PRIMAX®

JD88M

Engine type	4045TF258
Alternator type	ECO34 1S/4

GENERAL CHARACTERISTICS

Frequency (Hz)	50
Reference voltage (V)	400/230
Max power ESP (kVA)	88
Max power ESP (kWe)	70.4
Max power PRP (kVA)	80
Max power PRP (kWe)	64
Intensity (A)	127
Standard Control Panel	610
Optional control panel	4610

DIMENSIONS AND NOISE LEVELS

DIMENSIONS COMPACT VERSION

Length (mm)	1870
Width (mm)	994
Height (mm)	1360
Dry weight (kg)	1110
Tank capacity (L)	180

DESCRIPTIVE

- Mechnic 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 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.

POWERS

Voltage	ESP		PRP		Standby Amps
	kWe	kVA	kWe	kVA	
415/240	69	86	63	78	120
400/230	70	88	64	80	127
380/220	68	85	62	77	129
240 TRI	70	88	64	80	212
230 TRI	70	88	64	80	221
220 TRI	70	88	64	80	231
220/127	62	77	56	70	202
200/115	70	88	64	80	254

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ENGINE SPECIFICATIONS

GENERAL ENGINE DATAS

Engine model	John Deere 4045TF258 , 4 stroke, Turbo , 4 cylinder
Cylinder arrangement	L
Displacement (C.I.)	4.48
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)	83
Frequency regulation (%)	+/- 2.5%
BMEP (bar)	13.38
Governor type	Mechnical

COOLING SYSTEM

Radiator & Engine capacity (L)	23.6
Max water temperature (°C)	105
Outlet water temperature (°C)	93
Fan power (kW)	2.5
Fan air flow w/o restriction (m3/s)	3.37
Available restriction on air flow (mm EC)	20
Type of coolant	cool
Thermostat (°C)	82-94

EMISSIONS

Emission PM (mg/Nm3)	60
Emission CO (mg/Nm3)	190
Emission HCNOx (g/kWh)	N/A
Emission HC (mg/Nm3)	34

EXHAUST

Exhaust gas temperature (°C)	565
Exhaust gas flow (L/s)	205
Max. exhaust back pressure (mm EC)	750

FUEL

Consumption @ 110% load (L/h)	21.5
Consumption @ 100% load (L/h)	19.5
Consumption @ 75% load (L/h)	14
Consumption @ 50% load (L/h)	10
Maximum fuel pump flow (L/h)	108

OIL

Oil capacity (L)	13.5
Min. oil pressure (bar)	1
Max. oil pressure (bar)	5
Oil consumption 100% load (L/h)	0.02
Carter oil capacity (L)	12.5

HEAT BALANCE

Heat rejection to exhaust (kW)	65
Radiated heat to ambiant (kW)	9.5
Haet rejection to coolant (kW)	43

AIR INTAKE

Max. intake restriction (mm EC)	625
Intake air flow (L/s)	93

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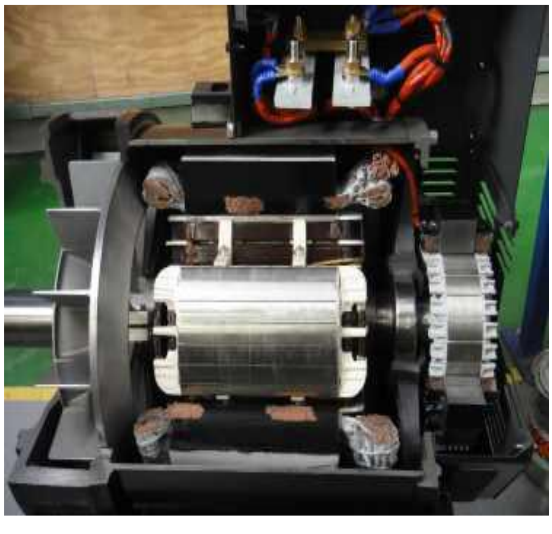
ALTERNATOR SPECIFICATIONS

GENERAL DATAS

Alternator brand	Meccalte
Alternator type	ECO34 1S/4
Number of phase	3
Power factor (Cos Phi)	0.8
Altitude (m)	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	N/A
Wave form : NEMA=TIF-(TGH/THC)	N/A
Wave form : CEI=FHT-(TGH/THC)	N/A
Number of bearing	1
Coupling	Direct
Voltage regulation at established rating (%)	+/- 1.5%
Recovery time (Delta U = 20% transcient) (ms)	N/A

OTHER DATAS

Continuous Nominal Rating 40°C (kVA)	85
Standby Rating 27°C (kVA)	95
Efficiencies 4/4 load (%)	91.5
Air flow (m3/s)	0.32
Short circuit ratio (Kcc)	0.50
Direct axis synchro reactance unsaturated (Xd) (%)	325
Quadra axis synchro reactance unsaturated (Xq) (%)	170.5
Open circuit time constant (T'do) (ms)	1500
Direct axis transcient reactance saturated (X'd) (%)	22.3
Short circuit transcient time constant (T'd) (ms)	41.92
Direct axis subtranscient reactance saturated (X"d) (%)	7.4
Subtranscient time constant (T"d) (ms)	5.75
Quadra axis subtranscient reactance saturated (X"q) (%)	29.5
Zero sequence reactance unsaturated (Xo) (%)	3.6
Negative sequence reactance saturated (X2) (%)	19.2
Armature time constant (Ta) (ms)	1.54
No load excitation current (io) (A)	0.5
Full load excitation current (ic) (A)	2.3
Full load excitation voltage (uc) (V)	N/A
Recovery time (Delta U = 20% transcient) (ms)	N/A
Engine start (Delta U = 20% perm. or 50% trans.) (kVA)	N/A
Transcient dip (4/4 load) - PF : 0,8 AR (%)	N/A
No load losses (W)	N/A
Heat rejection (W)	6317



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CONTROL PANEL

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 4610offers 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.