



**J300K**

**DIESEL GENSET**

MODEL	J300K
<b>Stand-by Power @ 50Hz</b>	<b>242kW / 303 kVA</b>
<b>Prime Power @ 50Hz</b>	<b>220 kW / 275 kVA</b>

**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



**Generator Ratings**

Voltage	HZ	Phase	P.F	Standby Amps	Standby Ratings kW/kVA	Prime Ratings kW/kVA
415/240	50	3	0.8	422	242 / 303	220 / 275
400/230	50	3	0.8	437	242 / 303	220 / 275
380/220	50	3	0.8	460	242 / 303	220 / 275
240/120	50	3	0.8	729	242 / 303	220 / 275
230/115	50	3	0.8	761	242 / 303	220 / 275
220/110	50	3	0.8	795	242 / 303	220 / 275
200/115	50	3	0.8	875	242 / 303	220 / 275

**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.l.]
Bore and Stroke	116mm [4.6in.] X 129mm [5.1in.]
Compression ratio	15.7 :1
Rated RPM	1500 Rpm
Piston Speed	6.45m/s [21.2ft./s]
Max. stand by Power at rated RPM	261kW [350BHP]
Frequency regulation, steady state	+/-2.5%
BMEP	27.2bar [394psi]
Governor : type	Meca

### Exhaust System

Exhaust gas flow	740L/s [1568cfm]
Exhaust temperature	640°C [1184°F]
Max back pressure	750mm CE [30in. WG]

### Fuel System

110% (Stand By power )	68L/h [18.0gal/hr]
100% (of the Prime Power)	56.9L/h [15.0gal/hr]
75% (of the Prime Power)	42.6L/h [11.3gal/hr]
50% (of the Prime Power)	29.4L/h [7.8gal/hr]
Total fuel flow	203L/h [53.6gal/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	0.08L/h [0.0gal/hr]
Oil capacity carter	31L [8.2gal]

### Thermal balance 100% load

Heat rejection to exhaust	213kW [12111Btu/mn]
Radiated heat to ambient	34kW [1933Btu/mn]
Heat rejection to coolant	N/A

### Air intake

Max. intake restriction	625mm CE [25in. WG]
Engine air flow	303L/s [642cfm]

### Coolant System

Radiator & engine capacity	40L [10.6gal]
Max water temperature	105°C [221°F]
Outlet water temperature	93°C [199°F]
Fan power	7 kW
Fan air flow	5.5m3/s [11655cfm]
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, Air preheating

**TELYS**



Specifications :

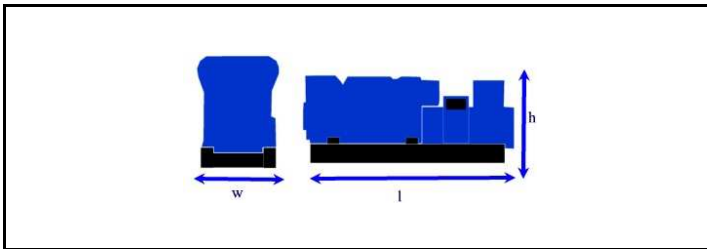
- Frequency meter, Ammeter, Voltmeter
- Alarms and faults Oil pressure, water temperature, No start-up, Overspeed, Min/max alternator, Min/max battery voltage, Low fuel level, Emergency stop
- Engine parameters Hours counter, Oil pressure, Water temperature, Engine speed, Battery voltage, Fuel level

## Options

Engine and Radiator	Alternator	Control panel
<ul style="list-style-type: none"> <li>Heat shield protection</li> <li>Oil drain extension</li> <li>Heavy duty air filter</li> <li>Lube oil drain pump</li> <li>Radiator core guard</li> <li>Battery charger</li> <li>Block heater</li> </ul>	<ul style="list-style-type: none"> <li>Anti condensation heater</li> <li>Enforced impregnation</li> <li>Oversized alternator</li> </ul>	<ul style="list-style-type: none"> <li>NFPA 110 level 1</li> <li>Paralleling system</li> <li>Remote annunciator</li> <li>Oil temperature shutdown</li> <li>Key start panel</li> </ul>
	Exhaust	Literature
	<ul style="list-style-type: none"> <li>Residential silencer</li> <li>Critical silencer</li> <li>Flexible exhaust conn.</li> </ul>	<ul style="list-style-type: none"> <li>Parts</li> <li>Maintenance</li> </ul>
Fuel	Enclosure	
<ul style="list-style-type: none"> <li>Day tank</li> <li>Subbase fuel tanks UL</li> <li>Water separator fuel filter</li> </ul>	<ul style="list-style-type: none"> <li>M227</li> <li>Silent 69.5 db @ 7m [23 Ft] (stby)</li> </ul>	

## Weight and Dimensions

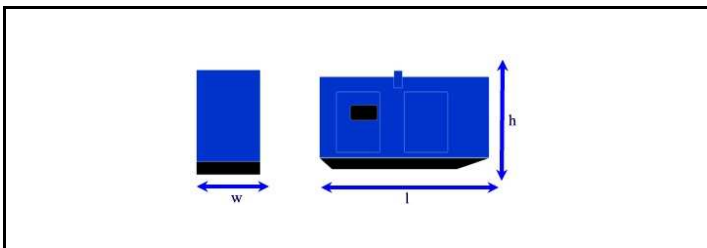
### Open Model Excluding option



Overall size l x w x h :  
2900mm [114in] x 1300mm [51in] x 1675mm [66in]

Weight :  
2235kg [4926lbs] Net 2635kg [5808lbs] Brut

### With Optional Enclosure



Overall size l x w x h :  
4004mm [158in] x 1380mm [54in] x 2125mm [84in]

Weight :  
3215kg [7086lbs] Net 3625kg [7990lbs] Brut