

| Generating Rates      |                 | Prime | Standby |
|-----------------------|-----------------|-------|---------|
| Power                 | kVA             | 100   | 110     |
| Power                 | kW              | 80    | 88      |
| Current               | (cos Phi=0,8) A | 144   | 158     |
| Standard Voltage      | V               | 400   | 400     |
| Revolution Per Minute | r.p.m           | 1500  | 1500    |
| Rated At Power Factor | Cos Phi         | 0,80  | 0,80    |

### Standard Features

- ✓ 4 stroke 1500RPM, water cooled heavy duty diesel engine
- ✓ Dry type replacable air filter
- ✓ Heat-resistant radiator for 50 °C
- ✓ Flexible oil pipes and oil draining valve
- ✓ Pre-heater
- ✓ 4 poles synchronotype, single bearing, brushless alternator
- ✓ Batteries and cables
- ✓ Electrostatic paint coated, steel, welded chassis
- ✓ Fuel tank housed in the chassis
- ✓ Industrial type silencer
- ✓ Electronic battery charger
- ✓ Electrical wiring diagram
- ✓ User manual and operating manual
- ✓ Protection system and auto / manual mode
- ✓ Lubrication oil and anti – freeze

### Optional Equipments

- ✓ Soundproof canopy
- ✓ Automatic transfer switch
- ✓ Circuit Breaker
- ✓ Trailer
- ✓ External fuel tank
- ✓ Electronic governor
- ✓ Heating system for fuel tank
- ✓ Oil heater
- ✓ Fuel filling system (Automatic / Manual)
- ✓ Analog indicators
- ✓ 1 Phase - 3 phase switch plugs
- ✓ Alarm system for fuel level
- ✓ Remote control and monitoring

**Prime Power :** Supplying of electrical power at variable load for an unlimited number of hours in the event of normal utility powerfailure according to ISO8528-1. 10% over load capability is available.

**Stand By Power :** Supplying of electrical power at variable load, in the event of normal utility power failure according to ISO8528-1. This rating is maximum power, no overload capability is available.

### Engine Specifications

|                               |            |                   |
|-------------------------------|------------|-------------------|
| Brand                         |            | JOHN DEERE        |
| Model                         |            | 4045HFU20-GSPU    |
| Engine Power                  | (kWm / hp) | 98                |
| Revolution Per Min            | (r.p.m)    | 1500              |
| Total Displacement            | (L)        | 4,5               |
| Cylinders Orientation         |            | 4 Vertical Inline |
| Broke x Stroke                | (mm x mm)  | 106x127           |
| Compression Orientation       |            | 17:1              |
| Governor Type                 |            | Mechanical        |
| Aspiration System             |            | Turbo AAC         |
| Injection                     |            | Direct Injection  |
| Cooling                       |            | Water cooled      |
| Electrical System             | (VDC)      | 12 V              |
| Lub-oil Capacity              | (L)        | 17                |
| Engine Coolant Capacity       | (L)        | 8,5               |
| Fuel Tank Capacity            | (L)        | 280               |
| Maximum Exhaust Temperature   | (°C)       | 565               |
| Maximum Exhaust Gas Flow      | (m3/h)     | 1122              |
| Maximum Allowed Back Pressure | (kPa)      | 7,5               |
| Cooling Air Flow              | (m3/min)   | TBA               |
| Fuel Consumption 50 %         | (L/h)      | 13,5              |
| Fuel Consumption 75 %         | (L/h)      | 19,4              |
| Fuel Consumption 100 %        | (L/h)      | 27,6              |

- ✓ Replacable cylinder jacket
- ✓ Dry type replacable air filter
- ✓ Heat-resistant radiator for 50 °C

### Alternator Specifications

|                                |           |               |
|--------------------------------|-----------|---------------|
| Standard Voltage               | (V)       | 400           |
| Frequency                      | (Hz)      | 50            |
| Stationary Voltage Regulation  | (±)       | 1             |
| Short Circuit Current          |           | 300%          |
| Insulation                     |           | H             |
| Protection                     |           | IP23          |
| Efficiency                     | (%)       | 89,8          |
| Overloading                    |           | 1 Hour - %110 |
| Rated At Power Factor          | (cos Phi) | 0,80          |
| Total Harmonic Distortion Rate |           | 3             |
| Connection Style               |           | Star          |
| Number of Pole                 |           | 4             |
| Number of Bearing              |           | Single        |

- ✓ Self-cooled
- ✓ Electronic type automatic voltage regulator (AVR)
- ✓ 4 poles, self-excitation, brushless, synchrontype alternator

### Dimensions Without Canopy and Weight

|                         |    |                |
|-------------------------|----|----------------|
| WIDTH x LENGTH x HEIGHT | mm | 1100x2470x1475 |
| Wet Weight              | kg | 1391,9         |

### Dimensions With Canopy and Weight

|                         |    |                |
|-------------------------|----|----------------|
| WIDTH x LENGTH x HEIGHT | mm | 1100x2950x1970 |
| Wet Weight              | kg | 1721,9         |



### Control Panel Features

- ✔ Diesel and gas genset support
- ✔ 400Hz operation support
- ✔ 400 event logs full snapshot
- ✔ Multiple Automatic test program
- ✔ 3 level configuration password
- ✔ 128x64 graphical LCD display
- ✔ Downloadable language
- ✔ Waveform display of V&I
- ✔ Harmonic analysis of V&I
- ✔ Synchroscope & check synch
- ✔ 16 Amp MCB & GCB outputs
- ✔ 8 configurable digital outputs
- ✔ Outputs expandable to 40
- ✔ 4 configurable analog outputs
- ✔ Battery charge run enabled
- ✔ Weekly Operation Schedule
- ✔ Dual mutual standby with equal aging of gensets
- ✔ Manual speed fine adjust some ECU's
- ✔ Automatic fuel pumpcontrol
- ✔ Disable protection feature
- ✔ Excess protection power
- ✔ Reverse power protection
- ✔ Overload IDMT protection
- ✔ Load shedding, dummy load
- ✔ Multiple load management
- ✔ Waveform display of V&I
- ✔ Battery back-up real time clock
- ✔ Idle speed control
- ✔ All parameters front panel editable
- ✔ Multiple nominal conditions
- ✔ Contactor & MCB drive
- ✔ 4 quadrant genset power counters
- ✔ Mains power counters
- ✔ Fuel filling counter
- ✔ Fuel consumption counter
- ✔ Free configuration software
- ✔ Allow SMS controls
- ✔ Mobile genset support
- ✔ Automatic GSM geo-location
- ✔ GPS connectivity (USB & RS232)
- ✔ Modem & ethernet diagnostic
- ✔ Configurable through USB, RS-485, Ethernet and GPRS
- ✔ Ready for central monitoring Ethernet and GPRS