APD75C-6

**POWER YOUR FUTURE**

75 kVA / 60 kW
POWERED by CUMMINS

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

<table>
<thead>
<tr>
<th>MODEL</th>
<th>kVA</th>
<th>kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standby</td>
<td>75</td>
<td>60</td>
</tr>
<tr>
<td>Prime</td>
<td>67</td>
<td>53.6</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.

www.aksapowergen.com
### ENGINE

<table>
<thead>
<tr>
<th>CUMMINS</th>
<th>4BTA3.9G2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>kWm</td>
</tr>
<tr>
<td>Engine Power Output at rated rpm</td>
<td>66</td>
</tr>
<tr>
<td>Aspiration and Cooling</td>
<td>HP</td>
</tr>
<tr>
<td>Total Displacement</td>
<td>88</td>
</tr>
<tr>
<td>No. of Cylinders and Build</td>
<td>Turbocharged &amp; Aftercooled</td>
</tr>
<tr>
<td>Engine Speed</td>
<td>4 - Inline</td>
</tr>
<tr>
<td>Bore and Stroke</td>
<td>1800</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>102x120</td>
</tr>
<tr>
<td>Governor</td>
<td>2/3 pitch</td>
</tr>
<tr>
<td>Fuel Consumption at full load</td>
<td>17.3:1</td>
</tr>
<tr>
<td>Fuel Tank Capacity</td>
<td>Electronic</td>
</tr>
<tr>
<td>Oil Capacity</td>
<td>kW</td>
</tr>
<tr>
<td>Coolant Capacity</td>
<td>L/hr</td>
</tr>
<tr>
<td>Radiator Cooling Air</td>
<td>Open: 154/Canopy: 154</td>
</tr>
<tr>
<td>Air Intake – Engine</td>
<td>15.9</td>
</tr>
<tr>
<td>Exhaust Gas Flow</td>
<td>4.38</td>
</tr>
</tbody>
</table>

- Heavy duty Cummins diesel engine
- Four stroke, water cooled, turbocharged & aftercooled
- 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
- 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 6020 features:
      - The module is used to monitor main supply and
        starts and stops of a standby generating set
      - Micro-processor based design
      - Automatic control of main and generator contactors
      - Monitors engine performance and AC power output LED
        alarm indication
      - Front panel configuration of timers and alarm trip points
      - CAN and magnetic pick-up versions (specify on ordering)
      - 4 digital inputs/3 analogue inputs
      - 6 outputs (4 configurable on Magnetic Pick-up, 6 configurable on
        CANbus version)
      - Easy push button control
      - STOP/RESET - MANUAL - AUTO - TEST – START

   b) Metering via LED display:
      - Generator Volts (L-L / L-N)     Generator kVA
      - Engine oil pressure (PSI-Bar)   Generator kW
      - Generator Ampere (L1,L2,L3)    Generator Cos (σ)
      - Engine temperature (°C & °F)
      - Generator Frequency (Hz)
      - Plant battery volts
      - Engine hours run
      - Mains Volts (Ph-Ph/Ph-N)

   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

   d) LED indications
      - Mains available
      - Generator available
      - Mains on load
      - Generator on load

2. Power Outlet Terminal Board Mounted on the Gen-set 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

<table>
<thead>
<tr>
<th></th>
<th>OPEN TYPE</th>
<th>SOUND ATTENUATED TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMENSIONS (LxWxH)</td>
<td>mm 1860<em>900</em>1381</td>
<td>mm 2494<em>963</em>1542</td>
</tr>
<tr>
<td>DRY WEIGHT</td>
<td>kg 960</td>
<td>kg 1280</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