

J40UM

Engine JOHN DEERE , 3029TF120
Alternator LEROY SOMER , LSA432M45

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	40 / 40	36 / 36	167	Length: 1700mm [67in] Width: 896mm [35in] Height: 1221mm [48in]	860kg [1896 lbs] Net 970kg [2138 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 Intlet Temp, 1000 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	77	67	Length: 2080mm [82in] Width: 960mm [38in] Height: 1415mm [56in]	1090kg [2403lbs] Net 1200kg [2646lbs] Gross	100 L
 M127-DW	77	67	Length: 2160mm [85in] Width: 966mm [38in] Height: 1582mm [62in]	1281kg [2824lbs] Net 1511kg [3331lbs] Gross	230 L





ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	JOHN DEERE 3029TF120 , 4-strokes, Turbo , [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	46kW [62BHP]
	Frequency regulation, steady state	+/- 2.5%
	BMEP	11.19bar [162psi]
	Governor : type	MECA
EXHAUST SYSTEM	Exhaust temperature	517°C [963°F]
	Exhaust gas flow	138L/s [292cfm]
	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]
	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	0.01L/h [0.003gal/hr]
	Oil capacity carter	5.3L [1.4gal]
THERMAL BALANCE	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 w/o restriction	2.34m ³ /s [4959cfm]
	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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SDMO Industries – 12bis rue de la Villeneuve – CS 92848 – 29 228 BREST CEDEX 2

Tel +33 (0)2 98 41 41 41 – Fax : +33 (0)2 98 41 63 07 – www.sdmo.com





ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer	LEROY SOMER
	Type	LSA432M45
	Number of phase	1
	Power factor (Cos Phi)	1
	Altitude	< 1000 m
	Overspeed	2250 rpm
	Pole : number	4
	Exciter type	SHUNT
	Insulation : class, temperature rise	H / H
	Voltage regulator	R230
	Total harmonics (TGH/THC)	< 2%
	Wave form : NEMA = TIF – TGH/THC	< 50
	Wave form : CEI = FHT – TGH/THC	< 2%
	Bearing : number	1
	Coupling	Direct
	Voltage regulation 0 to 100% load	+/- 0.5%
	Recovery time (20% Volt dip) ms	500 ms
SkVA with 90% of nominal sustained voltage (at 0.4PF)	N/A	
OTHER DATAS	Continuous nominal rating @ 40°C	47 kVA
	Standby rating @ 27°C	52 kVA
	Efficiencies @ 4/4 load	89.8 %
	Air flow	0.32m ³ /s [678.04cfm]
	Short circuit ratio;50 (Kcc)	0.39
	Direct axis synchro reactance unsaturated (Xd)	300 %
	Quadra axis synchro reactance unsaturated (Xq)	180 %
	Open circuit time constant;50 (T'do)	1270 ms
	Direct axis transient reactance saturated (X'd)	11.8 %
	Short circuit transient time constant (T'd)	50 ms
	Direct axis subtransient reactance saturated (X''d)	5.9 %
	Subtransient time constant (T''d)	5 ms
	Quadra axis subtransient reactance saturated (X''q)	7.3 %
	Zero sequence reactance unsaturated (Xo)	0.1 %
	Negative sequence reactance saturated (X2)	6.6 %
	Armature time constant (Ta)	8 ms
	No load excitation current (io)	0.4 A
	Full load excitation current (ic)	1.6 A
	Full load excitation voltage (uc)	29 V
	Recovery time (Delta U = 20% transitoire)	500 ms
Motor start (Delta = 20% perm. Or 50% trans.)	198 kVA	
Transient dip (4/4 charge) – PF : 1.8 AR	15.3 %	
No load losses	1.64 kW	
Heat rejection	6.42 kW	

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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

