



# Generating Set

## TECHNICAL DATA SHEET

### AQC110

Prime Power*	Standby Power**	Voltage/Ph	Hz/rpm***	PF
100 kVA/80 kWe	110 kVA/88 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.



Silent / Closed Type

Image for illustration purposes only.

Diesel Generator Set	
Engine Make /Model	Cummins 6BTA.5.9-G5
Alternator Make /Model	Stamford UCI274D
Control Panel	DSE 4520
Base Frame / Silent Canopy	Robust Structure/ Corrosion Resistant
Circuit Breaker Type	3 Pole MCCB (4P Available as optional)
Built in Base Fuel Tank Capacity	290L
Battery	Maintenance free Lead Acid

Dimensions	Length (mm)	Width (mm)	Height (mm)	Weight (KG)
Close Type	3177	1155	1796	1500
Open Type	2200	1100	1686	1360

#### ENGINE SPECIFICATIONS

Engine Make Model	Cummins 6BTA.5.9-G5
No. of Cylinders	6 vertical in-line
Cycle	4 Stroke
Aspiration	Turbocharged
Cooling Method	Water cooled
Governing Type	Electronic
Governing Class	G2 - ISO 8528 Part 1
Compression Ratio	17.6 : 1
Displacement	5.9L/360in <sup>3</sup>
Bore/Stroke	(102/120) / (4.02/4.72)
Dynamic Charging Alternator	55AMP, 12V

#### COOLING SYSTEM

Total Coolant Capacity (L)	9.1L
Water Pump Type	Centrifugal
Radiator Fan Load	8kW
Heat Radiation to Room (PRP)	11kW
Heat Radiation to Room (ESP)	12kW

#### LUBRICATION SYSTEM

Oil Filter Type	Spin-On Full Flow
Total Oil Capacity	16.4L
Oil Type	API-CH-4 or SAE15W-40

#### AIR SYSTEM

Air Filter Type	Dry Element
Combustion Air Flow (PRP)	7.2m <sup>3</sup> /min
Combustion Air Flow (ESP)	7.86 m <sup>3</sup> /min
Radiator Air Flow	215.5 m <sup>3</sup> /min

#### Exhaust System

Muffler Type	Industrial Grade
Max. Back Pressure	10.25kPa
Exhaust Gas Flow (PRP/ESP)	19.50/21.42 m <sup>3</sup> /min
Exhaust Gas Temperature (PRP/ESP)	540/533°C

#### Comply with Standards

ISO 3046, BS 5514, DIN 6271, NEMA-MGI, DIN EN, BS 5000, IEC 60034, IEC 60947-2

#### Powered By:



**STAMFORD**



#### 1. Features & Benefits:

- AQ 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.
- AQ 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.
- AQ 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.

(Contd.)

- 
-



# Generating Set

TECHNICAL DATA SHEET

## AQC110



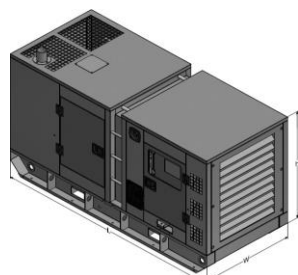
Cummins  
6BTA5.9-G5



Stamford



DSE4520 MKII  
AUTO START & AUTO MAINS  
FAILURE CONTROL



AQ ENCLOSURE/CANOPY

Engine Fuel System	
Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	27 L/hr
Fuel Consumption 100% PRP	25 L/hr
Fuel Consumption 75% PRP	18 L/hr
Fuel Consumption 50% PRP	12 L/hr

ALTERNATOR SPECIFICATIONS	
Alternator Make /Model	Stamford UCI274D
AVR Model	SX460
Number of Poles	4
Number of Winding Leads	12
Type of Bearing	Single Bearing
Insulation Class - Temp Rise	H/H
Efficiency	90.6
Ingress Protection Rating	IP 23
Excitation System	Self-Excited
Voltage Regulation	+/- 1%

Controller Make & Model	DeepSea 4520
Operation Mode	AMF
Display	Graphic Back-lit LCD (128x64) pixels
Ingress Protection Rating	IP65
Binary Inputs/Outputs	4 / 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
Canopy RAL Color	RAL 2000
Base frame RAL Color	RAL 9011 -
Noise Pressure level @	72.2db(A) @ 7 mt

Distributed & Serviced by:



WE MAKE YOUR POWER SOLUTIONS SUSTAINABLE



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

### 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

Due to continuous research & product development, we reserve the right to change specification with out notice

P.O. Box 21191 Safat 13072 kuwait  
Tel: +965 25722272, Fax: +965 25722212,  
Mobile: +965 52229685  
Email: gensetsales@qabandigroup.com,  
www.qabandigroup.com