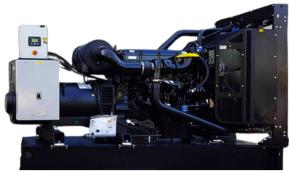


AQT-50

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.

o 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			
45 kVA	36 kW	50 kVA	40 kW
60 Hz—1800 Rpm 480 V, 3ph			
53.1 kVA	42.5 kW	58.7 kVA	46.9 kW

ENGINE SPECIFICATIONS	
Engine Make	PERKINS
Engine Model	1103 -33TG1
No. of Cylinders	3 vertical in-line
Cycle	4 Strokes
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	Leroy Somer STAMFORD
Alternator Model	TAL-042-F
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

Powered By:









Alternator Operating data		
Over speed	2250 rpm	
Voltage Regulation	<u>+</u> 1%	
Harmonic Coefficient THF	< 2%	
Tel. influence TIF	< 50	
Cooling air flow	0.10 m3/ Sec	

Standard Specifications:

6- Fuel Tank:

Capacity of fuel tank is for 8 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 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)

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:

Туре	Length (mm)	Width (mm)	Height (mm)	Fuel Tank (L)	Weight (KG)
OPEN	1950	775	1175	100	850
CLOSED	2260	1110	1500	100	1350









Engine:



Perkins heavy duty high performance industrial type diesel engine.

COOLING SYSTEM

Total Coolant Capacity (L) 10.2 L

Cooling Fan Air Flow 53 m3/ min

Radiator Fan Load 0.4 kW

Heat Radiation to Room (PRP) 7.0kW

Heat Radiation to Room (ESP) 8.0 kW

LUBRICATION SYSTEM

Oil Filter Type Spin-On Full Flow

Total Oil Capacity 8.3L

Oil Type API-CH-4 or ACEA E5

Muffler Type Industrial Grade

Max. Back Pressure 10 kPa

Exhaust Gas Flow 7.0/7.7 m3(PRP/ESP) / min

Exhaust Gas Temperature < 551C

FUEL SYSTEM	
Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	11.70 L/hr
Fuel Consumption 100% PRP	10.80 L/hr
Fuel Consumption 75% PRP	8.23 L/hr
Fuel Consumption 50% PRP	5.83 L/hr

AIR SYSTEM	
Air Filter Type	Dry Element
Combustion Air Flow (PRP)	2.9 m3/min
Combustion Air Flow (ESP)	3.1 m3/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 \diamondsuit Double bearing Alternator High voltage _ RTDs for Bearing and winding **Cooling System:** 55 degree Radiator Remote Radiator **Control System:** 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







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.





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