

Model: X2500C

Engine: MTU, 16V4000G63E

Alternator: LEROY SOMER, LSA51.2VL90

Specifications

- Electronic governor
- Mechanically welded chassis with anti-vibration suspension
- 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



Generator Ratings

Voltage	Power ESP kW/kVA	Power RRP kW/kVA	Standby Amps	Dimensions	Weight
415/240	2000/ 2500	1818/ 2273	3478	Length: 4818 Width: 1885 Height: 2158	14235kg Net 14825kg Gross
400/230	2000/ 2500	1818/ 2273	3609		
380/220	2000/ 2500	1818/ 2273	3798		

RRP: 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 12hour 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.

Terms of Use: Standard reference conditions 25 °C Air Inlet Temp, 100m A.S.L 60% relative humidity. All engine performance data based on the above mentioned continuous ratings.

Canopy Version

Type	dB(A)@7m	Dimensions	Weight	Tank
EUR40SSi	69	Length: 12192 Width: 2438 Height: 2896	27380kg Net 28910kg Gross	500 L
EUR40Si	75	Length: 12192 Width: 2438 Height: 2896	26690kg Net 28220kg Gross	500 L

All units supplied with canopy as standard except when requested.

Engine Data

Manufacturer/Model	MTU 16V4000G63E, 4-strokes, Turbo
Cylinder arrangement	16 x V
Displacement	76.32L [4657.3C.I.]
Bore and stroke	170mm [6.7in.] X 210mm [8.3in.]
Compression ratio	16.5
Rated RPM	1500 Rpm
Piston speed	10.5m/s [34.4ft./s]
Max. standby power at rated RPM	2162kW [2897BHP]
Frequency regulation, steady state	+/- 0.5%
BMEP	22.7bar [329psi]
Governor: type	ELEC

Exhaust System

Exhaust temperature	495°C [923°F]
Exhaust gas flow	7900L/s [16741cfm]
Max back pressure	300mm CE [12in. WG]

Fuel System

110% (Stand by power)	538L/h [142.1gal/hr]
100% (of the Prime Power)	503L/h [132.9gal/hr]
75% (of the Prime Power)	369L/h [97.5gal/hr]
50% (of the Prime Power)	247L/h [65.3gal/hr]
Total fuel flow	1500L/h [396.3gal/hr]

Oil System

Total oil capacity w/filters	300L [79.3gal]
Oil Pressure low idle	3.5bar [50.7psi]
Oil Pressure rated RPM	7bar [101.4psi]
Oil consumption 100% load	2.52L/h [0.666gal/hr]
Oil capacity carter	240L [63.4gal]

Thermal balance 100% load

Heat rejection to exhaust	[N/A]
Radiated heat to ambient	90kW [5117Btu/mn]
Heat rejection to coolant	[N/A]

Air intake

Max. intake restriction	150mm CE [6in. WG]
Engine air flow	3300L/s [6993cfm]

Coolant system

Radiator & engine capacity	[N/A]
Max water temperature	104°C [219°F]
Outlet water temperature	100°C [212°F]
Fan power	[N/A]
Fan air flow w/o restriction	[N/A]
Available restriction on air flow	[N/A]
Type of coolant	Coolelf mdx
Thermostat	79/92 °C

Emissions

PM	50 mg/Nm3 Max
CO	300 mg/Nm3 Max
Nox	1700 mg/Nm3 Max
HC	150 mg/Nm3 Max

Alternator Specifications

Manufacturer/Type	LEROY SOMER (LSA51.2VL90)
NUMBER OF PHASE	3
POWER FACTOR (Cos Phi)	0.8
ALTITUDE	< 1000 m
OVERSPEED	2160 rpm
POLE: NUMBER	4
EXCITER TYPE	AREP
INSULATION: CLASS, TEMPERATURE RISE	H/H
VOLTAGE REGULATOR	R449
SUSTAINED SHORT CIRCUIT CURRENT	
TOTAL HARMONICS (TGH/THC)	< 4%
WAVE FROM : NEMA = TIF- TGH/THC	< 50
WAVE FROM: CEI = FHT - TGH/THC	< 2%
BEARING: NUMBER	1
COUPLING	Direct
VOLTAGE REGULATION 0 TO 100% LOAD	
RECOVERY TIME (20% VOLT DIP) MS	[N/A]
SkVA WITH 90% OF NORMAL SUSTAINED VOLTAGE (AT 0.4PF)	[N/A]

Other Alternator Data

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 Alternator Data Continued

DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED ($X'd$)	13 %
SUBTRANSIENT TIME CONSTANT ($T'd$)	26 ms
QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED ($X'q$)	16.3 %
ZERO SEQUENCE REACTACE UNSATURATED (X_0)	2.6 %
NEGATIVE SEQUENCE REACTANCE SATURATED (X_2)	14.6 %
ARMATURE TIME CONSTANT (T_a)	49 ms
NO LOAD EXCITATION CURRENT (i_o)	[N/A]
FULL LOAD EXCITATION CURRENT (i_c)	[N/A]
FULL LOAD EXCITATION VOLTAGE (u_c)	[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 : 1.8AR	[N/A]
NO LOAD LOSSES	[N/A]
HEAT REJECTION	[N/A]