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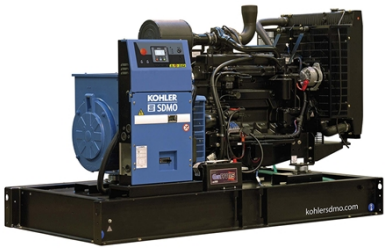

Engine ref.	6068TF220
Alternator ref.	KH01050T
Performance class	G2

GENERAL CHARACTERISTICS

Frequency (Hz)	60 Hz
Voltage (V)	480/277
Standard Control Panel	APM303
Optional control panel	TELYS
Optional Control Panel	M80
Optional control panel	NA

POWER

Voltage	ESP		PRP		Standby Amps
	kWe	kVA	kWe	kVA	
480/277	117	146	106	133	176
440/254	117	146	106	133	192
220/127	117	146	106	133	383
208/120	115	144	105	131	400
600/347	117	146	106	133	140

DIMENSIONS COMPACT VERSION

Length (mm)	2370
Width (mm)	1114
Height (mm)	1480
Dry weight (kg)	1498
Tank capacity (L)	340

DIMENSIONS SOUNDPROOFED VERSION

Type soundproofing	M226
Length (mm)	3508
Width (mm)	1200
Height (mm)	1830
Dry weight (kg)	2088
Tank capacity (L)	340
Acoustic pressure level @1m in dB(A)	80
Guaranteed acoustic power level (Lwa)	
Acoustic pressure level @7m in dB(A)	69

DESCRIPTIVE

- Mechanic governor
- Mechanically welded chassis with antivibration suspension
- Main line circuit breaker
- Radiator for core 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 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 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.

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ENGINE CHARACTERISTICS

GENERAL ENGINE DATA

Engine brand	JOHN DEERE
Engine ref.	6068TF220
Air inlet system	Turbo
Cylinders configuration	L
Number of cylinders	6
Displacement (L)	6,72
Charge Air coolant	
Bore (mm) x Stroke (mm)	106 x 127
Compression ratio	17 : 1
Speed (RPM)	1800
Pistons speed (m/s)	7,62
Maximum stand-by power at rated RPM (kW)	132
Frequency regulation, steady state (%)	+/- 2.5%
BMEP (bar)	14,30
Governor type	Mechanical

COOLING SYSTEM

Radiator & Engine capacity (L)	27,30
Fan power (kW)	5,20
Fan air flow w/o restriction (m3/s)	4,50
Available restriction on air flow (mm H2O)	20
Type of coolant	Glycol-Ethylene

EMISSIONS

Emission PM (g/kWh)	
Emission CO (g/kW.h)	
Emission HC+NOx (g/kWh)	0
Emission HC (mg/Nm3) 5% O2	42

EXHAUST

Exhaust gas temperature @ ESP 60Hz (°C)	540
Exhaust gas flow @ ESP 60Hz (L/s)	413
Max. exhaust back pressure (mm H2O)	750

FUEL

Fuel consumption 110% load (L/hr)	0
Fuel consumption 100% load (L/hr)	0
Fuel consumption 75% (L/h)	0
Fuel consumption 50% (L/h)	0
Maximum fuel pump flow (L/h)	112

OIL

Oil capacity (L)	21,50
Min. oil pressure (bar)	1
Max. oil pressure (bar)	5
Oil consumption 100% ESP (L/h)	0,70
Oil sump capacity (L)	20,60

HEAT BALANCE

Heat rejection to exhaust (kW)	110
Radiated heat to ambiant (kW)	16
Haet rejection to coolant HT (kW)	68

AIR INTAKE

Max. intake restriction (mm H2O)	625
Intake air flow (L/s)	179

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ALTERNATOR CHARACTERISTICS

GENERAL DATA

Alternator ref.	KH01050T
Number of Phase	Three phase
Power factor (Cos Phi)	0,80
Altitude (m)	0 à 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 (H/125°), continuous 40°C	H / 125°K
T° class (H/163°C), standby 27°C	H / 163°K
Total Harmonic Distortion in no-load DHT (%)	<2
AVR Regulation	Yes
Total Harmonic Distortion, on linear load DHT (%)	<5
Wave form : NEMA=TIF	<50
Wave form : CEI=FHT	<2
Number of bearing	1
Coupling	Direct
Voltage regulation at established rating (+/- %)	0,50
Recovery time (Delta U = 20% transcient) (ms)	500
Indication of protection	IP 23
Technology	Without collar or brush

OTHER DATA

Continuous Nominal Rating 40°C (kVA)	156
Standby Rating 27°C (kVA)	172
Efficiencies 100% of load (%)	92,60
Air flow (m3/s)	0,30
Short circuit ratio (Kcc)	0,4290
Direct axis synchro reactance unsaturated (Xd) (%)	342
Quadra axis synchro reactance unsaturated (Xq) (%)	174
Open circuit time constant (T'do) (ms)	2154
Direct axis transcient reactance saturated (X'd) (%)	15,80
Short circuit transcient time constant (T'd) (ms)	100
Direct axis subtranscient reactance saturated (X"d) (%)	9,50
Subtranscient time constant (T"d) (ms)	10
Quadra axis subtranscient reactance saturated (X"q) (%)	19,30
Subtranscient time constant (T"q) (ms)	10
Zero sequence reactance unsaturated (Xo) (%)	0,65
Negative sequence reactance saturated (X2) (%)	14,44
Armature time constant (Ta) (ms)	15
No load excitation current (io) (A)	0,66
Full load excitation current (ic) (A)	2,47
Full load excitation voltage (uc) (V)	31
Engine start (Delta U = 20% perm. or 50% trans.) (kVA)	369,15
Transcient dip (4/4 load) - PF : 0,8 AR (%)	14
No load losses (W)	3474,37
Heat rejection (W)	9953,29
Unbalanced load acceptance ratio (%)	100

DIMENSIONS

Dimensions soundproofed version

Type soundproofing	M226
Length (mm)	3508
Width (mm)	1200
Height (mm)	1830
Dry weight (kg)	2088
Tank capacity (L)	340
Acoustic pressure level @1m in dB(A)	80
Guaranteed acoustic power level (Lwa)	
Acoustic pressure level @7m in dB(A)	69

Dimensions DW compact version

Type soundproofing	
Length (mm)	3560
Width (mm)	1180
Height (mm)	1822
Dry weight (kg)	1908
Tank capacity (L)	868
Acoustic pressure level @1m in dB(A)	
Guaranteed acoustic power level (Lwa)	
Acoustic pressure level @7m in dB(A)	

Dimensions DW soundproofed version

Type soundproofing	M226 DW
Length (mm)	3560
Width (mm)	1200
Height (mm)	2182
Dry weight (kg)	2488
Tank capacity (L)	868
Acoustic pressure level @1m in dB(A)	80

Dimensions DW 48h soundproofed version

Type soundproofing	M226 DW48
Length (mm)	3560
Width (mm)	1200
Height (mm)	2364
%PdnetE_5%	2656
Tank capacity (L)	1630
Acoustic pressure level @1m in dB(A)	

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Guaranteed acoustic power level (Lwa)
Acoustic pressure level @7m in dB(A)

Guaranteed acoustic power level (Lwa)
Acoustic pressure level @7m in dB(A)

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CONTROL PANEL

APM303, comprehensive and simple

The APM303 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, fuel level (In option : active power currents, effective power, power factors, Kw/h energy meter, oil pressure and coolant temperature levels)
Supervision:
Modbus RTU communication on RS485
Reports:
(In option : 2 configurable reports)
Safety features:
Overspeed, oil pressure,coolant temperatures, minimum and maximum voltage, minimum and maximum frequency (Maximum active power P<66kVA)
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.

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M80, transfer of information

The M80 is a dual-function control unit. It can be used as a basic terminal block for connecting a control box and as an instrument panel with a direct read facility, with displays giving a global view of your generating set's basic parameters.

Offers the following functions:

Engine parameters: tachometer, working hours counter, coolant temperature indicator, oil pressure indicator, emergency stop button, customer connection terminal block, CE.

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.

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