

# **AQT-500**

**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:**

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PRIME:		STANDBY:		
50 Hz—1500	Rpm 400 V, 3p	h		
455 kVA	364 kW	500 kVA	400 kW	
60 Hz—1800	Rpm 480 V, 3p	h		
500 kVA	400 kW	563 kVA	450 kW	
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ENGINE SPECIFICATIONS	
Engine Make	PERKINS
Engine Model	2506C-E15TAG1   2506D- EI5TAG1
No. of Cylinders	6 vertical in-line
Cycle	4 Stroke
Aspiration	Turbocharged & air to air charged cooled
Cooling Method	Water cooled
Governing Type	Electronic
Governing Class	G2 - ISO 8528 Part 1
Compression Ratio	16:1
Displacement	15.2 L
Bore/Stroke	137 x 171 mm
Dynamic Charging Alternator	70AMP. 24V

ALTERNATOR SPECIFICATIONS	
Alternator Make	Leroy Somer   STAMFORD
Alternator Model	TAL-047-B   UCI544C
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	R150

#### **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	< 2%	
Tel. influence TIF	< 50	
Cooling air flow	0.9 m3/ Sec	

#### Powered By:



**Diesel Generator** 







#### **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 @ 7r	n 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, 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)

Increased input and output expansion capability via dsenet

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

Digital inputs; Analogue Inputs



#### DSE6110 MKII

**AUTO START & AUTO MAINS FAILURE CONTROL** 

#### **Dimensions:**

Туре	Length (mm)	Width (mm)	Height (mm)	Fuel Tank (L)	Weight (KG)
OPEN	3800	1200	1800	1110	3760
CLOSED	4920	1600	2210	1110	5160









# Engine:



Perkins heavy duty high performance industrial type diesel engine.

COOLING SYSTEM	
Total Coolant Capacity (L) 58 L	
Cooling Fan Air Flow 660 m3/ min	
Radiator Fan Load 8.8 kW	
Heat Radiation to Room (PRP) 33 kW	
Heat Radiation to Room (ESP)	35.8 kW
LUBRICATION SYSTEM	
Oil Filter Type	Spin-On Full Flow
Total Oil Capacity	58 L
Oil Type	API-CH-4 or ACEA E5
EXHAUST SYSTEM	
Muffler Type	Industrial Grade
Max. Back Pressure	6.8 kPa
Exhaust Gas Flow (PRP/ESP)	85 /94 m3/ min
Exhaust Gas Temperature	< 550 0C
FUEL SYSTEM	
Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	109 L/hr
Fuel Consumption 100% PRP	99 L/hr
Fuel Consumption 75% PRP	73 L/hr
Fuel Consumption 50% PRP	51 L/hr
AIR SYSTEM	
Air Filter Type	Paper Element
Combustion Air Flow (PRP)	33 m3/min
Combustion Air Flow (ESP)	35.8 m3/min
Max Air Filter Intake Restriction	6.2 kPA

U	pu	onal configurations:		
	Engi	ne accessories: Heavy-duty air filter Coolant heater Lubricant oil heater Fuel and Water Separator Lube oil rotary pump		
		rnator And Accessories: Leroy somer/stamford Anti condensation heater PMG + AVR  Double bearing Alternator High voltagekV RTDs for Bearing and winding  ling System: 55 degree Radiator		
	Con	Remote Radiator  trol System:  AMF		
		Parallel Practical type in low temperature environment Control Screen Heater Remote Annunciators Other (ComP, DEIF)		
	Circ	uit Breaker:		
		3/4 poles Fixed/handcart type Electric mechanism		
	Auto	omatic Transfer Switch (ATS):		
		ATS cabinet Contractor type ATS Motorized changeover type ATS		
	Star	t Battery:		
		Nickel-cadmium battery Maintenance-free battery Battery charger and selector switch Charging current meter		
	Exte	ernal Fuel Tank: Single /double wall fuel tank(500-5000 L) Fuel Transfer pump		
	Exha	aust Muffler:		
		Residential grade Critical grade Hospital grade		
	Available for voltages :			
		400/230V, 480/277V, 380/220V, 440/254V,		





#### **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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