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ALQWA ALTHAKYA TRADING L.L.C

**AQT GENERATORS**

www.aqtgenerators.com

# AQT-110

## GENERATING SET

### (TECHNICAL DATA SHEET)



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

#### 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:

Perkins, 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

#### Output Rating:

PRIME:		STANDBY:	
50 Hz—1500 Rpm 400 V, 3ph			
100 kVA	80 kW	110 kVA	88 kW
60 Hz—1800 Rpm 480 V, 3ph			
114.4 kVA	90 kW	126.5 kVA	100 kW

#### ENGINE SPECIFICATIONS

Engine Make	PERKINS
Engine Model	1104C-44TAG2
No. of Cylinders	4 vertical in-line
Cycle	4 Stroke
Aspiration	Turbocharged
Cooling Method	Water cooled
Governing Type	Electronic
Governing Class	G2 - ISO 8528 Part 1
Compression Ratio	18.2:1
Displacement	4.41 L
Bore/Stroke	105 x 127 mm
Dynamic Charging Alternator	65AMP, 12V

#### ALTERNATOR SPECIFICATIONS

Alternator Make	AQT   Leroy Somer   STAMFORD
Alternator Model	AQT   TAL-044-D   UCI274C
Number of Poles	4
Number of Winding Leads	6
Type of Bearing	Single Bearing
Insulation Class - Temp Rise	Cont. H - 125/40 °C
Ingress Protection Rating	IP 23
Excitation System	Self Excited
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	+ 1%
Harmonic Coefficient THF	< 2%
Tel. influence TIF	< 50
Cooling air flow	0.25 m3/ Sec

#### Powered By:



Diesel Generator



LEROY-SOMER

meccalte



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## Standard Specifications:

### 6- Fuel Tank:

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

### 7- Circuit Breaker:

3 pole LS MCCB

### 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 Proof
Drainage Provision	Fuel and Water Drainage
Transportation	Tested Single Point Lifting 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	70db(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, kVAh)

Generator/load current monitoring and protection (kW)

Breaker control 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



### DSE4520 MKII

AUTO START & AUTO MAINS  
FAILURE CONTROL

Dimensions:

Type	Length (mm)	Width (mm)	Height (mm)	Fuel Tank (L)	Weight (KG)
OPEN	2400	775	1375	190	1200
CLOSED	2750	1100	1495	190	1810



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## Engine:



Perkins heavy duty high performance industrial type diesel engine.

### COOLING SYSTEM

Total Coolant Capacity (L)	12.6 L
Cooling Fan Air Flow	165.6 m <sup>3</sup> / min
Radiator Fan Load	3.5 kW
Heat Radiation to Room (PRP)	6.8 kW
Heat Radiation to Room (ESP)	7.5 kW

### LUBRICATION SYSTEM

Oil Filter Type	Spin-On Full Flow
Total Oil Capacity	8.0 L
Oil Type	API-CH-4 or ACEA E5

### EXHAUST SYSTEM

Muffler Type	Industrial Grade
Max. Back Pressure	18 kPa
Exhaust Gas Flow (PRP/ESP)	15.2 /16.3 m <sup>3</sup> / min
Exhaust Gas Temperature	< 6290C

### FUEL SYSTEM

Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	24.9 L/hr
Fuel Consumption 100% PRP	22.6 L/hr
Fuel Consumption 75% PRP	17.1 L/hr
Fuel Consumption 50% PRP	11.3 L/hr

### AIR SYSTEM

Air Filter Type	Dry Element
Combustion Air Flow (PRP)	6.01 m <sup>3</sup> /min
Combustion Air Flow (ESP)	6.27 m <sup>3</sup> /min
Max Air Filter Intake Restriction	8 kPa

## 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 ◇ 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)
- ☐ Fuel Transfer pump

### Exhaust Muffler:

- ☐ Residential grade
- ☐ Critical grade
- ☐ Hospital grade

### Available for voltages :

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



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## 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".**



# AQT GENERATORS

*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.*



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