




- ENGINE**
- 
- ALTERNATOR**
- 
- CONTROLLER**
- 
- CIRCUIT BREAKER**
- 

# TMP250

## STANDARD SPECIFICATIONS

- 1. ENGINE**  
Perkins four(4) stroke heavy duty high performance industrial type diesel engine.
- 2. ENGINE FILTRATION SYSTEM**
  - Air filter
  - Fuel filter
  - Full flow lube oil filter
 All filters elements are replaceable.
- 3. COOLING RADIATOR**  
Radiator and cooling fan, complete with safety guards.
- 4. EXHAUST SYSTEM**  
Heavy duty Industrial Exhaust
  - Noise reduction level : **12 (dBA)**
  - Maximum allowable back pressure: **10 (kPa)**
- 5. CIRCUIT BREAKER TYPE**
  - ABB 3 pole MCB.
  - 4 pole CB is Optional
- 6. FUEL SYSTEM**  
On Generating Sets up to 500 KVA, the base-frame design is integrated with a fuel tank with a capacity of approx. 8 hours running at Full Load.

### GENSET TYPE (TMP250)

| OUTPUT RATINGS                    | Ratings at 80% Power Factor |               |
|-----------------------------------|-----------------------------|---------------|
| 400-415 V, 3 ph., 50 Hz, 1500 rpm | Prime                       | Standby       |
|                                   | 250 KVA                     | 275 KVA       |
|                                   | <b>200 kW</b>               | <b>220 kW</b> |

**Prime Power:** These ratings apply to producing continuous electrical power (at varying load) instead of commercially received electricity. 10% overload power is provided for one(1) hour every 12 hours of continuous operation.

**Standby Power:** These ratings apply to providing continuous electrical power (at variable load) in the case of a utility power outage. Overload is not allowed on these ratings.

| ENGINE / TECHNICAL DATA                       |                                      |             |
|---|--------------------------------------|-------------|
| Engine Make & Model                           | Perkins 1206A-E70TTAG3               |             |
| Governor Type                                 | Mechanical                           |             |
| Number of Cylinders & Arrangement             | 6 Vertical in line                   |             |
| Bore and Stroke mm                            | 105 x 135                            |             |
| Displacement / Cubic Capacity liters          | 7.01                                 |             |
| Induction System                              | Turbocharged, air to air aftercooled |             |
| Cycle   | 4 stroke                             |             |
| Combustion System                             | Direct Injection                     |             |
| Compression Ratio                             | 15.8:1                               |             |
| Rotation                                      | Anti-clockwise, viewed on flywheel   |             |
| Coolin System                                 | Water - cooled                       |             |
| Frequency and Engine Speed                    | 50Hz / 1500rpm                       |             |
|   | Prime                                | Standby     |
| Gross Engine Power kW (hp)                    | 226.2 (303)                          | 248.6 (333) |
| Fuel Consumption @ 50% load L/hr.             | 205                                  | -           |
| @ 75% load L/hr.                              | 205                                  | -           |
| @100% load L/hr.                              | 212                                  | 220         |
| Total Lubrication System Capacity liters      | 16                                   | 16          |
| Total Coolant Capacity (inc. radiator) liters | 32.3                                 | 32.3        |
| Exhaust Temperature: °C                       | 492                                  | 522         |
| Radiator Cooling Air Flow (Min): m³/sec       | 4.3                                  | 4.3         |
| Combustion Air Flow: m³/min                   | 13.7                                 | 15.6        |
| Exhaust Gas Flow: m³/min                      | 30.6                                 | 34.1        |

| Alternator Data             |                                      |
|-----------------------------|--------------------------------------|
| Make                        | Leroy Somer                          |
| Model                       | TAL 046D                             |
| No. of bearings             | 1                                    |
| Insulation class            | H                                    |
| Total Harmonic Content      | At no load <2%<br>On-linear Load <5% |
| Ingress Protection          | IP23                                 |
| Excitation System           | SHUNT                                |
| Winding Pitch               | 2/3                                  |
| AVR Model                   | R150                                 |
| Overspeed                   | 2250 RPM                             |
| Voltage Regulation (steady) | ± 0.8% / ± 1%                        |
| Short Circuit Capacity      | -                                    |

| Control Panel Details (Standard)   |                |
|--|----------------|
| Make   | DSE            |
| Model  | <b>DSE6110</b> |
| The DSE6110 is an Auto Mains (Utility) Failure Control Module .<br>This module can either be programmed using the front panel or by using the DSE configuration suite PC software.<br>Metering and Alarm indications not limited to: <ul style="list-style-type: none"> <li>• Generator frequency</li> <li>• Under-speed, Overspeed</li> <li>• Generator current</li> <li>• Engine oil pressure</li> <li>• Engine coolant temperature</li> <li>• Fuel level (Warning or shutdown) - Optional</li> <li>• Battery volts</li> <li>• Fail to start/stop</li> <li>• Emergency stop</li> <li>• Failed to reach loading voltage/frequency</li> <li>• Charge fail</li> <li>• Loss of magnetic pick-up signal - Optional</li> <li>• Low DC voltage</li> </ul> |                |

| DIMENSIONS AND WEIGHT ( OPEN TYPE ) |          |           |                                  |                    |
|-------------------------------------|----------|-----------|----------------------------------|--------------------|
| Length cm                           | Width cm | Height cm | Weight kg (with oil and coolant) | Fuel Tank (liters) |
| 290                                 | 99.2     | 190       | 2092                             | 468                |



**TMS250 65 dBA @ 1 Meter**



**TMS250 75 dBA @ 3 Meters**

**SOUND REDUCTION LEVEL:**

- Tow(2) options are available:
  - 65 dBA @ 1 meter
  - 75 dBA @ 3 meters

**TRANSPORTABILITY AND MOVEABILITY:**

- Multiple points lifting facility
- Dragging points at base-frame

**GENERAL SPECIFICATIONS :**

- Unique appearance with high sound absorbing and thermal properties.
- Vertically hinged allow 180° opening rotation and retention with door stays.
- Lockable access doors which give full access to control panel and breaker.
- High quality locks and hinges.
- Internal emergency stop is standard with optional external emergency stop.
- Full weather proof enclosure and suitable operations in harsh conditions.
- Manufactured from galvanized metal sheet for doors & louvers.

**DIMENSIONS AND WEIGHT (Closed Type 65 dBA @ 1 meter)**

| Length cm | Width cm | Height cm | Weight kg (with oil and coolant) | Fuel Tank liters |
|-----------|----------|-----------|----------------------------------|------------------|
| 470       | 150      | 220       | 3092                             | 365              |

**DIMENSIONS AND WEIGHT (Closed Type 75 dBA @ 3 meters)**

| Length cm | Width cm | Height cm | Weight kg (with oil and coolant) | Fuel Tank liters |
|-----------|----------|-----------|----------------------------------|------------------|
| 390       | 143      | 220       | 3092                             | 365              |

**AVAILABLE OPTIONS & ACCESSORIES**

We offer a variety of additional features, accessories, and other technical specifications to customize our generating sets to match our customers' power requirements.

**OPTIONS ACCESSORIES NOT LIMITED TO:**

- A variety of GenSet control and synchronizing panels
- Additional protection alarms and shutdowns
- Water fuel separator
- Water jacket heater
- Battery charger
- Genuine spare parts
- Load banks
- Auxiliary fuel tanks
- Manual & automatic transfer switches

**7. ALTERNATOR**

**Based on the manufacturer specs:**

**7.1 INSULATION SYSTEM**

- The insulation system is Class H.
- All windings are impregnated in either a triple dip thermosetting liquid, oil and acid resisting polyester varnish or vacuum pressure impregnated with a special polyester resin.
- Heavy coat of antitracking varnish additional protection against moisture or condensation.

**7.2 AUTOMATIC VOLTAGE REGULATOR (AVR)**

The fully sealed Automatic Voltage Regulator maintains the Voltage Regulation at ±1%. Nominal adjustment by means of a trim pot incorporated on the AVR.

**7.3 MOTOR STARTING**

An overload capacity equivalent to 300% of the Full Load impedance at zero Power Factor can be sustained for 10 seconds, when PMG option is fitted.

**8. MOUNTING ARRANGEMENT**

**8.1 BASE-FRAME**

The complete Generating Set is mounted as a whole on a heavy duty fabricated steel Base-frame.

**8.2 COUPLING**

The Engine and Alternator are directly coupled. The Engine flywheel is flexibly connected to the alternator rotor.

**8.3 ANTI-VIBRATION MOUNTING PADS**

Anti-Vibration pads are fasten between the Engine / Alternator feet and the Base-frame.

**8.4 SAFETY GUARDS**

The Fan and Fan Drive, as well as the Battery Charging Alternator, are Safety Guard protected for the safety of the personnel.

**9. FACTORY TESTS**

- Before delivery, the generating set is load tested.
- Site load conditions and all protective device control functions are simulated.
- Before delivery, the generator and its systems are checked.

**10. EQUIPMENT FINISHING**

To provide the highest level of durability and scuff resistance, all mild steel components are completely degreased and coated.

**11. DOCUMENTATIONS**

- Operation & Maintenance manual,
- Circuit wiring diagrams and,
- Commissioning accompanied with the Generator.

**13. WARRANTY**

All of the Generating Sets are covered under a warranty policy for a period of 12 months or One Thousand Hours Run Time (1000hrs.). Warranty of the equipment is in line with manufacturers warranty terms & conditions.

| Der Zahrani, Nabatiyeh, Lebanon | Bir Hasan, Beirut, Lebanon    | Zango, Luanda, Angola | Palanca, Luanda, Angola | Estr. De Catete, Viana, Angola |
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