R44C2

Engine MITSUBISHI , S4S-Z2DT62SD Stage 2
Alternator LEROY SOMER , LSA432S15

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	35 / 44	32 / 40	64

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	72.9	62.9	Long: 2160mm [85in] Wide: 966mm [38in] Height: 1582mm [62in]	1120kg [lbs] Net 1350kg [lbs] Gross	230 L
	M127	72.9	62.9	Long: 2080mm [82in] Wide: 960mm [38in] Height: 1415mm [56in]	930kg [lbs] Net 1040kg [lbs] Gross	100 L

Base Rental Power + options suivantes = Full Rental Power	
Double wall and great autonomy tank	Air intlet manifold preheating
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 S4S-Z2DT62SD , 4-strokes, Turbo , 4 X
	Cylinder Arrangement	L
	Displacement	3.33L [203.2C.I.]
	Bore and Stroke	120mm [4.7in.] X 94mm [3.7in.]
	Compression ratio	19 : 1
	Rated RPM	1500 Rpm
	Piston Speed	6m/s [19.7ft./s]
	Max. stand by Power at rated RPM	38.2kW [51BHP]
	Frequency regulation, steady state	< 6.5%
	BMEP	8.8bar [128psi]
	Governor : type	MECA
EXHAUST SYSTEM	Exhaust gas flow	130L/s [275cfm]
	Exhaust temperature	580°C [1076°F]
	Max back pressure	680mm CE [27in. WG]
FUEL SYSTEM	110% (Stand By power)	11.6L/h [3.1gal/hr]
	100% (of the Prime Power)	10.2L/h [2.7gal/hr]
	75% (of the Prime Power)	7.7L/h [2.0gal/hr]
	50% (of the Prime Power)	5.3L/h [1.4gal/hr]
	Max. fuel pump flow	36L/h [9.5gal/hr]
OIL SYSTEM	Total oil capacity w/filters	10L [2.6gal]
	Oil Pressure low idle	1bar [14.5psi]
	Oil Pressure rated RPM	5bar [72.5psi]
	Oil consumption 100% load	0.13L/h [0.0gal/hr]
	Oil capacity carter	9L [2.4gal]
THERMAL BALANCE	Heat rejection to exhaust	41kW [2331Btu/mn]
	Radiated heat to ambiant	6.4kW [364Btu/mn]
	Heat rejection to coolant	33.6kW [1910Btu/mn]
AIR INTAKE	Max. intake restriction	250mm CE [10in. WG]
	Engine air flow	48L/s [102cfm]
COOLANT SYSTEM	Radiator & engine capacity	9.5L [2.510gal]
	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	1.1m3/s [2331cfm]
	Available restriction on air flow	10mm CE [0.4in. WG]
	Type of coolant	Gencool
	Thermostat	76.5-90 °C
GAS SYSTEM	HC	1.3 g/KW.h Max
	CO	5.0 g/KW.h Max
	Nox	7.0 g/KW.h Max
	PM	0.4 g/KW.h Max

ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer / Type	LEROY SOMER LSA432S15
	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	1.5 AC
	Total harmonics (TGH/THC)	< 2%
	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	+/- 0.5%
	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	40 kVA
	Standby rating @ 27°C	47 kVA
	Efficiencies @ 4/4 load	89.6 %
	Air flow	0.27m3/s [572.09cfm]
	Short circuit ratio;50 (Kcc)	0.48
	Direct axis synchro reactance unsaturated (Xd)	255 %
	Quadra axis synchro reactance unsaturated (Xq)	153 %
	Open circuit time constant;50 (T'do)	1131 ms
	Direct axis transient reactance saturated (X'd)	11.2 %
	Short circuit transient time constant (T'd)	50 ms
	Direct axis subtransient reactance saturated (X''d)	5.6 %
	Subtransient time constant (T''d)	5 ms
	Quadra axis subtransient reactance saturated (X''q)	7 %
	Zero sequence reactance unsaturated (Xo)	0.8 %
	Negative sequence reactance saturated (X2)	6.3 %
	Armature time constant (Ta)	8 ms
	No load excitation current (io)	0.5 A
	Full load excitation current (ic)	ic
	Full load excitation voltage (uc)	27 V
	Recovery time (Delta U = 20% transitoire)	500 ms
	Motor start (Delta = 20% perm. Or 50% trans.)	135 kVA
	Transient dip (4/4 charge) – PF : 1.8 AR	12.3 %
	No load losses	0.98kW [0.98Kw]
	Heat rejection	4.12 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