



# DIESEL GENERATOR DATA SHEET

**Power By Perkins** 

Model: AP1375



# **Output Ratings**

Generator set	Voltage	Hz	Phase	P.F.	Prime	Power	Standb	y Power
model	(V)				KVA	KW	KVA	KW
AP1375	127/220	60	3	0.8	1250	1000	1375	1100

<sup>•220/380</sup>V, 254/440V, 277/480V, is avaliable

#### **Dimension & weight**

Generator set model	Туре	L*W*H(mm)	Weight(kg)
AP1375	Open	5100*2100*2400	10800
AF 13/3	Silent	5800*2430*2650	12750

### Other datas

Circuit Breaker capacity (A)	4000
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.

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

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# Engine

## GENERAL ENGINE DATA

Engine manufacture	Perkins Engines Company Limited			
Engine brand	Perkins			
Engine model	4012-46TWG2A			
Engine speed (rpm)	1800			
	Baseload power	Prime power	Standby power	
Gross engine power (kWb)	884	1106	1217	
Typical Genset electrical output 0.8pf 25°C (100 kPa) (KW)	791	1002	1108	
Cylinders	12-cylinder, 60° Vee			
Cycle	4 stroke			
Induction system	Turbocharged			
Combustion system	Direct injection			
Compression ratio	13:1			
Bore * Stroke (mm)	160 * 190			
Cubic capacity (Litre)	45.842			

### **FUEL SYSTEM**

Injection system		Direct
Governor type		electronic
Fuel Consumption	on (litre/hour)	
	Standby	298
	Prime	266
	Baseload	210
	75% output power	N/A
	50% output power	N/A

#### **COOLING SYSTEM**

Total coolant capacity: Jacket Water (Litres)	
engine only	73
Temperate cooling (engine and radiator)	196
Tropical cooling (engine and radiator)	201
Thermostat operating range (°C)	71-85
Shutdown switch setting (°C)	101

# **LUBRICATION SYSTEM**

Total system capacity (liter)	177
Maximum sump capacity (liter)	157.5
Minimum sump capacity (liter)	115
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 (kPa)	
Clean filter	2
Dirty filter	4
Combustion air flow(standby/prime power) (m <sup>3</sup> /min)	114/109

### **EXHAUST SYSTEM**

Back pressure for total system (kPa)	5
Exhaust gas temp. after turbo(standby/prime power)(°C)	430
Exhaust gas flow (standby/prime power) (m <sup>3</sup> /min	235

## **ELECTRICAL SYSTEM**

Alternator voltage (volts)	24
Alternator output (amps)	40
Stater motor type (volts)	24
Starter motor power (kw)	16.4

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### **ALTERNATOR**

Alternator manufacturer	Cummins Generator Technologies(China) Co. Ltd
Alternator brand	Stamford
Alternator model	LVI634F
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)	60
Voltage (V)	220
Phase	3
Output ratings (kVA/kW)	
Cont.H-40°C	1274/1019
Standby-27°C	1329/1063
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:**

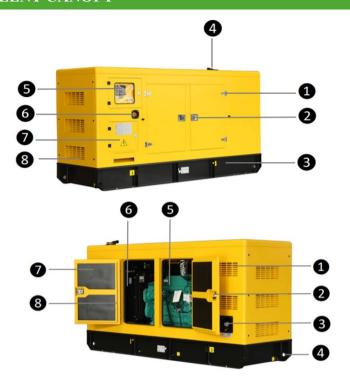
- •Low oil Pressure
- •High water temperature
- •High voltage and low voltage
- •Over current
- Overspeed
- •Volt adjuster and frequency adjuster.
- •Emergency stop
- •Low fuel alarm and shutdown
- •Low coolant alarm and shutdown

## **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
- 2 Durable 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
  - 5 engine
  - 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

