

# Technical Data

## Gas Generator Specification

# QES 1250

For any further information, please contact the Quantum Team by visiting our website at  
<https://www.quantumes.com/contact-us/>

### Basic technical data

Engine Manufacturer..... Perkins  
 Engine Model..... 4016TRS2  
 No. Cylinders..... 16  
 Cycle..... Four Stroke  
 Induction system..... Turbocharged (charge cooled)  
 Compression ratio..... 12:1  
 Bore..... 160mm  
 Stroke..... 190mm  
 Cubic capacity..... 61.123 litres  
 Direction of rotation..... Clockwise  
 Firing order..... 1A,1B,3A,3B,7A,7B,5A,5B,8A,8B,6A,6B,2A,2B,4A,4B

### Overall dimensions

Height..... 2555mm  
 Length..... 12170mm  
 Width (including mounting brackets)..... 2426mm  
 Weight..... 12000kg (approx.)

### Alternator

Manufacturer..... Stamford  
 Phase..... 3 phase  
 Voltage..... 400V  
 Assumed Power Factor..... 1

| Designation                         | Units              | 50Hz    | 60Hz |
|-------------------------------------|--------------------|---------|------|
| Fuel Type                           |                    | Natural | -    |
| Continuous Output                   | kW(e)              | 1000    | -    |
| Natural gas flow                    | M <sup>3</sup> /hr | 273     | -    |
| Recoverable heat                    | kW(th)             | -       | -    |
| Exhaust gas flow                    | Kg/hr              | -       | -    |
| Exhaust gas outlet temperature      | °C                 | 468     | -    |
| Jacket water exit temperature (max) | °C                 | 36      | -    |
| Voltage                             | V                  | 400     | -    |
| Power factor                        | Pf                 | 1       | -    |
| Power output Continuous             | kVA                | 1250    | -    |
| Power output stand-by               | kVA                | -       | -    |
| Actual alternator efficiency        | % @ pf 1           | >93     | -    |

### Control Panel

- Sheet metal enclosure mounted within and forming an integral part of the canopy. PLC based system enables auto and manual control for start/stop, voltage control, mains synchronisation, load control, remote control data access through ethernet, HMI graphic interface to view and set parameters.

### Engine control

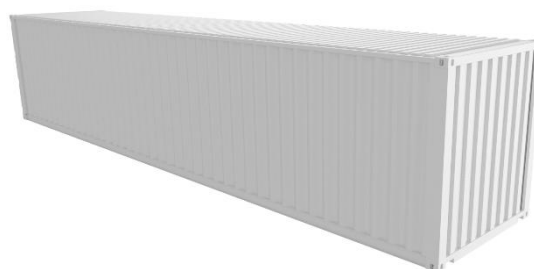
- Start/stop, engine speed control, monitoring for engine coolant inlet and outlet temperatures and exhaust temperature.

### Alternator control

- Control of the alternator mounted AVR for voltage output, power output and Power Factor.

### Connection

Condensate drain connections..... 1 "BSP  
 Gas connection..... DN100 Flange  
 Exhaust Connection..... 8"(2x)



### Construction

- Rigid base frame made of profiled steel.
- Direct coupled engine and generator assembly with flexible drive plate.
- Engine generator assembly flexibly mounted on the base frame.
- Electrical equipment installed in a sheet steel cabinet that forms an integral part of the canopy.
- Air movement within the canopy controlled by a engine driven fan.
- All connection points at one end of the canopy.
- Primary exhaust silencer mounted within the canopy with a vertical exit at the end.

### Canopy (optional)

- Highly effective sound enclosure in packs of sheet steel construction, powder coated. Air passages acoustically lined and waterproof.

### Exhaust System

- Steel mounted within the canopy.
- The lubrication system comprises a wet sump system with full flow oil pump

### Emergency stop

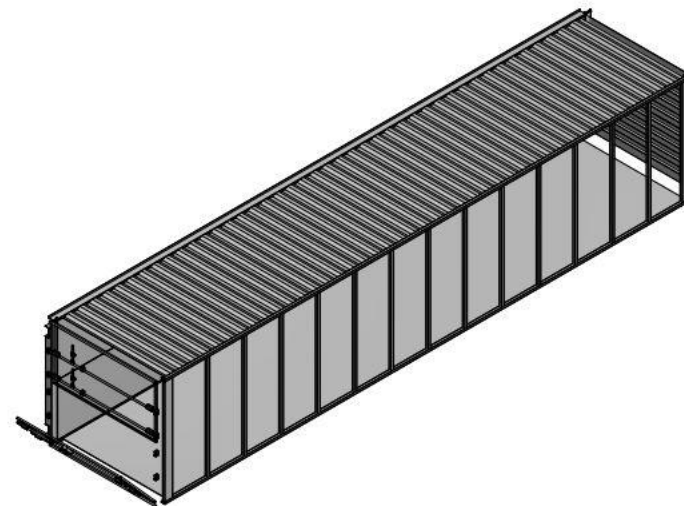
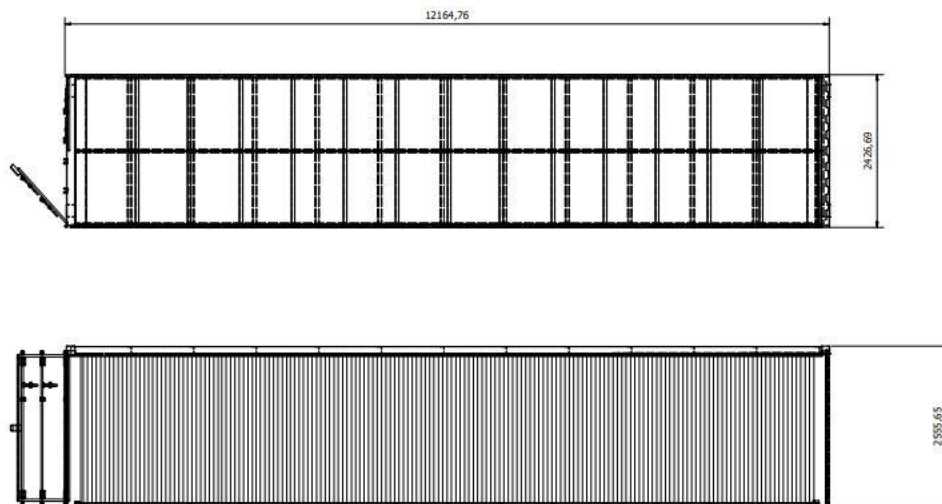
- Canopy mounted push button with external link.

### Emissions (optional)

- Standard 3 way catalyst can be add at time of order to reduce the NOX and CO2 for site requirement or regulation (naturally aspirated)
- For turbocharged or lean-burn engines SCR low NOX systems can be added.

### Gas Train

- Manual shut off valve, Filter, Double block solenoid, 30-50mbar pressure regulator. High pressure train available on request.



Quantum ES Limited  
Merthyr Tydfil, CF48 3TF,  
UK  
Telephone +44 (0)  
1685373290  
Fax +44 (0) 1685 373291  
[www.quantumes.com](http://www.quantumes.com)