

R22C2

Engine MITSUBISHI , S4Q2-Z261SD Stage 2
 Alternator LEROY SOMER , LSA422S5

STANDARD FEATURES

- Analog engine
- Simplified connection terminal block
- Four-pole breaker
- Central lifting ring
- Intlet air pre-heating
- Rental specific soundproofed canopy
- Diesel low level
- AREP Leroy-Somer Alternator
- Easy radiator access
- Rain cap



Voltage	Power ESP kWe/kVA	Power PRP kWe/kVA	Standby Amps
400/230	18 / 22	16 / 20	32



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 **25 °C** Air Intlet Temp, **100 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
 M127-DW	71.9	61.9	Long: 2160mm [85in] Wide: 966mm [38in] Height: 1582mm [62in]	961kg [lbs] Net 1191kg [lbs] Gross	230 L
 M127	71.9	61.9	Long: 2080mm [82in] Wide: 960mm [38in] Height: 1415mm [56in]	835kg [lbs] Net 950kg [lbs] Gross	100 L

Base Rental Power + options suivantes = Full Rental Power

Double wall and great autonomy tank	Hire type terminals box
Water separator pre-filter	Voltage trimmer
Fixed earth leakage protection with spike	Battery cut-out
Lub oil drain pump	



ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	MITSUBISHI S4Q2-Z261SD , 4-strokes, Athmo , 4 X
	Cylinder Arrangement	L
	Displacement	2.50L [152.6C.I.]
	Bore and Stroke	103mm [4.1in.] X 88mm [3.5in.]
	Compression ratio	22 : 1
	Rated RPM	1500 Rpm
	Piston Speed	5.15m/s [16.9ft./s]
	Max. stand by Power at rated RPM	22.2kW [30BHP]
	Frequency regulation, steady state	+/- 2.5%
	BMEP	6.67bar [97psi]
Governor : type	MECA	
EXHAUST SYSTEM	Exhaust gas flow	74L/s [157cfm]
	Exhaust temperature	600°C [1112°F]
	Max back pressure	680mm CE [27in. WG]
FUEL SYSTEM	110% (Stand By power)	7L/h [1.8gal/hr]
	100% (of the Prime Power)	6.4L/h [1.7gal/hr]
	75% (of the Prime Power)	4.8L/h [1.3gal/hr]
	50% (of the Prime Power)	3.4L/h [0.9gal/hr]
	Max. fuel pump flow	36L/h [9.5gal/hr]
OIL SYSTEM	Total oil capacity w/filters	6.5L [1.7gal]
	Oil Pressure low idle	1bar [14.5psi]
	Oil Pressure rated RPM	5bar [72.5psi]
	Oil consumption 100% load	0.06L/h [0.0gal/hr]
	Oil capacity carter	5.5L [1.5gal]
THERMAL BALANCE	Heat rejection to exhaust	21kW [1194Btu/mn]
	Radiated heat to ambient	3kW [171Btu/mn]
	Heat rejection to coolant	20kW [1137Btu/mn]
AIR INTAKE	Max. intake restriction	200mm CE [8in. WG]
	Engine air flow	29L/s [61cfm]
COOLANT SYSTEM	Radiator & engine capacity	8.1L [2.140gal]
	Max water temperature	100°C [212°F]
	Outlet water temperature	93°C [199°F]
	Fan power	0.7 kW
	Fan air flow w/o restriction	0.8m3/s [1695cfm]
	Available restriction on air flow	10mm CE [0.4in. WG]
	Type of coolant	Gencool
	Thermostat	76.5-90 °C
GAS SYSTEM	HC	0.02 g/m3
	CO	0.21 g/m3
	Nox	0.57 g/m3
	PM	0.09 g/m3



ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer / Type	LEROY SOMER LSA422S5
	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	R438
	Sustained short circuit current	1.6 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	500 ms
SkVA with 90% of nominal sustained voltage (at 0.4PF)	skva	
OTHER DATAS	Continuous nominal rating @ 40°C	20 kVA
	Standby rating @ 27°C	25 kVA
	Efficiencies @ 4/4 load	87 %
	Air flow	0.15m3/s [317.83cfm]
	Short circuit ratio;50 (Kcc)	0.66
	Direct axis synchro reactance unsaturated (Xd)	190 %
	Quadra axis synchro reactance unsaturated (Xq)	90 %
	Open circuit time constant;50 (T'do)	410 ms
	Direct axis transient reactance saturated (X'd)	11.5 %
	Short circuit transient time constant (T'd)	30 ms
	Direct axis subtransient reactance saturated (X''d)	5.8 %
	Subtransient time constant (T''d)	3 ms
	Quadra axis subtransient reactance saturated (X''q)	8.1 %
	Zero sequence reactance unsaturated (Xo)	0.1 %
	Negative sequence reactance saturated (X2)	6.9 %
	Armature time constant (Ta)	4 ms
	No load excitation current (io)	0.6 A
	Full load excitation current (ic)	ic
	Full load excitation voltage (uc)	40 V
	Recovery time (Delta U = 20% transitoire)	500 ms
Motor start (Delta = 20% perm. Or 50% trans.)	59 kVA	
Transient dip (4/4 charge) – PF : 1.8 AR	14.7 %	
No load losses	0.59kW [0.59Kw]	
Heat rejection	2.4 kW	

CONTROL PANEL

Standard



NEXYS

Specifications :

Frequency meter, Ammeter, Voltmeter

Alarms and faults Oil pressure, water temperature, Overcrank, Overspeed (>60 kVA), Min/max alternator, Low fuel level, Emergency stop

Engine parameters Hours counter, Engine speed, Battery voltage, Fuel level, Air preheating

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