

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 ³ /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 ³ |
| | CO | 300 mg/Nm ³ |
| | Nox | 2050 mg/Nm ³ |
| | HC | 59 mg/Nm ³ |

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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 | 0.43m 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 |
| | 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

