





# X2500C

Engine MTU , 16V4000G63E Alternator LEROY SOMER , LSA51.2VL90

#### STANDARD FEATURES

- Electronic governor
- Mechanically welded chassis with vibration isolators
- Air cooler for wiring T°of 38/40°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
415/240	2000 / 2500	1818 / 2273	3478	Length: 4818mm [190in]	14235kg [31374lbs] Net
400/230	2000 / 2500	1818 / 2273	3609	Width: 1885mm [74in]	14825kg [32674lbs] Gross
380/220	2000 / 2500	1818 / 2273	3798	Heigth: 2158mm [85in]	

#### **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 N/A °C Air Intlet Temp, N/A 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
H Sallo	EUR40SSI	79	69	Length: 12192mm [480in] Width: 2438mm [96in] Heigth: 2896mm [114in]	27380kg [60346lbs] Net 28910kg [63718lbs] Gross	500 L
Ef 5040	EUR40SI	85	75	Length: 12192mm [480in] Width: 2438mm [96in] Heigth: 2896mm [114in]	26690kg [58825lbs] Net 28220kg [62197lbs] Gross	500 L

#### FI FKTROMAK JENERATÖR





#### **ENGINE SPECIFICATIONS**

Manufacturer / Model			MTH 40/4000005 4 4 4 T T	
Cylinder Arrangement		Manufacturer / Model	MTU 16V4000G63E , 4-strokes, Turbo ,	
Displacement   Total   Standard   Total   Standard   Total   Standard   Total   Standard   Total   Standard				
STANDARD   Bore and Stroke   Compression ratio   16.5   170mm [6.7in.] x 210mm [8.3in.]     Rated RPM			·	
STANDARD   Compression ratio   Rated RPM   Rated RPM   1500 Rpm   1500 Rpm   1500 Rpm   1500 Rpm   10.5m/s [34.4ft/s]   10.5m/s [34.4				
Rated RPM				
Piston Speed	STANDARD			
Max. stand by Power at rated RPM   Frequency regulation, steady state   H-/0.5%     BMEP   22.7bar [329psi]     Governor: type   Elec     EXHAUST   Exhaust temperature   495°C [923°F]     SYSTEM   Exhaust gas flow   7900L/s [16741cfm]     Max back pressure   300mm CE [12in. WG]     Max back pressure   300mm CE [12in. WG]     110% (Stand By power)   538L/h [142.1gal/hr]     100% (of the Prime Power)   503L/h [132.9gal/hr]     FUEL SYSTEM   75% (of the Prime Power)   369L/h [97.5gal/hr]     50% (of the Prime Power)   247L/h [65.3gal/hr]     Max. fuel pump flow   1500L/h [396.3gal/hr]     Total oil capacity wfilters   300L [79.3gal]     Oil Pressure rated RPM   7bar [101.4psi]     Oil consumption 100% load   2.52L/h [0.7gal/hr]     Oil capacity carter   240L [63.4gal]     THERMAL   Heat rejection to exhaust   NJA     BALANCE   Radiated heat to ambiant   90kW [5117Btu/mn]     Heat rejection to coolant   NJA     AIR INTAKE   Max. intake restriction   150mm CE [6in. WG]     Engine air flow   3300L/s [6993cfm]     Radiator & engine capacity   NJA     Alar water temperature   100°C [219°F]     COOLANT   Fan power   NJA     SYSTEM   Fan air flow w/or restriction   NJA     Available restriction on air flow   NJA     Cooleif mdx   Type of coolant   Thermostat   79/92 °C     PM			·	
Frequency regulation, steady state	FEATURES			
BMEP   Sovernor: type   Elec				
EXHAUST   Exhaust temperature   495°C [923°F]     SYSTEM				
Exhaust temperature				
SYSTEM				
Max back pressure   300mm CE [12in. WG]				
THERMAL   Heat rejection to exhaust   BALANCE   Radiated heat to ambiant   Heat rejection to coolant   Heat rejection to coolant   Max water temperature   COOLANT   SYSTEM   SySTEM   Fan air flow w/o restriction   N/A	SYSTEM			
THERMAL   Heat rejection to exhaust   BALANCE   Radiated heat to ambiant   Heat rejection to coolant   N/A		·		
FUEL SYSTEM		` ' '		
S0% (of the Prime Power)				
Max. fuel pump flow	FUEL SYSTEM			
Total oil capacity wfilters		50% (of the Prime Power)		
Oil Pressure low idle				
OIL SYSTEM         Oil Pressure rated RPM         7bar [101.4psi]           Oil consumption 100% load         2.52L/h [0.7gal/hr]           Oil capacity carter         240L [63.4gal]           THERMAL BALANCE         Heat rejection to exhaust Radiated heat to ambiant Heat rejection to coolant N/A           AIR INTAKE         Max. intake restriction Engine air flow Sa300L/s [6993cfm]           Radiator & engine capacity Max water temperature Outlet water temperature Fan power SySTEM         N/A           COOLANT SYSTEM         Fan air flow W/o restriction On air flow M/A           Available restriction on air flow Type of coolant Thermostat         Coolelf mdx Type of coolant Thermostat           EMISSIONS LEVEL         PM         N/A           LEVEL         Nox         1700 mg/Nm3 Max		Total oil capacity w/filters		
Oil consumption 100% load   2.52L/h [0.7gal/hr]		Oil Pressure low idle		
Oil capacity carter   240L [63.4gal]	OIL SYSTEM	Oil Pressure rated RPM		
THERMAL BALANCE         Heat rejection to exhaust Radiated heat to ambiant PokW [5117Btu/mn]         N/A           AIR INTAKE         Max. intake restriction Engine air flow Radiator & engine capacity Max water temperature Parameter Paramet				
BALANCE         Radiated heat to ambiant Heat rejection to coolant         90kW [5117Btu/mn]           AIR INTAKE         Max. intake restriction         150mm CE [6in. WG]           Engine air flow         3300L/s [6993cfm]           Radiator & engine capacity         N/A           Max water temperature         104°C [219°F]           Outlet water temperature         100°C [212°F]           COOLANT         Fan power           SYSTEM         Fan air flow w/o restriction           Available restriction on air flow         N/A           Type of coolant         Coolelf mdx           Thermostat         79/92 °C           PM         N/A           EMISSIONS         CO         N/A           LEVEL         Nox         1700 mg/Nm3 Max		Oil capacity carter	240L [63.4gal]	
Heat rejection to coolant	THERMAL	Heat rejection to exhaust		
Max. intake restriction   150mm CE [6in. WG]	BALANCE	Radiated heat to ambiant	90kW [5117Btu/mn]	
Engine air flow   3300L/s [6993cfm]     Radiator & engine capacity   N/A     Max water temperature   104°C [219°F]     Outlet water temperature   100°C [212°F]     COOLANT		Heat rejection to coolant		
Radiator & engine capacity	AIR INTAKE	Max. intake restriction	150mm CE [6in. WG]	
Max water temperature		Engine air flow		
Outlet water temperature		Radiator & engine capacity		
COOLANT SYSTEM         Fan power Fan air flow w/o restriction         N/A N/A           Available restriction on air flow Type of coolant Thermostat         Coolelf mdx 79/92 °C           PM         N/A           EMISSIONS LEVEL         CO         N/A           LEVEL         Nox         1700 mg/Nm3 Max		Max water temperature		
SYSTEM         Fan air flow w/o restriction         N/A           Available restriction on air flow         N/A           Type of coolant         Coolelf mdx           Thermostat         79/92 °C           PM         N/A           EMISSIONS         CO         N/A           LEVEL         Nox         1700 mg/Nm3 Max		Outlet water temperature	100°C [212°F]	
Available restriction on air flow Type of coolant Thermostat Thermostat Thermostat Thermostat Thermostat Thermostat Toolelf mdx To		Fan power	N/A	
Type of coolant Type of coolant Thermostat Thermostat Thermostat TOO N/A  EMISSIONS LEVEL Nox T79/92 °C  PM N/A  N/A  1700 mg/Nm3 Max		Fan air flow w/o restriction		
Thermostat         79/92 °C           PM         N/A           EMISSIONS         CO         N/A           LEVEL         Nox         1700 mg/Nm3 Max		Available restriction on air flow	N/A	
PM		Type of coolant	Coolelf mdx	
EMISSIONS         CO         N/A           LEVEL         Nox         1700 mg/Nm3 Max		Thermostat		
LEVEL Nox 1700 mg/Nm3 Max		PM	N/A	
· ·	EMISSIONS	CO	N/A	
HC 150 mg/Nm3 Max	LEVEL	Nox	1700 mg/Nm3 Max	
		HC	150 mg/Nm3 Max	

#### **ELEKTROMAK JENERATÖR**

Jeneratör Alım Satım Kiralama Bobinaj ve Servis Hizmetleri





#### **ALTERNATOR SPECIFICATIONS**

	Manutacturer / Lyne	LEROY SOMER LSA51.2VL90
	Manufacturer / Type Number of phase	3
	Power factor (Cos Phi)	0.8
	Altitude	< 1000 m
	Overspeed	2160 rpm
	Pole : number	4
	Exciter type	AREP
GENERAL	Insulation : class, temperature rise	H / H
	Voltage regulator	R449
DATAS	Sustained short circuit current	N/AC
	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 SkVA with 90% of nominal sustained voltage (at	N/A
	• .	N/A
	0.4PF)	00.45.1374
	Continuous nominal rating @ 40°C	2345 kVA
	Standby rating @ 27°C	2580 kVA
	Efficiencies @ 4/4 load	96.5 %
	Air flow	N/A
	Short circuit ratio;50 (Kcc)	0.43
	Direct axis synchro reactance unsaturated (Xd)	290 %
	Quadra axis synchro reactance unsaturated (Xq)	174 %
	Open circuit time constant;50 (T'do)	3050 ms
	Direct axis transient reactance saturated (X'd)	25 %
	Short circuit transient time constant (T'd)	260 ms
OTHER	Direct axis subtransient reactance saturated (X"d)	13 %
	Subtransient time constant (T"d)	26 ms
DATAS	Quadra axis subtransient reactance saturated (X"q)	16.3 %
	Zero sequence reactance unsaturated (Xo)	2.6 %
	Negative sequence reactance saturated (X2)	14.6 %
	Armature time constant (Ta)	49 ms
	No load excitation current (io)	N/A
	Full load excitation current (ic)	N/A
	Full load excitation voltage (uc)	N/A
	Recovery time (Delta U = 20% transitoire)	N/A
	Motor start (Delta = 20% perm. Or 50% trans.)	N/A
	Transient dip (4/4 charge) – PF : 1.8 AR	N/A
	No load losses	N/A
	Heat rejection	N/A

#### **ELEKTROMAK JENERATÖR**

Jeneratör Alım Satım Kiralama Bobinaj ve Servis Hizmetleri





#### **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...

**FLEKTROMAK JENERATÖR** 

Jeneratör Alım Satım Kiralama Bobinaj ve Servis Hizmetleri