J220C2

Engine ref.	6068HFS77
Alternator ref.	LSA 46.2 M5
Performance class	G3

GENERAL CHARACTERISTICS

Frequency (Hz)	50
Voltage (V)	400/230
Standard Control Panel	NEXYS
Optional control panel	TELYS

POWER

Voltage	ESP		PRP		Standby Amps
	kWe	kVA	kWe	kVA	
220 TRI	176	220	160	200	577
220/127	172	215	156	195	564
415/240	176	220	160	200	306
400/230	176	220	160	200	318
380/220	176	220	160	200	334
200/115	176	220	160	200	635
240 TRI	176	220	160	200	529
230 TRI	176	220	160	200	552

DIMENSIONS COMPACT VERSION

Length (mm)	2398
Width (mm)	1114
Height (mm)	1480
Dry weight (kg)	1790
Tank capacity (L)	340

DIMENSIONS SOUNDPROOFED VERSION

Commercial reference of the enclosure	M226
Length (mm)	3508
Width (mm)	1200
Height (mm)	1830
Dry weight (kg)	2390
Tank capacity (L)	340
Acoustic pressure level @1m in dB(A)	77
Sound power level guaranteed (Lwa)	97

DESCRIPTIVE

- Electronic 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 (CE option)
- 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

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

TERMS OF USE

According to the standard, the nominal power assigned by the genset is given for 25°C Air Intlet Temperature, of a barometric pressure of 100 kPA (100 m A.S.L), and 30 % relative humidity. For particular conditions in your installation, refer to the derating table.

ASSOCIATED UNCERTAINLY

For the generating sets used indoor, where the acoustic pressure levels depends on the installation conditions, it is not possible to specify the ambient noise level in the exploitation and maintenance instructions . You will also find in our exploitation and maintenance instructions a warning concerning the air noise dangers and the need to implement appropriated preventive measures.

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ENGINE CHARACTERISTICS

GENERAL ENGINE DATA

Engine model	JOHN DEERE
Engine ref.	6068HFS77
Air inlet	Turbo
Cylinders arrangement	L
Number of cylinders	6
Displacement (C.I.)	6.72
Air coolant	Air/Air DC
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)	207
Frequency regulation (%)	+/- 0.5%
BMEP (bar)	22.37
Governor type	Electronic

COOLING SYSTEM

Radiator & Engine capacity (L)	30
Max water temperature (°C)	105
Outlet water temperature (°C)	93
Fan power (kW)	3.40
Fan air flow w/o restriction (m3/s)	5.10
Available restriction on air flow (mm EC)	20
Type of coolant	Glycol-Ethylene
Thermostat (°C)	82-94

EMISSIONS

Emission PM (g/kW.h)	0.053
Emission CO (g/kW.h)	0.89
Emission HCNOx (g/kWh)	5,6
Emission HC (g/kW.h)	0.11

EXHAUST

Exhaust gas temperature (°C)	567
Exhaust gas flow (L/s)	545
Max. exhaust back pressure (mm EC)	750

FUEL

Consumption @ 110% load (L/h)	50
Consumption @ 100% load (L/h)	45
Consumption @ 75% load (L/h)	34
Consumption @ 50% load (L/h)	23
Maximum fuel pump flow (L/h)	N/A

OIL

Oil capacity (L)	33
Min. oil pressure (bar)	1
Max. oil pressure (bar)	2.60
Oil consumption 100% load (L/h)	N/A
Carter oil capacity (L)	32

HEAT BALANCE

Heat rejection to exhaust (kW)	123
Radiated heat to ambiant (kW)	N/A
Haet rejection to coolant (kW)	80+28

AIR INTAKE

Max. intake restriction (mm EC)	625
Intake air flow (L/s)	197

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ALTERNATOR CHARACTERISTICS

GENERAL DATA

Alternator brand	LEROY SOMER
Alternator ref.	LSA 46.2 M5
Number of phase	3
Power factor (Cos Phi)	0.80
Altitude (m)	0 to 1000
Overspeed (rpm)	2250
Number of pole	4
Excitation system	SHUNT
Insulation class	H
T° class, continuous 40°C	H / 125°K
AVR Type	R250
Total Harmonic Distortion in no-load DHT (%)	<2.5
Wave form : NEMA=TIF	<50
Wave form : CEI=FHT	<2
Number of bearing	1
Coupling	Direct
Voltage regulation at established rating (%)	+/- 0.5%
Recovery time (Delta U = 20% transcient) (ms)	500

OTHER DATA

Continuous Nominal Rating 40°C (kVA)	200
Standby Rating 27°C (kVA)	223
Efficiencies 4/4 load (%)	92.30
Air flow (m3/s)	0.43
Short circuit ratio (Kcc)	0.45
Direct axis synchro reactance unsaturated (Xd) (%)	301
Quadra axis synchro reactance unsaturated (Xq) (%)	180
Open circuit time constant (T"do) (ms)	2042
Direct axis transcient reactance saturated (X"d) (%)	14.70
Short circuit transcient time constant (T"d) (ms)	100
Direct axis subtranscient reactance saturated (X""d) (%)	8.80
Subtranscient time constant (T""d) (ms)	10
Quadra axis subtranscient reactance saturated (X""q) (%)	10.90
Zero sequence reactance unsaturated (Xo) (%)	0.80
Negative sequence reactance saturated (X2) (%)	9.90
Armature time constant (Ta) (ms)	15
No load excitation current (io) (A)	1
Full load excitation current (ic) (A)	3.70
Full load excitation voltage (uc) (V)	32
Engine start (Delta U = 20% perm. or 50% trans.) (kVA)	397
Transcient dip (4/4 load) - PF : 0,8 AR (%)	15.40
No load losses (W)	3040
Heat rejection (W)	13180

DIMENSIONS

CONTAINMENT

Commercial reference of the enclosure	M226 DW
Length (mm)	3560
Width (mm)	1200
Height (mm)	2182
Dry weight (kg)	2760
Tank capacity (L)	868
Acoustic pressure level @1m in dB(A)	77
Sound power level guaranteed (Lwa)	97

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CONTROL PANEL

NEXYS, comprehensive and simple

The NEXYS is a versatile control unit allowing operation in manual or automatic mode. Equipped with an LCD screen, the user-friendly NEXYS offers high-quality basic functions to guarantee simple, reliable operation of your generating set.

Offers the following functions:

Standard electrical measurements: voltmeter, frequency meter, ammeter.

Engine parameters: working hours counter, engine speed, battery voltage, fuel level.

Alarms and faults: oil pressure, coolant temperature, failure to start, overspeed (sup. to 60 Kva), charging alternator fault, low fuel level, emergency stop.

For more information, please refer to the sales documentation.

TELYS, ergonomic and user-friendly

The highly versatile TELYS control unit is complex yet accessible, thanks to the particular attention paid to optimising its ergonomics and ease of use. With its large display screen, buttons and scroll wheel, it places the accent on simplicity and communication.

The TELYS offers the following functions:

Electrical measurements: voltmeter, frequency meter, ammeter.

Engine parameters: working hours counter, oil pressure, coolant temperature, fuel level, engine speed, battery voltage.

Alarms and faults: oil pressure, coolant temperature, failure to start, overspeed, alternator min./max., battery voltage min./max., emergency stop, fuel level.

Ergonomics: wheel for navigating around the various menus.

Communication: remote control and operation software, USB connections, PC connection.

For more information on the product and its options, please refer to the sales documentation.