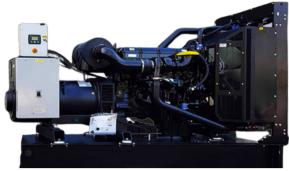


# **AQT-22**

**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	18 kW	
60 Hz—1800 Rpm 480 V, 3ph				
24.2 kVA	19.3 kW	26.6 kVA	21.3 kW	

ENGINE SPECIFICATIONS	
Engine Make	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 Alternator	15AMP, 12V

<b>ALTERNATOR SPECIFICATIONS</b>	
Alternator Make	Leroy Somer   STAMFORD
Alternator Model	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 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 @ 7m 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 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	1600	700	1000	120	500
CLOSED	1720	760	1060	120	750









# Engine:

COOLING SYSTEM



Perkins heavy duty high performance industrial type diesel engine.

COOLING STOTEIN	
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

# Optional configurations:

Engi	ne accessories: Heavy-duty air filter Coolant heater Lubricant oil heater
	Fuel and Water Separator Lube oil rotary pump
Alte	rnator And Accessories:  Leroy somer/stamford  Anti condensation heater  PMG + AVR  Double bearing  alternator High voltagekV  RTDs for Bearing and winding
Coo	ling System: 55 degree Radiator Remote Radiator
Con	trol System: AMF Parallel
	Practical type in low temperature environment Control Screen Heater Remote Annunciators Other (ComP, DEIF)
Circ	uit Breaker:
	3/4 poles Fixed/handcart type Electric mechanism
Auto	omatic Transfer Switch (ATS):
	ATS cabinet
	Contractor type ATS  Motorized changeover type ATS
Star	t Battery:
	Nickel-cadmium battery
	Maintenance-free battery Battery charger and selector switch
П	Charging current meter
Exte	rnal Fuel Tank:
	Single /double wall fuel tank (500-5000 L) Fuel Transfer pump
Exha	aust Muffler:
	Residential grade
	Critical grade Hospital grade
Avai	ilable for voltages :
	400/230V, 480/277V, 380/220V, 440/254V, 416/240V,220/127V, 208/120V





Max Air Filter Intake Restriction

#### **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.





## **CONTACT US**

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