

AQT-22 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

Powered By:





"We deliver power, service and solutions in exactly the way you want."

Output Rating:

PRIME:		STANDBY:			
50 Hz—1500 Rpm	1400 V, 3ph				
20 kVA	16 kW	22 kVA	18 kW		
60 Hz—1800 Rpm	480 V, 3ph				
24.2 kVA	19.3 kW	26.6 kVA	21.3 kW		
ENGINE SPECIFIC	ATIONS				
Engine Make		PERKINS	PERKINS		
Engine Model		404D-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 Altern	nator	15AMP, 12V			
ALTERNATOR SPE	CIFICATIONS				
Alternator Make		AQT I Leroy Somer STAMFORD			
Alternator Model			AQT I TAL-040-F S0L2G1		
Number of Poles					

Alternator Model	AQT I TAL-040-F S0L2G1
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	+ 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 @ 7	m 66db(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, kVA h, kVA r h) $\ensuremath{\mathsf{kVAr}}$



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) and generator

QT GENERATORS

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	1600	700	1000	120	500
CLOSED	1720	760	1060	120	750





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	
	6.4kPA	

Control System:

Cooling System:

- AMF
 - Parallel
- Practical type in low temperature environment
- Control Screen Heater

55 degree Radiator

Remote Radiator

Optional configurations:

Engine accessories:

Heavy-duty air filter

Lubricant oil heater

Lube oil rotary pump **Alternator And Accessories:** Leroy somer/stamford

Fuel and Water Separator

Anti condensation heater

alternator High voltage ____

RTDs for Bearing and winding

PMG + AVR \diamondsuit Double bearing

kV

Coolant heater

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- Remote Annunciators
- Other (ComP, DEIF)

Circuit Breaker:

- 3/4 poles
- Fixed/handcart type
- Electric mechanism Π

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, П 416/240V,220/127V, 208/120V

QT GENERATOR

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 partnerships with world-famous engine manufacturers such as Perkins and Cummins, coupled with top-notch alternators from Stamford and Leroy Somer.





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