MODEL	X800K
Stand-by Power @ 50Hz	*640kW / 800 kVA*
Prime Power @ 50Hz	*582 kW / 727 kVA*

Standard Features

General features :

- Engine (MTU , 12V2000G63E)
- Charge alternator 24 V , Governor: Elec
- Alternator (LEROY SOMER , LSA491M7A)
- 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	1113	640 / 800	582 / 727
400/230	50	3	0.8	1155	640 / 800	582 / 727
380/220	50	3	0.8	1216	640 / 800	582 / 727
240/120	50	3	0.8	1925	640 / 800	582 / 727
230/115	50	3	0.8	2008	640 / 800	582 / 727
220/110	50	3	0.8	2100	640 / 800	582 / 727

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 12V2000G63E , 4-cycle, Turbo , Air/Air DC
Cylinder Arrangement	12 X V
Displacement	23.9L [1458.5C.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*	652kW [874BHP]*
Frequency regulation, steady state	+/-0. 5%
BMEP	20.9bar [303psi]
Governor : type	Elec
Exhaust System	
Exhaust gas flow	2420L/s [5128cfm]
Exhaust temperature	560°C [1040°F]
Max back pressure	500mm CE [20in. WG]
Fuel System	
110% (Stand By power)	175L/h [46.2gal/hr]
100% (of the Prime Power)	161L/h [42.5gal/hr]
75% (of the Prime Power)	119L/h [31.4gal/hr]
50% (of the Prime Power)	80L/h [21.1gal/hr]
Total fuel flow	450L/h [118.9gal/hr]
Oil System	
Total oil capacity w/filters	82L [21.7gal]
Oil Pressure low idle	4bar [58.0psi]
Oil Pressure rated RPM	6.5bar [94.2psi]
Oil consumption 100% load	0.81L/h [0.2gal/hr]
Oil capacity carter	67L [17.7gal]
Thermal balance 100% load	
Heat rejection to exhaust	545kW [30989Btu/mn]
Radiated heat to ambiant	45kW [2559Btu/mn]
Heat rejection to coolant	280kW [15921Btu/mn]
Air intake	
Max. intake restriction	150mm CE [6in. WG]
Engine air flow	940L/s [1992cfm]
Coolant System	
Radiator & engine capacity	212L [56.0gal]
Max water temperature	97°C [207°F]
Outlet water temperature	93°C [199°F]
Fan power	26 kW
Fan air flow	17.1m3/s [36236cfm]
Available restriction on air flow	20mm CE [0.8in. WG]
Type of coolant	Coolelf mdx
Thermostat	75-88 °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	LEROY SOMER LSA491M7A
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	R448 LS/B
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	< 1000 ms
SkVA with 90 % of nominal sustained voltage (at 0.4 PF)	N/A

OTHER ALTERNATOR DATA

Continuous nominal rating @ 40°C	800 kVA
Standby rating @ 27°C	960 kVA
Efficiencies @ 4/4 load	94.5 %
Air flow	1.2m3/s [2542.64cfm]
Short circuit ratio;50 (Kcc)	0.43
Direct axis synchro reactance unsaturated (Xd)	300 %
Quadra axis synchro reactance unsaturated (Xq)	180 %
Open circuit time constant;50 (T'do)	2047 ms
Direct axis transient reactance saturated (X'd)	14.7 %
Short circuit transient time constant (T'd)	100 ms
Direct axis subtransient reactance saturated (X''d)	11.8 %
Subtransient time constant (T''d)	10 ms
Quadra axis subtransient reactance saturated (X''q)	13.2 %
Zero sequence reactance unsaturated (Xo)	0.2 %
Negative sequence reactance saturated (X2)	12.5 %
Armature time constant (Ta)	15 ms
No load excitation current (io)	0.93 A
Full load excitation current (ic)	3.2 A
Full load excitation voltage (uc)	39 V
Recovery time (Delta U = 20% transitoire)	< 1000 ms
Motor start (Delta = 20% perm. Or 50% trans.)	1900 kVA
Transient dip (4/4 charge) – PF : 1.8 AR	13.3 %
No load losses	14 kW
Heat rejection	40.5 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

Exhaust

- Residential silencer
- Critical silencer
- Flexible exhaust conn.

Control panel

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

Literature

- Parts
- Maintenance

Fuel

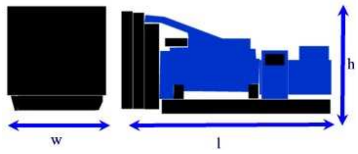
- Day tank
- Subbase fuel tanks UL
- Water separator fuel filter

Contenergy

- **ISO20CSi**
- Silent 75 db @ 7m [23 Ft] (stby)

Weight and Dimensions

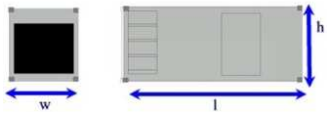
Open Model Excluding option



Overall size l x w x h :
3981mm [157in] x 1630mm [64in] x 1950mm [77in]

Weight :
5216kg [11496lbs] Net 5470kg [12056lbs] Brut

With Optional Enclosure



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

Weight :
10458kg [23049lbs] Net 11562kg [25483lbs] Brut