



**ATA**

Makes Life Brighter

*Generators & Switchgear Solutions*

## ATA John Deere 100, 4045HFG20 / 4045HFU20 100 KVA

Generator Power (prime)		100 kVA prime/110 kVA stand-by				
Speed	Operation	Engine		Generator		
		kW	Fan power	Gen eff.	kVA	KWe
1500 rpm – 50 Hz	Prime power	93	5.1	92%	<b>101</b>	81
	Standby power	102	5.1	92%	<b>111</b>	89
1800 rpm – 60 Hz	Prime power	103	5.7	92%	<b>112</b>	89
	Standby power	113	5.7	92%	<b>123</b>	99

### General Data

Model (Bare/Power Unit)	4045HFG20 / 4045HFU20
Configuration	4 cylinders, in-line
Type	4-stroke
Displacement	4.5L
Bore and stroke	106 x 127 mm
Compression ratio	17.0 : 1
Rotation	Counterclockwise
Injection type	Mechanical, comp. with e-gov
Aspiration	Turbocharged air to air cooled
Starter	3.2 kW, 12V
Alternator	75 amp, 12V
Total lubricating capacity	14,7L
Service	Right hand side
Flywheel housing	SAE 3
Flywheel	11.5"
Cooling system	Water-cooled

### Power Unit data

Model (Power Unit)	4045HFU20
Cooling system design	Radiator/CAC
Radiator material	Copper
Coolant ratio	50% ethylene glycol - 50% water
Engine coolant capacity	9L
Radiator coolant capacity	15.9L
Air filter	Dry type

### Fuel consumption (kg/h)

Frequency	Operation	25%	50%	75%	100%
1500 rpm – 50 Hz	Prime power	5.7	10.7	15.2	20.2
	Standby power	6.3	11.8	16.8	21.7
1800 rpm – 60 Hz	Prime power	7.1	12.8	17.7	23.5
	Standby power	7.8	14.0	19.4	25.2

### Dimensions

Type	Length (mm)	Width (mm)	Height (mm)	Fuel Tank ( L )	Weight (KG)
Open	2400	775	1375	190	1200
Closed	2750	1100	1500	190	1810

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**ALTERNATOR SPECIFICATIONS**

**TAL 044 - Three-phase 70 to 200 kVA- 50 Hz / 88 to 250 kVA- 60 Hz**

Insulation class	H	Excitation system 6-wire	SHUNT AREP+ / PMG
Winding pitch	2/3 (wind.6S - 6-wire / wind.6 - 12-wire)	AVR type	R120 R180
Number of wires	6 (12 option)	Excitation system 12-wire (option)	SHUNT AREP+ / PMG
Protection	IP 23	AVR type	R120 R180
Altitude	≤ 1000 m	Voltage regulation (*)	± 1 % ± 0.5 %
Overspeed	2250 R.P.M.	Total Harmonic Distortion THD (**) in no-load < 2 %	
Air flow 50 Hz	0.29 m³/s	Total Harmonic Distortion THD (**) in linear load < 5 %	
Air flow 60 Hz	0.34 m³/s	Waveform: NEMA = TIF (**)	< 50
AREP+/PMG Short-circuit current = 2.7 In : 5 second		Waveform: I.E.C. = FHT (**)	< 2%

**Control Panel**

**DSE4510**

**Auto Start Control Module**

The DSE4510 is a compact Auto Start Control Module that has been developed to provide an outstanding range of features within a compact enclosure.

**OVERALL SIZE**

140 mm x 113 mm x 43 mm (5.5" x 4.4" x 1.5")

**PANEL CUTOUT SIZE**

118 mm x 92 mm (4.6" x 3.6")

**MAXIMUM PANEL THICKNESS**

8.0 mm (0.3")

**WEIGHT**

0.26kg

**PRODUCT VARIANTS**

4510-03 - 4510 Auto Start Control Module (Ct, Rtc)

4510-04 - 4510 Auto Start Control Module (Ct, Rtc, Htr)



**Optional configurations:**

**Engine accessories:**

- Heavy-duty air filter
- Coolant heater
- Lubricant oil heater
- Fuel and Water Separator
- Lube oil rotary pump

**Alternator And Accessories:**

- Leroy somer/stamford
- Anti condensation heater
- PMG + AVR ◊ Double bearing
- alternator High voltage \_\_\_\_\_kV
- RTDs for Bearing and winding

**Cooling System:**

- 55 degree Radiator
- Remote Radiator

**Control System:**

- AMF
- Parallel
- Practical type in low temperature environment
- Control Screen Heater
- Remote Annunciators
- Other (ComP, DEIF)

**Circuit Breaker:**

- 3/4 poles
- Fixed/handcart type
- Electric mechanism

**Automatic Transfer Switch (ATS):**

- ATS cabinet
- Contractor type ATS
- Motorized changeover type ATS

**Start Battery:**

- Nickel-cadmium battery
- Maintenance-free battery
- Battery charger and selector switch
- Charging current meter

**External Fuel Tank:**

- Single /double wall fuel tank (500-5000 L)
- Fuel Transfer pump

**Exhaust Muffler:**

- Residential grade
- Critical grade
- Hospital grade

**Available for voltages :**

- 400/230V, 480/277V, 380/220V, 440/254V, 416/240V, 220/127V, 208/120V

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## Generators & Switchgear Solutions

### Prime Rating:

Unlimited hours usage, with an average load factor of 80% over each 24 hours period. 10% overload is available for 1 hour in every 12 hours operation. 0 overload is permitted on standby power.

### Standby Rating:

Limited to 500 hours annual usage, with an average load factor of 80% of the published standby power rating over each 24 hours period. Up to 300 hours of annual usage may be run continuously. No over-load is permitted on standby power.

### Engine:

John Deere, including air filters, fuel filters, oil filter, starting motor and charging alternator etc.

### Warranty policy:

ATA products have a warranty for 12 months or 1000 hours whichever occurs first against any manufacturing defects

Wearing parts (filters), incorrect man-made operation, maintenance failures are excluded from the warranty policy

### Radiator:

50°C, fan protective shroud

### Fuel Tank:

Capacity of fuel tank is for 8– 10 hours running  
Built in fuel tank up to 800 kVA

### Circuit Breaker:

3 pole LS MCCB

### Alternator Type:

brushless AC alternator

### Control system alarms:

Over and Under Speed  
Low and High Battery Volt. Start and Stop Failure Over Current Under / Over Generator Voltage  
Low Oil Pressure  
Emergency stop High engine temperature



Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice. All photos are representative and may not reflect exact mode.

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