

AQT-22

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:	
50 Hz—1500 Rpm	400 V, 3ph		
20 kVA	16 kW	22 kVA	17.6 kW

ENGINE SPECIFICATIONS	
Engine Make	PERKINS
Engine Model	404A(D)-22G1
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	AQT Leroy Somer STAMFORD
Alternator Model	AQT I TAL-A40-F S0L2G1
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	<u>+</u> 1%	
Harmonic Coefficient THF	< 3.5%	
Tel. influence TIF	< 50	
Cooling air flow	0.06 m3/ Sec	

Powered By:









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	m 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, 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



DSE4520 MKII

AUTO START & AUTO MAINS FAILURE CONTROL

Dimensions:

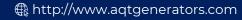
Туре	Length (mm)	Width (mm)	Height (mm)	Fuel Tank (L)	Weight (KG)
OPEN	1540	750	1245	92	555
CLOSED	2152	1004	1342	169	855

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.

COOLING SYSTEM	
Total Coolant Capacity (L)	7.0 L
Cooling Fan Air Flow	40.2 m3/ 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	
Muffler Type	Industrial Grade
Max. Back Pressure	10.2 kPa
Exhaust Gas Flow (PRP/ESP)	3.64/3.94 m3/ min
Exhaust Gas Temperature	< 4050C
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 m3/min
Combustion Air Flow (ESP)	1.45 m3/min
Max Air Filter Intake Restriction	6.4kPA

Optional configurations:

Eng	ine accessories:			
	Heavy-duty air filter			
	Coolant heater			
	Lubricant oil heater			
	Fuel and Water Separator			
	Lube oil rotary pump			
Alte	ernator And Accessories:			
П	Leroy somer/stamford			
П	Anti condensation heater			
Ō	PMG + AVR \diamondsuit Double bearing			
	alternator High voltagekV			
	RTDs for Bearing and winding			
Coo	ling System:			
П	55 degree Radiator			
П	Remote Radiator			
Con	trol System:			
Ц	AMF			
	Parallel			
	Practical type in low temperature environment			
	Control Screen Heater Remote Annunciators			
	Other (ComP, DEIF)			
[]				
Circuit Breaker:				
Ц	3/4 poles			
	Fixed/handcart type Electric mechanism			
П	Liectric metriansm			
Aut	omatic Transfer Switch (ATS):			
	ATS cabinet			
П	Contractor type ATS			
ă	Motorized changeover type ATS			
C+	t Datham.			
_	t Battery:			
Ц	Nickel-cadmium battery			
	Maintenance-free battery			
	Battery charger and selector switch Charging current meter			
	chaiging current meter			
Exte	ernal Fuel Tank:			
	Single /double wall fuel tank (500-5000 L)			
П	Fuel Transfer pump			
Exh	aust Muffler:			
	Residential grade			
	Critical grade			
	Hospital grade			
Ava	ilable 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.





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