Technical Data
Gas Generator Specification

QES 50

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..... Quantum ES
Engine Model.....Q4.4TSI
No. Cylinders.....4
Cycle..... Four Stroke
Induction system.....Turbocharged
Compression ratio..... 13:1
Bore.....105mm
Stroke.....127mm
Cubic capacity.....4.4 litres
Direction of rotation.....Clockwise
Firing order..... 1,3,4,2

Overall dimensions

Height..... 1730mm
Length.....2800mm
Width (including mounting brackets).....1100mm
Weight.....820kg (approx.)

Alternator

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

Designation	Units	50Hz	60Hz
Fuel Type		Natural	
Electrical output prime	kW(e)	40	45
Electrical output stand-by	kW(e)	44	50
Recoverable heat	kW(th)	-	-
Exhaust gas flow	Kg/hr	-	-
Exhaust gas outlet temperature	°C	520	520
Voltage	V	400	400
Power factor	Pf	0.8	0.8
Power output prime	kVA	50	56
Power output stand-by	kVA	55	62
Actual alternator efficiency	% @ pf 1	95.2	95.3

Control Panel

- Sheet metal enclosure mounted within and forming an integral part of the canopy (1000x800x210mm). 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

Gas Connection.....1”BSP

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

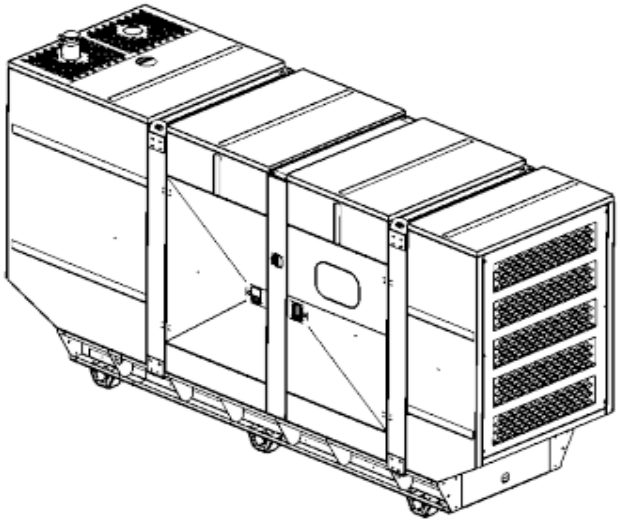
- Steel mounted within the canopy.
- The lubrication system comprises a wet sump system with full flow oil pump

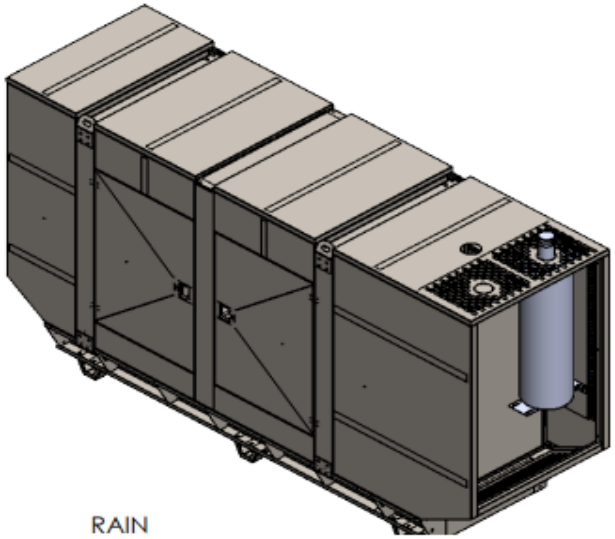
Emergency stop

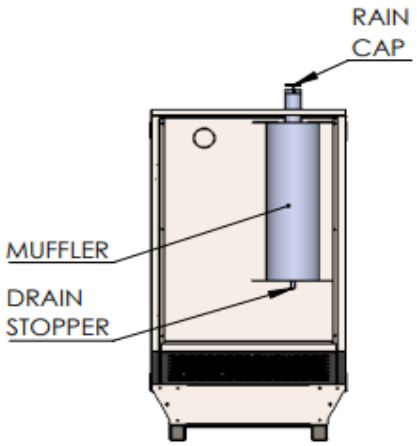
- Canopy mounted push button with external link.

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.







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