



R1850C

Engine MTU , 12V4000G23E
 Alternator LEROY SOMER , LSA512S55

STANDARD FEATURES

- Connection terminal block "rental type"
- Bulk tank
- Water separator pre-filter
- Voltage adjustment
- Drainage pump
- Fork lift
- Battery isolating switch
- 3 track valves
- Emergency lighting/Shut-off valve
- Rental specific soundproofed contenergy



Voltage	Power ESP kWe/kVA	Power PRP kWe/kVA	Standby Amps
415/240	1480 / 1850	1345 / 1682	2574



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.

Super Silent	Type	dB(A)@1m	dB(A)@7m	Dimensions	Weight	Tank
	EUR40 SSI	79	69	Long: 12192mm [480in] Wide: 2438mm [96in] Height: 2896mm [114in]	24670kg [54373lbs] Net 27370kg [60323lbs] Gross	2000 L
Silent	Type	dB(A)@1m	dB(A)@7m	Dimensions	Weight	Tank
	EUR40 SI	85	75	Long: 12192mm [480in] Wide: 2438mm [96in] Height: 2896mm [114in]	23635kg [52092lbs] Net 26336kg [58045lbs] Gross	2000 L



ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	MTU 12V4000G23E , 4-strokes, Turbo , Air/Water DC 12 X
	Cylinder Arrangement	V
	Displacement	57.24L [3493.0C.I.]
	Bore and Stroke	210mm [8.3in.] X 170mm [6.7in.]
	Compression ratio	16.5
	Rated RPM	1500 Rpm
	Piston Speed	10.5m/s [34.4ft./s]
	Max. stand by Power at rated RPM	1562kW [2093BHP]
	Frequency regulation, steady state	+/-0. 5%
	BMEP	19.9bar [288psi]
Governor : type	Elec	
EXHAUST SYSTEM	Exhaust gas flow	470°C [878°F]
	Exhaust temperature	5200L/s [11019cfm]
	Max back pressure	300mm CE [12in. WG]
FUEL SYSTEM	110% (Stand By power)	403L/h [106.5gal/hr]
	100% (of the Prime Power)	365L/h [96.4gal/hr]
	75% (of the Prime Power)	266L/h [70.3gal/hr]
	50% (of the Prime Power)	181L/h [47.8gal/hr]
	Max. fuel pump flow	1500L/h [396.3gal/hr]
OIL SYSTEM	Total oil capacity w/filters	260L [68.7gal]
	Oil Pressure low idle	3.5bar [50.7psi]
	Oil Pressure rated RPM	7bar [101.4psi]
	Oil consumption 100% load	1.825L/h [0.5gal/hr]
	Oil capacity carter	200L [52.8gal]
THERMAL BALANCE	Heat rejection to exhaust	N/A
	Radiated heat to ambient	75kW [4265Btu/mn]
	Heat rejection to coolant	N/A
AIR INTAKE	Max. intake restriction	150mm CE [6in. WG]
	Engine air flow	2100L/s [4450cfm]
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
GAS SYSTEM	HC	150 mg/Nm3 Max
	CO	300 mg/Nm3 Max
	Nox	1700 mg/Nm3 Max
	PM	50 mg/Nm3 Max



ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer / Type	LEROY SOMER LSA512S55
	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	R449
	Sustained short circuit current	6 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	< 700 ms
SkVA with 90% of nominal sustained voltage (at 0.4PF)	N/A	
OTHER DATAS	Continuous nominal rating @ 40°C	1860 kVA
	Standby rating @ 27°C	1980 kVA
	Efficiencies @ 4/4 load	95.6 %
	Air flow	2.5m ³ /s [5297.18cfm]
	Short circuit ratio;50 (Kcc)	0.33
	Direct axis synchro reactance unsaturated (Xd)	374 %
	Quadra axis synchro reactance unsaturated (Xq)	224 %
	Open circuit time constant;50 (T'do)	2700 ms
	Direct axis transient reactance saturated (X'd)	33.4 %
	Short circuit transient time constant (T'd)	240 ms
	Direct axis subtransient reactance saturated (X''d)	14.8 %
	Subtransient time constant (T''d)	22 ms
	Quadra axis subtransient reactance saturated (X''q)	18.4 %
	Zero sequence reactance unsaturated (Xo)	3.5 %
	Negative sequence reactance saturated (X2)	16.6 %
	Armature time constant (Ta)	39 ms
	No load excitation current (io)	1.5 A
	Full load excitation current (ic)	N/A
	Full load excitation voltage (uc)	63 V
	Recovery time (Delta U = 20% transitoire)	< 700 ms
Motor start (Delta = 20% perm. Or 50% trans.)	3600 kVA	
Transient dip (4/4 charge) – PF : 1.8 AR	12 %	
No load losses	16kW [16.00Kw]	
Heat rejection	64.7 kW	

CONTROL PANEL

Standard



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



KERY S

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...