



#### **Output Ratings**

Generator set	Voltage	Hz	Phase	P.F.	Prime	Power	Standby	y Power
model	(V)				KVA	KW	KVA	KW
AP825	127/220	60	3	0.8	750	600	825	660
•220/380V, 254/440V, 277/480V, is avaliable								

**Dimension & weight** 

Generator set model	Туре	L*W*H(mm)	Weight(kg)
AP825	Open	4080*1700*2200	5700
AF 823	Silent	5700*2280*2500	7850

#### **Other datas**

Circuit Breaker capacity (A)	2500
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.

#### 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.

# DIESEL GENERATOR DATA SHEET

# **Power By Perkins**

Model:AP825

# **BPerkins**®

## **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



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

#### GENERAL ENGINE DATA

Engine manufacture	Perkins Engines Company Limited			
Engine brand	Perkins			
Engine model	4006-23TAG2A			
Engine speed (rpm) 1800		1800	0	
	Baseload power	Prime power	Standby power	
Gross engine power (kWb)	554	684	759	
Typical Genset electrical output 0.8pf 25°C (100 kPa) (KW)	490	613	684	
Cylinders	6-cylinder, vertical 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)	22.921			

#### FUEL SYSTEM

Injection system		Direct	
Governor type		electronic	
Fuel Consumption (litre/hour)			
	Standby	200	
Prime		176	
	Baseload	135	
75% output power		129	
	50% output power	90	

#### **COOLING SYSTEM**

Max. top temperature(standby) (°C)	98		
Thermostat operating range (°C)	71-85		
Shutdown switch setting (°C)	101		

#### LUBRICATION SYSTEM

Maximum sump capacity (liter)	113.4
Minimum sump capacity (liter)	90.7
Oil pressure at rated speed (kPa)	300
Oil pressure Minimum @80°C (kPa)	240

#### **INDUCTION SYSTEM**

Maximum air intake restriction of engine (kPa)	
Clean filter	1.25
Dirty filter	3.7
Combustion air flow(standby/prime power) (m <sup>3</sup> /min)	73/65

#### EXHAUST SYSTEM

Back pressure for total system (kPa)	6
Exhaust gas temp. after turbo(standby/prime power)(°C)	430
Exhaust gas flow (standby/prime power) (m <sup>3</sup> /min	190

#### ELECTRICAL SYSTEM

Alternator voltage (volts)	24
Alternator output (amps)	55
Stater motor type (volts)	24
Starter motor power (kw)	7.5

### ALTERNATOR

Alternator manufacturer	Cummins Generator Technologies(China) Co. Ltd		
Alternator brand	Stamford		
Alternator model	HCI544F		
Control system	Self excited		
A.V.R.	Included		
Voltage regulation	±1%		
Insulation system	Class H		
Protection	IP23		
Rated power factor	0.8		
Winding pitch	Two thirds		
Winding leads	12		
Frequency (Hz)	60		
Voltage (V)	220		
Phase	3		
Output ratings (kVA/kW)			
Cont.H-40°C	775/620		
Standby-27°C	844/675		
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

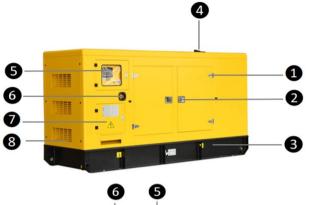
#### **Key Functions:**

- 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 to10 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

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

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#### **SILENT CANOPY**





- 1 Durable stainless steel hinges
- 2 Durable stainless steel hinges
- ③Strong base fuel tank
- (4) High performance exhaust silencer
- 5 Deepsea control system
- 6 Emergency stop
- O 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



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