AVP385

MODEL AVP385

**DIESEL GENERATING SET 400/230 V - 50 Hz - 3 Phase**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>kVA</th>
<th>kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standby</td>
<td>385</td>
<td>308</td>
</tr>
<tr>
<td>Prime</td>
<td>350</td>
<td>280</td>
</tr>
</tbody>
</table>

- 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 off-road trailer

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

www.aksapowergen.com
### ENGINE

**VOLVO PENTA**

<table>
<thead>
<tr>
<th>Model</th>
<th>TAD1342GE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Power Output</td>
<td>kWe/kWm 343</td>
</tr>
<tr>
<td>at rated rpm</td>
<td>HP 466</td>
</tr>
<tr>
<td>Aspiration and Cooling</td>
<td>Turbocharged-Change Air Cooled</td>
</tr>
<tr>
<td>Total Displacement</td>
<td>Litre 12.78</td>
</tr>
<tr>
<td>No. of Cylinders and Build</td>
<td>6 Cylinder, In-Line</td>
</tr>
<tr>
<td>Engine Speed</td>
<td>rpm 1500</td>
</tr>
<tr>
<td>Bore and Stroke</td>
<td>mmxmm 131 x 158</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>18.1:1</td>
</tr>
<tr>
<td>Governor</td>
<td>Electronic control (Volvo / EMS 2.2)</td>
</tr>
<tr>
<td>Fuel Consumption at 100% load</td>
<td>L/hr 70.3</td>
</tr>
<tr>
<td>Fuel Consumption at 75% load</td>
<td>L/hr 53.3</td>
</tr>
<tr>
<td>Fuel Consumption at 50% load</td>
<td>L/hr 37</td>
</tr>
<tr>
<td>Fuel Tank Capacity</td>
<td>Litre Open:700/Canopy:700</td>
</tr>
<tr>
<td>Oil Capacity</td>
<td>Litre 36</td>
</tr>
<tr>
<td>Coolant Capacity</td>
<td>Litre 44</td>
</tr>
<tr>
<td>Radiator Cooling Air</td>
<td>m³/min 354.7</td>
</tr>
<tr>
<td>Air Intake – Engine</td>
<td>m³/min 25.9</td>
</tr>
<tr>
<td>Exhaust Gas Flow</td>
<td>m³/min 57</td>
</tr>
</tbody>
</table>

- Heavy duty Volvo Penta diesel engine
- Four stroke, water cooled, turbocharged
- Direct injection fuel system
- Electronic Governor system
- 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
- Operation manuals and circuit diagram documents

### ALTERNATOR

**Design**

- Brushless single bearing, revolving field

**Stator**

- 2/3 pitch

**Rotor**

- Single bearing, flexible disc

**Insulation System**

- Class H

**Standard Temperature Rise**

- 125 - 163°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 IP23
- Self-exciting and self-regulating
- All wound components are impregnated with materials and processes designed specifically
- 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

DIMENSIONS

<table>
<thead>
<tr>
<th>OPEN TYPE</th>
<th>CANOPY TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMENSIONS (LxWxH)</td>
<td>mm</td>
</tr>
<tr>
<td>DRY WEIGHT</td>
<td>kg</td>
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</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