

MODEL	J44K
Stand-by Power @ 50Hz	35kW / 44 kVA
Prime Power @ 50Hz	32 kW / 40 kVA

Standard Features

General features :

- Engine (JOHN DEERE , 3029TF120)
- Charge alternator 12 V , Governor:Meca
- Alternator (MECC ALTE , ECO 32-3S)
- Single bearing alternator IP 21 , insulation class H /H
- Radiator 50°C [122°F] ambient max
- Skid and vibration isolators
- Dry type air filter
- Main line circuit breaker
- Microprocessor control panel
- 12 V battery, rack and cable
- Industrial silencer (loose)
- User manual



Generator Ratings

Voltage	HZ	Phase	P.F	Standby Amps	Standby Ratings kW/kVA	Prime Ratings kW/kVA
415/240	50	3	0.8	61	35 / 44	32 / 40
400/230	50	3	0.8	64	35 / 44	32 / 40
380/220	50	3	0.8	67	35 / 44	32 / 40
240/120	50	3	0.8	106	35 / 44	32 / 40
230/115	50	3	0.8	110	35 / 44	32 / 40
220/110	50	3	0.8	115	35 / 44	32 / 40
220/127	50	3	0.8	115	35 / 44	32 / 40
200/115	50	3	0.8	127	35 / 44	32 / 40

PRP : Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. A 10% overload capability is available for a period of 1 hour within 12-hour period of operation, in accordance with ISO 3046-1

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.

Conditions of sale

- SDMO provides a full line of products with high quality recognized engines and alternators.
- Service and parts are available from SDMO distributors as a single source of responsibility.
- Each and every units is factory tested. All generator sets are also prototype tested.
- Warranty according to our standard conditions. Five years extended also available



ENGINE DATA

Manufacturer / Model	JOHN DEERE 3029TF120 , 4-cycle, Turbo , N/A
Cylinder Arrangement	3 X L
Displacement	2.9L [177.0C.I.]
Bore and Stroke	106mm [4.2in.] X 110mm [4.3in.]
Compression ratio	17,8:1
Rotation speed	1500 Rpm
Piston Speed	5.5m/s [18.0ft./s]
Max. stand by Power at rated RPM	40kW [54BHP]
Frequency regulation, steady state	+/-2, 5%
BMEP	11.5bar [167psi]
Governor : type	Meca

Exhaust System

Exhaust gas flow	105.6L/s [224cfm]
Exhaust temperature	510°C [950°F]
Max back pressure	625mm CE [25in. WG]

Fuel System

110% (Stand By power)	13.6L/h [3.6gal/hr]
100% (of the Prime Power)	11.19L/h [3.0gal/hr]
75% (of the Prime Power)	8.4L/h [2.2gal/hr]
50% (of the Prime Power)	5.96L/h [1.6gal/hr]
Total fuel flow	111L/h [29.3gal/hr]

Oil System

Total oil capacity w/filters	6L [1.6gal]
Oil Pressure low idle	1bar [14.5psi]
Oil Pressure rated RPM	5bar [72.5psi]
Oil consumption 100% load	0.009L/h [0.0gal/hr]
Oil capacity carter	5.3L [1.4gal]

Thermal balance 100% load

Heat rejection to exhaust	38kW [2161Btu/mn]
Radiated heat to ambient	5kW [284Btu/mn]
Heat rejection to coolant	28kW [1592Btu/mn]

Air intake

Max. back pressure	300mm CE [12in. WG]
Engine air flow	37.8L/s [80cfm]

Coolant System

Radiator & engine capacity	16.1L [4.3gal]
Max water temperature	105°C [221°F]
Outlet water temperature	93°C [199°F]
Fan power	1.5 kW
Fan air flow	1.86m ³ /s [3942cfm]
Available restriction on air flow	20mm CE [0.8in. WG]
Type of coolant	Gencool
Thermostat	82-94 °C

Emissions

HC	150 mg/Nm ³
CO	190 mg/Nm ³
Nox	3800 mg/Nm ³
PM	60 mg/Nm ³



ALTERNATOR SPECIFICATIONS

GENERAL DATA

- Compliance with NEMA MG21, UTE NF C51.111, VDE 0530, BS 4999, CSA standards.
- Vacuum-impregnated windings with epoxy varnish.
- IP21 drip proof.

ALTERNATOR DATA

Manufacturer / Type	MECC ALTE ECO 32-3S
Number of phase	3
Power factor (Cos Phi)	0.8
Altitude	1000
Overspeed	rpm
Pole : number	4
Exciter type	No
Insulation : class, temperature rise	H / H
Voltage regulator	AVR
Sustained short circuit current	
Total harmonics (TGH/THC)	
Wave form : NEMA = TIF – TGH/THC	
Wave form : CEI = FHT – TGH/THC	
Bearing : number	1
Coupling	Direct
Voltage regulation 0 to 100% load	
Recovery time (20% Volt dip) ms	ms
SKVA with 90 % of nominal sustained voltage (at 0.4 PF)	N/A

OTHER ALTERNATOR DATA

Continuous nominal rating @ 40°C	40 kVA
Standby rating @ 27°C	44 kVA
Efficiencies @ 4/4 load	87.4 %
Air flow	11.8m3/s [25002.67cfm]
Short circuit ratio;50 (Kcc)	0.8
Direct axis synchro reactance unsaturated (Xd)	190 %
Quadra axis synchro reactance unsaturated (Xq)	98 %
Open circuit time constant;50 (T'do)	1.4 ms
Direct axis transient reactance saturated (X'd)	14.3 %
Short circuit transient time constant (T'd)	61 ms
Direct axis subtransient reactance saturated (X''d)	10 %
Subtransient time constant (T''d)	15 ms
Quadra axis subtransient reactance saturated (X''q)	30.6 %
Zero sequence reactance unsaturated (Xo)	2.7 %
Negative sequence reactance saturated (X2)	21.5 %
Armature time constant (Ta)	31 ms
No load excitation current (io)	A
Full load excitation current (ic)	A
Full load excitation voltage (uc)	V
Recovery time (Delta U = 20% transitoire)	ms
Motor start (Delta = 20% perm. Or 50% trans.)	kVA
Transient dip (4/4 charge) – PF : 1.8 AR	%
No load losses	N/A
Heat rejection	kW

Control Panels

NEXYS



Specifications :

- Frequency meter, Ammeter, Voltmeter
- Alarms and faults Oil pressure, water temperature, Overcrank, Overspeed (>60 kVA), Min/max alternator, Low fuel level, Emergency stop
- Engine parameters Hours counter, Engine speed, Battery voltage, Fuel level, Alr preheating

TELYS



Specifications :

- Frequency meter, Ammeter, Voltmeter
- Alarms and faults Oil pressure, water temperature, No start-up, Overspeed, Min/max alternator, Min/max battery voltage, Low fuel level, Emergency stop
- Engine parameters Hours counter, Oil pressure, Water temperature, Engine speed, Battery voltage, Fuel level

Options

Engine and Radiator

- Heat shield protection
- Oil drain extension
- Heavy duty air filter
- Lube oil drain pump
- Radiator core guard
- Battery charger
- Block heater

Alternator

- Anti condensation heater
- Enforced impregnation
- Oversized alternator

Control panel

- • NFPA 110 level 1
- • Paralleling system
- • Remote annunciator
- • Oil temperature shutdown
- Key start panel

Exhaust (Ex II)

- Residential silencer 29dB(A)
- Critical silencer 40 dB(A)
- Flexible exhaust conn.

Literature

- • Parts
- • Maintenance

Fuel

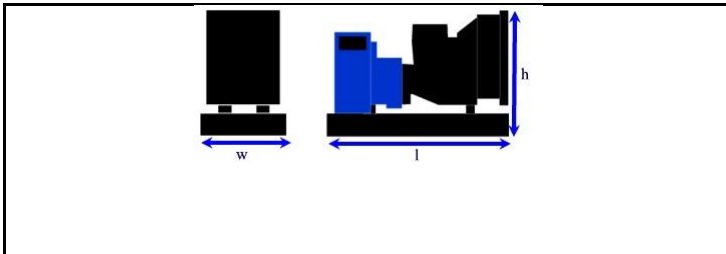
- Day tank
- Double wall and great autonomy tank
- Water separator fuel filter

Enclosure

- M127
- Silent 63 db @ 7m [23 Ft]

Weight and Dimensions

Open Model Excluding option



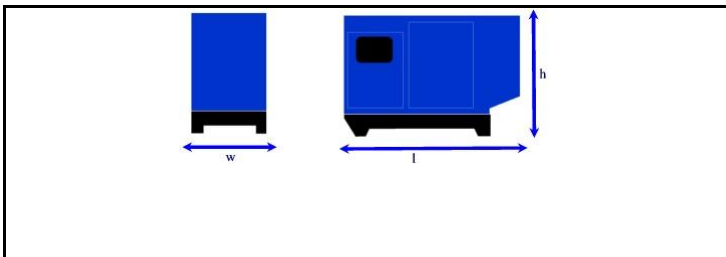
Overall size l x w x h :

1700mm [67in] x 896mm [35in] x 1221mm [48in]

Weight :

820kg [1807lbs] Net 930kg [2050lbs] Brut

With Optional Enclosure



Overall size l x w x h :

2080mm [82in] x 960mm [38in] x 1415mm [56in]

Weight :

1040kg [2292lbs] Net 1150kg [2535lbs] Brut

Visit our website: www.sdmo-online.com

The SDMO products will be delivered by DBR Projects (Official SDMO Distributor)