

J250U

DIESEL GENSET

MODEL	J250U
Stand-by Power @ 60Hz	250kW / 313 kVA
Prime Power @ 60Hz	227 kW / 284 kVA

Standard Features

General features :

- Engine (JOHN DEERE , 6081HF001)
- Charge alternator 12 V , Governor:Meca
- Alternator (LEROY SOMER , LSA462L9)
- Single bearing alternator IP 23 , insulation class H /H
- Radiator 50°C [122°F]°C max. T° air inlet with coolant cap
- Skid and vibration isolators
- Dry type air filter
- Main line circuit breaker
- Microprocessor control panel
- 12 V battery, rack and cable
- Industrial silencer (loose)
- User manual ^pCSA Certified (consult us)



Generator Ratings

Voltage	HZ	Phase	P.F	Standby Amps	Standby Ratings kW/kVA	Prime Ratings kW/kVA
480/277	60	3	0.8	376	250 / 313	227 / 284
440/254	60	3	0.8	411	250 / 313	227 / 284
380/220	60	3	0.8	476	250 / 313	227 / 284
240/120	60	3	0.8	753	250 / 313	227 / 284
230/115	60	3	0.8	786	250 / 313	227 / 284
220/127	60	3	0.8	821	250 / 313	227 / 284
208/120	60	3	0.8	869	250 / 313	227 / 284
600/347	60	3	0.8	301	250 / 313	227 / 284

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.

Conditions of sale

- SDMO provides a full line of products with high quality recognized engines and alternators.
- Service and parts are available from SDMO distributors as a single source of responsibility.
- Each and every units is factory tested. All generator sets are also prototype tested.
- Warranty according to our standard conditions. Five years extended also available



ENGINE DATA

Manufacturer / Model	JOHN DEERE 6081HF001 , 4-cycle, Turbo , Air/Water SC
Cylinder Arrangement	6 X L
Displacement	8.1L [494.3C.I.]
Bore and Stroke	116mm [4.6in.] X 129mm [5.1in.]
Compression ratio	15.7 :1
Rated RPM	1800 Rpm
Piston Speed	7.74m/s [25.4ft./s]
Max. stand by Power at rated RPM	268kW [359BHP]
Frequency regulation, steady state	+/-2.5%
BMEP	19.8bar [287psi]
Governor : type	Meca

Exhaust System

Exhaust gas flow	842L/s [1784cfm]
Exhaust temperature	514°C [957°F]
Max back pressure	750mm CE [30in. WG]

Fuel System

110% (Stand By power)	64.3L/h [17.0gal/hr]
100% (of the Prime Power)	56.1L/h [14.8gal/hr]
75% (of the Prime Power)	40.1L/h [10.6gal/hr]
50% (of the Prime Power)	27.6L/h [7.3gal/hr]
Total fuel flow	209L/h [55.2gal/hr]

Oil System

Total oil capacity w/filters	32L [8.5gal]
Oil Pressure low idle	2.1bar [30.4psi]
Oil Pressure rated RPM	2.75bar [39.8psi]
Oil consumption 100% load	0.084L/h [0.0gal/hr]
Oil capacity carter	31L [8.2gal]

Thermal balance 100% load

Heat rejection to exhaust	202kW [11486Btu/mn]
Radiated heat to ambient	33kW [1876Btu/mn]
Heat rejection to coolant	N/A

Air intake

Max. intake restriction	625mm CE [25in. WG]
Engine air flow	307L/s [651cfm]

Coolant System

Radiator & engine capacity	40L [10.6gal]
Max water temperature	105°C [221°F]
Outlet water temperature	93°C [199°F]
Fan power	10 kW
Fan air flow	7m ³ /s [14834cfm]
Available restriction on air flow	20mm CE [0.8in. WG]
Type of coolant	Gencool
Thermostat	82-94 °C

Emissions

HC	N/A
CO	N/A
Nox	N/A
PM	N/A



ALTERNATOR SPECIFICATIONS

GENERAL DATA

- Compliance with NEMA MG21, UTE NF C51.111, VDE 0530, BS 4999, CSA standards.
- Vacuum-impregnated windings with epoxy varnish.
- IP21 drip proof.

ALTERNATOR DATA

Manufacturer / Type	LEROY SOMER LSA462L9
Number of phase	3
Power factor (Cos Phi)	0.8
Altitude	< 1000 m
Overspeed	2250 rpm
Pole : number	4
Exciter type	SHUNT
Insulation : class, temperature rise	H / H
Voltage regulator	R230
Sustained short circuit current	N/A
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 0.4 PF)	N/A

OTHER ALTERNATOR DATA

Continuous nominal rating @ 40°C	343 kVA
Standby rating @ 27°C	375 kVA
Efficiencies @ 4/4 load	93.2 %
Air flow	0.51m3/s [1080.62cfm]
Short circuit ratio;50 (Kcc)	0.49
Direct axis synchro reactance unsaturated (Xd)	290 %
Quadra axis synchro reactance unsaturated (Xq)	174 %
Open circuit time constant;50 (T'do)	2180 ms
Direct axis transient reactance saturated (X'd)	13.3 %
Short circuit transient time constant (T'd)	105 ms
Direct axis subtransient reactance saturated (X''d)	8 %
Subtransient time constant (T''d)	10 ms
Quadra axis subtransient reactance saturated (X''q)	9.9 %
Zero sequence reactance unsaturated (Xo)	0.4 %
Negative sequence reactance saturated (X2)	8.9 %
Armature time constant (Ta)	16 ms
No load excitation current (io)	1.1 A
Full load excitation current (ic)	3.8 A
Full load excitation voltage (uc)	34 V
Recovery time (Delta U = 20% transitoire)	< 500 ms
Motor start (Delta = 20% perm. Or 50% trans.)	840 kVA
Transient dip (4/4 charge) – PF : 1.8 AR	14.5 %
No load losses	6.6 kW
Heat rejection	19 kW

Control Panels

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, Alr preheating

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

Options

Engine and Radiator

- Heat shield protection
- Oil drain extension
- Heavy duty air filter
- Lube oil drain pump
- Radiator core guard
- Battery charger
- Block heater

Alternator

- Anti condensation heater
- Enforced impregnation
- Oversized alternator

Control panel

- • NFPA 110 level 1
- • Paralleling system
- • Remote annunciator
- • Oil temperature shutdown
- Key start panel

Exhaust

- Residential silencer
- Critical silencer
- Flexible exhaust conn.

Literature

- • Parts
- • Maintenance

Fuel

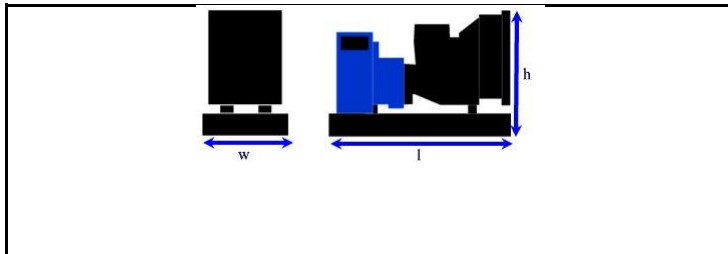
- Day tank
- Subbase fuel tanks UL
- Water separator fuel filter

Enclosure

- M227
- Silent 72.5 db @ 7m [23 Ft] (stby)

Weight and Dimensions

Open Model Excluding option



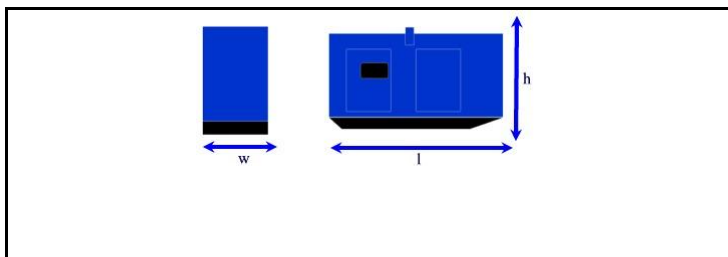
Overall size l x w x h :

2900mm [114in] x 1300mm [51in] x 1675mm [66in]

Weight :

2165kg [4772lbs] Net 2235kg [4926lbs] Brut

With Optional Enclosure



Overall size l x w x h :

4004mm [158in] x 1380mm [54in] x 2125mm [84in]

Weight :

3105kg [6843lbs] Net 3175kg [6998lbs] Brut