

# J300K

Engine JOHN DEERE , 6081HF001  
Alternator LEROY SOMER , LSA462L9

## STANDARD FEATURES

- Mechanical governor
- Mechanically welded chassis with antivibration suspension
- Power circuit breaker
- Radiator for wiring T° of 50°C [122°F] max with mechanical fan
- Protective grille for fan and rotating parts
- 9dB(A) silencer supplied separately
- Charged DC starting battery with electrolyte
- 12 V charging alternator and starter
- Supplied with oil and coolant -30°C
- User manual and commissioning guide



Voltage	Power ESP kWe/kVA	Power PRP kWe/kVA	Standby Amps	Dimensions	Weight
415/240	242 / 303	220 / 275	422	Length: 2900mm [114in] Width: 1300mm [51in] Height: 1697mm [67in]	2235kg [4927 lbs] Net 2635kg [5809 lbs] Gross
400/230	242 / 303	220 / 275	437		
380/220	242 / 303	220 / 275	460		
240/120	242 / 303	220 / 275	729		
230/115	242 / 303	220 / 275	761		
220/110	242 / 303	220 / 275	795		
200/115	242 / 303	220 / 275	875		



## 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. 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.

## TERM OF USE

Standard reference conditions 25 °C Air Inlet Temp, 2300 m A.S.L. 60 % relative humidity. All engine performance data based on the above mentioned maximum continuous ratings.

Type	dB(A)@1m	dB(A)@7m	Dimensions	Weight	Tank
 M227	79.5	69.5	Length: 4004mm [158in] Width: 1380mm [54in] Height: 2145mm [84in]	3215kg [7088lbs] Net 3625kg [7992lbs] Gross	390 L
 M227-DW	79.5	69.5	Length: 4056mm [160in] Width: 1380mm [54in] Height: 2340mm [92in]	3692kg [8139lbs] Net 4662kg [10278lbs] Gross	950 L





## ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	JOHN DEERE 6081HF001 , 4-strokes, Turbo , Air/Water SC 6 X
	Cylinder Arrangement	L
	Displacement	8.1L [494.3C.I.]
	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 temperature	640°C [1184°F]
	Exhaust gas flow	740L/s [1568cfm]
	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]
	Max. fuel pump 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 [0.021gal/hr]
	Oil capacity carter	31L [8.2gal]
THERMAL BALANCE	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 w/o restriction	5.5m <sup>3</sup> /s [11655cfm]
	Available restriction on air flow	20mm CE [0.8in. WG]
	Type of coolant	Gencool
	Thermostat	82-94 °C
EMISSIONS LEVEL	PM	60 mg/Nm <sup>3</sup>
	CO	300 mg/Nm <sup>3</sup>
	Nox	2050 mg/Nm <sup>3</sup>
	HC	59 mg/Nm <sup>3</sup>

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## ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer	LEROY SOMER
	Type	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
	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 0.4PF)	N/A	
OTHER DATAS	Continuous nominal rating @ 40°C	280 kVA
	Standby rating @ 27°C	300 kVA
	Efficiencies @ 4/4 load	93 %
	Air flow	0.43m3/s [911.11cfm]
	Short circuit ratio;50 (Kcc)	0.48
	Direct axis synchro reactance unsaturated (Xd)	295 %
	Quadra axis synchro reactance unsaturated (Xq)	177 %
	Open circuit time constant;50 (T'do)	2170 ms
	Direct axis transient reactance saturated (X'd)	13.5 %
	Short circuit transient time constant (T'd)	105 ms
	Direct axis subtransient reactance saturated (X''d)	8.1 %
	Subtransient time constant (T''d)	10 ms
	Quadra axis subtransient reactance saturated (X''q)	10 %
	Zero sequence reactance unsaturated (Xo)	0.7 %
	Negative sequence reactance saturated (X2)	9.1 %
	Armature time constant (Ta)	16 ms
	No load excitation current (io)	1.2 A
	Full load excitation current (ic)	4 A
	Full load excitation voltage (uc)	35 V
	Recovery time (Delta U = 20% transitoire)	500 ms
	Motor start (Delta = 20% perm. Or 50% trans.)	680 kVA
	Transient dip (4/4 charge) – PF : 1.8 AR	14.6 %
No load losses	4.5kW [4.50Kw]	
Heat rejection	16.8 kW	



## CONTROL PANEL

### Standard



### 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

### Option



### 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

