

# ULTIMATE POWER SOLUTION (FZC)

The world's best dealer for Power Generation, Control System, & Power Solution

POWERED BY:



**60 KVA**

3 PHASE

**50 Hz**

**68 KVA**

3 PHASE

**60 Hz**

## GENERATING SET MODEL (UPSP60)

| Output Ratings                  | Prime           | Standby         |
|---------------------------------|-----------------|-----------------|
| 380-415 V, 3ph, 50 Hz, 1500 rpm | 60 KVA<br>48 KW | 66 KVA<br>53 KW |
| 380-415 V, 3ph, 60 Hz, 1800 rpm | 68 KVA<br>55 KW | 75 KVA<br>60 KW |

## ENGINE / TECHNICAL DATA

Ratings at 0.8 Power Factor

|                                   |            |                            |                  |
|-----------------------------------|------------|----------------------------|------------------|
| Engine Make                       |            | PERKINS                    |                  |
| Engine Model                      |            | 1103A-33TG2                |                  |
| Governing Type                    |            | Mechanical                 |                  |
| Number of Cylinder/ Arrangement   |            | 3/ Vertical in-line        |                  |
| Bore and Stroke (mm)              |            | 105 mm x 127 mm            |                  |
| Compression Ratio                 |            | 17.25 : 1                  |                  |
| Displacement (L)                  |            | 3.3 L                      |                  |
| Aspiration/ Cooling               |            | Turbocharged/ Water cooled |                  |
| Combustion System                 |            | Direct Injection           |                  |
| Rotation from Flywheel End        |            | Anti-clockwise             |                  |
| Total Lubrication System Capacity |            | 8.3 L                      |                  |
| Total Coolant Capacity            |            | 10.2 L                     |                  |
| Cycle                             |            | 4 stroke                   |                  |
| Frequency and Engine Speed        |            | 50 Hz / 1500 rpm           | 60 Hz / 1800 rpm |
| Fuel Consumption                  | @50% load  | 224 g/kWh                  | 230 g/kWh        |
|                                   | @75% load  | 215 g/kWh                  | 218 g/kWh        |
|                                   | @100% load | 218 g/kWh                  | 213 g/kWh        |
|                                   | @110% load | 217 g/kWh                  | 216 g/kWh        |
| Exhaust temperature               |            | 492-537°C                  | 510-551°C        |

## ALTERNATOR

|                      |                        |
|----------------------|------------------------|
| Make                 | UPS / Leroy Somer(TAL) |
| Model                | UPS224G/ TAL042H       |
| No. of bearings      | 1                      |
| Insulation           | H                      |
| Exciter Type         | SHUNT                  |
| Wires                | 6/12                   |
| Degree of protection | IP23                   |
| Winding Pitch        | 2/3                    |
| Overspeed            | 2250 min               |
| Voltage Regulation   | ±1%                    |

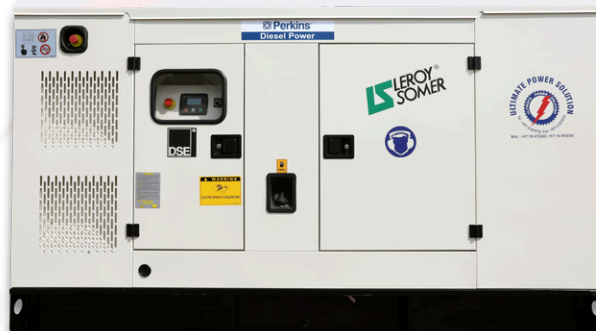
## CONTROL PANEL

|       |                |
|-------|----------------|
| Make  | DeepSea        |
| Model | 4110/20 SERIES |

The DSE 4110/20 Seeries., is an Auto Start Control for single genset application. It includes a LCD display which clearly shows the status of engine all the times. This module can either programmed using the front panel or by using configurator sale PC software.

### Metering and Alarm Indications:

- Generator frequency
- UnderSpeed, Overspeed
- Generator volts (L-L, L-N)
- Generator current
- Engine oil pressure
- Engine coolant temperature
- Hours run counter
- Battery volts
- Fail to start/stop
- Emergency stop
- Failed to reach loading voltage/frequency
- Charge fail
- LOW DC voltage
- CAN diagnostic and CAN fail/error



CERTIFIED BY:



# STANDARD SPECIFICATIONS

**60 KVA**

**3 PHASE**

**50 Hz**

**68 KVA**

**3 PHASE**

**60 Hz**

## 1. ENGINE

Perkins four stroke heavy duty high performance industrial type diesel engine.

## 2. ENGINE FILTERATION SYSTEM

- Cartridge type dry air filter.
  - Cartridge type fuel filters.
  - Full flow lube oil filter.
- All filters have replaceable elements.

## 3. COOLING RADIATOR

Radiator and cooling fan, complete with safety guards, designed to cool the engine at high ambient temperatures (consult your dealer for de-rating factors)

## 4. EXHAUST SYSTEM

Exhaust gas flow 10.1-12.5 m<sup>3</sup>/min  
Maximum allowable back pressure 10-15 (kPa)

## 5. CIRCUIT BREAKER TYPE

3 pole MCCB. (4 pole is optional)

## 6. Fuel System

The baseframe design is incorporated with an integral fuel tank with a capacity of approx. 8 hours running at Full Load. The tank is supplied complete with fill cap breather, fuel feed and return lines to the Engine and drain plug.

## 7. ALTERNATOR

### 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  $\pm 1\%$ . Nominal adjustment by means of a trim pot incorporated on the AVR.

## 8. MOUNTING ARRANGEMENT

### 8.1 COUPLING

- The Engine and Alternator are directly coupled by means of an SAE flange. The Engine flywheel is flexibly coupled to the Alternator rotor.

### 8.2 ANTI-VIBRATION MOUNTING PADS

- Anti-Vibration pads are affixed between the Engine/Alternator feet and the Baseframe thus ensuring complete vibration isolation of the rotating assembly.

### 8.3 SAFETY GUARDS

- The Fan & Fan Drive along with the Battery Charging Alternator are Safety Guard protected for personnel protection.

## 9. FACTORY TEST

- The Generating set is load tested before dispatch
- All protective devices control functions and site load conditions are simulated. The generator and its systems are checked before dispatch.

## 10. EQUIPMENT FINISHING

All mild steel components are fully degreased and painted with powder coated paint to ensure maximum scuff resistance and durability.

## 11. DOCUMENTATION

Operation & Maintenance manual, Circuit wiring diagrams and Commissioning/Fault Finding instruction leaflets are accompanied with the Generator.

## 12. QUALITY STANDARDS

The equipment meets the following standards: B84999, B65000, BS5514 IEC 60034, VDE0530, NEMA MG 1.22 and ISO8528.

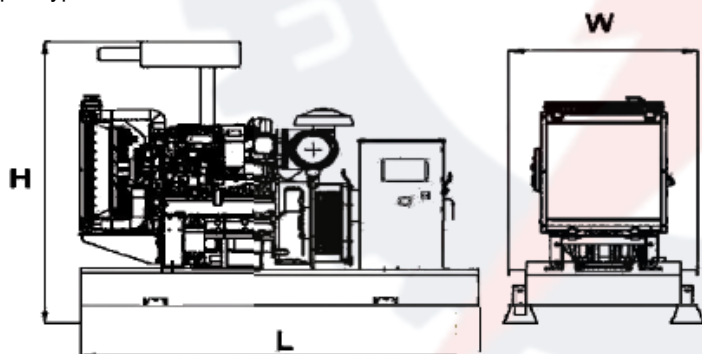
## 13. WARRANTY

All of the Generating Sets are covered under a warranty policy for a period of 12 months or 1000 working hours, Warranty of the equipment is in line with manufacturers warranty terms & conditions. (check warranty statement for more details, as it may vary for different countries)

In line with continuous product development, we reserve the right to change specifications without notice.

## STANDARD GENERATOR DIMENSION

Open type Generator



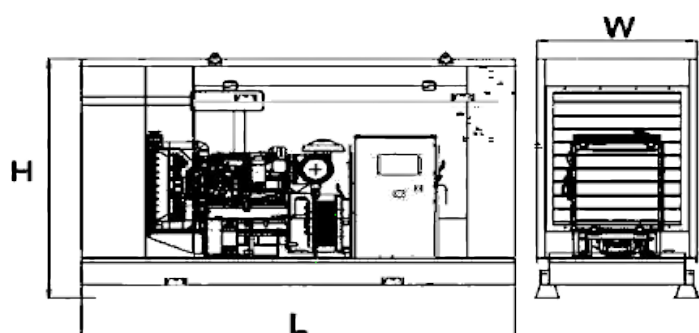
**Length, L:** 1700 mm

**Height, H:** 1250 mm

**Width, W:** 850 mm

**Weight:** 800 kg

Close type Generator



**Length, L:** 2300 mm

**Height, H:** 1500 mm

**Width, W:** 950 mm

**Weight:** 1000 kg