

Model: J300K

Engine: JOHN DEERE, 6081HF001

Alternator: LEROY SOMER, LSA462L9

Specifications

- Mechanical governor
- Mechanically welded chassis with anti-vibration 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



Generator Ratings

Voltage	Power ESP kW/kVA	Power RRP kW/kVA	Standby Amps	Dimensions	Weight
415/240	242 / 303	220 / 275	422	Length: 2900 Width: 1300 Height: 1697	2235kg Net 2635kg 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		

RRP: 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 12hour 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.

Terms of Use: Standard reference conditions 25 ° C Air Inlet Temp, 100m A.S.L 60%

relative humidity. All engine performance data based on the above mentioned continuous ratings.

Canopy Version

Type	dB(A)@7m	Dimensions	Weight	Tank
M227	69.5	Length: 4004 Width: 1380 Height: 2145	3215kg Net 3625kg Gross	390 L
M227-DW	69.5	Length: 4056 Width: 1380 Height: 2340	3692kg Net 4662kg Gross	950 L

All units supplied with canopy as standard except when requested.

Engine Data

Manufacturer/Model	JOHN DEERE 6081HF001, 4-strokes, Turbo
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	1500 Rpm
Piston speed	6.45m/s [21.2ft./s]
Max. standby 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]
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 [0.021gal/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 w/o restriction	5.5m ³ /s [11655cfm]
Available restriction on air flow	20mm CE [0.8in. WG]
Type of coolant	Gencool
Thermostat	82-94 °C

Emissions

PM	60 mg/Nm ³
CO	300 mg/Nm ³
Nox	2050 mg/Nm ³
HC	59 mg/Nm ³

Alternator Specifications

Manufacturer/Type	LEROY SOMER (LSA462L9)
NUMBER OF PHASE	3
POWER FACTOR (Cos Phi)	0.8
ALTITUDE	< 1000m
OVERSPEED	2250 rpm
POLE: NUMBER	4
EXCITER TYPE	SHUNT
INSULATION: CLASS, TEMPERATURE RISE	H/H
VOLTAGE REGULATOR	R230
SUSTAINED SHORT CIRCUIT CURRENT	
TOTAL HARMONICS (TGH/THC)	< 4%
WAVE FROM : NEMA = TIF- TGH/THC	< 50
WAVE FROM: 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 NORMAL SUSTAINED VOLTAGE (AT 0.4PF)	[N/A]

Other Alternator Data

CONTINUOUS NOMINAL RATING @ 40° C	280 kVA
STANDBY RATING @ 27° C	300 kVA
EFFICIENCIES @ 4/4 LOAD	93 %
AIR FLOW	0.43m ³ /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

Other Alternator Data Continued

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 REACTACE UNSATURATED (X ₀)	0.7 %
NEGATIVE SEQUENCE REACTANCE SATURATED (X ₂)	9.1 %
ARMATURE TIME CONSTANT (T _a)	16 ms
NO LOAD EXCITATION CURRENT (i ₀)	1.2 A
NO LOAD EXCITATION CURRENT (i _c)	4 A
FULL LOAD EXCITATION VOLTAGE (u _c)	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 : 1.8AR	14.6 %
NO LOAD LOSSES	4.5kW [4.50Kw]
HEAT REJECTION	16.8 kW