

# X800K

Engine MTU , 12V2000G63E  
Alternator LEROY SOMER , LSA491M6

## 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	640 / 800	560 / 700	1113	Length: 3981mm [157in] Width: 1630mm [64in] Height: 1950mm [77in]	5241kg [11554 lbs] Net 5495kg [12114 lbs] Gross
400/230	640 / 800	560 / 700	1155		
380/220	640 / 800	560 / 700	1216		
240/120	640 / 800	560 / 700	1925		
230/115	640 / 800	560 / 700	2008		
220/110	640 / 800	560 / 700	2100		





## 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	85.8	76	Length: 6400mm [252in] Width: 2170mm [85in] Height: 2721mm [107in]	8036kg [17716lbs] Net 9220kg [20327lbs] Gross	930 L
 ISO20	85	75	Length: 6058mm [239in] Width: 2438mm [96in] Height: 2896mm [114in]	10181kg [22445lbs] Net 10877kg [23980lbs] Gross	500 L
 CIR20SSi-R	79	69	Length: 6058mm [239in] Width: 2438mm [96in] Height: 2896mm [114in]	12872kg [28378lbs] Net 14985kg [33036lbs] Gross	2000 L
 CIR20SSi	79	69	Length: 6058mm [239in] Width: 2438mm [96in] Height: 2896mm [114in]	12732kg [28069lbs] Net 13244kg [29198lbs] Gross	500 L





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## ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	MTU 12V2000G63E , 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	16 : 1
	Rated RPM	1500 Rpm
	Piston Speed	7.5m/s [24.6ft./s]
	Max. stand by Power at rated RPM	652kW [874BHP]
	Frequency regulation, steady state	+/- 0.5%
	BMEP	20.9bar [303psi]
Governor : type	ELEC	
EXHAUST SYSTEM	Exhaust temperature	560°C [1040°F]
	Exhaust gas flow	2420L/s [5128cfm]
	Max back pressure	500mm CE [20in. WG]
FUEL SYSTEM	110% (Stand By power )	175L/h [46.2gal/hr]
	100% (of the Prime Power)	161L/h [42.5gal/hr]
	75% (of the Prime Power)	119L/h [31.4gal/hr]
	50% (of the Prime Power)	80L/h [21.1gal/hr]
	Max. fuel pump flow	450L/h [118.9gal/hr]
OIL SYSTEM	Total oil capacity w/filters	82L [21.7gal]
	Oil Pressure low idle	4bar [58.0psi]
	Oil Pressure rated RPM	6.5bar [94.2psi]
	Oil consumption 100% load	0.81L/h [0.214gal/hr]
	Oil capacity carter	67L [17.7gal]
THERMAL BALANCE	Heat rejection to exhaust	545kW [30989Btu/mn]
	Radiated heat to ambient	45kW [2559Btu/mn]
	Heat rejection to coolant	280kW [15921Btu/mn]
AIR INTAKE	Max. intake restriction	150mm CE [6in. WG]
	Engine air flow	940L/s [1992cfm]
COOLANT SYSTEM	Radiator & engine capacity	212L [56.0gal]
	Max water temperature	97°C [207°F]
	Outlet water temperature	93°C [199°F]
	Fan power	26 kW
	Fan air flow w/o restriction	17.1m3/s [36236cfm]
	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	LSA491M6
	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	725 kVA
	Standby rating @ 27°C	800 kVA
	Efficiencies @ 4/4 load	94.4 %
	Air flow	1m3/s [2118.87cfm]
	Short circuit ratio;50 (Kcc)	0.43
	Direct axis synchro reactance unsaturated (Xd)	301 %
	Quadra axis synchro reactance unsaturated (Xq)	180 %
	Open circuit time constant;50 (T'do)	2047 ms
	Direct axis transient reactance saturated (X'd)	14.7 %
	Short circuit transient time constant (T'd)	100 ms
	Direct axis subtransient reactance saturated (X''d)	11.7 %
	Subtransient time constant (T''d)	10 ms
	Quadra axis subtransient reactance saturated (X''q)	13.1 %
	Zero sequence reactance unsaturated (Xo)	0.7 %
	Negative sequence reactance saturated (X2)	12.5 %
	Armature time constant (Ta)	15 ms
	No load excitation current (io)	0.9 A
	Full load excitation current (ic)	3.2 A
	Full load excitation voltage (uc)	38 V
	Recovery time (Delta U = 20% transitoire)	1000 ms
	Motor start (Delta = 20% perm. Or 50% trans.)	1985 kVA
	Transient dip (4/4 charge) – PF : 1.8 AR	10.9 %
	No load losses	9kW [9.00Kw]
	Heat rejection	32.7 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...

