

# Technical Data

## Gas Generator Specification

# QES 400

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..... SCANIA  
 Engine Model..... OC16  
 No. Cylinders..... 8  
 Cycle..... Four Stroke  
 Induction system..... Turbocharged (charge cooled)  
 Compression ratio..... 12.2:1  
 Bore..... 130mm  
 Stroke..... 154mm  
 Cubic capacity..... 16.4 litres  
 Direction of rotation..... Clockwise  
 Firing order..... 1,5,4,2,6,3,7,8

### Overall dimensions

Height..... 2450mm  
 Length..... 5000mm  
 Width (including mounting brackets)..... 1800mm  
 Weight..... 4,400kg (approx.)

### Alternator

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

Designation	Units	50Hz	60Hz
Fuel Type		Natural	-
Stand-by Output	kW(e)	320	-
Natural gas flow	M <sup>3</sup> /hr	-	-
Recoverable heat	kW(th)	-	-
Exhaust gas flow	Kg/hr	-	-
Exhaust gas outlet temperature	°C	473	-
Jacket water exit temperature (max)	°C	90	-
Voltage	V	400	-
Power factor	Pf	1	-
Power output Continuous	kVA	400	-
Power output stand-by	kVA	-	-
Actual alternator efficiency	% @ pf 1	>94	-

### 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..... DN50 Flange  
 Exhaust Connection..... 6"



### 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 an 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

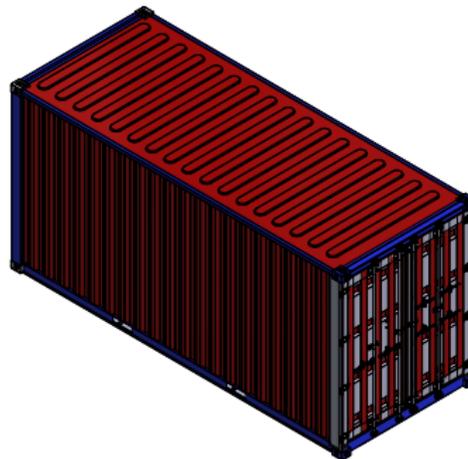
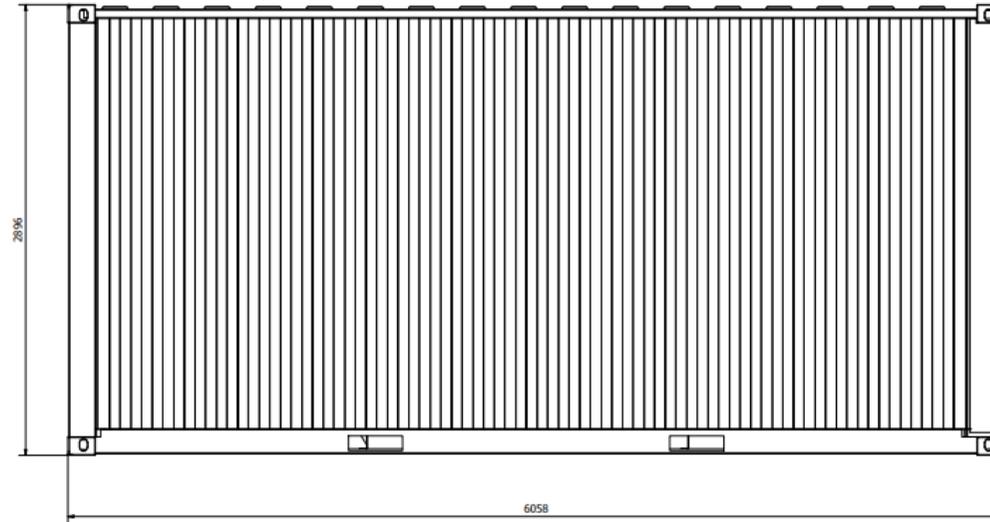
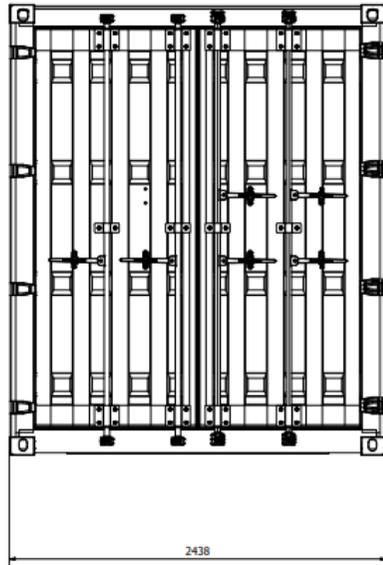
- Canopy mounted push button with external link.

### Emissions (optional)

- Standard 3 way catalyst can be added 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)