panels

TELYS



Specifications :

- Frequency meter, Ammeter, Voltmeter
- Alarms and faults Oil pressure, water temperature, No start-up, Overspeed, Min/max alternator, Min/max battery voltage, Low fuel level, Emergency stop
- Engine parameters Hours counter, Oil pressure, Water temperature, Engine speed, Battery voltage, Fuel level

KERYS



Specifications :

- Frequency meter, Ammeter, Voltmeter
- Alarms and faults Oil pressure, water temperature, No start-up, Overspeed, Min/max alternator, Min/max battery voltage, Low fuel level, Emergency stop
- Engine parameters Hours counter, Oil pressure, Water temperature, Engine speed, Battery voltage, Fuel level
- Additional specifications Website, Troubleshooting, Assistance and Maintenance, Plotting and logging, Load impact, 8 configurations available, Compliance with international standards...

M80



Specifications :

- Tachometer, Emergency stop button, client connection terminal strip, EC certified
- Engine parameters :
- Hours counter, Oil pressure gauge, Water temperature indicator, Oil pressure indicator

Options

Engine and Radiator

- Heat shield protection
- Oil drain extension
- Heavy duty air filter
- Lube oil drain pump
- Radiator core guard
- Battery charger
- Block heater

Alternator

- Anti condensation heater
- Enforced impregnation
- Oversized alternator

Control panel

- NFPA 110 level 1
- Paralleling system
- Remote annunciator
- Oil temperature shutdown

Exhaust

- Residential silencer
- Critical silencer
- Flexible exhaust conn.

- Key start panel

Literature

- Parts
- Maintenance

Fuel

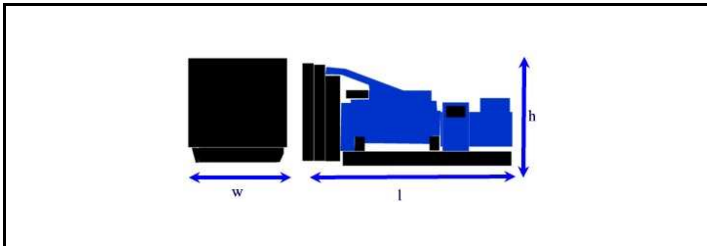
- Day tank
- Subbase fuel tanks UL
- Water separator fuel filter

Contenergy

- ISO20CSi
- Silent 77 db @ 7m [23 Ft] (stby)

Weight and Dimensions

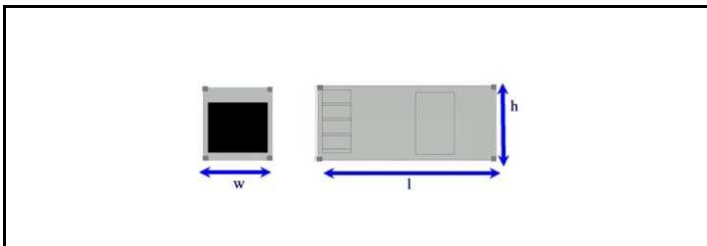
Open Model Excluding option



Overall size l x w x h :
4570mm [180in] x 1764mm [69in] x 2200mm [87in]

Weight :
7160kg [15781lbs] Net 7585kg [16717lbs] Brut

With Optional Enclosure



Overall size l x w x h :
6058mm [239in] x 2438mm [96in] x 2896mm [114in]

Weight :
12600kg [27770lbs] Net 13869kg [30567lbs] Brut