

# AQT-CU100

**GENERATING SET** (TECHNICAL DATA SHEET)

## Standard Specifications:

#### 1- Prime Rating:

Unlimited hours usage, with an average load factor of 80% over each 24 hour period. 10% overload is available for 1 hour in every 12 hours operation. 0 overload is permitted on standby power.

#### 2- Standby Rating:

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.

#### 3- Engine:

Cummins, including air filters, fuel filters, oil filter, starting motor and charging alternator etc.

4- Alternator Type:

brushless AC alternator

5- Radiator:

50°C, fan protective shroud

#### Powered By:









"We deliver power, service and solutions in exactly the way you want."

#### Output Rating:

| o trop tro Trongeria.  |            |          |       |
|------------------------|------------|----------|-------|
| PRIME:                 |            | STANDBY: |       |
| <b>6</b> 0 Hz—1800 Rpm | 480 V, 3ph |          |       |
| 90 kVA                 |            | 100 kVA  | 80 kW |

#### **ENGINE SPECIFICATIONS**

| Engine Make                      | CUMMINS  |
|----------------------------------|--|
| Engine Model                     | 4BTA3.9G11   |
| Туре                             | In-line, 4-Cylinder Diesel, Turbocharged & Aftercooler |
| Bore mm                          | 102 mm   |
| Stroke Model                     | 120 mm   |
| Displacement                     | 3.9 L  |
| Flywheel Dimensions              | SAE 3/11.5   |
| Battery Charging Alternator      | 37 amps  |
| Starting Voltage                 | 12 volt  |
| Fuel System                      | BYC PB / Electronic Governor                           |
| Fuel Filter                      | Spin on fuel filters with Water Separator              |
| Lube Oil Filter and Capacity (L) | Spin on full flow filter - 8 Litres                    |

#### ALTERNATOR SPECIFICATIONS

| / LI LINI / N ON OF LONG TOTAL |                              |
|--------------------------------|------------------------------|
| Alternator Make                | AQT I Leroy Somer I Stamford |
| Alternator Model               | AQT I TAL-042-H   UCI224G    |
| Number of Poles                | 4                            |
| Winding Pitch                  | 2/3                          |
| Insulation Class - Temp Rise   | Н                            |
| Ingress Protection Rating      | IP 23                        |
| Excitation System              | SHUNT                        |
| AVR Model                      | R120                         |

#### **COMPLY WITH STANDARDS**

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

| ALTERNATOR OPERATING DATA |              |  |
|---------------------------|--------------|--|
| Over speed                | 2250 rpm     |  |
| Voltage Regulation        | <u>+</u> 1%  |  |
| Harmonic Coefficient THF  | < 3.5%       |  |
| Tel. influence TIF        | < 50         |  |
| Cooling air flow          | 0.25 m3/ Sec |  |

#### **Standard Specifications:**

#### 6- Fuel Tank:

Capacity of fuel tank is for 8-10 hours Built in fuel tank up to 800 kVA

#### 7- Circuit Breaker:

LS

#### 8- Control system alarms:

- Over and Under Speed
- Low and High Battery Volt.
- Start and Stop Failure
- **Over Current**
- Under / Over Generator Voltage
- Low Oil Pressure
- **Emergency stop**
- High engine temperature

#### 9- Warranty policy:

- AQT GENERATOR products has a warranty for 12 Months or 1000 hours whichever occurs first against any manufacturing defects
- Wearing parts (filters), incorrect man made operation, maintenance failures are excluded from the warranty policy

#### **Acoustic Enclosure Specifications:**

| Enclosure Type                          | Acoustic & Weather<br>Proof                                |  |
|---|--|--|
| Drainage Provision                      | Fuel and Water Drainage                                    |  |
| Transportation                          | Tested Single Point Lifting<br>Facility & Forklift Pockets |  |
| Ingress Protection Rating               | IP 23  |  |
| Lifting                                 | ISO Standard Lifting                                       |  |
| Canopy RAL Color                        | TAL 9010   |  |
| Base frame RAL Color                    | RAL 9011   |  |
| Noise Pressure level @ 7m 66db(A) @ 7mt |  |  |

## **Control System:**

Large back-lit text display

Multiple display languages

**DSENET** expansion compatible

Data logging facility

Fully configurable via PC using USB communication

Front panel configuration

Efficient power save mode

3 phase generator sensing

Accumulated power monitoring (kWh, kVA h, kVA h)

Generator/load current monitoring and protection (kW)

Breaker contol via fascia buttons

Fuel and start outputs, configurable using can

4 configurable DC outputs

4 configurable analogue/digital inputs

Automatically transfers between mains (utility) and generator

Increased input and output expansion capability via dsenet

IP65 rating (with optional gasket) offers increased resistance to water ingress

Digital inputs; Analogue Inputs



#### DSE 4520

**AUTO START & AUTO MAINS** FAILURE CONTROL

### **Dimensions:**

| Туре   | Length<br>(mm) | Width<br>(mm) | Height<br>(mm) | Fuel Tank<br>(L) | Weight<br>(KG) |
|--------|----------------|---------------|----------------|------------------|----------------|
| OPEN   | 2050           | 775           | 1325           | 190              | 1000           |
| CLOSED | 2360           | 1100          | 1500           | 190              | 1600           |





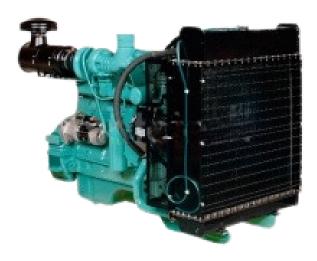








# Engine:



| COOLPAC PERFORMANCE DATA |  |  |
|--------------------------|--|--|
| Cooling System Design    | Jacket Water cooled                      |  |
| Coolant Ratio            | 50% ethylene gylcol; 50% water           |  |
| Coolant Capacity (L)     | 13                                       |  |
| Limiting Ambient Temp.   | 55 Degree Celsius                        |  |
| Cooling Fan Air Flow     | 89 m3/mins                               |  |
| Air Cleaner Type         | Dry replaceable element with restriction |  |
|                          | indicator                                |  |

| FUEL CONSUMPTION 1800 (60 HZ) |      |  |
|-------------------------------|------|--|
| Fuel Consumption @ 110%       | 22.5 |  |
| Fuel Consumption @ 100%       | 20.1 |  |
| Fuel Consumption @ 75%        | 15.3 |  |
| Fuel Consumption @ 50%        | 10.8 |  |
| Fuel Consumption @ 25%        | 6.4  |  |

#### Optional configurations: **Engine accessories:** Heavy-duty air filter Coolant heater Lubricant oil heater Fuel and Water Separator Lube oil rotary pump **Alternator And Accessories:** Leroy somer/stamford Anti condensation heater PMG + AVR $\diamondsuit$ Double bearing alternator High voltage \_\_\_\_kV RTDs for Bearing and winding **Cooling System:** 55 degree Radiator Remote Radiator **Control System:** AMF Parallel Practical type in low temperature environment Control Screen Heater **Remote Annunciators** Other (ComP, DEIF) Circuit Breaker: 3/4 poles Fixed/handcart type Electric mechanism **Automatic Transfer Switch (ATS):** ☐ ATS cabinet Contractor type ATS Motorized changeover type ATS **Start Battery:** Nickel-cadmium battery Maintenance-free battery Battery charger and selector switch Charging current meter **External Fuel Tank:**

Single /double wall fuel tank (500-5000 L)

400/230V, 480/277V, 380/220V, 440/254V,

416/240V,220/127V, 208/120V

Fuel Transfer pump

**Exhaust Muffler:** Residential grade Critical grade Hospital grade Available for voltages:







#### **Our Success**

We owe our success to our hardworking, highly skilled and committed employees. Our core focus lies in providing customized integrated products and services with well-established infrastructure, equipment and manpower to support and provide the turn key solutions for various industries. We provide the latest in power generator technology equipment, allowing us to give our customers the best product and the best possible service.

#### **Objectives**

Our objective is to serve customers to the utmost by providing them with the best-in-class electric generators, reliable door to door delivery, and after sales service at competitive market prices.

"We continue to build our solid reputation for excellence and response, while delivering reliable and tailored solutions to meet the customer's requirements".



At AQT Generators, we take pride in being a dynamic force in the realm of diesel generator sets, offering an extensive range of international brands renowned for their reliability and performance. Our commitment to excellence is reflected in our partnerships with world-famous engine manufacturers such as Perkins and Cummins, coupled with top-notch alternators from Stamford and Leroy Somer.





# **CONTACT US**

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