Industrial Gas Generators

Technical Data

QES 120

Generating set

Basic technical data

Engine Manufacture	Quantum
Engine Model	Q6.71TASI
Number of cylinders	6
Cycle	Four stroke
Induction system	Turbo charged ACC
Compression ratio	13:1
Bore	105 mm (4.13 in)
Stroke	135 mm (5.31 in)
Cubic capacity	7.01 litres
Direction of rotation (view from front)	Clockwise
Firing order	1, 5, 3, 6, 2, 4
Alternator Manufacture	Mecc Alte
Alternator Model	ECPxxx
Phase	3 Phase
Voltage	400V
Assumed Power factor	1

Dimensions and Connections

Gas Connection	1” BSP

Overall dimensions

Height	2015 mm
Length	3750 mm
Width	1400 mm
Weight	920kg(approx.)

If the engine is to operate in ambient conditions other than those of the test conditions, suitable adjustments must be made for the changes. For full details, contact QES or KVT

General installation		**Units**
Fuel Type	Natural Gas	
Fuel heat input	282	kW
Electrical output	95	kWe
Recoverable heat	-	kWth
Exhaust gas flow	-	Kg/hr
Exhaust gas outlet temperature (approx)	450	˚C
Frequency	50	Hz
Voltage	400	V
Power factor	0,8	pf
Power output	120	kVA
Current	171	A
Actual alternator efficiency	>90	% @ pf 1

Caution: The airflows shown in this table will provide acceptable cooling for an open power unit operating in ambient temperatures of up to 53 °C (127 °F) or 46 °C (114.8 °F) if a canopy is fitted. If the power unit is to be enclosed totally, a cooling test should be done to check that the engine cooling is acceptable.
If there is insufficient cooling, contact us.

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
• 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.

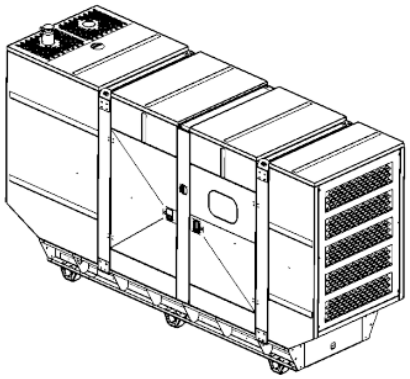
Control Panel
• Sheet metal enclosure mounted within and forming an integral part of the canopy (1000x800x210mm). PLC based system enables auto and manual control for start/stop, voltage control, mains synchronization, load control, Remote control Data access through Ethernet, HMI graphic interface to view and set parameters.

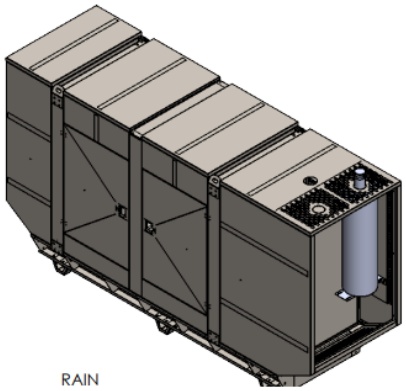
Engine control
• Start/stop, engine speed control, monitoring for engine coolant inlet and outlet temperatures and exhaust temperature.

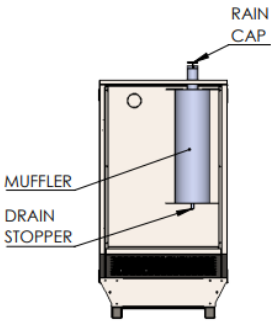
Alternator control
• Control of the alternator mounted AVR for voltage output, power output and Power Factor.

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.







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