



## J40UC

## DIESEL GENSET

MODEL	J40UC
Stand-by Power @ 60Hz	40kW / 50 kVA
Prime Power @ 60Hz	36 kW / 45 kVA

### Standard Features

#### General features :

- Engine (JOHN DEERE , 3029TF270 )
- Engine EPA Carb 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]°C max. T° air inlet with coolant cap
- 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 ^pCSA Certified (consult us)



### Generator Ratings

Voltage	HZ	Phase	P.F	Standby Amps	Standby Ratings kW/kVA	Prime Ratings kW/kVA
480/277	60	3	0.8	60	40 / 50	36 / 45
440/254	60	3	0.8	66	40 / 50	36 / 45
380/220	60	3	0.8	76	40 / 50	36 / 45
240/120	60	3	0.8	120	40 / 50	36 / 45
230/115	60	3	0.8	100	32 / 40	29 / 36
220/127	60	3	0.8	131	40 / 50	36 / 45
208/120	60	3	0.8	128	37 / 46	33 / 42

**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 3029TF270 , 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
Rated RPM	1800 Rpm
Piston Speed	6.6m/s [21.7ft./s]
Max. stand by Power at rated RPM	44.5kW [60BHP]
Frequency regulation, steady state	+/-2, 5%
BMEP	11.19bar [162psi]
Governor : type	Meca

### Exhaust System

Exhaust gas flow	138L/s [292cfm]
Exhaust temperature	517°C [963°F]
Max back pressure	625mm CE [25in. WG]

### Fuel System

110% (Stand By power )	14.93L/h [3.9gal/hr]
100% (of the Prime Power)	13.11L/h [3.5gal/hr]
75% (of the Prime Power)	10.1L/h [2.7gal/hr]
50% (of the Prime Power)	6.91L/h [1.8gal/hr]
Total fuel flow	108L/h [28.5gal/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	0.01L/h [0.0gal/hr]
Oil capacity carter	5.3L [1.4gal]

### Thermal balance 100% load

Heat rejection to exhaust	43kW [2445Btu/mn]
Radiated heat to ambient	5kW [284Btu/mn]
Heat rejection to coolant	28kW [1592Btu/mn]

### Air intake

Max. intake restriction	300mm CE [12in. WG]
Engine air flow	48.6L/s [103cfm]

### 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	2 kW
Fan air flow	2.34m <sup>3</sup> /s [4959cfm]
Available restriction on air flow	20mm CE [0.8in. WG]
Type of coolant	Gencool
Thermostat	82-94 °C

### Emissions

HC	49.98 gr/bhp/h
CO	11.19 gr/bhp/h
Nox	49.98 gr/bhp/h
PM	11.94 gr/bhp/h



## 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

	MECC ALTE ECO 32-3S
Manufacturer / Type	
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	48 kVA
Standby rating @ 27°C	52.8 kVA
Efficiencies @ 4/4 load	88.8 %
Air flow	14.5m <sup>3</sup> /s [30723.62cfm]
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	kW
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, Air 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

- Residential silencer
- Critical silencer
- Flexible exhaust conn.

### Literature

- • Parts
- • Maintenance

### Fuel

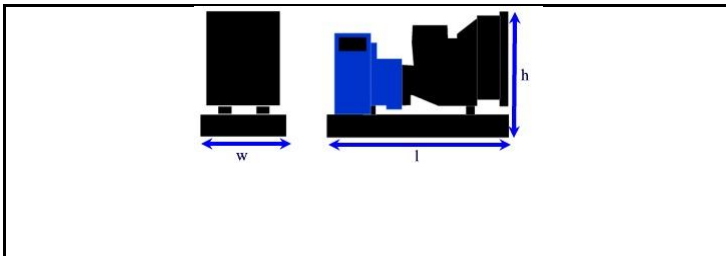
- Day tank
- Subbase fuel tanks UL
- Water separator fuel filter

### Enclosure

- M127
- Silent 72 db @ 7m [23 Ft] (stby)

## Weight and Dimensions

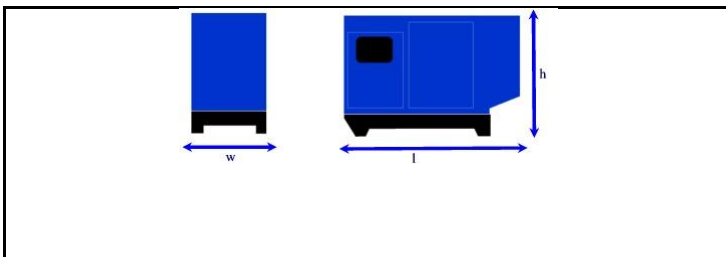
### Open Model Excluding option



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 904mm [36in] x 1415mm [56in]

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