# Diesel Generator Set Specifications Sheet- 200 kVA

## Generator Specifications:
- **Generet Manufacturer**: Greaves Power
- **Generet Rating**: Prime Power
- **Generet Output (KVA / KW)**: 200 / 160
- **Generet Model**: GPWII-PII-200
- **Engine rating or Max. Power at rated RPM, in KW (BHP)**: 178.8 (243.1)
- **Engine Model**: 6G11TAG29
- **Engine Type**: TCAC
- **No. of Cylinders / Cylinder arrangement**: 6 / Inline
- **Bore & Stroke (mm)**: 108 X 133
- **Compression ratio**: 16.8
- **Rated RPM**: 1500
- **Governor: Type /Class of Governing**: Mechanical/G2
- **Over speed trip (rpm)**: 1650
- **Air cleaner type / Qty**: Dry / 01
- **Exhaust system**:
  - Maximum allowable back pressure, kPa: 5.5

## Engine Electrical system:
- **Charging alternator Voltage / Current (DC)**: 12V / 35Amps
- **Starter Motor rated voltage (DC)**: 12
- **Battery Voltage (DC) / Capacity (AH)**: 12V, 120AH

## Fuel System:
- **Recommended Fuel**: HSD
- **Fuel tank capacity (Ltr)**: 360
- **Fuel consumption - LPH at % load**:
  - 100%: 45.1
  - 75%: 33.6
  - 50%: 23.8
  - 25%: 12.6

## Lubricating Oil system:
- **Lub oil sump capacity**: 17
- **Oil change period (Hrs)**: 500
- **Oil consumption (% of sfc)**: ≤ 0.2
- **Oil filter quantity (Nos) / type**: 01 / spin on type
- **Recommended Oil Grade**: 15W40 Greaves Maxtherm API C4

## Oil Cooler:
- **Oil Cooler**: Water cooled

## Cooling System:
- **Cooling system is designed for max ambient temp, Deg. C at rated load**: 50
- **Radiator System capacity, including engine, (L)**: 40 Ltr
- **Water pump type**: Centrifugal, Gear Driven

## Alternator Specification:
- **Voltage**: 380-440V
- **Frequency**: 50Hz
- **Current @ 0.8PF (Amps)**: 278.2
- **Type**: 4 Pole, Rotating field
- **Exciter Type**: Brushless (Permanent magnet optional)
- **Leads: Quantity, type**: 6, Fixed: 12, re connectable (Optional)
- **Voltage regulator**: Solid State
- **Insulation**: Class H
- **Temperature rise**: 125 Deg. C (Class H)
- **Bearing: Quantity, type**: 1, Sealed
- **Coupling**: Flexible disc Closed Coupled
- **Voltage regulation : No load to full load**: 2 Phase sensing ±1%
- **One step load acceptance**: 100% of rating
- **Unbalance load capability**: 25% of rated current

### Standard scope of supply:
**Engine** with direct injection, water cooled engine, 6 cylinder, in-line, 4 stroke, rated at 1500 RPM, conforming to ISO 3046 / BS 5514 has the following specifications:
- Mechanical FIP
- Mechanical governor / Electronic Governor (Optional)
- Turbocharger, exhaust manifold, stainless steel exhaust flexible connection
- Radiator cooled with turbocharged after cooled
- Plate type lube oil cooler
- Filter – fuel, lube oil
- Dry type replaceable paper element air cleaner
- Flywheel housing and flywheel to suit single bearing alternator
- Starting motor – Electric, battery charging alternator
- First fill lube oil and coolant

**Alternator**: Meccalte / (Optional - Stamford / Crompton Greaves / equivalent)
- Brushless alternator
- Self-excited, self-regulated
- Class ‘H’ insulation limited to temperature rise of class H
- Salient pole revolving field
- Single bearing
- Automatic voltage regulator

**Acoustic enclosure** – Engine alternator assembly mounted on AVM with Silencer and S.S exhaust bellows suitably optimized to meet stringent sound & emission standards as laid by MOEF / CPCB
- Base rail with draw-out type fuel tank is provided with a drain plug, air Vent inlet and outlet connections, level indicator, manhole etc.
- Sub-base fuel tank with 10 hours capacity
- 12 V dry, batteries with connecting leads and terminals
- 90% gloss RAL9003 white polyester powder coated, base in black colour.

**Control panel**: RAL 9003 White Powder coated control panel manufactured with CRCA sheet, Control Panel is having following features:
- Water and lube oil drain outlets located on the outer surface- Leading to ease of maintenance and cleanliness.
  - MCCB of suitable rating with short circuit protection
  - Controller which displays voltage, current, KW, PF, Frequency, KWh.
  - Indicating lamp for ‘Load ON’ and ‘Set Running’
  - Current transformers of suitable ratings
  - Aluminium busbars of suitable capacity with incoming and Outgoing terminations
  - Control fuses duly wired and ferruled

**Power cables**: Uninnyvin copper conductor cables between Alternator & Control panel inside the canopy.

**Literature**:
- Operation Manual
- General maintenance & Installation Guideline
- Foundation Drawing
- Parts manual
Generator Controller (GCU 6120-MKII)

<table>
<thead>
<tr>
<th>CONTROLLER TYPE</th>
<th>FEATURES</th>
<th>DISPLAY PARAMETER</th>
<th>AUDIO VISUAL WARNING</th>
<th>SHUT DOWN WITH AUDIO VISUAL ANNUNCIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compact and microprocessor based fully configurable control Unit.</td>
<td>Engine Oil pressure</td>
<td>Low Oil pressure</td>
<td>Low Oil Pressure</td>
<td></td>
</tr>
<tr>
<td>4 line LCD display</td>
<td>Coolant temperature</td>
<td>High Coolant temperature</td>
<td>High Coolant temperature</td>
<td></td>
</tr>
<tr>
<td>The unique integrated DG set controller</td>
<td>Fuel level indication</td>
<td>Low Battery Voltage</td>
<td>Engine Over speed</td>
<td></td>
</tr>
<tr>
<td>Incorporate both engine and alternator parameter in one console</td>
<td>Battery voltage</td>
<td>Low fuel Level</td>
<td>Engine Under speed</td>
<td></td>
</tr>
<tr>
<td>Fully configurable digital output</td>
<td>Engine rpm</td>
<td></td>
<td>Low Fuel Level</td>
<td></td>
</tr>
<tr>
<td>All parameter are settable and password protected</td>
<td>DG set Running Hours</td>
<td></td>
<td>Over load</td>
<td></td>
</tr>
<tr>
<td>AMF Ready</td>
<td>Generator Volts - Phase - Neutral &amp; Phase - Phase</td>
<td>Under voltage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote start</td>
<td>Generator Current (Amps)</td>
<td>Over voltage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power factor</td>
<td>KWHR</td>
<td>Over frequency</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KW</td>
<td>Under frequency</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Optional Items:

**Cooling System:** Heater Kit for -20 Deg. C Operation / Heater Kit for -30 deg.Cel


**AMF & Synchronizing System:** AMF panel / AMF with Auto-synchronization (Deep Sea / Woodward)

**Open Unit (For Export):** Exhaust Silencer - Hospital / Residential grade, stainless steel, flexible pipe.

**Fuel System:** Flexible Fuel Lines / SS fuel lines / Fuel Pressure Gauge / Fuel Flow meter.

**Enclosed Unit:** Sound Enclosure – Super silent / External 990 Lt. Fuel Tank.

**Miscellaneous:** Air Cleaner (Heavy Duty)/ Air Cleaner Restriction Indicator Digital / Closed crankcase ventilation

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![Diagram of Generator Controller (GCU 6120-MKII)](image)

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**Typical Enclosed GENSET Dimensions & weight**

<table>
<thead>
<tr>
<th>Model</th>
<th>Rating</th>
<th>Length(mm)</th>
<th>Width(mm)</th>
<th>Height(mm)</th>
<th>Dry Weight(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPWII-Pil-200</td>
<td>200</td>
<td>4000</td>
<td>1600</td>
<td>1900</td>
<td>2300</td>
</tr>
</tbody>
</table>