

J110K

Engine JOHN DEERE , 4045HF120
Alternator LEROY SOMER , LSA442VS45

STANDARD FEATURES

- Mechanic governor
- Mechanically welded chassis with antivibration suspension
- Main line circuit breaker
- Radiator for wiring temperature of 48/50°C max with mechanical fan
- Protective grille for fan and rotating parts
- 9 dB(A) silencer supplied separately
- Charger DC starting battery with electrolyte
- 12 V charge alternator and starter
- Delivered with oil and coolant -30°C
- Manual for use and installation



| Voltage | Power ESP kWe/kVA | Power PRP kWe/kVA | Standby Amps | Dimensions | Weight |
|---------|----------------------|----------------------|--------------|----------------------|------------------------|
| 415/240 | 88 / 110 | 80 / 100 | 153 | | |
| 400/230 | 88 / 110 | 80 / 100 | 159 | Leng : 1950mm [77in] | 1240kg [2734lbs] Net |
| 380/220 | 88 / 110 | 80 / 100 | 167 | Widt : 1084mm [43in] | 1440kg [3175lbs] Gross |
| 240 TRI | 88 / 110 | 80 / 100 | 265 | Heig : 1330mm [52in] | |
| 230 TRI | 88 / 110 | 80 / 100 | 276 | | |
| 220 TRI | 88 / 110 | 80 / 100 | 289 | | |
| 220/127 | 88 / 110 | 80 / 100 | 289 | | |
| 200/115 | 88 / 110 | 80 / 100 | 318 | | |



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.

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 ESP/PRP 25 C°/25 C° Air Intlet Temp, 1000 m/1000 m m A.S.L. 60 % relative humidity.

| | Model | dB(A)@1m | dB(A)@7m | Dimensions | Weight | Tank |
|---|---------|----------|----------|---|--------------------------------------|-------|
|  | M129-DW | 77 | 67 | Leng : 2602mm [102in] Widt : 1150mm [45in] Heig : 1900mm [75in] | 2059kg [4539lbs] 2564kg [5653lbs] | 505 L |
|  | M129 | 77 | 67 | Leng : 2554mm [101in] Widt : 1150mm [45in] Heig : 1680mm [66in] | 1640kg [3616lbs] 1840kg [4057lbs] | 190 L |



ENGINE SPECIFICATIONS

| | | |
|------------------------------|---|--|
| DATA GENERAL DATA | Motor model | JOHN DEERE 4045HF120 , 4-temps, TURBO , AIR/AIR 4 X |
| | Cylinder arrangement | L |
| | Displacement (C.l.) | 4.48 |
| | Bore (mm) X Stroke (mm) | 106 X 127 |
| | Compression ratio | 17 : 1 |
| | Speed (RPM) | 1500 |
| | Pistons speed (m/s) | 6.35 |
| | Maximum stand-by power at rated RPM (kW) | 97 |
| | Frequency regulation (%) | 2.5 |
| | BMEP (bar) | 15.7 |
| | Governor type | MECA |
| EXHAUST SYSTEM | Exhaust gas temperature (°F) | 545 |
| | Exhaust gas flow (L/s) | 283 |
| | Max. exhaust back pressure (mm CE) | 750 |
| FUEL SYSTEM | Consumption @ 110% load (L/h) | 25.5 |
| | Consumption @ 100% load (L/h) | 23.5 |
| | Consumption @ 75% load (L/h) | 16.5 |
| | Consumption @ 50% load (L/h) | 11.5 |
| | Maximum fuel pump flow (L/hr) | 108 |
| OIL | Oil capacity (L) | 13.5 |
| | Min. oil pressure (bar) | 1 |
| | Max. oil pressure (bar) | 5 |
| | Oil consumption 100% load (L/h) | 0.024 |
| | Carter oil capacity (L) | 12.5 |
| THERMAL BALANCE | Heat rejection to exhaust (kW) | 64 |
| | Radiated heat to ambient (kW) | 10.5 |
| | Heat rejection to coolant (kW) | 36 |
| AIR INTAKE | AIR INTAKE_entree_max% | 625 |
| | Intake air flow (L/s) | 106 |
| COOLANT SYSTEM | Radiator & Engine capacity (L) | 20.2 |
| | Max water temperature (°C) | 105 |
| | Outlet water temperature (°C) | 93 |
| | Fan power (kW) | 2.5 |
| | Fan air flow w/o restriction (m3/s) | 3.7 |
| | Available restriction on air flow (mm CE) | 20 |
| | Type of coolant | GENCOOL |
| | Thermostat (°C) | 82-94 |
| EMISSIONS | Emissions PM (g/kW.h) | N/A |
| | Emission CO (g/kW.h) | N/A |
| | Emissions HCNOx (g/kWh) | N/A |
| | Emission HC (g/kW.h) | N/A |

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ALTERNATOR SPECIFICATIONS

| | | |
|------------------------------------|---|-------------|
| DATA GENERAL DATA | Alternator brand | LEROY SOMER |
| | Alternator | LSA442VS45 |
| | Number of phase | 3 |
| | Power factor (Cos Phi) | 0.8 |
| | Altitude (m) | <1000 |
| | Overspeed (rpm) | 2250 |
| | Number of pole | 4 |
| | Excitation system | SHUNT |
| | Insulation class / Temperature class | H / H |
| | Regulation | R230 |
| | Total harmonics TGH/THC | <2 |
| | Wave form : NEMA=TIF-TGH/THC | <50 |
| | Wave form : CEI=FHT-TGH/THC | <2 |
| | Number of bearing | 1 |
| | Coupling | DIRECT |
| | Voltage regulation 0 à 100% | 0.5 |
| | Recovery time (Delta U = 20% transitoire) (ms) | 500 |
| OTHER DATA | Continuous Nominal Rating 40°C (kVA) | 105 |
| | Standby Rating 27°C (kVA) | 116 |
| | Efficiencies 4/4 load (%) | 90.7 |
| | Air flow (m3/s) | 0.37 |
| | Short circuit ratio (Kcc) | 0.35 |
| | Direct axis synchro reactance unsaturated (Xd) (%) | 362 |
| | Quadra axis synchro reactance unsaturated (Xq) (%) | 217 |
| | Open circuit time constant (T'do) (ms) | 2555 |
| | Direct axis transient reactance saturated (X'd) (%) | 14.1 |
| | Short circuit transient time constant (T'd) (ms) | 100 |
| | Direct axis subtransient reactance saturated (X''d) (%) | 8.5 |
| | Subtransient time constant (T''d) (ms) | 10 |
| | Quadra axis subtransient reactance saturated (X''q) (%) | 10.4 |
| | Zero sequence reactance unsaturated (Xo) (%) | 0.5 |
| | Negative sequence reactance saturated (X2) (%) | 9.5 |
| | Armature time constant (Ta) (ms) | 15 |
| | No load excitation current (io) (ms) | 0.5 |
| | Full load excitation current (ic) (A) | 2.1 |
| | Full load excitation voltage (uc) (A) | 38 |
| | Recovery time (Delta U = 20% transitoire) (ms) | 500 |
| | Motor start (Delta U = 20% perm. or 50% trans.) (ms) | 194 |
| | Transient dip (4/4 charge) - PF : 0,8 AR (%) | 17.3 |
| | No load losses (kW) | 1.8 |
| Heat rejection (kW) | 8.5 | |

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CONTROL PANEL

Standard

NEXYS



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



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