**DESIGN SPECIFICATION**

High quality, reliable and complete power unit, Compact design, Easy start and maintenance possibility, Every generating set is subjected to comprehensive test program which includes full load testing and checking and providing all control and safety shut down functions testing. Full engineered with a wide range of options and accessories: Canopy, soundproof and on road trailer.

**STANDARD GENSET SPECIFICATION**

**ENGINE**

- John Deere heavy duty diesel engine.
- 4-stroke, water cooling.
- Direct injection fuel system.
- Mechanical governor control system.
- Changeable cylinder liners.
- 12 V.D.C Starter and charge alternator.
- Cartridge type dry air filter.
- Cooling radiator for ambient temp 50 °C at max.
- Flexible fuel connection hose and oil drain valve.
- Industrial capacity exhaust silencer.
- Starter battery (with lead acid).

**ALTERNATOR**

- Screen protected and drip-proof, brushless, self-exciting.
- 4 Poles, class H isolation system, the standard degree of protection is IP 21 and other protection on request.
- Single or double bearing system with automatic voltage regulator (AVR).

**BASE FRAME**

- The complete generator set is mounted as whole unit on a heavy duty fabricated, steel base frame.
- Anti-vibration pads are fixed between the engine/alternator feet and the base frame.
- Fuel tank is integrated with the base frame.

**STANDARD EQUIPMENT**

- Air cleaner.
- Battery.
- Exhaust with Exhaust Connector.
- Fuel Tank with Fuel line.
- Maintenance Tools Kit.

**OPTIONAL ACCESSORIES**

- Soundproof canopy.
- Weather housing.
- Wheel Trailer.
- Separate Fuel Tank.
- Various length of flexible exhaust connector and elbow.

**MODEL: JM 220**

**CONTROL SYSTEM**

Panel Equipments:
- Control, supervision and protection panel is mounted on the genset base frame.

The control panel is equipped as follows:

1. Generating Set control module features:
   - 4 Channels engine monitor protection auto shutdown
     - High Engine Temperature
     - Low Oil Pressure
     - Over Speed
     - Auxiliary Alarm
   - Ammeter
   - Voltmeter
   - Hour meter
   - Frequency Meter
   - Phase Selector Switch
   - 6 Indicator lights for:
     - Water Temperature
     - Oil Pressure
     - Diesel Fuel Level
     - Engine Temperature
     - Normal Working
     - Battery
     - Emergency Stop Button

2. Optional Feature:

- Oil Pressure Gauge
- Coolant Temperature Gauge
- (A.T.S) Automatic Transfer Switch
- Magnetic Circuit Breaker
- Paralleling System and load-Sharing Module
- Horn Alarm
- Other Features on request

**SERIE 6081H**

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## TECHNICAL DATA

### POWER RATING

<table>
<thead>
<tr>
<th>MODEL</th>
<th>JM 220</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STANDBY</strong></td>
<td></td>
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<tr>
<td>KVA</td>
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<tr>
<td>KW</td>
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<td><strong>PRIME</strong></td>
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<tr>
<td>KVA</td>
<td>200</td>
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<tr>
<td>KW</td>
<td>160</td>
</tr>
</tbody>
</table>

### ENGINE

- **Engine Manufacturer - Origin**: John Deere - USA
- **Type**: 6081H
- **Engine Power without fan**: 268 / 359 KW / HP
- **Aspiration**: Turbo & After Cooled
- **Cooling System**: Water Cooled
- **Displacement**: 8.1 cm³
- **Cylinders Numbers and Types**: 6 - in - line
- **Engine Speed**: 1500 RPM
- **Cylinder Bore & Stroke**: 116 x 129 mm
- **Compression Ratio**: 15.7 : 1
- **Governor Type**: Mechanical
- **Combustion Type**: Direct Injection
- **Fuel Tank Capacity**: 350 liter
- **Engine Oil Capacity with filter**: 32 liter
- **Power unit Coolant Capacity**: 14 liter
- **Engine Air flow**: 17.3 m³/min
- **Exhaust Gas flow**: 47.3 m³/min
- **Exhaust Temperature**: 703 °C/min
- **Alternator Voltage Regulation**: ± 1.5 %
- **Voltage Adjustment**: ± 5 %

### PHYSICAL DATA

- **Dimensions (length * width * height)**: 2133 x 697 x 1152 mm
- **Dry weight**: 1651 kg

### WARRANTY

- 12 months against any industrial defect

**Standby**: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings.

**Prime**: Continuous running at variable load for unlimited periods. No overload with 10% overload for available 1Hr in any 12Hr period

- Rated output power at (1525 mt)
- Manufacturer reserves the right to make changes in model, technical specification, equipments, colors and accessories without prior notice

## PERFORMANCE

- **DURABILITY**
- **RELIABILITY**
- **ECONOMY**
- **SERVICEABILITY**
- **ENVIRONMENTAL**
- **APPLICATION FLEXIBILITY**

### General Features

- Reliable, long life, heavy duty and ready to be connected.
- Response to unbalance load between phases.
- Full load and safety shutdown functions are factory tested.
- Auto shutdown protection devices (for Engine and Generators).
- Engines are combined with durability, dependability, maintenance and fuel economy.
- A wide range of options and accessories.
- Soundproof canopy and road trailer are optional.