

J165K

Engine JOHN DEERE , 6068HF120-153
 Alternator LEROY SOMER , LSA442M95

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	128 / 160	116 / 145	223	Length: 2370mm [93in] Width: 1114mm [44in] Height: 1480mm [58in]	1640kg [3615lbs] Net 1980kg [4364lbs] Gross
400/230	132 / 165	120 / 150	238		
380/220	132 / 165	120 / 150	251		
240/120	132 / 165	120 / 150	397		
230/115	132 / 165	120 / 150	414		
220/110	132 / 165	120 / 150	433		
220/127	106 / 132	96 / 120	346		
200/115	132 / 165	120 / 150	476		


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 Intlet 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
 M226	78.6	68.8	Length: 3508mm [138in]	2230kg [4915lbs]	340 L
			Width: 1200mm [47in] Height: 1830mm [72in]	Net 2580kg [5686lbs] Gross	





ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	JOHN DEERE 6068HF120-153 , 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	150kW [201BHP]
	Frequency regulation, steady state	+/-2. 5%
	BMEP	16.3bar [236psi]
Governor : type	Meca	
EXHAUST SYSTEM	Exhaust temperature	555°C [1031°F]
	Exhaust gas flow	385L/s [816cfm]
	Max back pressure	750mm CE [30in. WG]
FUEL SYSTEM	110% (Stand By power)	36.5L/h [9.6gal/hr]
	100% (of the Prime Power)	33.5L/h [8.9gal/hr]
	75% (of the Prime Power)	25L/h [6.6gal/hr]
	50% (of the Prime Power)	17L/h [4.5gal/hr]
	Max. fuel pump flow	108L/h [28.5gal/hr]
OIL SYSTEM	Total oil capacity w/filters	21.5L [5.7gal]
	Oil Pressure low idle	1bar [14.5psi]
	Oil Pressure rated RPM	5bar [72.5psi]
	Oil consumption 100% load	0.037L/h [0.0gal/hr]
THERMAL BALANCE	Oil capacity carter	20.6L [5.4gal]
	Heat rejection to exhaust	99kW [5629Btu/mn]
	Radiated heat to ambient	16kW [910Btu/mn]
AIR INTAKE	Heat rejection to coolant	55kW [3127Btu/mn]
	Max. intake restriction	625mm CE [25in. WG]
	Engine air flow	170L/s [360cfm]
COOLANT SYSTEM	Radiator & engine capacity	25.8L [6.8gal]
	Max water temperature	105°C [221°F]
	Outlet water temperature	93°C [199°F]
	Fan power	3 kW
	Fan air flow w/o restriction	4.44m ³ /s [9409cfm]
	Available restriction on air flow	20mm CE [0.8in. WG]
	Type of coolant	Gencool
	Thermostat	82-94 °C
EMISSIONS LEVEL	PM	80 mg/Nm ³
	CO	150 mg/Nm ³
	Nox	2800 mg/Nm ³
	HC	35 mg/Nm ³



ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer / Type	LEROY SOMER LSA442M95
	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	2 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		165 kVA
Efficiencies @ 4/4 load		92.1 %
Air flow		0.37m3/s [783.98cfm]
Short circuit ratio;50 (Kcc)		0.42
Direct axis synchro reactance unsaturated (Xd)		317 %
Quadra axis synchro reactance unsaturated (Xq)		190 %
Open circuit time constant;50 (T'do)		2865 ms
Direct axis transient reactance saturated (X'd)		11 %
Short circuit transient time constant (T'd)		100 ms
Direct axis subtransient reactance saturated (X''d)		6.6 %
Subtransient time constant (T''d)		10 ms
Quadra axis subtransient reactance saturated (X''q)		7.8 %
Zero sequence reactance unsaturated (Xo)		0.3 %
Negative sequence reactance saturated (X2)		7.3 %
Armature time constant (Ta)		15 ms
No load excitation current (io)		0.6 A
Full load excitation current (ic)		N/A
Full load excitation voltage (uc)		36 V
Recovery time (Delta U = 20% transitoire)		500 ms
Motor start (Delta = 20% perm. Or 50% trans.)		400 kVA
Transient dip (4/4 charge) – PF : 1.8 AR		14.7 %
No load losses		2.62kW [2.62Kw]
Heat rejection	10.2 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

