

X715

Engine MTU , 12V2000G25F
Alternator LEROY SOMER , LSA491S4

STANDARD FEATURES

- Electronic governor
- Mechanically welded chassis with antivibration suspension
- Radiator for wiring temperature of 48/50°C max with mechanical fan
- 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	572 / 715	520 / 650	995		
400/230	572 / 715	520 / 650	1032	Leng : 3971mm [156in]	4989kg [10999lbs] Net
380/220	572 / 715	520 / 650	1086	Widt : 1848mm [73in]	5223kg [11515lbs] Gross
240 TRI	572 / 715	520 / 650	1720	Heig : 2002mm [79in]	
230 TRI	572 / 715	520 / 650	1795		
220 TRI	572 / 715	520 / 650	1876		





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
	CIR20SSi	N/A	N/A	Leng : 6058mm [239in] Widt : 2438mm [96in] Heig : 2896mm [114in]	12500kg [27558lbs] 13011kg [28684lbs]	500 L
	CIR20SSi-R	N/A	N/A	Leng : 6058mm [239in] Widt : 2438mm [96in] Heig : 2896mm [114in]	12640kg [27866lbs] 14752kg [32523lbs]	2000 L
	ISO20	87	77	Leng : 6058mm [239in] Widt : 2438mm [96in] Heig : 2896mm [114in]	9952kg [21940lbs] 10635kg [23446lbs]	500 L
	M427	90	80	Leng : 6400mm [252in] Widt : 2170mm [85in] Heig : 2721mm [107in]	7907kg [17432lbs] 8956kg [19745lbs]	930 L

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ENGINE SPECIFICATIONS

DATA GENERAL DATA	Motor model	MTU 12V2000G25F , 4-temps, TURBO , AIR/AIR 12 X
	Cylinder arrangement	V
	Displacement (C.I.)	23.89
	Bore (mm) X Stroke (mm)	130 X 150
	Compression ratio	16
	Speed (RPM)	1500
	Pistons speed (m/s)	7.5
	Maximum stand-by power at rated RPM (kW)	635
	Frequency regulation (%)	N/A
	BMEP (bar)	19.42
	Governor type	Electronique
EXHAUST SYSTEM	Exhaust gas temperature (°F)	545
	Exhaust gas flow (L/s)	1950
	Max. exhaust back pressure (mm CE)	300
FUEL SYSTEM	Consumption @ 110% load (L/h)	150
	Consumption @ 100% load (L/h)	137
	Consumption @ 75% load (L/h)	104
	Consumption @ 50% load (L/h)	73
	Maximum fuel pump flow (L/hr)	480
OIL	Oil capacity (L)	77
	Min. oil pressure (bar)	4.4
	Max. oil pressure (bar)	6.2
	Oil consumption 100% load (L/h)	1.37
	Carter oil capacity (L)	67
THERMAL BALANCE	Heat rejection to exhaust (kW)	N/A
	Radiated heat to ambient (kW)	40
	Heat rejection to coolant (kW)	280
AIR INTAKE	AIR INTAKE_entree_max%	150
	Intake air flow (L/s)	700
COOLANT SYSTEM	Radiator & Engine capacity (L)	N/A
	Max water temperature (°C)	102
	Outlet water temperature (°C)	95
	Fan power (kW)	20
	Fan air flow w/o restriction (m3/s)	14
	Available restriction on air flow (mm CE)	20
	Type of coolant	N/A
	Thermostat (°C)	N/A
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	LSA491S4
	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	R448_LS/B
	Total harmonics TGH/THC	<4
	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%	1
	Recovery time (Delta U = 20% transitoire) (ms)	500
OTHER DATA	Continuous Nominal Rating 40°C (kVA)	660
	Standby Rating 27°C (kVA)	725
	Efficiencies 4/4 load (%)	93.6
	Air flow (m3/s)	1
	Short circuit ratio (Kcc)	0.38
	Direct axis synchro reactance unsaturated (Xd) (%)	343
	Quadra axis synchro reactance unsaturated (Xq) (%)	205
	Open circuit time constant (T'do) (ms)	1958
	Direct axis transient reactance saturated (X'd) (%)	17.5
	Short circuit transient time constant (T'd) (ms)	100
	Direct axis subtransient reactance saturated (X''d) (%)	14
	Subtransient time constant (T''d) (ms)	10
	Quadra axis subtransient reactance saturated (X''q) (%)	16.3
	Zero sequence reactance unsaturated (Xo) (%)	0.9
	Negative sequence reactance saturated (X2) (%)	15.2
	Armature time constant (Ta) (ms)	15
	No load excitation current (io) (ms)	0.9
	Full load excitation current (ic) (A)	3.6
	Full load excitation voltage (uc) (A)	43
	Recovery time (Delta U = 20% transitoire) (ms)	500
	Motor start (Delta U = 20% perm. or 50% trans.) (ms)	1578
	Transient dip (4/4 charge) - PF : 0,8 AR (%)	13.3
	No load losses (kW)	8.1
Heat rejection (kW)	33.7	

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CONTROL PANEL

Standard

M80



M80

Specifications : Tachometer, Emergency stop button, client connection terminal strip, EC certified
 Engine parameters : Hours counter, Oil pressure gauge, Water temperature indicator, Oil pressure indicator

Option

TELYS



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

KERYS



KERYS

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...