

J160UC3

Tiers 3
 Engine JOHN DEERE , 6068HFS83
 Alternator LEROY SOMER , LSA442L12

STANDARD FEATURES

- Electronic 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
480/277	160 / 200	145 / 182	241	Length: 2370mm [93in] Width: 1114mm [44in] Height: 1480mm [58in]	1700kg [3748 lbs] Net 2060kg [4542 lbs] Gross
440/254	160 / 200	145 / 182	262		
240/120	160 / 200	145 / 182	481		
230/115	155 / 194	141 / 176	487		
220/127	160 / 200	145 / 182	525		
208/120	160 / 200	145 / 182	555		
600/347	160 / 200	145 / 182	192		



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	81.5	71.5	Length: 3508mm [138in] Width: 1200mm [47in] Height: 1830mm [72in]	2280kg [5027lbs] Net 2630kg [5798lbs] Gross	340 L
 M226-DW	81.5	71.5	Length: 3560mm [140in] Width: 1200mm [47in] Height: 2182mm [86in]	2640kg [5820lbs] Net 3530kg [7782lbs] Gross	868 L





ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	JOHN DEERE 6068HFS83 , 4-strokes, Turbo , Air/Water SC 6 X
	Cylinder Arrangement	L
	Displacement	6.8L [415.0C.I.]
	Bore and Stroke	106mm [4.2in.] X 127mm [5.0in.]
	Compression ratio	19 : 1
	Rated RPM	1800 Rpm
	Piston Speed	7.62m/s [25.0ft./s]
	Max. stand by Power at rated RPM	177.00kW [237BHP]
	Frequency regulation, steady state	+/- 0.5%
	BMEP	17.35bar [251psi]
	Governor : type	ELEC
EXHAUST SYSTEM	Exhaust temperature	505°C [941°F]
	Exhaust gas flow	566.67L/s [1201cfm]
	Max back pressure	750mm CE [30in. WG]
FUEL SYSTEM	110% (Stand By power)	44.35L/h [11.7gal/hr]
	100% (of the Prime Power)	40.91L/h [10.8gal/hr]
	75% (of the Prime Power)	34.71L/h [9.2gal/hr]
	50% (of the Prime Power)	25.29L/h [6.7gal/hr]
	Max. fuel pump flow	107.29L/h [28.3gal/hr]
OIL SYSTEM	Total oil capacity w/filters	33L [8.7gal]
	Oil Pressure low idle	1.05bar [15.2psi]
	Oil Pressure rated RPM	3.00bar [43.5psi]
	Oil consumption 100% load	0.11L/h [0.029gal/hr]
	Oil capacity carter	32L [8.5gal]
THERMAL BALANCE	Heat rejection to exhaust	133.83kW [7610Btu/mn]
	Radiated heat to ambient	21.59kW [1228Btu/mn]
	Heat rejection to coolant	N/A
AIR INTAKE	Max. intake restriction	375mm CE [15in. WG]
	Engine air flow	226.67L/s [480cfm]
COOLANT SYSTEM	Radiator & engine capacity	25.8L [6.8gal]
	Max water temperature	110.00°C [230°F]
	Outlet water temperature	93°C [199°F]
	Fan power	9.74 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	82-95 °C
EMISSIONS LEVEL	PM	0.13 gr/bhp/h
	CO	0.98 gr/bhp/h
	HC/Nox	2.66 gr/bhp/h





ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer	LEROY SOMER
	Type	LSA442L12
	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	190 kVA
	Standby rating @ 27°C	225 kVA
	Efficiencies @ 4/4 load	92.8 %
	Air flow	0.44m3/s [932.30cfm]
	Short circuit ratio;50 (Kcc)	0.41
	Direct axis synchro reactance unsaturated (Xd)	319 %
	Quadra axis synchro reactance unsaturated (Xq)	191 %
	Open circuit time constant;50 (T'do)	2966 ms
	Direct axis transient reactance saturated (X'd)	10.7 %
	Short circuit transient time constant (T'd)	100 ms
	Direct axis subtransient reactance saturated (X''d)	6.4 %
	Subtransient time constant (T''d)	10 ms
	Quadra axis subtransient reactance saturated (X''q)	7.5 %
	Zero sequence reactance unsaturated (Xo)	0.3 %
	Negative sequence reactance saturated (X2)	7 %
	Armature time constant (Ta)	15 ms
	No load excitation current (io)	0.5 A
	Full load excitation current (ic)	1.9 A
	Full load excitation voltage (uc)	35 V
	Recovery time (Delta U = 20% transitoire)	500 ms
	Motor start (Delta = 20% perm. Or 50% trans.)	580 kVA
	Transient dip (4/4 charge) – PF : 1.8 AR	14.4 %
No load losses	4.17 kW	
Heat rejection	12.74 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

