J66K

Engine ref.	4045TF120
Alternator ref.	AT00840T
Performance class	G3

GENERAL CHARACTERISTICS

Frequency (Hz)	50
Voltage (V)	400/230
Standard Control Panel	NEXYS
Optional control panel	TELYS

POWER

Voltage	ESP		PRP		Standby Amps
	kWe	kVA	kWe	kVA	
220 TRI	53	66	48	60	173
220/127	53	66	48	60	173
415/240	53	66	48	60	92
400/230	53	66	48	60	95
380/220	53	66	48	60	100
200/115	53	66	48	60	191
240 TRI	53	66	48	60	159
230 TRI	53	66	48	60	166

DIMENSIONS COMPACT VERSION

Length (mm)	1870
Width (mm)	994
Height (mm)	1360
Dry weight (kg)	1022
Tank capacity (L)	180

DIMENSIONS SOUNDPROOFED VERSION

Commercial reference of the enclosure	M128
Length (mm)	2300
Width (mm)	1060
Height (mm)	1680
Dry weight (kg)	1432
Tank capacity (L)	180
Acoustic pressure level @1m in dB(A)	73
Sound power level guaranteed (Lwa)	91

DESCRIPTIVE

- Mechanic 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 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.

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ENGINE CHARACTERISTICS

GENERAL ENGINE DATA

Engine model	JOHN DEERE
Engine ref.	4045TF120
Air inlet	Turbo
Cylinders arrangement	L
Number of cylinders	4
Displacement (C.I.)	4.48
Air coolant	
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)	70
Frequency regulation (%)	+/- 2.5%
BMEP (bar)	11.24
Governor type	Mechanical

COOLING SYSTEM

Radiator & Engine capacity (L)	23.60
Max water temperature (°C)	105
Outlet water temperature (°C)	93
Fan power (kW)	1.40
Fan air flow w/o restriction (m3/s)	2.53
Available restriction on air flow (mm Water Column)	20
Type of coolant	Glycol-Ethylene
Thermostat (°C)	82-94

EMISSIONS

Emission PM (mg/Nm3)	60
Emission CO (mg/Nm3)	190
Emission HCNOx (g/kWh)	
Emission HC (mg/Nm3)	150

EXHAUST

Exhaust gas temperature (°C)	545
Exhaust gas flow (L/s)	176
Max. exhaust back pressure (mm EC)	750

FUEL

Consumption @ 110% load (L/h)	17.50
Consumption @ 100% load (L/h)	16
Consumption @ 75% load (L/h)	12
Consumption @ 50% load (L/h)	8.50
Maximum fuel pump flow (L/h)	108

OIL

Oil capacity (L)	13.50
Min. oil pressure (bar)	1
Max. oil pressure (bar)	5
Oil consumption 100% load (L/h)	0.0160
Carter oil capacity (L)	12.50

HEAT BALANCE

Heat rejection to exhaust (kW)	54
Radiated heat to ambiant (kW)	8
Haet rejection to coolant (kW)	35

AIR INTAKE

Max. intake restriction (mm EC)	625
Intake air flow (L/s)	66

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ALTERNATOR CHARACTERISTICS

GENERAL DATA

Alternator commercial brand	SDMO
Alternator ref.	AT00840T
Number of Phase	Three phase
Power factor (Cos Phi)	0.80
Altitude (m)	0 to 1000
Overspeed (rpm)	2250
Number of pole	4
Capacity for maintaining short circuit at 3 In for 10 s	Yes
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 (%)	3.8
Total Harmonic Distortion, on load DHT (%)	3
Wave form : NEMA=TIF	<45
Wave form : CEI=FHT	<2
Number of bearing	1
Coupling	Direct
Voltage regulation at established rating (+/- %)	+/- 1%
Recovery time (Delta U = 20% transcient) (ms)	500
Protection class	IP 21
Technology	Without collar or brush

OTHER DATA

Continuous Nominal Rating 40°C (kVA)	63
Standby Rating 27°C (kVA)	71
Efficiencies 100% of load (%)	90.20
Air flow (m3/s)	0.1180
Short circuit ratio (Kcc)	0.59
Direct axis synchro reactance unsaturated (Xd) (%)	283.50
Quadra axis synchro reactance unsaturated (Xq) (%)	111
Open circuit time constant (T"do) (ms)	1200
Direct axis transcient reactance saturated (X"d) (%)	13.40
Short circuit transcient time constant (T"d) (ms)	62
Direct axis subtranscient reactance saturated (X""d) (%)	7.10
Subtranscient time constant (T""d) (ms)	14
Quadra axis subtranscient reactance saturated (X""q) (%)	34.60
Subtranscient time constant (T"q) (ms)	
Zero sequence reactance unsaturated (Xo) (%)	3.15
Negative sequence reactance saturated (X2) (%)	23.40
Armature time constant (Ta) (ms)	28
No load excitation current (io) (A)	0.60
Full load excitation current (ic) (A)	2
Full load excitation voltage (uc) (V)	22.70
Engine start (Delta U = 20% perm. or 50% trans.) (kVA)	152.38
Transcient dip (4/4 load) - PF : 0,8 AR (%)	15.50
No load losses (W)	1130.99
Heat rejection (W)	5476

DIMENSIONS

CONTAINMENT

Commercial reference of the enclosure	M128 DW
Length (mm)	2344
Width (mm)	1060
Height (mm)	1900
Dry weight (kg)	1679
Tank capacity (L)	390
Acoustic pressure level @1m in dB(A)	72
Sound power level guaranteed (Lwa)	91

CONTAINMENT 48H

Commercial reference of the enclosure	M128 DW48
Length (mm)	2344
Width (mm)	1060
Height (mm)	1989
Dry weight (kg)	1709
Tank capacity (L)	700
Acoustic pressure level @1m in dB(A)	72
Sound power level guaranteed (Lwa)	91

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CONTROL PANEL

NEXYS, comprehensive and simple

The NEXYS is a versatile control unit allowing operation in manual or automatic mode. Equipped with an LCD screen, the user-friendly NEXYS 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 (sup. to 60 Kva), charging alternator fault, low fuel level, emergency stop.

For more information, please refer to the sales documentation.

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.