

J24M

Engine JOHN DEERE , 3029DF120
Alternator MECC ALTE , ECO 32-3S

STANDARD FEATURES

- Mechanical governor
- Mechanically welded chassis with vibration isolators
- Main line circuit breaker
- Radiator for wiring T° of 50°C [122°F] max with mechanical fan
- Protective grille for fan and rotating parts
- 9dB(A) silencer supplied separately
- Charged DC starting battery with electrolyte + cables
- 12 V charging alternator and starter
- Supplied with oil and coolant -30°C
- User manual and commissioning guide



Voltage	Power ESP kWe/kVA	Power PRP kWe/kVA	Standby Amps	Dimensions	Weight
240MONO	24 / 24	22 / 22	100	Length: 1700mm [67in]	800kg [1763lbs] Net
230MONO	24 / 24	22 / 22	104	Width: 896mm [35in]	910kg [2006lbs] Gross
220MONO	24 / 24	22 / 22	109	Height: 1221mm [48in]	

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. 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.

TERM OF USE

Standard reference conditions 25 °C Air Inlet Temp, 300 m A.S.L. 60 % relative humidity. All engine performance data based on the above mentioned maximum continuous ratings.

Type	dB(A)@1m	dB(A)@7m	Dimensions	Weight	Tank
M127	74.9	65	Length: 2080mm [82in] Width: 960mm [38in] Height: 1415mm [56in]	1020kg [2248lbs] Net 1130kg [2491lbs] Gross	100 L





ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	JOHN DEERE 3029DF120 , 4-strokes, Athmo , N/A 3 X
	Cylinder Arrangement	L
	Displacement	2.9L [177.0C.I.]
	Bore and Stroke	106mm [4.2in.] X 110mm [4.3in.]
	Compression ratio	17,8 : 1
	Rated RPM	1500 Rpm
	Piston Speed	5.5m/s [18.0ft./s]
	Max. stand by Power at rated RPM	29.7kW [40BHP]
	Frequency regulation, steady state	+/-2, 5%
	BMEP	7.4bar [107psi]
Governor : type	Meca	
EXHAUST SYSTEM	Exhaust temperature	555°C [1031°F]
	Exhaust gas flow	78L/s [165cfm]
	Max back pressure	625mm CE [25in. WG]
FUEL SYSTEM	110% (Stand By power)	8.3L/h [2.2gal/hr]
	100% (of the Prime Power)	6.8L/h [1.8gal/hr]
	75% (of the Prime Power)	5.2L/h [1.4gal/hr]
	50% (of the Prime Power)	3.6L/h [1.0gal/hr]
	Max. fuel pump 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	0.007L/h [0.0gal/hr]
	Oil capacity carter	5.3L [1.4gal]
THERMAL BALANCE	Heat rejection to exhaust	31kW [1763Btu/mn]
	Radiated heat to ambient	6kW [341Btu/mn]
	Heat rejection to coolant	18kW [1023Btu/mn]
AIR INTAKE	Max. intake restriction	300mm CE [12in. WG]
	Engine air flow	28L/s [59cfm]
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 w/o restriction	1.74m ³ /s [3687cfm]
	Available restriction on air flow	20mm CE [0.8in. WG]
	Type of coolant	Gencool
	Thermostat	82-94 °C
EMISSIONS LEVEL	PM	N/A
	CO	N/A
	Nox	N/A
	HC	N/A



ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer / Type	MECC ALTE ECO 32-3S
	Number of phase	3
	Power factor (Cos Phi)	0.8
	Altitude	1000
	Overspeed	[N/A]
	Pole : number	4
	Exciter type	No
	Insulation : class, temperature rise	H / H
	Voltage regulator	AVR
	Sustained short circuit current	[N/A] C
	Total harmonics (TGH/THC)	[N/A]
	Wave form : NEMA = TIF – TGH/THC	[N/A]
	Wave form : CEI = FHT – TGH/THC	2
	Bearing : number	1
	Coupling	Direct
	Voltage regulation 0 to 100% load	[N/A]
	Recovery time (20% Volt dip) ms	[N/A]
SkVA with 90% of nominal sustained voltage (at 0.4PF)	N/A	
OTHER DATAS	Continuous nominal rating @ 40°C	40 kVA
	Standby rating @ 27°C	44 kVA
	Efficiencies @ 4/4 load	87.4 %
	Air flow	11.8m ³ /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)	[N/A]
	Full load excitation current (ic)	A
	Full load excitation voltage (uc)	[N/A]
	Recovery time (Delta U = 20% transitoire)	[N/A]
	Motor start (Delta = 20% perm. Or 50% trans.)	[N/A]
	Transient dip (4/4 charge) – PF : 1.8 AR	[N/A]
	No load losses	[N/A]
Heat rejection	[N/A]	



CONTROL PANEL

Standard



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

Option



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

