

J220K

Engine JOHN DEERE , 6068HF475
 Alternator LEROY SOMER , LSA462M5

STANDARD FEATURES

- Mechanical governor
- Mechanically welded chassis with vibration isolators
- Main line 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 + cables
- 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	176 / 220	160 / 200	306	Length: 2370mm [93in] Width: 1114mm [44in] Height: 1480mm [58in]	1790kg [3945lbs] Net 2130kg [4695lbs] Gross
400/230	176 / 220	160 / 200	318		
380/220	176 / 220	160 / 200	334		
240/120	176 / 220	160 / 200	529		
230/115	176 / 220	160 / 200	552		
220/110	176 / 220	160 / 200	577		
200/115	176 / 220	160 / 200	635		

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, 3000 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
M226	78.6	68.6	Length: 3508mm [138in]	2390kg [5268lbs]	340 L
			Width: 1200mm [47in] Height: 1830mm [72in]	Net 2740kg [6039lbs] Gross	





ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	JOHN DEERE 6068HF475 , 4-strokes, Turbo , Air/Air DC 6 X
	Cylinder Arrangement	L
	Displacement	6.72L [410.1C.I.]
	Bore and Stroke	106mm [4.2in.] X 127mm [5.0in.]
	Compression ratio	17:1
	Rated RPM	1500 Rpm
	Piston Speed	6.35m/s [20.8ft./s]
	Max. stand by Power at rated RPM	204kW [273BHP]
	Frequency regulation, steady state	+/-0, 5%
	BMEP	22bar [319psi]
Governor : type	Elec	
EXHAUST SYSTEM	Exhaust temperature	524°C [975°F]
	Exhaust gas flow	525L/s [1113cfm]
	Max back pressure	750mm CE [30in. WG]
FUEL SYSTEM	110% (Stand By power)	48.6L/h [12.8gal/hr]
	100% (of the Prime Power)	43.5L/h [11.5gal/hr]
	75% (of the Prime Power)	32.6L/h [8.6gal/hr]
	50% (of the Prime Power)	22.0L/h [5.8gal/hr]
	Max. fuel pump flow	82.3L/h [21.7gal/hr]
OIL SYSTEM	Total oil capacity w/filters	33L [8.7gal]
	Oil Pressure low idle	1bar [14.5psi]
	Oil Pressure rated RPM	5bar [72.5psi]
	Oil consumption 100% load	0.04L/h [0.0gal/hr]
THERMAL BALANCE	Oil capacity carter	32L [8.5gal]
	Heat rejection to exhaust	131kW [7449Btu/mn]
	Radiated heat to ambient	22kW [1251Btu/mn]
AIR INTAKE	Heat rejection to coolant	N/A
	Max. intake restriction	625mm CE [25in. WG]
COOLANT SYSTEM	Engine air flow	202L/s [428cfm]
	Radiator & engine capacity	30L [7.9gal]
	Max water temperature	105°C [221°F]
	Outlet water temperature	93°C [199°F]
	Fan power	3 kW
	Fan air flow w/o restriction	5.1m ³ /s [10807cfm]
	Available restriction on air flow	20mm CE [0.8in. WG]
	Type of coolant	Coolelf sx
	Thermostat	82-94 °C
EMISSIONS LEVEL	PM	N/A
	CO	N/A
	Nox	N/A
	HC	N/A



ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer / Type	LERROY SOMER LSA462M5
	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
	Sustained short circuit current	3.8 AC
	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
Standby rating @ 27°C		223 kVA
Efficiencies @ 4/4 load		92.3 %
Air flow		0.43m3/s [911.11cfm]
Short circuit ratio;50 (Kcc)		0.45
Direct axis synchro reactance unsaturated (Xd)		302 %
Quadra axis synchro reactance unsaturated (Xq)		181 %
Open circuit time constant;50 (T'do)		2040 ms
Direct axis transient reactance saturated (X'd)		14.8 %
Short circuit transient time constant (T'd)		105 ms
Direct axis subtransient reactance saturated (X''d)		8.9 %
Subtransient time constant (T''d)		10 ms
Quadra axis subtransient reactance saturated (X''q)		11 %
Zero sequence reactance unsaturated (Xo)		0.8 %
Negative sequence reactance saturated (X2)		9.9 %
Armature time constant (Ta)		16 ms
No load excitation current (io)		1.1 A
Full load excitation current (ic)		N/A
Full load excitation voltage (uc)		34 V
Recovery time (Delta U = 20% transitoire)		< 500 ms
Motor start (Delta = 20% perm. Or 50% trans.)		495 kVA
Transient dip (4/4 charge) – PF : 1.8 AR		15.5 %
No load losses		3.1kW [3.10Kw]
Heat rejection	13.2 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

