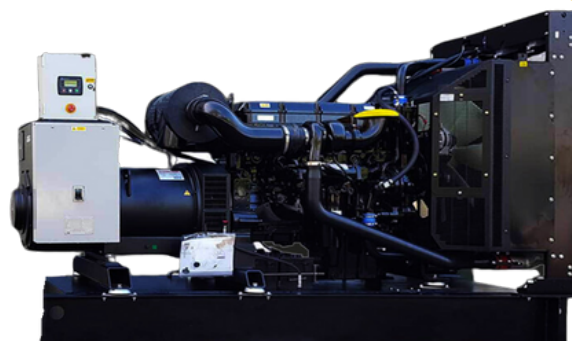


AQT-20

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:	
60 Hz—1800 Rpm 400 V, 3ph			
18 kVA	14.4 KW	20kVA	16KW

ENGINE SPECIFICATIONS

Engine Make	PERKINS
Engine Model	403A-15G2
No. of Cylinders	3 vertical in-line
Cycle	4 Strokes
Aspiration	Naturally Aspirated
Cooling Method	Water cooled
Governing Type	Mechanical
Governing Class	G2 - ISO 8528 Part 1
Compression Ratio	22:5:1
Displacement	1.496 L
Bore/Stroke	84 x 90 mm
Dynamic Charging Alternator	15AMP, 12V

ALTERNATOR SPECIFICATIONS

Alternator Make	AQT Leroy Somer STAMFORD
Alternator Model	AQT TAL-A40-D S0L1P1
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:

 **Perkins**

Diesel Generator

STAMFORD
power generation

LEROY-SOMER

meccalte

DSE

Alternator Operating data

Over speed	2250 rpm
Voltage Regulation	+ 1%
Harmonic Coefficient THF	< 3.5%
Tel. influence TIF	< 50
Cooling air flow	0.06 m3/ Sec

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 68 dB(A)	

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	2152	1004	1342	169	765
CLOSED	1635	750	1260	92	495

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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http://www.aqtgenerators.com



Engine:



Perkins heavy duty high performance industrial type diesel engine.

COOLING SYSTEM

Total Coolant Capacity (L)	6.0 L
Cooling Fan Air Flow	36.6 m ³ / min
Radiator Fan Load	0.2 kW
Heat Radiation to Room (PRP)	3.2 kW
Heat Radiation to Room (ESP)	3.5 kW

LUBRICATION SYSTEM

Oil Filter Type	Spin-On Full Flow
Total Oil Capacity	6.0 L
Oil Type	API-CH-4 or ACEA E5

EXHAUST SYSTEM

Muffler Type	Industrial Grade
Max. Back Pressure	10.2 kPa
Exhaust Gas Flow (PRP/ESP)	2.70/2.90 m ³ / min
Exhaust Gas Temperature	< 490 C

FUEL SYSTEM

Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	4.1 L/hr
Fuel Consumption 100% PRP	3.7 L/hr
Fuel Consumption 75% PRP	2.8 L/hr
Fuel Consumption 50% PRP	2.0 L/hr

AIR SYSTEM

Air Filter Type	Dry Element
Combustion Air Flow (PRP)	1.10 m ³ /min
Combustion Air Flow (ESP)	1.10 m ³ /min
Max Air Filter Intake Restriction	6.4 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

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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ALQWA ALTHAKYA TRADING L.L.C

AQT GENERATORS

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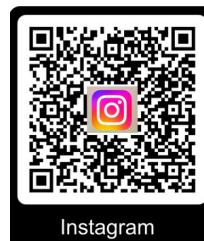
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