



Generating Set

TECHNICAL DATA SHEET

AQC450

Prime Power*	Standby Power**	Voltage/Ph	Hz/rpm***	PF
400kVA/320 kWe	450kVA/360 kWe	400/3Ph	50/1500	0.8

Prime power*

Unlimited hours usage with an average load factor of 80% of the published Prime power over each 24 hours period. A 10% overload is available for 1 hour in every 12 hours operation.

Standby power**

Limited to 500 hours annual usage with an average load factor of 80% of the published Standby power rating over each 24 hour period. Up to 300 hours of annual usage may be run continuously. No overload is permitted on Standby power.

Available in 60HZ for all voltage ratings.***

Standard Reference Conditions

Note: Standard reference conditions 40°C (104°F) Air Inlet Temp, 100m (328 ft) A.S.L. 30% relative humidity.

Diesel Generator Set

Engine Make /Model	Cummins QSG12-G2
Alternator Make /Model	Stamford HCI444F/S4L1D-F
Control Panel	DSE 6120
Base Frame / Silent Canopy	Robust Structure/ Corrosion Resistant
Circuit Breaker Type	3 Pole MCCB (4P Available as optional)
Built in Base Fuel Tank Capacity	865L
Battery	Maintenance free Lead Acid

Dimensions	Length (mm)	Width (mm)	Height (mm)	Weight (KG)
Close Type	5205	1824	2843	5450
Open Type	3505	1500	2133	4350

ENGINE SPECIFICATIONS

Engine Make Model	Cummins QSG12-G2
No. of Cylinders	6 vertical in-line
Cycle	4 Stroke
Aspiration	Turbocharged and Charge Air cooled
Cooling Method	Water cooled
Governing Type	Electronic
Governing Class	G3 - ISO 8528 Part 1
Compression Ratio	17.0 : 1
Displacement	11.8 L
Bore/Stroke (mm / in)	(132/144)/(5.2/5.67)
Dynamic Charging Alternator	24VDC, Starter Motor

COOLING SYSTEM

Total Coolant Capacity (L)	48 L
Water Pump Type	Centrifugal eng-driven
Radiator Fan Load	14.08 kW
Heat Radiation to Room (PRP)	26kW
Heat Radiation to Room (ESP)	31kW

Comply with Standards

ISO 3046, BS 5514, DIN 6271, NEMA-MGI, DIN EN, BS

Powered By:



STAMFORD



LUBRICATION SYSTEM

Oil Filter Type	Spin-On Full Flow
Total Oil Capacity	34.1 L
Oil Type	API-CH-4 or SAE15W-40

AIR SYSTEM

Air Filter Type	Dry Element
Combustion Air Flow (PRP)	23.22m³/min
Combustion Air Flow (ESP)	25.44m³/min
Radiator Air Flow	429m³/min

EXHAUST SYSTEM

Muffler Type	Industrial Grade
Max. Back Pressure	10.2 kPa
Exhaust Gas Flow (PRP/ESP)	56.16 / 61.74 m³/min
Exhaust Gas Temperature (PRP/ESP)	507 / 524°C



WE MAKE YOUR POWER SOLUTIONS SUSTAINABLE



Silent / Closed Type

Image for illustration purposes only.

1. Features & Benefits:

- AQP Gen set is powered by Cummins Engine ,the world leader having over 85 years of innovation and excellence, with customers support in 182 countries from 3500 outlets.
- AQP Gen set is powered by Stamford Alternator, the Global number 1 in Alternators, with over 99 years of Experience, Having 120+ active patents, in over 40 countries and over 80 service centers.
- AQP Gen set is equipped with DSE controller, one of the world's top manufacturers in UK, having over 40 years of excellence, the most advanced and user friendly controller.
- Low fuel consumption, saving on fuel spend
- Compact and rugged design, saving on transport and storage cost
- Designed to occupy less space considering critical applications and cities where space is at a premium.
- Low noise and vibration, considering critical applications where noise level matters
- Easy maintenance and long service intervals , saving on maintenance cost
- Subject to rigorous tests including load acceptance, cooling, vibration and noise level prior shipment to customer.
- Simple to operate and environment friendly in worst ambient conditions
- Equipped with built-in fuel tank sufficient for 8 to 10 hours of operations.
- Fully Engineering wide range of optional accessories available.

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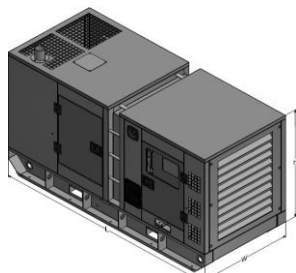
Cummins Engine
QSG12-G2



Stamford
HCI444F



DSE6120 MKII
AUTO START & AUTO MAINS
FAILURE CONTROL



AQGT ENCLOSURE/CANOPY

Engine Fuel System	
Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	92 L/hr
Fuel Consumption 100% PRP	82 L/hr
Fuel Consumption 75% PRP	60 L/hr
Fuel Consumption 50% PRP	41 L/hr

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Alternator Make /Model	Stamford HCI444F/S4L1D-F
AVR Model	AS440
Number of Poles	4
Number of Winding Leads	12
Type of Bearing	Single Bearing
Insulation Class - Temp Rise	H / H
Ingress Protection Rating	IP 23
Excitation System	Self-Excited
Voltage Regulation	+/- 1%
Harmonic Coefficient THF	< 2%
Tel. influence TIF	< 50
Cooling air flow	0.9 m³/ Sec

Controller Make & Model	DeepSea 6120
Operation Mode	AMF
Display	Graphic Back-lit LCD (128x64) pixels
Ingress Protection Rating	IP65
Binary Inputs/Outputs	6 / 4
Analog Inputs	3
Measurement	Vac, A, Hz, kVA, kW, Vdc
Event Log	Alarms log, Hrs log
Communication	USB

Please refer to Controller Data Sheet for more details.

ENCLOSURE SPECIFICATIONS	
Enclosure Type	Acoustic & Weather Proof
Anticorrosive Protection	Polyester Powder Coated Galvanized Sheet
Ingress Protection	IP 23
Lifting	ISO Standard Lifting
Emergency	External Emergency Push Button
Noise Pressure level @	70db(A) @ 7 mt

Distributed & Serviced by:



Open Type

Image for illustration purposes only.

2. WARRANTY POLICY:

- Al Qabandi Generator technology products has a warranty for all prime equipment, limited to 2000 running hours or 12 months warranty & For Standby equipment, Limited to 500 running hours or 12 months warranty whichever occur first against manufacturing defect.
- Wearing parts (filters), incorrect man-made operation, Back up Genset maintenance failures are excluded from the warranty policy
- For more details please refer to <http://bahmanigt.com>

3. DOCUMENTAION

Operation and Maintenance Manual, GAD, Wiring Diagram & FAT Report are Accompanied with Genset.

4. OPTIONAL FEATURES

A. Engine

- Heavy-Duty Air Filter
- Coolant Heater
- Lubricant Oil Heater
- Fuel and Water Separator
- Lube Oil Rotary Pump

B. Alternator

- Anti Condensation Heater
- PMG + AVR
- Double Bearing Alternator
- RTDs For Bearing and Winding

C. Cooling System:

- 55 degree Radiator
- Remote Radiator

D. Control System:

- AMF / Parallel
- Remote Annunciators
- 4 p manual/Motorized Circuit breaker

E. Automatic Transfer Switch (ATS):

- Contractor or Breaker type ATS
- Motorized changeover type ATS

F. Start Battery:

- Nickel-cadmium battery
- Maintenance-free battery
- Battery charger and selector switch
- Charging current meter

G. Exhaust Muffler:

- Residential grade
- Critical grade
- Hospital grade

H. Available for voltages :

400/230V, 480/277V, 380/220V, 440/254V,
416/240V, 220/127V, 208/120V

Reserve the right to change Specification with out notice

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