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ALQWA ALTHAKYA TRADING L.L.C

**AQT GENERATORS**  
www.aqtgenerators.com

# AQT-66

## 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:

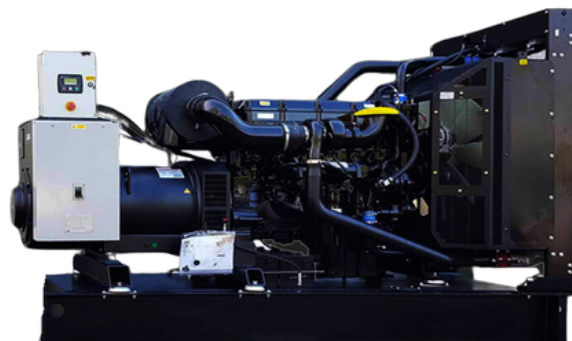
Perkins, including air filters, fuel filters, oil filter, starting motor and charging alternator etc.

#### 4- Alternator Type:

brushless AC alternator

#### 5- Radiator:

50°C, fan protective shroud



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

### Output Rating:

| PRIME:                    |       | STANDBY: |         |
|---------------------------|-------|----------|---------|
| 50 Hz—1500 Rpm 400 V, 3ph |       |          |         |
| 60 kVA                    | 48 kW | 66 kVA   | 52.8 kW |

### ENGINE SPECIFICATIONS

|                             |                      |
|-----------------------------|----------------------|
| Engine Make                 | PERKINS              |
| Engine Model                | 1103A -33TG2         |
| No. of Cylinders            | 3 vertical in-line   |
| Cycle                       | 4 Stroke             |
| Aspiration                  | Turbocharged         |
| Cooling Method              | Water cooled         |
| Governing Type              | Mechanical           |
| Governing Class             | G2 - ISO 8528 Part 1 |
| Compression Ratio           | 17.25:1              |
| Displacement                | 3.3 L                |
| Bore/Stroke                 | 105 x 127 mm         |
| Dynamic Charging Alternator | 65AMP, 12V           |

### ALTERNATOR SPECIFICATIONS

|                              |                              |
|------------------------------|------------------------------|
| Alternator Make              | AQT   Leroy Somer   Stamford |
| Alternator Model             | AQT   TAL-A42-H   S1L2Y1     |
| 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                    | MX321                        |

### 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         | 0.10 m3/ Sec |

### Powered By:

**Perkins**

Diesel Generator

**STAMFORD**  
power generation

**LEROY-SOMER**

**meccalte**

**DSE**



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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 | 69 dB(A) ± 3dBA                                         |

## 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   | 1900        | 750        | 1400        | 173           | 875         |
| CLOSED | 2307        | 1044       | 1415        | 198           | 1225        |

Note: The following dimensions are for preliminary guidance. For more detailed and accurate dimensions, please refer to the General Arrangement Drawing (GAD).



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## Engine:



Perkins heavy duty high performance industrial type diesel engine.

### COOLING SYSTEM

|                              |                         |
|------------------------------|-------------------------|
| Total Coolant Capacity (L)   | 10.2 L                  |
| Cooling Fan Air Flow         | 89 m <sup>3</sup> / min |
| Radiator Fan Load            | 0.5 Kw                  |
| Heat Radiation to Room (PRP) | 10 kW                   |
| Heat Radiation to Room (ESP) | 11 kW                   |

### LUBRICATION SYSTEM

|                    |                     |
|--------------------|---------------------|
| Oil Filter Type    | Spin-On Full Flow   |
| Total Oil Capacity | 8.3L                |
| Oil Type           | API-CH-4 or ACEA E5 |

### EXHAUST SYSTEM

|                            |                                |
|----------------------------|--------------------------------|
| Muffler Type               | Industrial Grade               |
| Max. Back Pressure         | 10 kPa                         |
| Exhaust Gas Flow (PRP/ESP) | 10.1/10.4 m <sup>3</sup> / min |
| Exhaust Gas Temperature    | < 5710C                        |

### FUEL SYSTEM

|                           |                 |
|---------------------------|-----------------|
| Recommended Fuel          | Class A2 Diesel |
| Fuel Consumption Standby  | 15.90 L/hr      |
| Fuel Consumption 100% PRP | 14.0 L/hr       |
| Fuel Consumption 75% PRP  | 10.80 L/hr      |
| Fuel Consumption 50% PRP  | 7.5 L/hr        |

### AIR SYSTEM

|                                   |                         |
|-----------------------------------|-------------------------|
| Air Filter Type                   | Dry Element             |
| Combustion Air Flow (PRP)         | 3.8 m <sup>3</sup> /min |
| Combustion Air Flow (ESP)         | 3.9 m <sup>3</sup> /min |
| Max Air Filter Intake Restriction | 8kPA                    |

## 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
- De-rating may apply.



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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 integration of world-famous engine manufacturers such as Perkins and Cummins, paired with premium alternators from Stamford and Leroy Somer.*



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## CONTACT US

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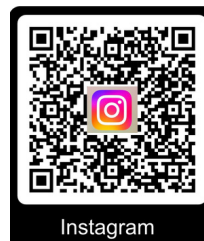
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