AP825-6

825KVA / 660KW
POWERED by PERKINS

DIESEL GENERATING SET 480/277 V, 440/254V, 380/220V, 220/127V - 60 Hz

<table>
<thead>
<tr>
<th>Model</th>
<th>Standby</th>
<th>Prime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>kVA</td>
<td>kVA</td>
</tr>
<tr>
<td>Pf. 0.8</td>
<td>kW</td>
<td>kW</td>
</tr>
<tr>
<td></td>
<td>825</td>
<td>750</td>
</tr>
<tr>
<td></td>
<td>660</td>
<td>600</td>
</tr>
</tbody>
</table>

Standby: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046.
Prime: 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.

- High quality, reliable and complete power unit
- Compact design
- Easy start and maintenance possibility
- Every generating set is subject to a comprehensive test program which includes full load testing, checking and provision of all control and safety shut down functions testing
- Fully engineered with a wide range of options and accessories: Canopy, sound proof canopy and on-road trailer

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

www.aksapowergen.com
### ENGINE

- **PERKINS**

<table>
<thead>
<tr>
<th>Model</th>
<th>4006-23TAG2A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Power Output at rated rpm</td>
<td>kWm 746</td>
</tr>
<tr>
<td></td>
<td>HP 1000</td>
</tr>
<tr>
<td>Aspiration and Cooling</td>
<td>Turbocharged</td>
</tr>
<tr>
<td>Total Displacement</td>
<td>Litre 22.921</td>
</tr>
<tr>
<td>No. of Cylinders and Build</td>
<td>6; vertical in-line</td>
</tr>
<tr>
<td>Engine Speed</td>
<td>rpm 1800</td>
</tr>
<tr>
<td>Bore and Stroke</td>
<td>mm×mm 160 × 190</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>13.6:1</td>
</tr>
<tr>
<td>Governor</td>
<td>Electronic</td>
</tr>
<tr>
<td>Fuel Consumption at full load</td>
<td>L/hr 176</td>
</tr>
<tr>
<td>Fuel Tank Capacity</td>
<td>Litre Open N/A; Canopy 1100</td>
</tr>
<tr>
<td>Oil Capacity</td>
<td>Litre 113.4</td>
</tr>
<tr>
<td>Coolant Capacity</td>
<td>Litre 120</td>
</tr>
<tr>
<td>Radiator Cooling Air</td>
<td>m³/min 1320</td>
</tr>
<tr>
<td>Air Intake – Engine</td>
<td>m³/min 72</td>
</tr>
<tr>
<td>Exhaust Gas Flow</td>
<td>m³/min 190</td>
</tr>
</tbody>
</table>

- Heavy duty Perkins diesel engine
- Four stroke, water cooled, turbocharged
- Direct injection fuel system
- Electronic Governor system
- 12/24 V D.C. starter and charge alternator
- Replaceable fuel filter, oil filter and dry element air filter
- Cooling radiator and fan
- Starter battery (with lead acid) including Rack and Cables
- Flexible fuel connection hoses and manual oil sump drain valve
- Industrial capacity exhaust silencer and steel bellows
- Jacket water heater(at automatic models)
- Operation manuals and circuit diagram documents

### ALTERNATOR

- Design: Brushless single bearing, revolving field
- Stator: Single bearing, flexible disc
- Rotor: Single bearing, flexible disc
- Insulation System: Class H
- Standard Temperature Rise: 105 - 130°C Continuous
- Exciter Type: Self Excited
- Phase Rotation: A (U), B (V), C (W)
- Alternator Cooling: Direct drive centrifugal blower fan
- AC Waveform Total Harmonic Distortion: No load < 1.5%. Non distorting balanced linear load < 5%
- Telephone Influence Factor (TIF): <50 per NEMA MG1-22.43
- Telephone Harmonic Factor (THF): <2%

- Brushless, single bearing system, flexible disc, 4 poles
- Insulation class H
- Standard degree of protection IP21 (*IP22/IP23 is available.)
- Self-exciting and self-regulating
- Impregnation with tropicalised epoxy varnish
- Solid state Automatic Voltage Regulator
- Stator winding with 2/3 pitch for improved harmonics
CONTROL SYSTEM

Control supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows:

1. Auto Mains Failure Control Panel
   Panel equipments:
   ✓ Control with AMF module
   ✓ Static battery charger
   ✓ Emergency stop push button
   
   a) Generating set control module DSE 7320 features:
      ✓ The module is used to monitor a mains supply and starts and stops a standby generating set
      ✓ Micro-processor based design
      ✓ Automatic control of mains and generator contactors
      ✓ Monitors engine performance and AC power output
      ✓ LED alarm indication
      ✓ Front panel configuration of timers and alarm trip points
      ✓ Easy push button control
      STOP/RESET - MANUAL - TEST - AUTO - MUTE ALARM - START
   
   b) Metering via LED display:
      ✓ Generator Volts (L-L / L-N)
      ✓ Engine oil pressure (PSI-Bar)
      ✓ Generator Ampere (L1,L2,L3)
      ✓ Engine temperature (°C & °F)
      ✓ Generator Frequency (Hz)
      ✓ Plant battery volts
      ✓ Engine hours run
      ✓ Mains Volts (Ph-Ph/Ph-N)
      ✓ Generator kVA, kWh
      ✓ Generator kW as % of rated kW setting
      ✓ Generator Cos (σ)
   
   c) Alarms:
      ✓ Over and Under Speed
      ✓ Low and High Battery Volt.
      ✓ Start and Stop Failure
      ✓ Charge fail
      ✓ Over Current
      ✓ Under / Over Generator Voltage
      ✓ Low Oil Pressure
      ✓ Emergency stop
      ✓ High engine temperature
      ✓ kW overload
      ✓ Unbalanced load
      ✓ Independent earth fault trip
   
   d) LED indications
      Four configurable LED’s like:
      ✓ Mains available
      ✓ Generator available
      ✓ Mains on load
      ✓ Generator on load

2. Power Outlet Terminal Board Mounted on the Genset Base Frame

OPTIONAL EQUIPMENTS

Diesel Engine
✓ Oil heater

Alternator
✓ 3/4 Pole Output Circuit Breaker
✓ Anti-condensation Heater

Panel
✓ Charge ammeter
✓ Transfer Switch 3 Pole
✓ Transfer Switch 4 Pole
✓ Earth Fault, single set

Accessories
✓ Bulk fuel tank
✓ Automatic filling system
✓ Fuel-water separator filter
✓ Low fuel level alarm
✓ Residential silencer
✓ Enclosure or sound proof canopy
✓ Trailer
✓ Manual oil drain pump
✓ Tool kit for maintenance
CHASSIS

The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame.
Anti-vibration pads are fixed between the engine/alternator feet and the base frame.
Base frame design incorporates an integral fuel tank (Up to 750 kVA).
The generating set can be lifted or carefully pushed/pulled by the base frame.
Dial type fuel gauge and drain plug on the fuel tank.
Forklift pockets within base frame (up to 500kVA).

DIMENSIONS

<table>
<thead>
<tr>
<th>OPEN TYPE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMENSIONS (LxWxH)</td>
<td>mm</td>
</tr>
<tr>
<td></td>
<td>3900<em>1690</em>2270</td>
</tr>
<tr>
<td>DRY WEIGHT</td>
<td>kg</td>
</tr>
<tr>
<td></td>
<td>6050</td>
</tr>
</tbody>
</table>

SOUND ATTENUATED TYPE

<table>
<thead>
<tr>
<th>DIMENSIONS (LxWxH)</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5920<em>2200</em>(2350+1000)</td>
</tr>
<tr>
<td>DRY WEIGHT</td>
<td>kg</td>
</tr>
<tr>
<td></td>
<td>7300</td>
</tr>
</tbody>
</table>

CANOPY

- All canopy parts are designed with modular principles.
- Without welding assembly.
- Doors on each side.
- All metal canopy parts are painted by electrostatic polyester powder paint.
- Exhaust silencer is protected against environment influences.
- Thermally insulated engine exhaust system.
- Emergency stop push button is installed outside of the canopy.
- Easy lifting and moving.
- Easy maintenance and operation.