



# R66C2

Engine JOHN DEERE , 4045TFS70 Stage 2  
 Alternator LEROY SOMER , LSA432M45

## STANDARD FEATURES

- Analog engine
- Simplified connection terminal block
- Four-pole breaker
- Central lifting ring
- Rental specific soundproofed canopy
- Diesel low level
- AREP Leroy-Somer Alternator
- Easy radiator access
- Rain cap



Voltage	Power ESP kWe/kVA	Power PRP kWe/kVA	Standby Amps
400/230	53 / 66	48 / 60	95



### 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
	M128-DW	73.3	63.3	Long: 2344mm [92in] Wide: 1080mm [43in] Height: 1900mm [75in]	1697kg [lbs] Net 2087kg [lbs] Gross	390 L
	M128	73.3	63.3	Long: 2300mm [91in] Wide: 1080mm [43in] Height: 1680mm [66in]	1470kg [lbs] Net 1670kg [lbs] Gross	180 L

### Base Rental Power + options suivantes = Full Rental Power

Double wall and great autonomy tank	Air inlet manifold preheating
Hire type terminals box	Water separator pre-filter
Voltage trimmer	Fixed earth leakage protection with spike
Battery cut-out	Lub oil drain pump



## ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	JOHN DEERE 4045TFS70 , 4-strokes, Turbo , 4 X
	Cylinder Arrangement	L
	Displacement	4.5L [274.6C.I.]
	Bore and Stroke	127mm [5.0in.] X 106mm [4.2in.]
	Compression ratio	
	Rated RPM	1500 Rpm
	Piston Speed	6.35m/s [20.8ft./s]
	Max. stand by Power at rated RPM	60.5kW [81BHP]
	Frequency regulation, steady state	+/- 0.5%
	BMEP	N/A
Governor : type	MECA	
EXHAUST SYSTEM	Exhaust gas flow	N/A
	Exhaust temperature	N/A
	Max back pressure	750mm CE [30in. WG]
FUEL SYSTEM	110% (Stand By power )	16.09L/h [4.3gal/hr]
	100% (of the Prime Power)	14.75L/h [3.9gal/hr]
	75% (of the Prime Power)	11.26L/h [3.0gal/hr]
	50% (of the Prime Power)	7.41L/h [2.0gal/hr]
	Max. fuel pump flow	N/A
OIL SYSTEM	Total oil capacity w/filters	N/A
	Oil Pressure low idle	0bar [0.0psi]
	Oil Pressure rated RPM	N/A
	Oil consumption 100% load	0.04L/h [0.0gal/hr]
	Oil capacity carter	N/A
THERMAL BALANCE	Heat rejection to exhaust	45.74kW [2601Btu/mn]
	Radiated heat to ambient	7.38kW [420Btu/mn]
	Heat rejection to coolant	39.00kW [2218Btu/mn]
AIR INTAKE	Max. intake restriction	300mm CE [12in. WG]
	Engine air flow	83.33L/s [177cfm]
COOLANT SYSTEM	Radiator & engine capacity	8.5L [2.246gal]
	Max water temperature	N/A
	Outlet water temperature	N/A
	Fan power	3.33 kW
	Fan air flow w/o restriction	N/A
	Available restriction on air flow	20mm CE [0.8in. WG]
	Type of coolant	Gencool
	Thermostat	82-94 °C
GAS SYSTEM	HC	0.47 g/KW.h
	CO	1.04 g/KW.h
	Nox	5.41 g/KW.h
	PM	0.3 g/KW.h



## ALTERNATOR SPECIFICATIONS

GENERAL  DATAS	Manufacturer / Type	LEROY SOMER LSA432M45
	Number of phase	3
	Power factor (Cos Phi)	0.8
	Altitude	< 1000 m
	Overspeed	2250 rpm
	Pole : number	4
	Exciter type	AREP
	Insulation : class, temperature rise	H / H
	Voltage regulator	R438
	Sustained short circuit current	1.6 AC
	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)	skva	
OTHER  DATAS	Continuous nominal rating @ 40°C	60 kVA
	Standby rating @ 27°C	66 kVA
	Efficiencies @ 4/4 load	89 %
	Air flow	0.27m3/s [572.09cfm]
	Short circuit ratio;50 (Kcc)	0.39
	Direct axis synchro reactance unsaturated (Xd)	304 %
	Quadra axis synchro reactance unsaturated (Xq)	182 %
	Open circuit time constant;50 (T'do)	1270 ms
	Direct axis transient reactance saturated (X'd)	11.9 %
	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)	7.4 %
	Zero sequence reactance unsaturated (Xo)	0.5 %
	Negative sequence reactance saturated (X2)	6.7 %
	Armature time constant (Ta)	8 ms
	No load excitation current (io)	0.4 A
	Full load excitation current (ic)	ic
	Full load excitation voltage (uc)	30 V
	Recovery time (Delta U = 20% transitoire)	500 ms
Motor start (Delta = 20% perm. Or 50% trans.)	176 kVA	
Transient dip (4/4 charge) – PF : 1.8 AR	12.8 %	
No load losses	1.12kW [1.12Kw]	
Heat rejection	5.89 kW	

## 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