

T1650C

Engine MITSUBISHI , S12R-PTAW
Alternator LEROY SOMER , LSA502L8

STANDARD FEATURES

- Electronic governor
- Mechanically welded chassis with antivibration suspension
- Radiator for wiring temperature of 48/50°C max with mechanical fan
- Protective grille for fan and rotating parts
- Exhaust compensators with flanges
- 24 V charge alternator and starter
- Delivered with oil and coolant -30°C
- Manual for use and installation



Voltage	Power ESP kWe/kVA	Power PRP kWe/kVA	Standby Amps	Dimensions	Weight
415/240	1320 / 1650	1200 / 1500	2296		
400/230	1320 / 1650	1200 / 1500	2382	Leng : 5090mm [200in]	12153kg [26793lbs] Net
380/220	1320 / 1650	1200 / 1500	2507	Widt : 2200mm [87in]	12827kg [28279lbs] Gross
				Heig : 2510mm [99in]	


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.

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 ESP/PRP 27 C°/40 C° Air Intlet Temp, 1000 m/1000 m m A.S.L. 60 % relative humidity.

Model	dB(A)@1m	dB(A)@7m	Dimensions	Weight	Tank
	100	90	Leng : 6058mm [239in]	17307kg [38155lbs]	500 L
			Widt : 2438mm [96in]	18221kg [40170lbs]	
			Heig : 2896mm [114in]		



ENGINE SPECIFICATIONS

DATA GENERAL DATA	Motor model	MITSUBISHI S12R-PTAW , 4-temps, TURBO , AIR/WATER 12 X
	Cylinder arrangement	V
	Displacement (C.I.)	49.03
	Bore (mm) X Stroke (mm)	170 X 180
	Compression ratio	14.5 : 1
	Speed (RPM)	1500
	Pistons speed (m/s)	9
	Maximum stand-by power at rated RPM (kW)	1462
	Frequency regulation (%)	0.25
	BMEP (bar)	21.69
	Governor type	ELEC
EXHAUST SYSTEM	Exhaust gas temperature (°F)	N/A
	Exhaust gas flow (L/s)	5766
	Max. exhaust back pressure (mm CE)	600
FUEL SYSTEM	Consumption @ 110% load (L/h)	N/A
	Consumption @ 100% load (L/h)	N/A
	Consumption @ 75% load (L/h)	N/A
	Consumption @ 50% load (L/h)	N/A
	Maximum fuel pump flow (L/hr)	N/A
OIL	Oil capacity (L)	180
	Min. oil pressure (bar)	4.9
	Max. oil pressure (bar)	6.4
	Oil consumption 100% load (L/h)	N/A
	Carter oil capacity (L)	150
THERMAL BALANCE	Heat rejection to exhaust (kW)	1245
	Radiated heat to ambient (kW)	114
	Heat rejection to coolant (kW)	496
AIR INTAKE	AIR INTAKE_entree_max%	400
	Intake air flow (L/s)	2183
COOLANT SYSTEM	Radiator & Engine capacity (L)	N/A
	Max water temperature (°C)	98
	Outlet water temperature (°C)	95
	Fan power (kW)	44
	Fan air flow w/o restriction (m3/s)	N/A
	Available restriction on air flow (mm CE)	N/A
	Type of coolant	GENCOOL
	Thermostat (°C)	71-85
EMISSIONS	Emissions PM (g/kW.h)	N/A
	Emission CO (g/kW.h)	N/A
	Emissions HCNOx (g/kWh)	N/A
	Emission HC (g/kW.h)	N/A

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ALTERNATOR SPECIFICATIONS

DATA GENERAL DATA	Alternator brand	LEROY SOMER
	Alternator	LSA502L8
	Number of phase	3
	Power factor (Cos Phi)	0.8
	Altitude (m)	<1000
	Overspeed (rpm)	2250
	Number of pole	4
	Excitation system	AREP
	Insulation class / Temperature class	H / H
	Regulation	R448V50
	Total harmonics TGH/THC	<3.5
	Wave form : NEMA=TIF-TGH/THC	<50
	Wave form : CEI=FHT-TGH/THC	<2
	Number of bearing	1
	Coupling	DIRECT
	Voltage regulation 0 à 100%	0.5
	Recovery time (Delta U = 20% transitoire) (ms)	500
OTHER DATA	Continuous Nominal Rating 40°C (kVA)	1500
	Standby Rating 27°C (kVA)	1650
	Efficiencies 4/4 load (%)	95.4
	Air flow (m3/s)	1.8
	Short circuit ratio (Kcc)	0.31
	Direct axis synchro reactance unsaturated (Xd) (%)	378
	Quadra axis synchro reactance unsaturated (Xq) (%)	227
	Open circuit time constant (T'do) (ms)	3910
	Direct axis transient reactance saturated (X'd) (%)	17.4
	Short circuit transient time constant (T'd) (ms)	180
	Direct axis subtransient reactance saturated (X''d) (%)	14.8
	Subtransient time constant (T''d) (ms)	18
	Quadra axis subtransient reactance saturated (X''q) (%)	15.4
	Zero sequence reactance unsaturated (Xo) (%)	3.3
	Negative sequence reactance saturated (X2) (%)	15.1
	Armature time constant (Ta) (ms)	27
	No load excitation current (io) (ms)	0.9
	Full load excitation current (ic) (A)	3.9
	Full load excitation voltage (uc) (A)	42
	Recovery time (Delta U = 20% transitoire) (ms)	500
	Motor start (Delta U = 20% perm. or 50% trans.) (ms)	3701
	Transient dip (4/4 charge) - PF : 0,8 AR (%)	12.4
	No load losses (kW)	15.42
Heat rejection (kW)	57.11	

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CONTROL PANEL



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