

X3025F

DIESEL GENSET

MODEL	X3025F
Stand-by Power @ 50Hz	2420kW / 3025 kVA
Prime Power @ 50Hz	2200 kW / 2750 kVA

Standard Features

General features :

- Engine (MTU , 20V4000G62F)
- Charge alternator 24 V , Governor: Elec
- Alternator (LEROY SOMER , LSA54S7)
- Single bearing alternator IP 23 , insulation class H /H
- Radiator N/A ambient max
- 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	4209	2420 / 3025	2200 / 2750
400/230	50	3	0.8	4366	2420 / 3025	2200 / 2750
380/220	50	3	0.8	4596	2420 / 3025	2200 / 2750

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 20V4000G62F , 4-cycle, Turbo , Air/Water DC
Cylinder Arrangement	20 X V
Displacement	89.81L [5480.5C.I.]
Bore and Stroke	165mm [6.5in.] X 210mm [8.3in.]
Compression ratio	15.5 : 1
Rotation speed	1500 Rpm
Piston Speed	10.5m/s [34.4ft./s]
Max. stand by Power at rated RPM*	2670kW [3578BHP]*
Frequency regulation, steady state	+/-0. 5%
BMEP	21.66bar [314psi]
Governor : type	Elec

Exhaust System

Exhaust gas flow	7600L/s [16105cfm]
Exhaust temperature	520°C [968°F]
Max back pressure	300mm CE [12in. WG]

Fuel System

110% (Stand By power)	609L/h [160.9gal/hr]
100% (of the Prime Power)	549L/h [145.0gal/hr]
75% (of the Prime Power)	416L/h [109.9gal/hr]
50% (of the Prime Power)	286L/h [75.6gal/hr]
Total fuel flow	1560L/h [412.2gal/hr]

Oil System

Total oil capacity w/filters	390L [103.0gal]
Oil Pressure low idle	4.8bar [69.6psi]
Oil Pressure rated RPM	6bar [86.9psi]
Oil consumption 100% load	1.65L/h [0.4gal/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 back pressure	250mm CE [10in. WG]
Engine air flow	3000L/s [6357cfm]

Coolant System

Radiator & engine capacity	N/A
Max water temperature	97°C [207°F]
Outlet water temperature	95°C [203°F]
Fan power	N/A
Fan air flow	N/A
Available restriction on air flow	N/A
Type of coolant	Coolelf mdx
Thermostat	79/-- °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 LSA54S7
Number of phase	3
Power factor (Cos Phi)	0.8
Altitude	1000
Overspeed	1800 rpm
Pole : number	4
Exciter type	AREP
Insulation : class, temperature rise	H / H
Voltage regulator	R449
Sustained short circuit current	300% - 10sec.
Total harmonics (TGH/THC)	< 2,5%
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	900 ms
SkVA with 90 % of nominal sustained voltage (at 0.4 PF)	N/A

OTHER ALTERNATOR DATA

Continuous nominal rating @ 40°C	2916 kVA
Standby rating @ 27°C	3208 kVA
Efficiencies @ 4/4 load	96.4 %
Air flow	3.4m3/s [7204.16cfm]
Short circuit ratio;50 (Kcc)	0.42
Direct axis synchro reactance unsaturated (Xd)	279 %
Quadra axis synchro reactance unsaturated (Xq)	168 %
Open circuit time constant;50 (T'do)	3160 ms
Direct axis transient reactance saturated (X'd)	26.2 %
Short circuit transient time constant (T'd)	350 ms
Direct axis subtransient reactance saturated (X''d)	16 %
Subtransient time constant (T''d)	24 ms
Quadra axis subtransient reactance saturated (X''q)	20 %
Zero sequence reactance unsaturated (Xo)	3.8 %
Negative sequence reactance saturated (X2)	18 %
Armature time constant (Ta)	79 ms
No load excitation current (io)	1.6 A
Full load excitation current (ic)	5.7 A
Full load excitation voltage (uc)	60 V
Recovery time (Delta U = 20% transitoire)	900 ms
Motor start (Delta = 20% perm. Or 50% trans.)	6000 kVA
Transient dip (4/4 charge) – PF : 1.8 AR	14 %
No load losses	29kW [29.00Kw]
Heat rejection	87 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
- Key start panel

Exhaust (Ex II)

- Residential silencer 29 dB(A)
- Critical silencer 40 dB(A)
- Flexible exhaust conn.

Literature

- • Parts
- • Maintenance

Fuel

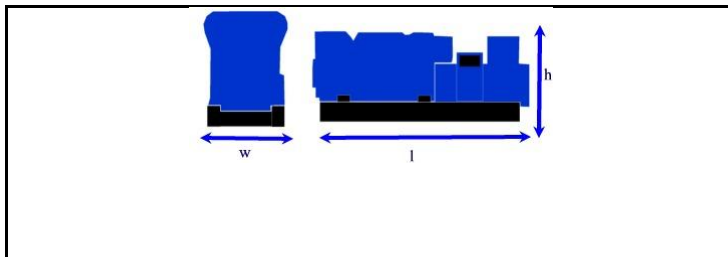
- Day tank
- Double wall and great autonomy tank
- Water separator fuel filter

Contenergy

- N/A
- Silent N/A db @ 7m [23 Ft]

Weight and Dimensions

Open Model Excluding option



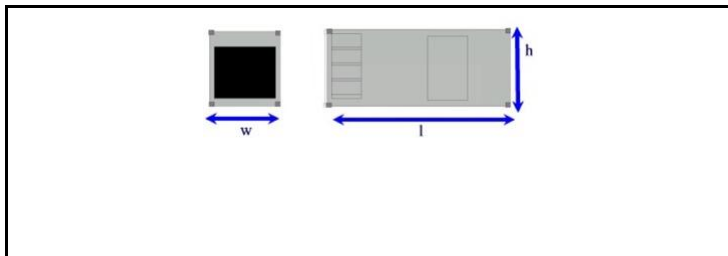
Overall size l x w x h :

5302mm [209in] x 2250mm [89in] x 2454mm [97in]

Weight :

18365kg [40476lbs] Net 18976kg [41823lbs] Brut

With Optional Enclosure



Overall size l x w x h :

N/A x N/A x N/A

Weight :

N/A Net N/A Brut

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