



AQT-10

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

Output Rating:

PRIME:		STANDBY:	
50 Hz—1500 Rpm	400 V, 3ph		
9 kVA	7 kW	10 kVA	8 kW
60 Hz—1800 Rpm	480 V, 3ph		
9 kVA	7 kW	10 kVA	8 kW

ENGINE SPECIFICATIONS

Engine Make	PERKINS
Engine Model	403A-11G1
No. of Cylinders	4 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	23.3:1
Displacement	2.216 L
Bore/Stroke	84 x 100 mm
Dynamic Charging Alternator	15AMP, 12V

ALTERNATOR SPECIFICATIONS

Alternator Make	Leroy Somer STAMFORD AQT
Alternator Model	TAL-040-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

Alternator Operating data

Over speed	2250 rpm
Voltage Regulation	+ 1%
Harmonic Coefficient THF	< 3.5%
Tel. influence TIF	< 50
Cooling air flow	0.06 m ³ / Sec

Powered By:



Diesel Generator



LEROY-SOMER



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	Fuel and Water Drainage Provision
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	66 dBA @ 7 meter

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 (kW h, kVA h, kVAr h)
Generator/load current monitoring and

protection
Generator overload protection (kW)
Breaker control via fascia buttons
Fuel and start outputs, configurable when 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 INPUT



DSE4520 MKII

AUTO START & AUTO MAINS
FAILURE CONTROL

Dimensions:

Type	Length (mm)	Width (mm)	Height (mm)	Fuel Tank (L)	Weight (KG)
OPEN	1600	700	1000	120	500
CLOSED	1720	760	1060	120	750



Engine:



Perkins heavy duty high performance industrial type diesel engine.

COOLING SYSTEM

Total Coolant Capacity (L)	7.0 L
Cooling Fan Air Flow	40.2 m ³ / min
Radiator Fan Load	0.3 kW
Heat Radiation to Room (PRP)	3.3kW
Heat Radiation to Room (ESP)	4.4 kW

LUBRICATION SYSTEM

Oil Filter Type	Spin-On Full Flow
Total Oil Capacity	10.6L
Oil Type	API-CH-4 or ACEA E5

EXHAUST SYSTEM

Mufler Type	Industrial Grade
Max. Back Pressure	10.2 kPa
Exhaust Gas Flow (PRP/ESP)	3.64/3.94 m ³ / min
Exhaust Gas Temperature	≤ 405°C

FUEL SYSTEM

Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	6.1 L/hr
Fuel Consumption 100% PRP	5.3 L/hr
Fuel Consumption 75% PRP	4.0 L/hr
Fuel Consumption 50% PRP	2.9 L/hr

AIR SYSTEM

Air Filter Type	Dry Element
Combustion Air Flow (PRP)	1.45 m ³ /min
Combustion Air Flow (ESP)	1.45 m ³ /min
Max Air Filter Intake Restriction	6.4kPA

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 (500-5000L)
- 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