**APD660P**

**POWER YOUR FUTURE**

**660KVA / 528KW POWERED by PERKINS**

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### DIESEL GENERATING SET 400/230 V - 50 Hz

<table>
<thead>
<tr>
<th>MODEL</th>
<th>APD660P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power Pf. 0.8</strong></td>
<td><strong>kVA</strong> 660</td>
</tr>
<tr>
<td>Standby</td>
<td><strong>kW</strong> 528</td>
</tr>
<tr>
<td>Prime</td>
<td><strong>kVA</strong> 600</td>
</tr>
<tr>
<td></td>
<td><strong>kW</strong> 480</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.
ENGINE

PERKINS

<table>
<thead>
<tr>
<th>Model</th>
<th>2806A-E18TAG1A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Power Output</td>
<td>kWm</td>
</tr>
<tr>
<td>at rated rpm</td>
<td>592.7</td>
</tr>
<tr>
<td>HP</td>
<td>795</td>
</tr>
<tr>
<td>Aspiration and Cooling</td>
<td></td>
</tr>
<tr>
<td>Total Displacement</td>
<td>Litre</td>
</tr>
<tr>
<td></td>
<td>18.13</td>
</tr>
<tr>
<td>No. of Cylinders and Build</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6; vertical in-line</td>
</tr>
<tr>
<td>Engine Speed</td>
<td>rpm</td>
</tr>
<tr>
<td></td>
<td>1500</td>
</tr>
<tr>
<td>Bore and Stroke</td>
<td>mmxmm</td>
</tr>
<tr>
<td></td>
<td>145 x 183</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td></td>
</tr>
<tr>
<td>Governor</td>
<td>Electronic</td>
</tr>
<tr>
<td>Fuel Consumption at full load</td>
<td>L/hr</td>
</tr>
<tr>
<td>Fuel Tank Capacity</td>
<td>Litre</td>
</tr>
<tr>
<td></td>
<td>1150</td>
</tr>
<tr>
<td>Oil Capacity</td>
<td>Litre</td>
</tr>
<tr>
<td></td>
<td>62</td>
</tr>
<tr>
<td>Coolant Capacity</td>
<td>Litre</td>
</tr>
<tr>
<td></td>
<td>61</td>
</tr>
<tr>
<td>Radiator Cooling Air</td>
<td>m³/min</td>
</tr>
<tr>
<td></td>
<td>702</td>
</tr>
<tr>
<td>Air Intake – Engine</td>
<td>m³/min</td>
</tr>
<tr>
<td></td>
<td>36</td>
</tr>
<tr>
<td>Exhaust Gas Flow</td>
<td>m³/min</td>
</tr>
<tr>
<td></td>
<td>104</td>
</tr>
</tbody>
</table>

✓ Heavy duty Perkins diesel engine
✓ Four stroke, water cooled, turbocharged and air charge cooled
✓ 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

<table>
<thead>
<tr>
<th>Design</th>
<th>Brushless single bearing, revolving field</th>
</tr>
</thead>
<tbody>
<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>105 - 130°C Continuous</td>
</tr>
<tr>
<td>Exciter Type</td>
<td>Self Excited</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>
</tbody>
</table>

✓ 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

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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 soundproof canopy
✓ Trailer
✓ Manual oil drain pump
✓ Tool kit for maintenance
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 1000 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)

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**DIMENSIONS**

**OPEN TYPE**

<table>
<thead>
<tr>
<th>DIMENSIONS (LxWxH)</th>
<th>mm</th>
<th>3450<em>1800</em>2178</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRY WEIGHT</td>
<td>kg</td>
<td>4410</td>
</tr>
</tbody>
</table>

**SOUND ATTENUATED TYPE**

<table>
<thead>
<tr>
<th>DIMENSIONS (LxWxH)</th>
<th>mm</th>
<th>5409<em>1856</em>2654</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRY WEIGHT</td>
<td>kg</td>
<td>5590</td>
</tr>
</tbody>
</table>

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**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

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