APD-EPAP82

POWER YOUR FUTURE

MODEL APD-EPAP82

<table>
<thead>
<tr>
<th>Power Pf. 0.8</th>
<th>Standby</th>
<th>Prime</th>
</tr>
</thead>
<tbody>
<tr>
<td>kVA</td>
<td>102.5</td>
<td>91.25</td>
</tr>
<tr>
<td>kW</td>
<td>82</td>
<td>73</td>
</tr>
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</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 and checking and providing of all control and safety shut down functions testing
• Full engineered with a wide range of options and accessories: Canopy, sound proof canopy and on road trailer

ENGINE

• Heavy duty Perkins diesel engine
• Four stroke, water cooled, turbocharged
• Direct injection fuel system
• ECM governor system
• 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

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

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

www.aksapowergen.com
### ENGINE

<table>
<thead>
<tr>
<th>Model</th>
<th>PERKINS 1104D-E44TAG1</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA Certification</td>
<td>TIER 3</td>
</tr>
<tr>
<td>Engine Power Output at rated rpm</td>
<td></td>
</tr>
<tr>
<td>BHP kWm</td>
<td>121.7 90.8</td>
</tr>
<tr>
<td>HP</td>
<td>123.5</td>
</tr>
<tr>
<td>Aspiration and Cooling</td>
<td>Turbo charged</td>
</tr>
<tr>
<td>Total Displacement</td>
<td>Cu.in. Litre 268.5 4.4</td>
</tr>
<tr>
<td>No. of Cylinders and Build</td>
<td>4-Inline</td>
</tr>
<tr>
<td>Engine Speed</td>
<td>rpm 1800</td>
</tr>
<tr>
<td>Bore and Stroke</td>
<td>inches mmxmm 4.13x105x127</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>16.2:1</td>
</tr>
<tr>
<td>Governor</td>
<td>ECM</td>
</tr>
<tr>
<td>Starter Motor Voltage</td>
<td>12 V</td>
</tr>
<tr>
<td>Fuel Consumption @ 100 % load</td>
<td>gal/hr 6.25</td>
</tr>
<tr>
<td>Fuel Consumption @ 75% load</td>
<td>4.95</td>
</tr>
<tr>
<td>Fuel Consumption @ 50% load</td>
<td>3.58</td>
</tr>
<tr>
<td>Fuel Consumption @ 25% load</td>
<td>N/A</td>
</tr>
<tr>
<td>Fuel Tank Capacity</td>
<td>gal. Litre N/A</td>
</tr>
<tr>
<td>Oil Capacity</td>
<td>gal. Litre 2.11 8</td>
</tr>
<tr>
<td>Coolant Capacity</td>
<td>gal. Litre 4.49 17</td>
</tr>
<tr>
<td>Radiator Cooling Air</td>
<td>cfm m³/min 7924.6 224.4</td>
</tr>
<tr>
<td>Air Intake – Engine</td>
<td>cfm m³/min 268.3 7.6</td>
</tr>
<tr>
<td>Exhaust Gas Flow</td>
<td>cfm m³/min 600.3 17</td>
</tr>
<tr>
<td>Standard operating temp degree of radiator</td>
<td>°C 40</td>
</tr>
<tr>
<td>Sound Level @1 meter / @ 7 meter</td>
<td>dB TBD</td>
</tr>
</tbody>
</table>

### ALTERNATOR

<table>
<thead>
<tr>
<th>Model</th>
<th>Marathon-GM-8.6-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size(mm)</td>
<td>365x292x375</td>
</tr>
<tr>
<td>Design</td>
<td>Brushless single bearing, revolving field</td>
</tr>
<tr>
<td>Stator</td>
<td>2/3 pitch</td>
</tr>
<tr>
<td>Rotor</td>
<td>Single bearing, flexible disc</td>
</tr>
<tr>
<td>Insulation System</td>
<td>Class H</td>
</tr>
<tr>
<td>Standard Temperature Rise</td>
<td>125 °C Prime / 150 °C Stand by</td>
</tr>
<tr>
<td>Exciter Type</td>
<td>Self Excited(PMG excitation is optional)</td>
</tr>
<tr>
<td>Phase Rotation</td>
<td>A (U), B (V), C (W)</td>
</tr>
<tr>
<td>Alternator Cooling</td>
<td>Direct drive centrifugal blower fan</td>
</tr>
<tr>
<td>AC Waveform Total Harmonic Distortion</td>
<td>No load &lt; 1.5%. Non distorting balanced linear load &lt; 5%</td>
</tr>
<tr>
<td>Telephone Influence Factor (TIF)</td>
<td>&lt;50 per NEMA MG1-22.43</td>
</tr>
<tr>
<td>Telephone Harmonic Factor (THF)</td>
<td>&lt;2%</td>
</tr>
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</table>
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 Gen-set 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
- Low fuel level alarm
- Residential silencer
- Enclosure or sound proof canopy
- Trailer
- Manual oil drain pump
- Tool kit for maintenance
- Fuel-water separator
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) NON-UL.
- 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></th>
<th>OPEN TYPE</th>
<th>SOUND ATTENUATED TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMENSIONS (LxWxH)</td>
<td>inches/mm</td>
<td>inches/mm</td>
</tr>
<tr>
<td></td>
<td>73.2x35.4x56.5</td>
<td>122.88x42.1x68</td>
</tr>
<tr>
<td></td>
<td>1860x900x1434</td>
<td>3121x1068x1727</td>
</tr>
<tr>
<td>DRY WEIGHT</td>
<td>Lb. Kg</td>
<td>Lb. Kg</td>
</tr>
<tr>
<td></td>
<td>2381 1080</td>
<td>3267 1482</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.

AKSA USA
371 Exchange Street West Monroe, LA 71292
Tel:+1 318 855 8377 Fax:+1 318 855 8381
E-mail: sales@aksausa.com
www.aksausa.com
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