

# AQT-1669

## **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

1510 kVA 1208 kW 1669 kVA 1335.2 kW

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ENGINE SPECIFICATIONS	
Engine Make	PERKINS
Engine Model	4012-46TAG2A
No. of Cylinders	12 60º Vee form
Cycle	4 Stroke
Aspiration	Turbocharged & air to air charged cooled
Cooling Method	Water cooled
Governing Type	Electronic
Governing Class	G3 - ISO 8528 Part 1
Compression Ratio	13:1
Displacement	45.842 litres
Bore/Stroke	160 x 190 mm
Dynamic Charging Alternator	48AMP, 24V

### ALTERNATOR SPECIFICATIONS

Alternator Make	AQT I Leroy Somer   STAMFORD
Alternator Model	AQT I LSA50.2 L8   S7L1D-D41
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	AREP
AVR Model	R450

#### **COMPLY WITH STANDARDS**

ISO 3046, BS 5514, DIN 6271, NEMA-MGI, DIN EN, BS 5000, IEC 60034,IEC 60947-2

# Powered By: **Perkins Diesel Generator**

LEROY-SOMER mecc alte



ALTERNATOR OPERATING DATA		
Over speed	2250 rpm	
Voltage Regulation	<u>+</u> 0.5%	
Harmonic Coefficient THF	< 2%	
Tel. influence TIF	< 50	
Cooling air flow	1.8 m3/ Sec	

#### **Standard Specifications:**

#### 6- Circuit Breaker:

3 pole LS MCCB

#### 7- 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

#### 8- 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

# **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	5100	2275	2605	NA*	11100
CLOSED	40 Feet I	0 Feet ISO HC Container		NA*	15400

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



**Acoustic Enclosure Specifications:** 









# Engine:



Perkins heavy duty high performance industrial type diesel engine.

COOLING SYSTEM			
Total Coolant Capacity (L)	177 L		
Cooling Fan Air Flow	1212 m3/ min		
Radiator Fan Load	64 kW		
Heat Radiation to Room (PRP)	88Kw		
Heat Radiation to Room (ESP)	100 kW		
LUBRICATION SYSTEM			
Oil Filter Type	Spin-On Full Flow		
Total Oil Capacity	177 L		
Oil Type	API-CH-4 or ACEA E5		
EXHAUST SYSTEM			
Muffler Type	Industrial Grade		
Max. Back Pressure	8 kPa		
Exhaust Gas Flow (PRP/ESP)	280 m3/ min		
Exhaust Gas Temperature	< 470 OC		
FUEL SYSTEM			
Recommended Fuel	Class A2 Diesel		
Fuel Consumption Standby	341 L/hr		
Fuel Consumption 100% PRP	310 L/hr		
Fuel Consumption 75% PRP	249 L/hr		
Fuel Consumption 50% PRP	234 L/hr		
AIR SYSTEM			
Air Filter Type	Power Core		
Combustion Air Flow (PRP)	100 m3/min		
Combustion Air Flow (ESP)	110 m3/min		
Max Air Filter Intake Restriction	4 kPA		

# Optional configurations:

Eng	gine accessories:
	Heavy-duty air filter
П	
=	Coolant heater
Ш	Lubricant oil heater
	Fuel and Water Separator
	Lube oil rotary pump
Δlt	ernator And Accessories:
	Leroy somer/stamford
	Anti condensation heater
Ш	PMG + AVR $\diamondsuit$ Double bearing
	Alternator High voltagekV
	RTDs for Bearing and winding
Cor	oling System:
П	55 degree Radiator
	Remote Radiator
Cor	ntrol System:
	AMF
_	Parallel
H	Practical type in low temperature environment
	Control Screen Heater
	Remote Annunciators
	Other (ComP, DEIF)
Circ	cuit Breaker:
	3/4 poles
п	Fixed/handcart type
П	Electric mechanism
П	Electric medianism
Au	tomatic Transfer Switch (ATS):
	ATS cabinet
П	Contractor type ATS
님	Motorized changeover type ATS
П	
Sta	rt Battery:
	Nickel-cadmium battery
П	Maintenance-free battery
П	Battery charger and selector switch
님	Charging current meter
	Chaighig current meter
Ext	ernal Fuel Tank:
	Single /double wall fuel tank (500-5000 L)
	Fuel Transfer pump
Exh	aust Muffler:
П	Residential grade
й	
H	Critical grade
П	Hospital grade
Ava	ailable for voltages :
П	400/230V, 480/277V, 380/220V, 440/254V,
П	416/240V,220/127V, 208/120V
	710/2701/220/12/1/, 200/1201
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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