



# DIESEL GENERATOR DATA SHEET

Power By Perkins
Model:AP1100



#### **Output Ratings**

Generator set	Voltage	Hz	Phase	P.F.	Prime	Power	Standb	y Power
model	(V)				KVA	KW	KVA	KW
AP1100	230/400	50	3	0.8	1000	800	1100	880

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

#### Dimension & weight

Generator set model	Туре	L*W*H(mm)	Weight(kg)
AP1100	Open	4630*2030*2400	8100
AF1100	Silent	5700*2280*2500	10200

#### Other datas

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

#### Notes:

- 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.

#### Xiamen AI Power Technology Co., Ltd.

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# Engine

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Engine manufacture	Perkins Engines Company Limited			
Engine brand	Perkins			
Engine model	4008TAG2A			
Engine speed (rpm)	1500			
	Baseload power	Prime power	Standby power	
Gross engine power (kWb)	719	899	985	
Typical Genset electrical output 0.8pf 25°C (100 kPa) (KW)	657	828	910	
Cylinders	8-cylinder, in line			
Cycle	4 stroke			
Induction system		Turbocharged		
Combustion system	Direct injection			
Compression ratio	13.6:1			
Bore * Stroke (mm) 160 * 190				
Cubic capacity (Litre)	30.561			

#### FUEL SYSTEM

Injection system	Direct	
Governor type	electronic	
Fuel Consumption (litre/hour)		
Standby	240	
Prime	215	
Baseload	172	
75% output power	162	
50% output power	111	

#### 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)	80.5 / 75

### EXHAUST SYSTEM

Back pressure for total system (mmH <sub>2</sub> O)	816
Exhaust gas temp. after turbo(standby/prime power)(°C)	465 / 438
Exhaust gas flow (standby/prime power) (m <sup>3</sup> /min	200

## 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	LVI634E
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	1000/800
Standby-27°C	1050/840
THF	<2%
TIF	<50
Max. overspeed (Rev/Min)	2250
Bearing	Single

# **CONTROL SYSTEM**



The **DEEPSEA DSE 6120** is an Auto Mains (Utility) Failure Control Module developed to provide a wide range of operating and monitoring features for single diesel and gas gen-sets.

DSE7320, ComAp AMF25 etc. for option.

#### **Protection function:**

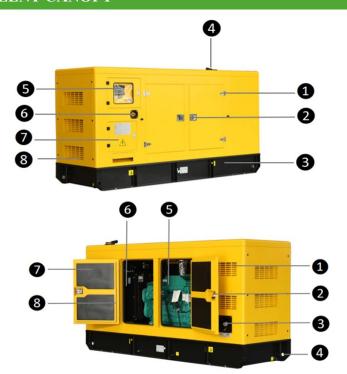
- •Low oil Pressure
- •High water temperature
- •High voltage and low voltage
- •Over current
- Overspeed
- •Volt adjuster and frequency adjuster.
- •Emergency stop
- •Low fuel alarm and shutdown
- •Low coolant alarm and shutdown

## **Key Functions:**

- Multiple display languages
- · Data logging facility
- Fully configurable via PC using USB communication
- Front panel configuration
- 3 phase generator sensing
- 3 phase mains (utility) sensing
- Generator/load power monitoring (kW, kV A, kV Ar, pf)
- Accumulated power monitoring (kW h, kVA h, kVAr h)
- Generator/load current monitoring and protection
- Generator overload protection (kW)
- Breaker control via fascia buttons
- Fuel and start outputs, configurable when using CAN
- 4 configurable DC outputs
- 4 configurable analogue/digital inputs
- Support for 0 to 10 V & 4 to 20 mA oil pressure sensors
- 6 configurable digital inputs
- Configurable staged loading outputs
- CAN, MPU and alternator speed sensing in one variant
- 3 engine maintenance alarms
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel pump control
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection.
- LCD and LED alarm indication

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# **SILENT CANOPY**



- 1)Durable stainless steel hinges
- 2Durable stainless steel hinges
- 3 Strong base fuel tank
- 4) High performance exhaust silencer
- 5 Deepsea control system
- 6 Emergency stop
- (7) High quality 3P Circuit breaker and terminal output
- 8 Fresh air inlet cooling system
  - 1 air inlet cooling system
  - 2 stainless door lock
  - 3 fuel cap lock
  - 4 tow holes
  - 5engine
  - 6 radiator
  - 7)insluation and soundproof materials
  - 8 maintenance door

#### **Performance Features:**

- More than 2mm thick steel to make the canopy.
- High quality paint materials and strict powder paint processing.
- large-scale impedance combined type silencer effectively reduce noise of the generator.
- Stainless steel door locks and hinges and 180° revolvable and disassemble door for easy maintenance.
- High quality soundproof and insulation materials could efficiently reduce noise.
- Transparent viewing window make the control panel clear at a glance.
- Lifting earis mounted in the base frame for easy pull.
- From 10kva to 700kva we use normal silent canopy, more than 700kva we are using containerized canopy.
- ISO standard 20', 40' and 40HQ sea container canopy for options.
- Standard sea container canopy is easier for shipping.

## AI POWER COMPANY SHOW

