

# PRIMAX®



## DESCRIPTIVE

- Electronic governor
- Mechanically welded chassis with antivibration suspension
- Main line circuit breaker
- Radiator for wiring temperature of max with mechanical fan
- Protective grille for fan and rotating parts
- Heavy Duty 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 Inlet 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 UNCERTAINTY

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.

# JD220M

Engine type	6068HFU74
Alternator type	ECO38-2SN/4
Performance class	G3

## GENERAL CHARACTERISTICS

Frequency (Hz)	50
Reference voltage (V)	400/230
Max power ESP (kVA)	220
Max power ESP (kWe)	176
Max power PRP (kVA)	200
Max power PRP (kWe)	160
Intensity (A)	318
Standard Control Panel	610
Optional control panel	4610

## DIMENSIONS COMPACT VERSION

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



## GENERAL CHARACTERISTICS

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

#### GENERAL ENGINE DATAS

Engine model	JOHN DEERE 6068HFU74 , 4- temps, Turbo , Air/Air DC 6 X
Cylinder arrangement	L
Displacement (C.I.)	6.72
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)	3.4
Fan air flow w/o restriction (m3/s)	5.1
Available restriction on air flow (mm EC)	20
Type of coolant	Coolelf sx
Thermostat (°C)	82-94

#### EMISSIONS

Emission PM (g/kW.h)	0.05
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)	2.6
Oil consumption 100% load (L/h)	N/A
Carter oil capacity (L)	32

#### HEAT BALANCE

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

#### AIR INTAKE

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



#### GENERAL DATAS

Alternator brand	Mecc Alte
Alternator type	ECO38-2SN/4
Number of phase	3
Power factor (Cos Phi)	0.8
Altitude (m)	0 to 1000
Overspeed (rpm)	2250
Number of pole	4
Excitation system	SHUNT
Insulation class / T° class, continuous 40°C	H / H / 125°K
Regulation	DSR
Wave Distors (THD Full Load) LL	2'7
Wave Distors (THD Nol Load) LL	3
Number of bearing	1
Coupling	Direct
Voltage regulation at established rating (%)	+/- 0.5%

#### OTHER DATAS

Continuous Nominal Rating 40°C (kVA)	200
Standby Rating 27°C (kVA)	223
Efficiencies 4/4 load (%)	92.7
Air flow (m3/s)	0.53
Short circuit ratio (Kcc)	0.46
Direct axis synchro reactance unsaturated (Xd) (%)	200
Quadra axis synchro reactance unsaturated (Xq) (%)	110
Open circuit time constant (T'do) (sec)	.90
Direct axis transient reactance saturated (X'd) (%)	11
Short circuit transient time constant (T'd) (sec)	0.078
Direct axis subtransient reactance saturated (X''d) (%)	5.9
Subtransient time constant (T''d) (sec)	0.012
Quadra axis subtransient reactance saturated (X''q) (%)	21.5
Zero sequence reactance unsaturated (Xo) (%)	2.5
Negative sequence reactance saturated (X2) (%)	14.3
Armature time constant (Ta) (sec)	0.016
No load excitation current (io) (A)	0.7
Full load excitation current (ic) (A)	3
Recovery time (Delta U = 20% transient) (ms)	500 ms
Heat rejection (W)	12600



HARSEN 610, comprehensive and simple



The 610 is a versatile control unit allowing operation in manual or automatic mode. Equipped with an LCD screen, the user-friendly 610 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 (> 60 kVA), charging alternator fault, low fuel level, emergency stop.

For more information, please refer to the sales documentation.

DEEP SEA 4610, ergonomic and user-friendly



The highly versatile 4610 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 4610 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.

