



X2000U

Engine MTU , 16V4000G43F
 Alternator LEROY SOMER , LSA51.2M60

STANDARD FEATURES

- Electronic governor
- Mechanically welded chassis with antivibration suspension
- Air cooler for wiring T° of 47/50°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



Voltage	Power ESP kWe/kVA	Power PRP kWe/kVA	Standby Amps	Dimensions	Weight
480/277	2000 / 2500	1818 / 2273	3007	Length: 4618mm [182in] Width: 1885mm [74in] Height: 2158mm [85in]	13280kg [29277 lbs] Net 13870kg [30578 lbs] Gross
440/254	1920 / 2400	1745 / 2182	3149		



POWER DEFINITION

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.

TERM OF USE

Standard reference conditions °C Air Intlet Temp, m A.S.L. 60 % relative humidity. All engine performance data based on the above mentioned maximum continuous ratings.

Type	dB(A)@1m	dB(A)@7m	Dimensions	Weight	Tank
 EUR40SSi	82	72	Length: 12192mm [480in] Width: 2438mm [96in] Height: 2896mm [114in]	26401kg [58204lbs] Net 27931kg [61577lbs] Gross	500 L
 EUR40Si	88	78	Length: 12192mm [480in] Width: 2438mm [96in] Height: 2896mm [114in]	25711kg [56683lbs] Net 27242kg [60058lbs] Gross	500 L





ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	MTU 16V4000G43F , 4-strokes, Turbo , Air/Water DC 16 X
	Cylinder Arrangement	V
	Displacement	76.32L [4657.3C.I.]
	Bore and Stroke	170mm [6.7in.] X 210mm [8.3in.]
	Compression ratio	16.5
	Rated RPM	1800 Rpm
	Piston Speed	12.6m/s [41.3ft./s]
	Max. stand by Power at rated RPM	2280kW [3055BHP]
	Frequency regulation, steady state	+/- 0.5%
	BMEP	17.7bar [256psi]
	Governor : type	ELEC
EXHAUST SYSTEM	Exhaust temperature	435°C [815°F]
	Exhaust gas flow	6700L/s [14198cfm]
	Max back pressure	500mm CE [20in. WG]
FUEL SYSTEM	110% (Stand By power)	[N/A]
	100% (of the Prime Power)	470L/h [124.2gal/hr]
	75% (of the Prime Power)	358L/h [94.6gal/hr]
	50% (of the Prime Power)	253L/h [66.8gal/hr]
	Max. fuel pump flow	1500L/h [396.3gal/hr]
OIL SYSTEM	Total oil capacity w/filters	300L [79.3gal]
	Oil Pressure low idle	3.5bar [50.7psi]
	Oil Pressure rated RPM	7bar [101.4psi]
	Oil consumption 100% load	2.35L/h [0.621gal/hr]
	Oil capacity carter	240L [63.4gal]
THERMAL BALANCE	Heat rejection to exhaust	[N/A]
	Radiated heat to ambient	90kW [5117Btu/mn]
	Heat rejection to coolant	N/A
AIR INTAKE	Max. intake restriction	150mm CE [6in. WG]
	Engine air flow	2800L/s [5933cfm]
COOLANT SYSTEM	Radiator & engine capacity	[N/A]
	Max water temperature	104°C [219°F]
	Outlet water temperature	93°C [199°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 LEVEL	PM	N/A
	CO	N/A
	Nox	N/A
	HC	N/A

This document is not contractual - The SDMO company reserves the right to modify any of the characteristics stated in this CD Rom without notice, in a constant effort to improve the quality of its products.

SDMO Industries – 12bis rue de la Villeneuve – CS 92848 – 29 228 BREST CEDEX 2

Tel +33 (0)2 98 41 41 41 – Fax : +33 (0)2 98 41 63 07 – www.sdmo.com





ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer	LEROY SOMER
	Type	LSA51.2M60
	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
	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	< 700 ms
SKVA with 90% of nominal sustained voltage (at 0.4PF)	N/A	
OTHER DATAS	Continuous nominal rating @ 40°C	2460 kVA
	Standby rating @ 27°C	2640 kVA
	Efficiencies @ 4/4 load	95.4 %
	Air flow	2.5m3/s [5297.18cfm]
	Short circuit ratio;50 (Kcc)	0.29
	Direct axis synchro reactance unsaturated (Xd)	389 %
	Quadra axis synchro reactance unsaturated (Xq)	233 %
	Open circuit time constant;50 (T'do)	2800 ms
	Direct axis transient reactance saturated (X'd)	34.4 %
	Short circuit transient time constant (T'd)	250 ms
	Direct axis subtransient reactance saturated (X''d)	15.2 %
	Subtransient time constant (T''d)	23 ms
	Quadra axis subtransient reactance saturated (X''q)	19 %
	Zero sequence reactance unsaturated (Xo)	3.6 %
	Negative sequence reactance saturated (X2)	17.1 %
	Armature time constant (Ta)	41 ms
	No load excitation current (io)	1.5 A
	Full load excitation current (ic)	5.9 A
	Full load excitation voltage (uc)	62 V
	Recovery time (Delta U = 20% transitoire)	< 700 ms
	Motor start (Delta = 20% perm. Or 50% trans.)	4800 kVA
	Transient dip (4/4 charge) – PF : 1.8 AR	12 %
	No load losses	30.1 kW
Heat rejection	88.3 kW	



CONTROL PANEL

Option

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

Option

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

Option

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...

