



AQT-50

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.
 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	49.6 kVA	39.7 kW
60 Hz—1800 Rpm	480 V, 3ph		
53 kVA	43 kW	59 kVA	47 kW

ENGINE SPECIFICATIONS

Engine Make	PERKINS
Engine Model	1103A-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 AQT
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:



Diesel Generator



LEROY-SOMER



Alternator Operating data

Over speed	2250 rpm
Voltage Regulation	+ 1%
Harmonic Coefficient THF	< 2%
Tel. influence TIF	< 50
Cooling air flow	0.10 m ³ / 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	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	68db(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, kVAh, kVARh)
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	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 m ³ / 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

EXHAUST SYSTEM

Muffler Type	Industrial Grade
Max. Back Pressure	10 kPa
Exhaust Gas Flow (PRP/ESP)	7.0/7.7 m ³ / min
Exhaust Gas Temperature	≤ 551°C

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 m ³ /min
Combustion Air Flow (ESP)	3.1 m ³ /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 ↯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