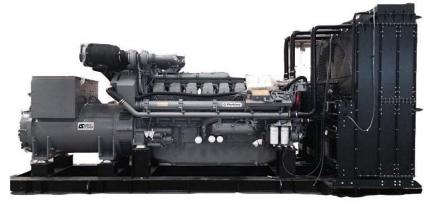


# www.aqtgenerators.com Diesel Power Generation

Control System & Power Solutions



# AQT-**2500**

**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.

o 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 pow-

#### 3 Engine:

Perkins, including air filters, fuel filters, oil filter, starting motor and charging alternator etc.

4Alternator Type: brushless AC alternator

#### 5 Radiator:

50°C, fan protective shroud

#### **Powered By:**













## **Output Rating:**

PRIME:		STANDBY:	
50 Hz—1500 Rpm	400 V, 3ph		
2250 kVA	1800 kW	2500 kVA	2000 kW
60 Hz—1800 Rpm	480 V, 3ph		

ENGINE SPECIFICATIONS	
Engine Make	PERKINS
Engine Model	4016-61TRG3
No. of Cylinders	16 60º Vee form
Cycle	4 Stroke
Aspiration	Quad turbocharged. air to water charge
Cooling Method	Water cooled
Governing Type	Electronic
Governing Class	G2 - ISO 8528 Part 1
Compression Ratio	13:1
Displacement	61.123 litres
Bore/Stroke	160 x 190 mm
Dynamic Charging Alternator	55 AMP, 24V

ALTERNATOR SPECIFICATIONS	
Alternator Make	Leroy Somer   STAMFORD   AQT
Alternator Model	LSA52.3 L9
Number of Poles	4
Number of Winding Leads	12
Type of Bearing	Single Bearing
Insulation Class - Temp Rise	Cont. H - 125/40 C
Ingress Protection Rating	IP 23
Excitation System	AREP + PMI
AVR Model	D 510C

#### **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	+ 0.5%	
Harmonic Coefficient THF	< 2%	
Tel. influence TIF	< 50	
Cooling air flow	2.5 m <sup>3</sup> / Sec	

#### **Standard Specifications:**

#### 6-Fuel Tank:

Capacity of fuel tank is for 8 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:**

<b>Enclosure Type</b>	Acoustic & Weather Proof
Drainage	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	TBD

# **Control System:**

Large back-lit text display (4-Line back-lit LCD 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 (kW h, kVA h, kVAr h) Generator/load current monitoring and protection Generator overload protection (kW)

Breaker control via fascia buttons

using CAN 8 configurable DC outputs 9configurable analogue/digital inputs Automatically transfers between mains (utility) and generator (DSE7320 MKII only) Increased input and output expansion capability via DSENet® IP65 rating (with optional gasket) offers increased resistance to water ingress **DIGITAL INPUTS** ANALOGUE INPUT

Fuel and start outputs, configurable when



#### DSE7320 MKII **AUTO START & AUTO MAINS**

FAILURE CONTROL

### **Dimensions:**

Туре	Length (mm)	Width (mm)	Height (mm)	Fuel Tank (L)	Weight (KG)
OPEN					
CLOSED	12192	2438	2896	NA*	27500



# **Engine:**



Perkins heavy duty high performance industrial type diesel engine.

COOLING SYSTEM	
Total Coolant Capacity (L)	492 L
Cooling Fan Air Flow	2430 m³/ min
Radiator Fan Load	100 kW
Heat Radiation to Room (PRP)	105 Kw
Heat Radiation to Room (ESP)	109 kW
LUBRICATION SYSTEM	
Oil Filter Type	Spin-On Full Flow
Total Oil Capacity	213 L
Oil Type	API-CH-4 or ACEA E5
EXHAUST SYSTEM	
Muffler Type	Industrial Grade
Max. Back Pressure	3.0 kPa
Exhaust Gas Flow (PRP/ESP)	$387  \text{m}^3 /  \text{min}$
Exhaust Gas Temperature	<493 °C
FUEL SYSTEM	
Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	529 L/hr
Fuel Consumption 100% PRP	470 L/hr
Fuel Consumption 75% PRP	344 L/hr
Fuel Consumption 50% PRP	234 L/hr
AIR SYSTEM	
Air Filter Type	Cylindrical paper pleat
Combustion Air Flow (PRP)	132 m³/min
Combustion Air Flow (ESP)	145 m³/min
Max Air Filter Intake Restriction	3.7 kPA

# Optional configurations:

#### Engine accessories:

- Heavy-duty air filter
- Coolant heater
- Lubricant oil heater
- Fuel and Water Separator
- Lube oil rotary pump

#### **Alternator And Accessories:**

- Leroy somer/stamford
- Anti condensation heater
- PMG + AVR ◇Double bearing alternator
- High voltage\_\_\_\_kV
- RTDs for Bearing and winding

#### **Cooling System:**

- 55 degree Radiator
- Remote Radiator

#### **Control System:**

- AMF
- Practical type in low temperature environment
- Control Screen Heater
- Remote Annunciators
- Other (Comp, DEIF)

#### **Circuit Breaker:**

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

#### 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, 416/240V,220/127V, 208/120V