







# DIESEL GENERATOR DATA SHEET

Power By Perkins
Model:AP1000



#### **Output Ratings**

Generator set	Voltage	Hz	Phase	P.F.	Prime	Power	Standb	y Power
model	(V)				KVA	KW	KVA	KW
AP1000	230/400	50	3	0.8	900	720	1000	800

<sup>•220/380</sup>V, 240/415V, 254/440V is avaliable

#### Dimension & weight

Generator set model	Type	L*W*H(mm)	Weight(kg)
AP1000	Open	4630*2030*2400	8100
AP1000	Silent	5700*2280*2500	10200

#### Other datas

Circuit Breaker capacity (A)	1600
Battery brand	Varta
Base Fuel Tank Capacity(L)	N/A

#### **Notes:**

- $\bullet$  Standby power: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046 .
- Prime power: Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. In accordance with ISO 8528,ISO 3046.
- •Standard reference conditions 25°C (77°F) Air Inlet Temp, 100m(328 ft) A.S.L. 30% relative humidity.

#### **Standard Configuration**

- Engine include air, fuel, oil filters, starting motor and charge alternator etc.
- Brushless AC alternator, single bearing, flange connection, w/AVR
- Radiator with engine driven fan mounted on skid
- Channel steel base frame, <550KW base 8hrs mounted fuel tank as standard
- Anti-vibration pads between engine/alternator and base frame
- Circuit breaker 3P as standard, 4P optional
- Auto control panel
- Start battery w/ connecting cable and floating battery charger
- Flexbile pipe, exhaust elbow, industrial silencer etc.
- · Standard tools kit
- Electric drawing, test report ,operation & maintaince manual of generator etc.
- •Optional soundproof/Container canopy, ATS cabinet, remote control panel, synchronization panel, movable trailers, heat exchanger, remote horizontal water tank system, external fuel tank, etc

# Warranty

- •The standard warranty period: One year after ex-work or 1000 operation hours whichever come first shall apply.
- •Consumable parts(air filter, fuel filter, lube oil filter), All failures and damages due to the mal-operation, neglect of maintenance and operation not according to the operation manual, are out of the scope of warranty.



Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice.

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# Engine

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CENER	ΔΙ.	H/N(JIN	AH: I)	ΔΤΔ

Engine manufacture	Perkins Engines Company Limited			
Engine brand	Perkins			
Engine model	4008TAG1A			
Engine speed (rpm)	1500			
	Baseload power	Prime power	Standby power	
Gross engine power (kWb)	644	805	882	
Typical Genset electrical output 0.8pf 25°C (100 kPa) (KW)	586	739	812	
Cylinders	8-cylinder, in line			
Cycle	4 stroke			
Induction system	Turbocharged			
Combustion system		Direct injection		
Compression ratio	13.6:1			
Bore * Stroke (mm)	re * Stroke (mm) 160 * 190			
Cubic capacity (Litre)		30.561		

#### **FUEL SYSTEM**

Injection system	1	Direct
Governor type		electronic
Fuel Consumption	on (litre/hour)	
	Standby	218
	Prime	195
	Baseload	154
	75% output power	143
	50% output power	98
	25% output power	52

#### **COOLING SYSTEM**

Total coolant capacity: Jacket Water (Litres)	
engine only	48
Temperate cooling (engine and radiator)	143
Tropical cooling (engine and radiator)	149
Thermostat operating range (°C)	71-85
Shutdown switch setting (°C)	101

#### **LUBRICATION SYSTEM**

Maximum sump capacity (liter)	153
Minimum sump capacity (liter)	127
Oil temperature at normal operating conditions (°C)	95
Oil temp.(in rail)-Max. continuous operation (°C)	105
Oil pressure at rated speed (kPa)	400
Oil pressure Minimum @80°C (kPa)	340
Shutdown switch - pressure setting (kPa)	193 (falling)

## INDUCTION SYSTEM

Maximum air intake restriction of engine (mmH <sub>2</sub> O)	
Clean filter	127
Dirty filter	380
Combustion air flow(standby/prime power) (m <sup>3</sup> /min)	74 / 69.4

#### EXHAUST SYSTEM

Back pressure for total system (mmH <sub>2</sub> O)	947
Exhaust gas temp. after turbo(standby/prime power)(°C)	440 / 425
Exhaust gas flow (standby/prime power) (m <sup>3</sup> /min	183

#### **ELECTRICAL SYSTEM**

Alternator voltage (volts)	24
Alternator output (amps)	55
Stater motor type (volts)	24
Starter motor power (kw)	8.2

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## **ALTERNATOR**

Alternator manufacturer	Cummins Generator Technologies(China) Co. Ltd
Alternator brand	Stamford
Alternator model	LVI634D
Control system	PMG
A.V.R.	Included
Voltage regulation	±1%
Insulation system	Class H
Protection	IP23
Rated power factor	0.8
Winding pitch	Two thirds
Winding leads	6
Frequency (Hz)	50
Voltage (V)	400
Phase	3
Output ratings (kVA/kW)	
Cont.H-40°C	910/728
Standby-27°C	955/764
THF	<2%
TIF	<50
Max. overspeed (Rev/Min)	2250
Bearing	Single

# **CONTROL SYSTEM**

Ai Power adopts ComAp AMF9 or Deepsea DSE6120 as the standard controller for single gen-set applications.. AMF25 or DSE7320 for option.



#### ComAP AMF9



Deepsea DSE6120

#### **Protection function:**

- •Low oil Pressure
- •High water temperature
- •High voltage and low voltage
- •Over current
- •Over speed
- •Emergency stop
- •Low fuel alarm and shutdown
- •Fail to start

#### **Features**

- •Single-genset controller for stand-by and prime power applications
- •3 phase AMF function
- •3 phase generator protections over/under frequency, over/under voltage, over current
- •True RMS voltage measurement
- •True RMS current measurement
- •Event and performance log

Gen-set ext alarm, Engine hours history, ECU Text alarm,

Test Run scheduler

- •Power Measurements
- •User interface
- •Inputs and outputs
  Configurable analogue/digital, binary
- •Direct communication with EFI engines
- •Engine Protections
- Oil pressure, Coolant temperature, Fuel level
- •Breaker control via fasica buttons
- •Fuel Pump control
- •Optional Active Calls(SMS alarm/event)
- •Miscellaneous features
- •Communication interface
- USB plug-in, Optional RS232, RS485, GSM
- Multiple display languages
- •Start on low battery
- •Real-time clock
- •Zero power mode
- •LCD and LED alarm indication
- •Configuration Suite PC Software.
- •IP65 protection class
- •Remote monitoring

## **Open and Silent Generator**

Ai Power silent generator is widely used in residential area which require quiet environment, its reasonable and elegant design not only reduce the noise to applicable to the environment protection, but also a good view on the road. Our 10kva to 650kva generator adopts normal silent canopy, from 650kva to 1500kva adopts 20ft container canopy, the higher power adopts 40HQ container canopy.



# **Open Generator Standard Supply**

#### The Open Type Generator Includes:

- 1. Automatic control panel.
- 2. 3 phases or single phase brushless alternator.
- 3. anti-vibration pad.
- 4. different brand engine.
- 5. water cooled radiator.
- 6. battery protection switch.
- 7. sealed lead acid free maintenance battery.
- 8. trickle battery charger.
- 9. 3P Chinese brand Circuit breaker.
- 10. Exhaust silencer, elbow and flange.



# **Silent Generator Standard Supply**

#### Silent Generator Standard Supply:

- 1. AMF automatic control system
- 2. Fresh air inlet cooling system
- 3. Emerency stop
- 4. 3P Chinese brand Cricuit Breaker
- 5. Cable output placement
- 6. 8hrs strong base fuel tank
- 7. stainless steel hings
- 8. maintenance door



# Silent Canopy Features

# Silent Canopy Features:

- 1. more than 2mm thick steel canopy.
- 2. High quality paint and strict powder paint processing.
- 3. large-scale impedance combined type silencer.
- 4. Stainless steel door locks and hinges.
- 5. High quality fireproof, soundproof and insulation materials.
- 6. Clear monitoring control panel and outer emergency stop.
- 7. Lifting ear is mounted in the base frame for easy pull.
- 8. Fuel and lub oil drainout is all connected to the canopy.
- 9. Fuel refill opening is on the outer canopy.



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