

# X910K

Engine MTU , 16V2000G23E  
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
415/240	728 / 910	662 / 827	1266	Length: 4330mm [170in] Width: 1770mm [70in] Height: 2190mm [86in]	6150kg [13558 lbs] Net 6514kg [14361 lbs] Gross
400/230	728 / 910	662 / 827	1314		
380/220	728 / 910	662 / 827	1383		
240/120	728 / 910	662 / 827	2189		
230/115	728 / 910	662 / 827	2284		
220/110	728 / 910	662 / 827	2388		





## 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 Intlet 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	85	76	Length: 6400mm [252in] Width: 2170mm [85in] Height: 2721mm [107in]	8604kg [18969lbs] Net 9895kg [21815lbs] Gross	930 L
 ISO20	86	76	Length: 6058mm [239in] Width: 2438mm [96in] Height: 2896mm [114in]	11139kg [24557lbs] Net 11945kg [26334lbs] Gross	500 L
 CIR20SSi-R	79	69	Length: 6058mm [239in] Width: 2438mm [96in] Height: 2896mm [114in]	13696kg [30195lbs] Net 15856kg [34957lbs] Gross	2000 L
 CIR20SSi	79	69	Length: 6058mm [239in] Width: 2438mm [96in] Height: 2896mm [114in]	13706kg [30217lbs] Net 14244kg [31403lbs] Gross	500 L





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## ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	MTU 16V2000G23E , 4-strokes, Turbo , Air/Air DC 16 X
	Cylinder Arrangement	V
	Displacement	31.9L [1946.7C.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	779kW [1044BHP]
	Frequency regulation, steady state	+/- 0.5%
	BMEP	18.1bar [262psi]
	Governor : type	ELEC
EXHAUST SYSTEM	Exhaust temperature	520°C [968°F]
	Exhaust gas flow	2760L/s [5849cfm]
	Max back pressure	500mm CE [20in. WG]
FUEL SYSTEM	110% (Stand By power )	199L/h [52.6gal/hr]
	100% (of the Prime Power)	178L/h [47.0gal/hr]
	75% (of the Prime Power)	133.5L/h [35.3gal/hr]
	50% (of the Prime Power)	89L/h [23.5gal/hr]
	Max. fuel pump flow	450L/h [118.9gal/hr]
OIL SYSTEM	Total oil capacity w/filters	110L [29.1gal]
	Oil Pressure low idle	4bar [58.0psi]
	Oil Pressure rated RPM	6.5bar [94.2psi]
	Oil consumption 100% load	0.89L/h [0.235gal/hr]
	Oil capacity carter	92L [24.3gal]
THERMAL BALANCE	Heat rejection to exhaust	604kW [34343Btu/mn]
	Radiated heat to ambient	50kW [2843Btu/mn]
	Heat rejection to coolant	340kW [19332Btu/mn]
AIR INTAKE	Max. intake restriction	150mm CE [6in. WG]
	Engine air flow	1100L/s [2331cfm]
COOLANT SYSTEM	Radiator & engine capacity	261L [69.0gal]
	Max water temperature	97°C [207°F]
	Outlet water temperature	93°C [199°F]
	Fan power	26 kW
	Fan air flow w/o restriction	18.7m3/s [39627cfm]
	Available restriction on air flow	20mm CE [0.8in. WG]
	Type of coolant	Coolelf mdx
	Thermostat	75-88 °C
EMISSIONS LEVEL	PM	N/A
	CO	N/A
	Nox	N/A
	HC	N/A

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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	825 kVA
	Standby rating @ 27°C	910 kVA
	Efficiencies @ 4/4 load	95 %
	Air flow	1m3/s [2118.87cfm]
	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.)	2372 kVA	
Transient dip (4/4 charge) – PF : 1.8 AR	10 %	
No load losses	9.8kW [9.80Kw]	
Heat rejection	32.5 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...

