



# GP J100UC3

Engine JOHN DEERE, 4045HFS83, EPA/CARB Tier 3  
Alternator LEROY SOMER, LSA44.3S5

## 100 KW JOHN DEERE GENERATOR

100 KW / 125 KVA DIESEL GENERATOR SET, FULLY PACKAGED:

- JOHN DEERE Heavy duty diesel engine, 4 stroke, 1800rpm, Turbo, EPA
- LEROY SOMER brushless alternator. IP23 protection, Insulation class H
- SCHNEIDER, Main line circuit breaker, wired, maximum output rated
- EPA Tier 3 compliant engine per U.S. Environmental Protection Agency
- Digital auto-start control panel. CE and UL compliant
- Incorporated metallic fuel tank for day use
- Auto Start control feature included for interoperation with ATS/AMF
- 12V charging alternator and 12V DC electric starter motor
- 12V charged DC starting battery with electrolyte and cables
- Dry type air filter, fuel filter and oil filter elements installed
- Mechanically welded chassis with vibration isolators
- Each unit prototype and individually factory load bank tested
- The generator accepts 100% rated load in one step as per NFPA110 and meets ISO8528-5 class G-3 for transient response
- Compliant with ISO3046, ISO8528, BS4999, BS5514, BS5000PT99, AS1359, IEC34, UTE5100, VDE0530 and ISO9001:2000

AVAILABLE ACCESSORIES AND OPTIONS:

- Steel or Aluminum weather proof, sound attenuated enclosures
- UL142 listed, double wall fuel tanks from 50 to 10,000 Gal
- UL1008 listed, automatic transfer switches from 50 to 3000 Amp
- compliant heavy duty road trailers from 3000 to 30000 Lbs
- Automatic battery chargers, Engine preheaters, Remote annunciators and many more



Voltage	Power ESP kWe/kVA	Power PRP kWe/kVA	Standby Amps	Dimensions - Open	Weight - Open
480/277	100 / 125	91 / 114	150		
460/265	100 / 125	91 / 114	157	Length : 1950mm [77in]	1187kg [2617lbs] Net
440/254	100 / 125	91 / 114	164	Width : 1084mm [43in]	1440kg [3175lbs] Gross
240/139	100 / 125	91 / 114	301	Height : 1350mm [53in]	
230/133	100 / 125	91 / 114	314		
220/127	100 / 125	91 / 114	328		
208/120	100 / 125	91 / 144	347		

### 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.

**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 ESP/PRP 25 C°/25 C° Air Inlet Temp, 1000 m/1000 m m A.S.L. 60 % relative humidity.

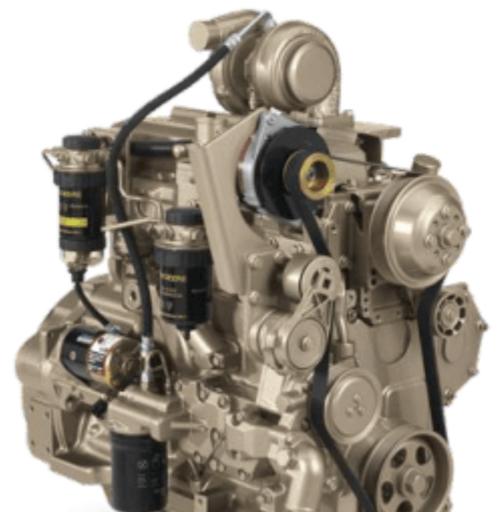
### WEATHER / SOUND PROOF ENCLOSURES

Model	dB(A)@3ft	dB(A)@23ft	Dimensions - Enclosed	Weight - Enclosed	Tank
M129	78	68	Length : 2554mm [101in] Width : 1150mm [45in] Height : 1680mm [66in]	1597kg [3521lbs] 1850kg [4079lbs]	190 L 50 Gal



## ENGINE SPECIFICATIONS

<b>DATA</b>  <b>GENERAL DATA</b>	Engine model	JOHN DEERE 4045HFS83, 4-strokes, TURBOCHARGED, AIR/AIR, 4 Cylinders, U.S. EPA / CARB TIER 3
	Cylinders-arrangement	4-L
	Displacement (C.I.)	4.48
	Bore (mm) X Stroke (mm)	106 X 127
	Compression ratio	19 : 1
	Speed (RPM)	1800
	Pistons speed (m/s)	7.62
	Maximum stand-by power at rated RPM (kW)	118
	Frequency regulation (%)	+/-0.5%
	BMEP (bar)	15.9
Governor type	ELECTRONIC	
<b>EXHAUST SYSTEM</b>	Exhaust gas temperature (°C)	580
	Exhaust gas flow (L/s)	380
	Max. exhaust back pressure (mm CE)	750
<b>FUEL SYSTEM</b>	Fuel consumption 110% load	31.1 L/hr [8.2 gal/hr]
	Fuel consumption 100% load	28.5 L/hr [7.6 gal/hr]
	Fuel consumption 75% load	24.8 L/hr [6.6 gal/hr]
	Fuel consumption 50% load	17.7 L/hr [4.7 gal/hr]
	Maximum fuel pump flow	74.7 L/hr [19.7 gal/hr]
<b>OIL</b>	Oil capacity (L)	13
	Min. oil pressure (bar)	1.05
	Max. oil pressure (bar)	3
	Oil consumption 100% load (L/h)	0.08
	Carter oil capacity (L)	12
<b>THERMAL BALANCE</b>	Heat rejection to exhaust (kW)	111.15
	Radiated heat to ambient (kW)	14.39
	Heat rejection to coolant (kW)	62.3+19.8
<b>AIR INTAKE</b>	AIR INTAKE_entree_max%	375
	Intake air flow (L/s)	136
<b>EMISSIONS</b>	Emissions PM (g/kWh)	0.25
	Emission CO (g/kW.h)	1.47
	Emissions HCNOx (g/kWh)	3.43
	Emission HC (g/kW.h)	0.14





## ALTERNATOR SPECIFICATIONS

<b>DATA</b>  <b>GENERAL DATA</b>	Alternator brand	LEROY SOMER
	Alternator	LSA44.3S5
	Number of phase	3
	Power factor (Cos Phi)	0.8
	Altitude (m)	<1000
	Overspeed (rpm)	2250
	Number of pole	4
	Excitation system / Short Circuit reactance capability	Auxiliary Excitation / 300% for 10 seconds
	Insulation class / Temperature class	H / H
	Automatic Voltage Regulator	Advanced, R438
	Total harmonics TGH/THC	<2
	Wave form : NEMA=TIF-TGH/THC	<50
	Wave form : CEI=FHT-TGH/THC	<2
	Number of bearing	1
	Coupling	DIRECT
Voltage regulation 0 to 100%	+/-0.5%	
Recovery time (Delta U = 20% transitoire) (ms)	500	
<b>OTHER</b>  <b>DATA</b>	Continuous Nominal Rating 40°C (kVA)	131
	Standby Rating 27°C (kVA)	144
	Efficiencies 4/4 load (%)	91
	Air flow (cfm)	0.44
	Short circuit ratio (Kcc)	0.33
	Direct axis synchro reactance unsaturated (Xd) (%)	377
	Quadra axis synchro reactance unsaturated (Xq) (%)	226
	Open circuit time constant (T'do) (ms)	2555
	Direct axis transient reactance saturated (X'd) (%)	15
	Short circuit transient time constant (T'd) (ms)	100
	Direct axis subtransient reactance saturated (X''d) (%)	9
	Subtransient time constant (T''d) (ms)	10
	Quadra axis subtransient reactance saturated (X''q) (%)	10.8
	Zero sequence reactance unsaturated (Xo) (%)	0.9
	Negative sequence reactance saturated (X2) (%)	9.9
	Armature time constant (Ta) (ms)	15
	No load excitation current (io) (ms)	0.5
	Full load excitation current (ic) (A)	2.1
	Full load excitation voltage (uc) (A)	38
	Recovery time (Delta U = 20% transitoire) (ms)	500
	Motor start (Delta U = 20% perm. or 50% trans.) (ms)	238
	Transient dip (4/4 charge) - PF : 0,8 AR (%)	17.8
	No load losses (kW)	2.72
	Heat rejection (kW)	10.25



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## CONTROL PANELS

### 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



### TELYS2

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  
Remote monitoring and control

## ACCESSORIES AND OPTIONS

### Option

### Automatic Transfer Switches, UL1008 listed: 100 to 4000 AMPS



With a Series 300 transfer switch, you get a product backed by ASCO Power Technologies, the industry leader

- True double-throw operation: single solenoid design is inherently interlocked & prevents contacts from stopping between sources
- Easy-to-read flush-mounted control and display panel provides LED indicators for switch position and source availability
- Standard engine exerciser for weekly automatic testing with or without load
- UL 1008 listed for Transfer Equipment and CSA C22.2 listed
- NFPA 110 for Emergency & Standby Power & the National Electrical (NEC) Articles 700, 701 and 702

### Option

### Fuel Tanks, UL142 listed: 50 to 5000 GAL



- UL listed. Secondary containment tank meeting UL 142 tank requirements
- NFPA compliant. Designed to comply with the installation standards of NFPA 30 and NFPA 37
- Emergency pressure relief vents. Meets UL requirements; ensures adequate venting of inner and outer tank under extreme pressure and/or emergency conditions
- Electrical stub-up area with removable end channel
- Normal vent • Inner tank emergency vent sized to UL 142 specs
- Direct reading mechanical fuel gauge • Fuel in basin switch
- Satin black paint finish



# M129

## Weatherproof / Super Silent Enclosure

### STANDARD FEATURES

- 12 gauge electro-zinc powder coated steel for maximum corrosion resistance (Phosphatizing degreasing, Non-chromic passivation, Osmosis purified rinsing and High durability polyester resin thermosetting powder paint)
- 29dB(A) Internal-mounted critical silencer and flexible exhaust connector offering maximum component life and operator safety
- Fade-, scratch-, and corrosion-resistant. Automotive-grade textured finish resulting in advanced corrosion and abrasion protection as well as enhanced edge coverage and color retention
- Up to 51mm (2in) Acoustic insulation with hydrocarbon sealing film that meets FMVSS 302 flammability classification and repels moisture absorption
- Interchangeable modular panel construction. Allows complete serviceability or replacement without compromising enclosure design
- Service access. Multi-personnel doors for easy access to generator set controller, breaker and service points
- Externally mounted emergency stop button, Single point lifting hook and Tamper proof "securit" viewing control window
- Cooling air discharge. Weather protective design featuring a vertical air discharge outlet grille. Redirects cooling air up and above enclosure to reduce ambient noise
- Cooling/combustion air intake with a horizontal air inlet. Sized for maximum cooling airflow
- Heavy duty Polyamide plastic hinges, Dichromate galvanized bolting and Stainless steel rivets for lifetime longevity
- Meets and exceeds NFX41002 Salt spray test, NFT30049 UV Performance test, NFT30038 Paint adhesion test and 2000/14EC Low sound directives



Model	Sound level			Dimensions (in)	Weight (lbs)	Tank (Gal)
	dB(A)@3ft	dB(A)@23ft	LWA			
GP 100UC3	78	68	N/A	101 x 45 x 66	3521	50