



**JOHN DEERE**



## JD375M

John Deere Engine type	6135HF475
Alternator type	ECO38 3L4A
Performance class	G3

### 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
- 24 V charge alternator and starter
- Delivered with oil and coolant -30°C
- Manual for use and installation

### GENERAL CHARACTERISTICS

Frequency (Hz)	50
Reference voltage (V)	400/230
Max power ESP (kVA)	375
Max power ESP (kWe)	300
Max power PRP (kVA)	350
Max power PRP (kWe)	280
Intensity (A)	534
Standard Control Panel	DSE 4510
Optional control panel	DSE 6610

### DIMENSIONS COMPACT VERSION

Length (mm)	3000
Width (mm)	1500
Height (mm)	1410
Dry weight (kg)	3520
Tank capacity (L)	500

### 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	300	375	280	350	521
400/230	300	375	280	350	541
380/220	300	375	280	350	570



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### ENGINE SPECIFICATIONS

#### 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	16.0:1
Speed (RPM)	1500
Pistons speed (m/s)	8.25
Maximum stand-by power at rated RPM (kW)	355
Frequency regulation (%)	+/- 0.5%
BMEP (bar)	18.91
Governor type	Electronic

#### COOLING SYSTEM

Radiator & Engine capacity (L)	62
Max water temperature (°C)	105
Outlet water temperature (°C)	93
Fan power (kW)	9.5
Fan air flow w/o restriction (m3/s)	6.5
Available restriction on air flow (mm EC)	20
Type of coolant	Cool Gard
Thermostat (°C)	82-94

#### EMISSIONS

Emission PM (mg/Nm3)	N/A
Emission CO (mg/Nm3)	N/A
Emission HCNOx (g/kWh)	N/A
Emission HC (mg/Nm3)	N/A

#### EXHAUST

Exhaust gas temperature (°C)	496
Exhaust gas flow (L/sec)	1033
Max. exhaust back pressure (mm EC)	1000

#### FUEL PRIME RATING

Consumption @ 110% load (L/h)	88
Consumption @ 100% load (L/h)	72
Consumption @ 75% load (L/h)	59
Consumption @ 50% load (L/h)	41
Maximum fuel pump flow (L/h)	164

#### OIL

Oil capacity (L)	60
Min. oil pressure (bar)	1.9
Max. oil pressure (bar)	3.2
Oil consumption 100% load (L/h)	0.07
Carter oil capacity (L)	60

#### HEAT BALANCE

Heat rejection to exhaust (kW)	N/A
Radiated heat to ambient (kW)	N/A
Haet rejection to coolant (kW)	137+53

#### AIR INTAKE

Max. intake restriction (mm EC)	375
Intake air flow (L/s)	416.67



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### ALTERNATOR SPECIFICATIONS

#### GENERAL DATAS

Alternator brand	Meccalte
Alternator type	ECO38 3L4A
Number of phase	3
Power factor (Cos Phi)	0.8
Altitude (m)	0 à 1000
Overspeed (rpm)	2250
Number of pole	4
Excitation system	Brushless
Insulation class / T° class, continuous 40°C	H / H / 125°K
Regulation	DSR
Harmonic factor, no load TGH/THC (%)	<2.5
Wave form : NEMA=TIF-(TGH/THC)	<50
Wave form : CEI=FHT-(TGH/THC)	<2
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)	350
Standby Rating 27°C (kVA)	375
Efficiencies 4/4 load (%)	93.5
Air flow (m3/s)	.533
Short circuit ratio (Kcc)	0.42
Direct axis synchro reactance unsaturated (Xd) (%)	222.5
Quadra axis synchro reactance unsaturated (Xq) (%)	130.4
Open circuit time constant (T'do) (ms)	1.5
Direct axis transient reactance saturated (X'd) (%)	14.8
Short circuit transient time constant (T'd) (sec)	0.099
Direct axis subtransient reactance saturated (X''d) (%)	8.08
Subtransient time constant (T''d) (ms)	0.013
Quadra axis subtransient reactance saturated (X''q) (%)	17.3
Zero sequence reactance unsaturated (Xo) (%)	2.28
Negative sequence reactance saturated (X2) (%)	13.5
Armature time constant (Ta) (ms)	150.013
No load excitation current (io) (A)	0.7
Full load excitation current (ic) (A)	3.9
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
Heat rejection (W)	20310



## JD375M

### CONTROL PANEL

#### DSE Deep Sea Electronics 4510 Standard

#### DSE Deep Sea Electronics 6010 optional

The DSE 4510 MRS is a versatile unit which can be operated in manual or automatic mode. It offers the following features:

**Measurements:**

phase-to-neutral and phase-to-phase voltages,  
(In option: active power currents, effective power, power factor, oil pressure and coolant temperature levels)

**Supervision:**

Modbus RTU communication on RS485

**Reports:**

(In option: 2 configurable reports)

**Safety features:**

Over speed, oil pressure, coolant temperatures, minimum and maximum voltage, minimum and maximum frequency

(Maximum active power  $P < 66\text{kVA}$ )

**Traceability:**

Stack of 50 stored events

For further information, please refer to the data sheet for the DSE 4610.

The DSE 6010 MRS is a versatile control unit which allows operation in manual or automatic mode

**Measurements:**

voltage and current, kW/kWh/kVA power meters  
Standard specifications: Voltmeter, Frequency meter.

Optional: Battery ammeter.

J1939 CAN ECU engine control

Alarms and faults: Oil pressure, Coolant temperature, Over speed, Start-up failure, alternator min/max, Emergency stop button.

Engine parameters: hour counter, battery voltage.

Optional (standard at 12V): Oil pressure, water temperature.

Event log/ Management of the last 50 gen set events.

Mains and gen set protection

Clock management

USB connections, USB Host and PC, Communications: RS485 INTERFACE

Mod BUS protocol /SNMP

Optional: Ethernet, GPRS, remote control, 3G, 4G, Web supervisor, SMS, E-mails