

3 PHASE OUTPUTS			
GENERATOR SET MODEL	RATING	50HZ	
		380-415 V, 1500 rpm	
		KVA	KW
JD-100	PRIME	100	80
	STAND-BY	110	88



### ALTERNATOR DATA

Make	Leroy Somer
Model	TAL 044D
No. of bearings	1
Insulation Class	H
Total Harmonic Content	at no load <3.5 % -on load <5%
Wires	6
Ingress Protection	IP23
Excitation System	SHUNT
Winding Pitch	2/3 (n°3)
AVR Model	R120
Overspeed	2250 mn <sup>-1</sup>
Voltage Regulation	±1%

POWERED BY:



JOHN DEERE



\* Ratings at 0.8 pf - Generator designed to operate in ambient temperatures up to 55 °C  
\* Generating Set photo is for reference only.

### ENGINE / TECHNICAL DATA

Engine Make	John Deere	
Engine Model	4045HF158R	
Governing Type	Mechanical	
Cylinder Arrangement	Vertical in line	
Number of Cylinders	4	
Bore and Stroke	106 x 127	
Displacement/Cubic Capacity liters	4.5	
Induction System	Turbocharged	
Cycle	4 stroke	
Combustion System	Direct Injection	
Compression Ratio	17.0:1	
Rotation	Anti-clockwise (viewed from flywheel)	
Cooling System	Water-cooled	
Frequency and Engine Speed	50Hz & 1500rpm	
	Prime	Standby
Gross Engine Power kW (hp)	93.6 (125.5)	103 (138)
FUEL CONSUMPTION (L/hr)		
	50%	11.0
	75%	16.5
	100%	23
Total Lubrication System Capacity [liters]	17	17
Total Coolant Capacity [ltrs]	8.5	8.5
Exhaust Temperature °C	565	565
Radiator Cooling Air Flow (Min): m <sup>3</sup> /sec	2.5	2.5
Max. allowed back pressure (kPa)	7.5	7.5
Exhaust Gas Flow: m <sup>3</sup> /min	18.7	18.7
Fuel Tank Capacity	234	234

### CONTROL PANEL

Make Deepsea

This Auto Start Control Module has been designed and built to combine all the instruments control and the warning lights for engine and alternator. The sheet steel made panel is carefully painted for tropical climates and is designed for a dusty environment. Includes following equipment:

- Ammeter with selector switch
- Water temperature meter
- oil pressure meter
- molded case three pole circuit breakers with thermal and magnetic release
- automatic shut down in case of HWT, LOP and over speed
- starting key and stop push button
- acoustical signal - warning light for high cooling water temperature, low oil pressure, battery charging
- hours meter

### Dimension and Weight

DIMENSION	OPEN	SILENT
Length (L)	2300 mm	2770 mm
Width (W)	770 mm	1110 mm
Height (H)	1480 mm	1590 mm
Net Weight	830 kg	1625 kg

### RATING DEFINITIONS:

**Prime Power** - These ratings are applicable for supplying continuous power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

**Standby Power** - These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these rating. When used at standby Rating the alternator will be peak continuous rated (according to ISO3046)

### STANDARD SPECIFICATIONS

#### 1. ENGINE

John Deere heavy duty diesel engine.

##### 1.1 GOVERNOR

Mechanical, compliance with ISO8528, Class G2.

#### 2. COOLING RADIATOR

Radiator and cooling fan complete with protection guards, designed to cool the engine in ambient temperatures up to 55° C. The radiator is mounted on the base frame to avoid vibrations coming from the engine.

#### 3. FILTRATION SYSTEM

Cartridge type air filter with security element. Cartridge fuel filter and full lube oil filter. All filters have replaceable elements.

#### 4. EXHAUST SYSTEM

Heavy-duty industrial silencer.

#### 5. ELECTRICAL SYSTEM

12 Volt system with battery charging alternator, Starter motor, High capacity maintenance free lead acid battery, battery rack mounted on the generating set base frame, and heavy duty interconnecting cables with terminations.

#### 6. ALTERNATOR

Screen protected and drip-proof, self-exciting, self-regulating brush-less alternator. Four poles, STAR winding connection, suitable for tropical, humid and saline climates. H class insulation.

#### 7. AUTOMATIC VOLTAGE REGULATOR (AVR)

Static electronic design voltage regulator. Steady voltage precision within + 1 % from no load to full load including cold and hot variations, at any Power factor between 0.8 and unity.

#### 8. MOTOR STARTING

An overload capacity equivalent to between 160% to 300% (depending on alternator frame size) of full load impedance at zero power factor can be sustained for 10 seconds.

#### 9. MOUNTING ARRANGEMENT

##### 9.1 BASE FRAME

The complete generating set is mounted on heavy duty steel fabricated base frame Which is anti rust coated.

##### 9.2 COUPLING

Engine and alternator are directly coupled by means of SAE flange so there is no possibility of misalignment after prolong use. The engine fly wheel is flexibly coupled to the alternator rotor.

##### 9.3 ANTI VIBRATION MOUNTING PADS

Anti vibration pads are fitted between engine-alternator base frame ensuring complete vibration isolation of rotating assemblies.

#### 10. FUEL SYSTEM

Metal Fuel tank of 8 hours operation capacity. The Fuel tank is easy to clean and is equipped with visual fuel level indicator.

#### 11. DOCUMENTATION

A full set of operation and maintenance manual are provided.

#### 12. FACTORY TESTS

Generating set is subject to a strict load test before delivery. A test certificate can be provided as optional.

#### 13. QUALITY STANDARDS

Generating set meets the following standards ISO 8528, IEC 34.1, CEI 2.3, VDE 0530, BS 4999-5000, NF51-100. John Deere is fully accredited ISO 9001 company.

#### 14. WARRANTY

Generating set is guaranteed for a period of 12 months from date of commissioning or 18 months from date of shipment which ever occurs earlier. (check warranty statement for more details, as it may vary for different countries)

In line with our policy of continuous product development, we reserve right to change specification without notice

### AVAILABLE OPTIONS & ACCESSORIES

We offer a range of optional features and accessories to tailor our generating sets to meet your needs.

#### OPTIONS

- Generator Set control and synchronizing panels
- Additional Protection alarms and shutdowns
- Water fuel separator
- Water jacket heater
- Battery charger

#### ACCESSORIES

- Genuine spare parts
- Fuel Tanks
- Manual and Automatic Transfer Switches

#### STANDARD REFERENCE CONDITIONS

Fuel consumption data at various loads, diesel fuel with a specific gravity of 0.85kG/L. De-ration may apply, please consult your dealer for specific site ratings.

*Some of the specifications are not standard on all Genset Models.*

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