

X880

Engine MTU , 12V2000G65F
Alternator LEROY SOMER , LSA491L9A

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 | 704 / 880 | 640 / 800 | 1224 | | |
| 400/230 | 704 / 880 | 640 / 800 | 1270 | Leng : 3971mm [156in] | 5474kg [12068lbs] Net |
| 380/220 | 704 / 880 | 640 / 800 | 1337 | Widt : 1848mm [73in] | 5724kg [12619lbs] Gross |
| 240 TRI | 704 / 880 | 640 / 800 | 2117 | Heig : 2150mm [85in] | |
| 230 TRI | 704 / 880 | 640 / 800 | 2209 | | |
| 220 TRI | 704 / 880 | 640 / 800 | 2309 | | |





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 | 82.6 | 72.6 | Leng : 6058mm [239in] Widt : 2438mm [96in] Heig : 2896mm [114in] | 12869kg [28371lbs] 13380kg [29498lbs] | 500 L |
|  CIR20SSi-R | 82.6 | 72.6 | Leng : 6058mm [239in] Widt : 2438mm [96in] Heig : 2896mm [114in] | 13009kg [28680lbs] 15121kg [33336lbs] | 2000 L |
|  ISO20 | N/A | N/A | Leng : 6058mm [239in] Widt : 2438mm [96in] Heig : 2896mm [114in] | 10416kg [22963lbs] 11099kg [24469lbs] | 500 L |
|  M427 | 91 | 81 | Leng : 6400mm [252in] Widt : 2170mm [85in] Heig : 2721mm [107in] | 8357kg [18424lbs] 9422kg [20772lbs] | 930 L |

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ENGINE SPECIFICATIONS

| | | |
|--------------------------|---|--|
| DATA GENERAL DATA | Motor model | MTU 12V2000G65F , 4-temps, TURBO , AIR/AIR 12 X |
| | Cylinder arrangement | V |
| | Displacement (C.l.) | 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) | 765 |
| | Frequency regulation (%) | N/A |
| | BMEP (bar) | 23.27 |
| | Governor type | Electronique |
| EXHAUST SYSTEM | Exhaust gas temperature (°F) | 555 |
| | Exhaust gas flow (L/s) | 2300 |
| | Max. exhaust back pressure (mm CE) | 300 |
| FUEL SYSTEM | Consumption @ 110% load (L/h) | 181 |
| | Consumption @ 100% load (L/h) | 163 |
| | Consumption @ 75% load (L/h) | 123 |
| | Consumption @ 50% load (L/h) | 85 |
| | Maximum fuel pump flow (L/hr) | 480 |
| OIL | Oil capacity (L) | 77 |
| | Min. oil pressure (bar) | 4.7 |
| | Max. oil pressure (bar) | 7.5 |
| | Oil consumption 100% load (L/h) | 1.63 |
| | 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) | 310 |
| AIR INTAKE | AIR INTAKE_entree_max% | 150 |
| | Intake air flow (L/s) | 850 |
| COOLANT SYSTEM | Radiator & Engine capacity (L) | N/A |
| | Max water temperature (°C) | 102 |
| | Outlet water temperature (°C) | 95 |
| | Fan power (kW) | 24.7 |
| | Fan air flow w/o restriction (m3/s) | 18.3 |
| | 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 | LSA491L9A |
| | 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) | 1000 |
| OTHER DATA | Continuous Nominal Rating 40°C (kVA) | 825 |
| | Standby Rating 27°C (kVA) | 910 |
| | Efficiencies 4/4 load (%) | 95 |
| | Air flow (m3/s) | 1 |
| | Short circuit ratio (Kcc) | 0.45 |
| | Direct axis synchro reactance unsaturated (Xd) (%) | 285 |
| | Quadra axis synchro reactance unsaturated (Xq) (%) | 171 |
| | Open circuit time constant (T'do) (ms) | 2111 |
| | Direct axis transient reactance saturated (X'd) (%) | 13.5 |
| | Short circuit transient time constant (T'd) (ms) | 100 |
| | Direct axis subtransient reactance saturated (X''d) (%) | 10.8 |
| | Subtransient time constant (T''d) (ms) | 10 |
| | Quadra axis subtransient reactance saturated (X''q) (%) | 11.7 |
| | Zero sequence reactance unsaturated (Xo) (%) | 0.8 |
| | Negative sequence reactance saturated (X2) (%) | 11.3 |
| | Armature time constant (Ta) (ms) | 15 |
| | No load excitation current (io) (ms) | 0.9 |
| | Full load excitation current (ic) (A) | 3.1 |
| | Full load excitation voltage (uc) (A) | 36 |
| | Recovery time (Delta U = 20% transitoire) (ms) | 1000 |
| | Motor start (Delta U = 20% perm. or 50% trans.) (ms) | 2372 |
| | Transient dip (4/4 charge) - PF : 0,8 AR (%) | 10 |
| | No load losses (kW) | 9.8 |
| Heat rejection (kW) | 32.5 | |

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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...