

AQT-183

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	480 V, 3ph		
166 kVA	132.8KW	183KVA	146.4KW

ENGINE SPECIFICATIONS	
Engine Make	PERKINS
Engine Model	1106A-70TAG2
No. of Cylinders	6 vertical in-line
Cycle	4 Strokes
Aspiration	Turbocharged aftercooled
Cooling Method	Water cooled
Governing Type	Electronic
Governing Class	G2 - ISO 8528 Part 1
Compression Ratio	16:1
Displacement	7.01 L
Bore/Stroke	105 x 135 mm
Dynamic Charging Alternator	65AMP, 12V

ALTERNATOR SPECIFICATIONS	
Alternator Make	AQT I Leroy Somer Stamford
Alternator Model	AQT I TALA44J UCI274F
Number of Poles	4
Number of Winding Leads	6
Type of Bearing	Single Bearing
Insulation Class - Temp Rise	Cont. H - 125/40 Č
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	<u>+</u> 1%	
Harmonic Coefficient THF	< 2%	
Tel. influence TIF	< 50	
Cooling air flow	0.25 m3/ Sec	

Powered By:



Diesel Generator



LEROY-SOMER





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 76 dB(A)± 3dBA

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, kVAr 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



DSE 4520 MKII

AUTO START & AUTO MAINS FAILURE CONTROL

Dimensions:

Туре	Length (mm)	Width (mm)	Height (mm)	Fuel Tank (L)	Weight (KG)
OPEN	2800	900	1650	434	1800
CLOSED	3764	1155	1881	455	2297

Note: The following dimensions are for preliminary guidance. For more detailed and accurate dimensions, please refer to the General Arrangement Drawing (GAD).









Engine:



Perkins heavy duty high performance industrial type diesel engine.

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COOLING SYSTEM	
Total Coolant Capacity (L)	21 L
Cooling Fan Air Flow	282 m3/ min
Radiator Fan Load	5 kW
Heat Radiation to Room (PRP)	11 kW
Heat Radiation to Room (ESP)	12.2 kW
LUBRICATION SYSTEM	
Oil Filter Type	Spin-On Full Flow
Total Oil Capacity	16.5 L
Oil Type	API-CH-4 or ACEA E5
EXHAUST SYSTEM	
Muffler Type	Industrial Grade
Max. Back Pressure	6 kPa
Exhaust Gas Flow (PRP/ESP)	23.7/25.5 m3/ min
Exhaust Gas Temperature	< 4840C
FUEL SYSTEM	
Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	36.1 L/hr
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Fuel Consumption 100% PRP	33. L/hr
Fuel Consumption 75% PRP	24.7 L/hr
Fuel Consumption 50% PRP	16.1 L/hr
AIR SYSTEM	
Air Filter Type	Dry Element
Combustion Air Flow (PRP)	10.2m3/min
Combustion Air Flow (ESP)	0. m3/min
Max Air Filter Intake Restriction	5 kPa

Optional configurations:

- P	
En	gine accessories:
	Heavy-duty air filter
	Coolant heater
	Lubricant oil heater
	Fuel and Water Separator
	Lube oil rotary pump
Alt	ernator And Accessories:
	Anti condensation heater
	Alternator High voltagekV RTDs for Bearing and winding
Co	
П	oling System: 55 degree Radiator
П	Remote Radiator
	ntrol System:
Ш	AMF
	Parallel
	Practical type in low temperature environment
П	Control Screen Heater Remote Annunciators
П	Other (Comp, DEIF)
Cir	cuit Breaker:
	3/4 poles
	Fixed/handcart type Electric mechanism
П	Liectric methanism
Au	tomatic Transfer Switch (ATS):
	ATS cabinet
	Contractor type ATS
	Motorized changeover type ATS
Sta	art Battery:
	Nickel-cadmium battery
П	Maintenance-free battery
ă	Battery charger and selector switch
	Charging current meter
Ex	ternal Fuel Tank:
	Single /double wall fuel tank (500-5000 L)
	Fuel Transfer pump
Ex	haust Muffler:
	Residential grade
	Critical grade
	Hospital grade
Av	ailable for voltages :
	400/230V, 480/277V, 380/220V, 440/254V,
	416/240V,220/127V, 208/120V
De	rating may apply.





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 integration of world-famous engine manufacturers such as Perkins and Cummins, paired with premium alternators from Stamford and Leroy Somer.





CONTACT US

Office 204, Al Owais Building, Port Saeed, Plot No. 388-0, Dubai, UAE

Call Us: +971 4 547 1703

Email: info@aqtgenerators.com

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