

# X1100

Engine MTU , 16V2000G65F  
Alternator LEROY SOMER , LSA502S4

## STANDARD FEATURES

- Electronic governor
- Mechanically welded chassis with antivibration suspension
- Radiator for wiring temperature of 46 °C max with mechanical fan
- Exhaust compensators with flanges
- 24 V charge alternator and starter
- Delivered with oil and coolant -30 °C
- Manual for use and installation



Voltage	Power ESP kWe/kVA	Power PRP kWe/kVA	Standby Amps	Dimensions	Weight
415/240	880 / 1100	800 / 1000	1530		
400/230	880 / 1100	800 / 1000	1588	Leng : N/Amm [N/Ain] Widt : N/Amm [N/Ain]	N/Akg [N/Albs] Net N/Akg [N/Albs] Gross
380/220	880 / 1100	800 / 1000	1671	Heig : N/Amm [N/Ain]	





### 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.

**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 ESP/PRP 27 C°/40 C° Air Intlet Temp, 1000 m/1000 m m A.S.L. 60 % relative humidity.

Model	dB(A)@1m	dB(A)@7m	Dimensions	Weight	Tank
 ISO20	89	79	Leng : 6058mm [239in] Widt : 2438mm [96in] Heig : 2896mm [114in]	11596kg [25565lbs] 12341kg [27207lbs]	500 L
 CIR20SSi	85	75	Leng : 6058mm [239in] Widt : 2438mm [96in] Heig : 2896mm [114in]	14094kg [31072lbs] 14632kg [32258lbs]	500 L
 CIR20SSi-R	85	75	Leng : 6058mm [239in] Widt : 2438mm [96in] Heig : 2896mm [114in]	14084kg [31050lbs] 16244kg [35812lbs]	2000 L
 ISO20	89	79	Leng : 6058mm [239in] Widt : 2438mm [96in] Heig : 2896mm [114in]	11596kg [25565lbs] 12341kg [27207lbs]	500 L



## ENGINE SPECIFICATIONS

<b>DATA GENERAL DATA</b>	Motor model	MTU 16V2000G65F , 4-temps, TURBO , AIR/AIR 16 X
	Cylinder arrangement	V
	Displacement (C.I.)	31.86
	Bore (mm) X Stroke (mm)	130 X 150
	Compression ratio	16
	Speed (RPM)	1500
	Pistons speed (m/s)	7.5
	Maximum stand-by power at rated RPM (kW)	975
	Frequency regulation (%)	N/A
	BMEP (bar)	22.35
	Governor type	Electronique
<b>EXHAUST SYSTEM</b>	Exhaust gas temperature (°F)	530
	Exhaust gas flow (L/s)	2950
	Max. exhaust back pressure (mm CE)	300
<b>FUEL SYSTEM</b>	Consumption @ 110% load (L/h)	228
	Consumption @ 100% load (L/h)	205
	Consumption @ 75% load (L/h)	152
	Consumption @ 50% load (L/h)	104
	Maximum fuel pump flow (L/hr)	600
<b>OIL</b>	Oil capacity (L)	102
	Min. oil pressure (bar)	4.7
	Max. oil pressure (bar)	7.5
	Oil consumption 100% load (L/h)	2.05
	Carter oil capacity (L)	92
<b>THERMAL BALANCE</b>	Heat rejection to exhaust (kW)	N/A
	Radiated heat to ambient (kW)	45
	Heat rejection to coolant (kW)	400
<b>AIR INTAKE</b>	AIR INTAKE_entree_max%	150
	Intake air flow (L/s)	1100
<b>COOLANT SYSTEM</b>	Radiator & Engine capacity (L)	N/A
	Max water temperature (°C)	102
	Outlet water temperature (°C)	95
	Fan power (kW)	41
	Fan air flow w/o restriction (m3/s)	21.3
	Available restriction on air flow (mm CE)	20
	Type of coolant	N/A
	Thermostat (°C)	N/A
<b>EMISSIONS</b>	Emissions PM (g/kW.h)	N/A
	Emission CO (g/kW.h)	N/A
	Emissions HCNOx (g/kWh)	N/A
	Emission HC (g/kW.h)	N/A

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## ALTERNATOR SPECIFICATIONS

<b>DATA GENERAL DATA</b>	Alternator brand	LEROY SOMER
	Alternator	LSA502S4
	Number of phase	3
	Power factor (Cos Phi)	0.8
	Altitude (m)	<1000
	Overspeed (rpm)	2250
	Number of pole	4
	Excitation system	AREP
	Insulation class / Temperature class	H / H
	Regulation	R448V50
	Total harmonics TGH/THC	<3.5
	Wave form : NEMA=TIF-TGH/THC	<50
	Wave form : CEI=FHT-TGH/THC	<2
	Number of bearing	1
	Coupling	DIRECT
	Voltage regulation 0 à 100%	0.5
	Recovery time (Delta U = 20% transitoire) (ms)	500
<b>OTHER DATA</b>	Continuous Nominal Rating 40°C (kVA)	1040
	Standby Rating 27°C (kVA)	1145
	Efficiencies 4/4 load (%)	94.7
	Air flow (m3/s)	1.8
	Short circuit ratio (Kcc)	0.3
	Direct axis synchro reactance unsaturated (Xd) (%)	394
	Quadra axis synchro reactance unsaturated (Xq) (%)	236
	Open circuit time constant (T'do) (ms)	3411
	Direct axis transient reactance saturated (X'd) (%)	20.8
	Short circuit transient time constant (T'd) (ms)	180
	Direct axis subtransient reactance saturated (X''d) (%)	17.6
	Subtransient time constant (T''d) (ms)	18
	Quadra axis subtransient reactance saturated (X''q) (%)	18.6
	Zero sequence reactance unsaturated (Xo) (%)	3.7
	Negative sequence reactance saturated (X2) (%)	18.2
	Armature time constant (Ta) (ms)	27
	No load excitation current (io) (ms)	0.9
	Full load excitation current (ic) (A)	4
	Full load excitation voltage (uc) (A)	44
	Recovery time (Delta U = 20% transitoire) (ms)	500
Motor start (Delta U = 20% perm. or 50% trans.) (ms)	2383	
Transient dip (4/4 charge) - PF : 0,8 AR (%)	14.2	
No load losses (kW)	12.8	
Heat rejection (kW)	45.8	

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## CONTROL PANEL

### Standard

### M80



#### 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



#### 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



#### 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...