

X750UC

Engine MTU , 12V2000G83
Alternator LEROY SOMER , LSA491L9A

STANDARD FEATURES

- Electronic governor
- Mechanically welded chassis with antivibration suspension
- Radiator for wiring T° of 40°C [104°F] max with mechanical fan
- Exhaust outlet with flexible and flanges
- 24 V charging alternator and starter
- Supplied with oil and coolant -30°C
- User manual and commissioning guide



Voltage	Power ESP kWe/kVA	Power PRP kWe/kVA	Standby Amps	Dimensions	Weight
480/277	750 / 938	682 / 853	1128	Length: 3981mm [157in]	5441kg [11995 lbs] Net
440/254	750 / 938	682 / 853	1231	Width: 1630mm [64in]	5695kg [12555 lbs] Gross
240/120	750 / 938	682 / 853	2257	Height: 1950mm [77in]	
600/347	750 / 938	682 / 853	903		





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 40 °C Air Inlet Temp, 400 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
 M427	89	79	Length: 6400mm [252in] Width: 2170mm [85in] Height: 2721mm [107in]	8236kg [18157lbs] Net 9420kg [20768lbs] Gross	930 L
 ISO20	88	78	Length: 6058mm [239in] Width: 2438mm [96in] Height: 2896mm [114in]	10386kg [22897lbs] Net 11082kg [24432lbs] Gross	500 L
 CIR20SSi-R	82	72	Length: 6058mm [239in] Width: 2438mm [96in] Height: 2896mm [114in]	13077kg [28830lbs] Net 15190kg [33488lbs] Gross	2000 L
 CIR20SSi	82	72	Length: 6058mm [239in] Width: 2438mm [96in] Height: 2896mm [114in]	12937kg [28521lbs] Net 13449kg [29650lbs] Gross	500 L





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ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	MTU 12V2000G83 , 4-strokes, Turbo , Air/Air DC 12 X
	Cylinder Arrangement	V
	Displacement	23.9L [1458.5C.I.]
	Bore and Stroke	130mm [5.1in.] X 150mm [5.9in.]
	Compression ratio	14 : 1
	Rated RPM	1800 Rpm
	Piston Speed	9m/s [29.5ft./s]
	Max. stand by Power at rated RPM	794kW [1064BHP]
	Frequency regulation, steady state	+/- 0.5%
	BMEP	19.4bar [281psi]
	Governor : type	ELEC
EXHAUST SYSTEM	Exhaust temperature	520°C [968°F]
	Exhaust gas flow	2840L/s [6018cfm]
	Max back pressure	500mm CE [20in. WG]
FUEL SYSTEM	110% (Stand By power)	199.5L/h [52.7gal/hr]
	100% (of the Prime Power)	165L/h [43.6gal/hr]
	75% (of the Prime Power)	122L/h [32.2gal/hr]
	50% (of the Prime Power)	86L/h [22.7gal/hr]
	Max. fuel pump flow	450L/h [118.9gal/hr]
OIL SYSTEM	Total oil capacity w/filters	82L [21.7gal]
	Oil Pressure low idle	5bar [72.5psi]
	Oil Pressure rated RPM	6bar [86.9psi]
	Oil consumption 100% load	0.83L/h [0.219gal/hr]
	Oil capacity carter	67L [17.7gal]
THERMAL BALANCE	Heat rejection to exhaust	622kW [35367Btu/mn]
	Radiated heat to ambient	45kW [2559Btu/mn]
	Heat rejection to coolant	290kW [16489Btu/mn]
AIR INTAKE	Max. intake restriction	150mm CE [6in. WG]
	Engine air flow	970L/s [2056cfm]
COOLANT SYSTEM	Radiator & engine capacity	212L [56.0gal]
	Max water temperature	97°C [207°F]
	Outlet water temperature	93°C [199°F]
	Fan power	40 kW
	Fan air flow w/o restriction	20.9m ³ /s [44289cfm]
	Available restriction on air flow	20mm CE [0.8in. WG]
	Type of coolant	Coolelf mdx
	Thermostat	75-88 °C
EMISSIONS LEVEL	PM	0.40 gr/bhp/h Max
	CO	8.50 gr/bhp/h Max
	Nox	6.86 gr/bhp/h Max
	HC	0.97 gr/bhp/h Max

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ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer	LEROY SOMER
	Type	LSA491L9A
	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
	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 0.4PF)	N/A	
OTHER DATAS	Continuous nominal rating @ 40°C	1000 kVA
	Standby rating @ 27°C	1090 kVA
	Efficiencies @ 4/4 load	95 %
	Air flow	1.2m3/s [2542.64cfm]
	Short circuit ratio;50 (Kcc)	0.45
	Direct axis synchro reactance unsaturated (Xd)	285 %
	Quadra axis synchro reactance unsaturated (Xq)	171 %
	Open circuit time constant;50 (T'do)	2111 ms
	Direct axis transient reactance saturated (X'd)	13.5 %
	Short circuit transient time constant (T'd)	100 ms
	Direct axis subtransient reactance saturated (X''d)	10.8 %
	Subtransient time constant (T''d)	10 ms
	Quadra axis subtransient reactance saturated (X''q)	11.7 %
	Zero sequence reactance unsaturated (Xo)	0.8 %
	Negative sequence reactance saturated (X2)	11.3 %
	Armature time constant (Ta)	15 ms
	No load excitation current (io)	0.9 A
	Full load excitation current (ic)	3.1 A
	Full load excitation voltage (uc)	36 V
	Recovery time (Delta U = 20% transitoire)	< 1000 ms
	Motor start (Delta = 20% perm. Or 50% trans.)	2972 kVA
Transient dip (4/4 charge) – PF : 1.8 AR	10 %	
No load losses	15 kW	
Heat rejection	39 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...

