



J250UC3

Engine ref.	6090HF485-287
Alternator ref.	AT01512T
Performance class	G3

GENERAL CHARACTERISTICS

Frequency (Hz)	60
Voltage (V)	480/277
Standard Control Panel	APM303
Optional control panel	TELYS
Optional Control Panel	Basic terminal block

POWER

Voltage	ESP		PRP		Standby Amps
	kWe	kVA	kWe	kVA	
480/277	250	312	227	284	375
440/254	250	312	227	284	409
220/127	250	312	227	284	819
208/120	243	304	221	276	844
600/347	250	312	227	284	300

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 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.

DIMENSIONS COMPACT VERSION

Length (mm)	2900
Width (mm)	1300
Height (mm)	1720
Dry weight (kg)	2280
Tank capacity (L)	390

DIMENSIONS SOUNDPROOFED VERSION

Commercial reference of the enclosure	M227
Length (mm)	4004
Width (mm)	1380
Height (mm)	2145
Dry weight (kg)	3230
Tank capacity (L)	390
Acoustic pressure level @1m in dB(A)	83
Sound power level guaranteed (Lwa)	0
Acoustic pressure level @7m in dB(A)	73



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ENGINE CHARACTERISTICS

GENERAL ENGINE DATA

Engine brand	JOHN DEERE
Engine ref.	6090HF485-287
Air inlet system	Turbo
Cylinders configuration	L
Number of cylinders	6
Displacement (L)	8,98
Charge Air coolant	Air/Air DC
Bore (mm) x Stroke (mm)	118,40 x 136,00
Compression ratio	16 : 1
Speed (RPM)	1800
Pistons speed (m/s)	8,16
Maximum stand-by power at rated RPM (kW)	287,00
Frequency regulation, steady state (%) +/- 0.5%	
BMEP (bar)	19,4
Governor type	Electronic

COOLING SYSTEM

Radiator & Engine capacity (L)	40,00
Max water temperature (°C)	110
Outlet water temperature (°C)	93
Fan power (kW)	14,00
Fan air flow w/o restriction (m3/s)	
Available restriction on air flow (mm H2O)	20,0
Type of coolant	Glycol-Ethylene
Thermostat modulating range HT (°C)	82-94

EMISSIONS

Emission PM (g/kWh)	0.104
Emission CO (g/kW.h)	0.51
Emission HC+NOx (g/kWh)	3.73
Emission HC (g/kW.h)	0.11

EXHAUST

Exhaust gas temperature @ ESP @ 60 Hz (°C)	434
Exhaust gas flow @ ESP @ 60 Hz (L/s)	833,33
Max. exhaust back pressure (mm H2O)	1000

FUEL

Fuel consumption 110% load (L/hr)	68,24
Fuel consumption 100% load (L/hr)	61,18
Fuel consumption 75% (L/h)	46,59
Fuel consumption 50% (L/h)	31,65
Maximum fuel pump flow (L/h)	240,00

OIL

Oil capacity (L)	35,00
Min. oil pressure (bar)	1,90
Max. oil pressure (bar)	2,60
Oil consumption 100% load (L/h)	0,150
Oil sump capacity (L)	34,0

HEAT BALANCE

Heat rejection to exhaust (kW)	217
Radiated heat to ambient (kW)	35,00
Heat rejection to coolant (kW)	118+72

AIR INTAKE

Max. intake restriction (mm H2O)	375
Intake air flow (L/s)	366,67



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ALTERNATOR CHARACTERISTICS

GENERAL DATA

Alternator ref.	AT01512T
Number of Phase	Three phase
Power factor (Cos Phi)	0,8
Altitude (m)	0 to 1000
Overspeed (rpm)	2250
Number of pole	4
Capacity for maintaining short circuit at 3 In for 10 s	No
Insulation class	H
T° class, continuous 40°C	H / 125°K
T° class, standby 27°C	H / 163°K
AVR Regulation	Yes
Total Harmonic Distortion in no-load DHT (%)	<2.5
Total Harmonic Distortion, on 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 (+/- %)	
Recovery time (Delta U = 20% transient) (ms)	500
Indication of protection	IP 23
Technology	Without collar or brush

OTHER DATA

Continuous Nominal Rating 40°C (kVA)	300
Standby Rating 27°C (kVA)	337,00
Efficiencies 100% of load (%)	92,8
Air flow (m3/s)	0,510
Short circuit ratio (Kcc)	0,410
Direct axis synchro reactance unsaturated (Xd) (%)	327
Quadra axis synchro reactance unsaturated (Xq) (%)	196
Open circuit time constant (T'do) (ms)	2105
Direct axis transient reactance saturated (X'd) (%)	15,5
Short circuit transient time constant (T'd) (ms)	100
Direct axis subtransient reactance saturated (X''d) (%)	9,3
Subtransient time constant (T''d) (ms)	10
Quadra axis subtransient reactance saturated (X''q) (%)	11,50
Subtransient time constant (T''q) (ms)	10,0
Zero sequence reactance unsaturated (Xo) (%)	0,60
Negative sequence reactance saturated (X2) (%)	10,40
Armature time constant (Ta) (ms)	15
No load excitation current (io) (A)	1,00
Full load excitation current (ic) (A)	3,90
Full load excitation voltage (uc) (V)	33,0
Engine start (Delta U = 20% perm. or 50% trans.) (kVA)	575,00
Transient dip (4/4 load) - PF : 0,8 AR (%)	15,90
No load losses (W)	5530,00
Heat rejection (W)	18500,00
Unbalanced load acceptance ratio (%)	100

DIMENSIONS

Containment DW

Commercial reference of the enclosure	M227 DW
Length (mm)	4056
Width (mm)	1380
Height (mm)	2340
Dry weight (kg)	3700
Tank capacity (L)	950
Acoustic pressure level @1m in dB(A)	83
Sound power level guaranteed (Lwa)	0
Acoustic pressure level @7m in dB(A)	73

APM303, comprehensive and simple



The APM303 is a versatile unit which can be operated in manual or automatic mode. Equipped with an LCD screen, the user-friendly APM303 offers high-quality basic functions to guarantee simple, reliable operation and supervision of your generating set. It offers the following features:

Measurements:

phase-to-neutral and phase-to-phase voltages, active power currents, effective power, power factors, Kw/h energy meter Fuel, oil pressure and coolant temperature levels

Supervision:

Modbus RTU communication on RS485

Reports:

2 configurable reports

Safety features:

Overspeed, oil pressure

Coolant temperatures

Minimum and maximum voltage

Minimum and maximum frequency

Maximum current

Maximum active power

Phase sequence

Traceability:

Stack of 12 stored events

For further information, please refer to the data sheet for the APM303.

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.

Basic terminal block



The control unit can be used as a basic terminal block for connecting a control box.

Offers the following functions:

emergency stop button, customer connection terminal block, CE.