

# 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 Inlet 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

<b>DATA</b>  <b>GENERAL DATA</b>	Motor model	JOHN DEERE 4045HF120 , 4-temps, TURBO , AIR/AIR 4 X
	Cylinder arrangement	L
	Displacement (C.I.)	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
<b>EXHAUST SYSTEM</b>	Exhaust gas temperature (°F)	545
	Exhaust gas flow (L/s)	283
	Max. exhaust back pressure (mm CE)	750
<b>FUEL SYSTEM</b>	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
<b>OIL</b>	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
<b>THERMAL BALANCE</b>	Heat rejection to exhaust (kW)	64
	Radiated heat to ambient (kW)	10.5
	Heat rejection to coolant (kW)	36
<b>AIR INTAKE</b>	AIR INTAKE_entree_max%	625
	Intake air flow (L/s)	106
<b>COOLANT SYSTEM</b>	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
<b>EMISSIONS</b>	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

<b>DATA</b>  <b>GENERAL DATA</b>	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
<b>OTHER</b>  <b>DATA</b>	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

# M129

## Soundproofing canopy

### STANDARD FEATURES

- They protect stationary and mobile generator against the bad weather, against the theft and enables the reduction of the noise level.
- Enclosures are of 12 gauge steel. Steel sheet are electro zinc coated before painting (inside and outside) with a polyester powder rust inhibiting coat .
- High corrosion resistance: stainless covered with zinc and made in dichromate, bolts and rivets, anodized aluminium alloy hinges flexible seals between body sections.
- Soundfoam between 20 and 50 mm (1 to 2 in) acoustical sound treatment
- Lifting eye(s) on top of the enclosure fixed to the skid
- Large doors allow easy access to the generator set for service and monitoring purposes
- Window in "securit" glass mounted on enclosure door for control viewing .
- A critical silencer is mounted inside the enclosure
- Emergency stop button is accessible from outside enclosure.



Model	dB(A)@1m	Sound level dB(A)@7m	LWA	Dimensions (mm)	Weight (kgs)	Tank (l)
J110K	77 67		96	2554 x 1150 x 1680	1640 190	