**APD300C-6**

**Model:** APD300C-6

**Power Pf. 0.8**

<table>
<thead>
<tr>
<th>Power Pf. 0.8</th>
<th>Standby</th>
<th>Prime</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>kVA</td>
<td>kW</td>
</tr>
<tr>
<td></td>
<td>300</td>
<td>240</td>
</tr>
<tr>
<td></td>
<td>kW</td>
<td>275</td>
</tr>
<tr>
<td></td>
<td>220</td>
<td></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

**DIESEL GENERATING SET 480/277V, 440/254V, 380/220V, 220/127V - 60 Hz - 3 Phase**

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

**CUMMINS**

<table>
<thead>
<tr>
<th>Model</th>
<th>6LTA8.9G2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Power Output</td>
<td>kWm</td>
</tr>
<tr>
<td>at rated rpm</td>
<td>258</td>
</tr>
<tr>
<td>HP</td>
<td>346</td>
</tr>
<tr>
<td>Aspiration and Cooling</td>
<td>Turbocharged and Charge Air Cooled</td>
</tr>
<tr>
<td>Total Displacement</td>
<td>Litre</td>
</tr>
<tr>
<td></td>
<td>8.9</td>
</tr>
<tr>
<td>No. of Cylinders and Build</td>
<td>6- Inline</td>
</tr>
<tr>
<td>Engine Speed</td>
<td>rpm</td>
</tr>
<tr>
<td></td>
<td>1800</td>
</tr>
<tr>
<td>Bore and Stroke</td>
<td>mmxmm</td>
</tr>
<tr>
<td></td>
<td>114x145</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16.6:1</td>
</tr>
<tr>
<td>Governor</td>
<td>Electric</td>
</tr>
<tr>
<td>Fuel Consumption at full load</td>
<td>L/hr</td>
</tr>
<tr>
<td></td>
<td>59</td>
</tr>
<tr>
<td>Fuel Tank Capacity</td>
<td>Litre</td>
</tr>
<tr>
<td></td>
<td>Open: 473/Canopy: 473</td>
</tr>
<tr>
<td>Oil Capacity</td>
<td>Litre</td>
</tr>
<tr>
<td></td>
<td>27.6</td>
</tr>
<tr>
<td>Coolant Capacity</td>
<td>Litre</td>
</tr>
<tr>
<td></td>
<td>51</td>
</tr>
<tr>
<td>Radiator Cooling Air</td>
<td>m³/min</td>
</tr>
<tr>
<td></td>
<td>475</td>
</tr>
<tr>
<td>Air Intake – Engine</td>
<td>m³/min</td>
</tr>
<tr>
<td></td>
<td>17.16</td>
</tr>
<tr>
<td>Exhaust Gas Flow</td>
<td>m³/min</td>
</tr>
<tr>
<td></td>
<td>45.72</td>
</tr>
</tbody>
</table>

- Heavy duty Cummins diesel engine
- Four stroke, water cooled, turbocharged & IC
- 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>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
- Impregnation with tropicalised epoxy varnish
- Insulation class H
- Standard degree of protection IP21 (*IP22/IP23 is available."
- Self-exciting and self-regulating
- Solid state Automatic Voltage Regulator
- Stator winding with 2/3 pitch for improved harmonics

[www.aksapowergen.com](http://www.aksapowergen.com)
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
- Forklift pockets within base frame (up to 500 kVA)

**DIMENSIONS**

### OPEN TYPE

<table>
<thead>
<tr>
<th>DIMENSIONS (LxWxH)</th>
<th>mm</th>
<th>2600<em>1250</em>1684</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRY WEIGHT</td>
<td>kg</td>
<td>1950</td>
</tr>
</tbody>
</table>

### SOUND ATTENUATED TYPE

<table>
<thead>
<tr>
<th>DIMENSIONS (LxWxH)</th>
<th>mm</th>
<th>3648<em>1313</em>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRY WEIGHT</td>
<td>kg</td>
<td>2600</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

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**Aksa Power Generation**

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