

# J30UM

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

## STANDARD FEATURES

- Mechanical governor
- Mechanically welded chassis with antivibration suspension
- Power 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
- 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	28.0 / 28.0	25.5 / 25.5	116.7	Length: 1700mm [67in] Width: 896mm [35in] Height: 1221mm [48in]	800kg [1764 lbs] Net 910kg [2006 lbs] Gross



## 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	78	67.6	Length: 2080mm [82in] Width: 960mm [38in] Height: 1415mm [56in]	1020kg [2249lbs] Net 1130kg [2491lbs] Gross	100 L
 M127-DW	78	67.6	Length: 2160mm [85in] Width: 966mm [38in] Height: 1582mm [62in]	1207kg [2661lbs] Net 1437kg [3168lbs] Gross	230 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	1800 Rpm
	Piston Speed	6.6m/s [21.7ft./s]
	Max. stand by Power at rated RPM	33.5kW [45BHP]
	Frequency regulation, steady state	+/- 2.5%
	BMEP	7.1bar [103psi]
	Governor : type	MECA
EXHAUST SYSTEM	Exhaust temperature	570°C [1058°F]
	Exhaust gas flow	102L/s [216cfm]
	Max back pressure	625mm CE [25in. WG]
FUEL SYSTEM	110% (Stand By power )	9L/h [2.4gal/hr]
	100% (of the Prime Power)	7.9L/h [2.1gal/hr]
	75% (of the Prime Power)	6.3L/h [1.7gal/hr]
	50% (of the Prime Power)	4.5L/h [1.2gal/hr]
	Max. fuel pump 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	0.008L/h [0.002gal/hr]
	Oil capacity carter	5.3L [1.4gal]
THERMAL BALANCE	Heat rejection to exhaust	31kW [1763Btu/mn]
	Radiated heat to ambient	7kW [398Btu/mn]
	Heat rejection to coolant	20kW [1137Btu/mn]
AIR INTAKE	Max. intake restriction	300mm CE [12in. WG]
	Engine air flow	36L/s [76cfm]
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 w/o restriction	2.22m <sup>3</sup> /s [4704cfm]
	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

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## ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer	MECC ALTE
	Type	ECO 32-3S
	Number of phase	1
	Power factor (Cos Phi)	1
	Altitude	1000
	Overspeed	[N/A]
	Pole : number	4
	Exciter type	NO
	Insulation : class, temperature rise	H / H
	Voltage regulator	AVR
	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	32 kVA
	Standby rating @ 27°C	35 kVA
	Efficiencies @ 4/4 load	88.8 %
	Air flow	0.241m <sup>3</sup> /s [510.65cfm]
	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)	[N/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

