AP550

**Power Pf. 0.8**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>kVA</th>
<th>kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standby</td>
<td>550</td>
<td>440</td>
</tr>
<tr>
<td>Prime</td>
<td>500</td>
<td>400</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>2506A-E15TAG2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Power Output</td>
<td>kWm 495</td>
</tr>
<tr>
<td>at rated rpm HP</td>
<td>664</td>
</tr>
<tr>
<td>Aspiration and Cooling</td>
<td>turbocharged, air-to-air charge cooling</td>
</tr>
<tr>
<td>Total Displacement</td>
<td>Litre 15.2</td>
</tr>
<tr>
<td>No. of Cylinders and Build</td>
<td>6; vertical in-line</td>
</tr>
<tr>
<td>Engine Speed</td>
<td>rpm 1500</td>
</tr>
<tr>
<td>Bore and Stroke</td>
<td>mm×mm 137×171</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>16:1</td>
</tr>
<tr>
<td>Governor</td>
<td>Electronic</td>
</tr>
<tr>
<td>Fuel Consumption at full load</td>
<td>L/hr 106</td>
</tr>
<tr>
<td>Fuel Tank Capacity</td>
<td>Litre 850</td>
</tr>
<tr>
<td>Oil Capacity</td>
<td>Litre 62</td>
</tr>
<tr>
<td>Coolant Capacity</td>
<td>Litre 58</td>
</tr>
<tr>
<td>Radiator Cooling Air</td>
<td>m³/min 722</td>
</tr>
<tr>
<td>Air Intake – Engine</td>
<td>m³/min 36.6</td>
</tr>
<tr>
<td>Exhaust Gas Flow</td>
<td>m³/min 98</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 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

#### 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

#### 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)

## 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>Type</th>
<th>Dimensions (LxWxH)</th>
<th>Dry Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPEN TYPE</td>
<td>3250<em>1550</em>2110</td>
<td>3880 kg</td>
</tr>
<tr>
<td>SOUND ATTENUATED TYPE</td>
<td>4810<em>1610</em>2620</td>
<td>4880 kg</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.