**APD275PE-RP**

**POWERED by PERKINS**

DIESEL GENERATING SET  400/230 V - 50 Hz

<table>
<thead>
<tr>
<th>MODEL</th>
<th>APD275PE-RP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standby</td>
<td>kVA 275</td>
</tr>
<tr>
<td></td>
<td>kW 220</td>
</tr>
<tr>
<td>Prime</td>
<td>kVA 250</td>
</tr>
<tr>
<td></td>
<td>kW 200</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**

**PERKINNS**

<table>
<thead>
<tr>
<th>Model</th>
<th>1306A-E87TAG6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Power Output</td>
<td></td>
</tr>
<tr>
<td>at rated rpm kWm</td>
<td>250</td>
</tr>
<tr>
<td>HP</td>
<td>335</td>
</tr>
<tr>
<td>Aspiration and Cooling</td>
<td></td>
</tr>
<tr>
<td>Total Displacement Litre</td>
<td>8.7</td>
</tr>
<tr>
<td>No. of Cylinders and Build</td>
<td>6- Inline</td>
</tr>
<tr>
<td>Engine Speed rpm</td>
<td>1500</td>
</tr>
<tr>
<td>Bore and Stroke mmxmm</td>
<td>116.6x135.9</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>16.9:1</td>
</tr>
<tr>
<td>Governor ECM</td>
<td></td>
</tr>
<tr>
<td>Fuel Consumption at full load L/hr</td>
<td>54</td>
</tr>
<tr>
<td>Fuel Tank Capacity Litre</td>
<td>Canopy: 1100</td>
</tr>
<tr>
<td>Oil Capacity Litre</td>
<td>28.3</td>
</tr>
<tr>
<td>Coolant Capacity Litre</td>
<td>24.2</td>
</tr>
<tr>
<td>Radiator Cooling Air m³/min</td>
<td>494</td>
</tr>
<tr>
<td>Air Intake – Engine m³/min</td>
<td>15.4</td>
</tr>
<tr>
<td>Exhaust Gas Flow m³/min</td>
<td>44.9</td>
</tr>
<tr>
<td>Sound Level(1M) dBA</td>
<td>82</td>
</tr>
<tr>
<td>Sound Level(7M) dBA</td>
<td>72</td>
</tr>
</tbody>
</table>

- Heavy duty Perkins diesel engine
- Four stroke, water cooled, turbocharged & intercooled
- Direct injection fuel system
- ECM 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>125 - 163°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
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

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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>DIMENSIONS (LxWxH)</th>
<th>mm</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRY WEIGHT</td>
<td>kg</td>
<td>N/A</td>
</tr>
</tbody>
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<thead>
<tr>
<th>DIMENSIONS (LxWxH)</th>
<th>mm</th>
<th>3800x1350x2225</th>
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<tbody>
<tr>
<td>DRY WEIGHT</td>
<td>kg</td>
<td>3200</td>
</tr>
</tbody>
</table>

- 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