

PRIMAX®



JD440M

Engine type	6135HF475
Alternator type	ECO 40-1S/4
Performance class	G3

GENERAL CHARACTERISTICS

Frequency (Hz)	50
Reference voltage (V)	400/230
Max power ESP (kVA)	440
Max power ESP (kWe)	352
Max power PRP (kVA)	400
Max power PRP (kWe)	320
Intensity (A)	635
Standard Control Panel	620
Optional control panel	6110

DIMENSIONS AND NOISE LEVELS

DIMENSIONS COMPACT VERSION

Length (mm)	3000
Width (mm)	1340
Height (mm)	1790
Dry weight (kg)	3600
Tank capacity (L)	600

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
- 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 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.

GENERAL CHARACTERISTICS

Voltage	ESP		PRP		Standby Amps
	kWe	kVA	kWe	kVA	
415/240	352	440	320	400	612
400/230	352	440	320	400	635
380/220	352	440	320	400	669
240 TRI	352	440	320	400	1059
230 TRI	352	440	320	400	1105
220 TRI	352	440	320	400	1155
200/115	352	440	320	400	1270

GENERAL ENGINE DATAS

Engine model	JOHN DEERE 6135HF475 , 4- temps, Turbo , Air/Air DC 6 X
Cylinder arrangement	L
Displacement (C.I.)	13.5
Bore (mm) x Stroke (mm)	132 x 165
Compression ratio	16:1
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)	52
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 (mg/Nm3)	0.05
Emission CO (mg/Nm3)	0.89
Emission HCNOx (g/kWh)	5.6
Emission HC (mg/Nm3)	0.11

EXHAUST

Exhaust gas temperature (°C)	495
Exhaust gas flow (L/s)	545
Max. exhaust back pressure (mm EC)	750

FUEL PRIME RATING

Consumption @ 110% load (Kg/h)	86.9
Consumption @ 100% load (Kg/h)	79.00
Consumption @ 75% load (Kg/h)	65.9
Consumption @ 50% load (Kg/h)	44.3
Maximum fuel pump flow (Kg/h)	N/A

OIL

Oil capacity (L)	58
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

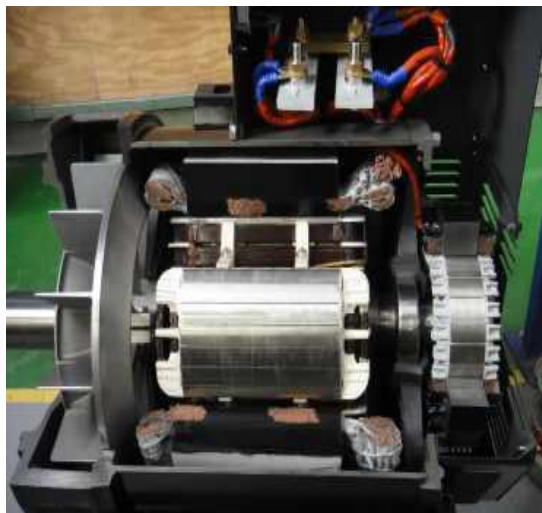


GENERAL DATAS

Alternator brand	Meccalte
Alternator type	ECO 40 1LS/4
Number of phase	3
Power factor (Cos Phi)	0.8
Altitude (m)	0 à 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 NoI Load) LL	3
Number of bearing	1
Coupling	Direct
Voltage regulation at established rating (%)	+/- 0.5%
Recovery time (Delta U = 20% transient) (ms)	500 ms

OTHER DATAS

Continuous Nominal Rating 40°C (kVA)	400
Standby Rating 27°C (kVA)	440
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) (ms)	0.016
No load excitation current (io) (A)	0.7
Full load excitation current (ic) (A)	3
Full load excitation voltage (uc) (V)	33
Recovery time (Delta U = 20% transient) (ms)	500 ms
Engine start (Delta U = 20% perm. or 50% trans.) (kVA)	538
Transient dip (4/4 load) - PF : 0,8 AR (%)	14.6
No load losses (W)	4340
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 620 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 620 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.