

# J60UC2

Engine JOHN DEERE , 4045TF270 Tiers 2  
Alternator LEROY SOMER , LSA432M45

## 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
- 9dB(A) silencer supplied separately
- Charged DC starting battery with electrolyte + cables
- 12 V charging alternator and starter
- Fuel Tank integrated into the chassis (except UL2200 models)
- Digital Control panel compliant with EC and UL standard
- Supplied with oil and coolant -30°C



Voltage	Power ESP kWe/kVA	Power PRP kWe/kVA	Standby Amps	Dimensions	Weight
480/277	60 / 75	55 / 68	90	Length: 1870mm [74in] Width: 994mm [39in] Height: 1360mm [54in]	1000kg [2204lbs] Net 1210kg [2667lbs] Gross
440/254	60 / 75	55 / 68	98		
380/220	60 / 75	55 / 68	114		
240/120	60 / 75	55 / 68	180		
230/115	59 / 74	54 / 67	186		
220/127	60 / 75	55 / 68	197		
208/120	57 / 71	52 / 65	197		
600/347	60 / 75	55 / 68	72		


## 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, 3800 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	76	66	Length: 2300mm [91in]	1410kg [3108lbs] Net	180 L
			Width: 1080mm [43in]	1610kg [3548lbs] Gross	
			Height: 1680mm [66in]		





## ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	JOHN DEERE 4045TF270 , 4-strokes, Turbo , N/A 4 X
	Cylinder Arrangement	L
	Displacement	4.48L [273.4C.I.]
	Bore and Stroke	106mm [4.2in.] X 127mm [5.0in.]
	Compression ratio	17 : 1
	Rated RPM	1800 Rpm
	Piston Speed	7.62m/s [25.0ft./s]
	Max. stand by Power at rated RPM	79kW [106BHP]
	Frequency regulation, steady state	+/-2. 5%
	BMEP	11bar [159psi]
	Governor : type	Meca
EXHAUST SYSTEM	Exhaust temperature	520°C [968°F]
	Exhaust gas flow	220L/s [466cfm]
	Max back pressure	750mm CE [30in. WG]
FUEL SYSTEM	110% (Stand By power )	20.5L/h [5.4gal/hr]
	100% (of the Prime Power)	19L/h [5.0gal/hr]
	75% (of the Prime Power)	14.5L/h [3.8gal/hr]
	50% (of the Prime Power)	10.5L/h [2.8gal/hr]
	Max. fuel pump flow	112L/h [29.6gal/hr]
OIL SYSTEM	Total oil capacity w/filters	13.5L [3.6gal]
	Oil Pressure low idle	1bar [14.5psi]
	Oil Pressure rated RPM	5bar [72.5psi]
	Oil consumption 100% load	0.02L/h [0.0gal/hr]
	Oil capacity carter	12.5L [3.3gal]
THERMAL BALANCE	Heat rejection to exhaust	63kW [3582Btu/mn]
	Radiated heat to ambient	9kW [512Btu/mn]
	Heat rejection to coolant	39kW [2218Btu/mn]
AIR INTAKE	Max. intake restriction	625mm CE [25in. WG]
	Engine air flow	88L/s [186cfm]
COOLANT SYSTEM	Radiator & engine capacity	23.6L [6.2gal]
	Max water temperature	105°C [221°F]
	Outlet water temperature	93°C [199°F]
	Fan power	3 kW
	Fan air flow w/o restriction	3.1m <sup>3</sup> /s [6569cfm]
	Available restriction on air flow	20mm CE [0.8in. WG]
	Type of coolant	Gencool
	Thermostat	82-94 °C
EMISSIONS LEVEL	PM	0.19 gr/bhp/h
	CO	1.42 gr/bhp/h
	HC/Nox	5.00 gr/bhp/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	Shunt
	Insulation : class, temperature rise	H / H
	Voltage regulator	R230
	Sustained short circuit current	1.6 AC
	Total harmonics (TGH/THC)	< 4%
	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	+/- 1%
	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	65 kVA
	Standby rating @ 27°C	78 kVA
	Efficiencies @ 4/4 load	89.8 %
	Air flow	0.32m3/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)	0.5 %
	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)	N/A
	Full load excitation voltage (uc)	29 V
	Recovery time (Delta U = 20% transitoire)	500 ms
Motor start (Delta = 20% perm. Or 50% trans.)	225 kVA	
Transient dip (4/4 charge) – PF : 1.8 AR	15.3 %	
No load losses	1.64 kW	
Heat rejection	6.42 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

