# **AQT-400**

**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 Rpn	n 400 V, 3ph		
350 kVA	280 kW	400 kVA	320 kW

#### **ENGINE SPECIFICATIONS Engine Make PERKINS Engine Model** 2206A-E13TAG2 No. of Cylinders 6 vertical in-line Cycle 4 Stroke Aspiration Turbocharged & air to air charged cooled Cooling Method Water cooled **Governing Type** Electronic **Governing Class** G2 - ISO 8528 Part 1 16.3:1 Compression Ratio 12.5 L Displacement 130 x 157 mm Bore/Stroke 45AMP, 24V **Dynamic Charging Alternator**

ALTERNATOR SPECIFICATIONS	
Alternator Make	AQT I Leroy Somer   STAMFORD
Alternator Model	AQT   TAL-A46-H   S4L1D-E41
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	R150

#### **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	< 2.5%	
Tel. influence TIF	< 50	
Cooling air flow	0.48 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 80 dB(A)±3dB(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



# DSE6110 MKII

**AUTO START & AUTO MAINS** FAILURE CONTROL

# **Dimensions:**

Туре	Length (mm)	Width (mm)	Height (mm)	Fuel Tank (L)	Weight (KG)
OPEN	3080	1200	1830	668	2780
CLOSED	4414	1614	2235	760	3440

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)	51.4 L
Cooling Fan Air Flow	654 m3/ min
Radiator Fan Load	14 kW
Heat Radiation to Room (PRP)	36.8 kW
Heat Radiation to Room (ESP)	37.6 kW
LUBRICATION SYSTEM	
Oil Filter Type	Spin-On Full Flow
Total Oil Capacity	40 L
Oil Type	API-CH-4 or ACEA E5
EXHAUST SYSTEM	
Muffler Type	Industrial Grade
Max. Back Pressure	10 kPa
Exhaust Gas Flow (PRP/ESP)	56.6 /64.8 m3/ min
Exhaust Gas Temperature	< 630 OC
FUEL SYSTEM	
Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	80 L/hr
Fuel Consumption 100% PRP	77 L/hr
Fuel Consumption 75% PRP	71 L/hr
Fuel Consumption 50% PRP	54 L/hr
AIR SYSTEM	
Air Filter Type	Paper Element
Combustion Air Flow (PRP)	25.2 m3/min
Combustion Air Flow (ESP)	26.2 m3/min
Max Air Filter Intake Restriction	6.4 kPA

# Optional configurations:

En	gine accessories:
П	Heavy-duty air filter
П	Coolant heater
	Lubricant oil heater
	Fuel and Water Separator
	Lube oil rotary pump
Δl·	ternator And Accessories:
П	Leroy somer/stamford
й	Anti condensation heater
ñ	PMG + AVR $\diamondsuit$ Double bearing
П	Alternator High voltagekV
Ō	RTDs for Bearing and winding
Co	oling System:
П	55 degree Radiator
	Remote Radiator
Co	ntral Systems
_	ntrol System:
Ш	AMF
	Parallel
	Practical type in low temperature environment
	Control Screen Heater
	Remote Annunciators
	Other (Comp, DEIF)
	cuit Breaker:
Ш	3/4 poles
	Fixed/handcart type
	Electric mechanism
Au	tomatic Transfer Switch (ATS):
	ATS cabinet
П	Contractor type ATS
ă	Motorized changeover type ATS
St	art Battery:
	•
	Nickel-cadmium battery  Maintenance-free battery
Ä	•
	Battery charger and selector switch Charging current meter
[] F	xternal Fuel Tank:
П	
	Single /double wall fuel tank (500-5000 L) Fuel Transfer pump
Ex	haust Muffler:
	Residential grade
Ō	Critical grade
	Hospital grade
Av	vailable for voltages :
	400/230V, 480/277V, 380/220V, 440/254V,
_	416/240V,220/127V, 208/120V
Δι	vailable for IP Rattings :

De-rating may apply.

☐ IP54 - IP65





#### **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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