APD17MA-6

**POWER YOUR FUTURE**

13.4 kVA / 13.4 kW
POWERED by AKSA

DIESEL GENERATING SET 220V- 60 Hz-1 Phase

<table>
<thead>
<tr>
<th>MODEL</th>
<th>APD17MA-6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>kVA</td>
</tr>
<tr>
<td></td>
<td>kW</td>
</tr>
<tr>
<td>Standby</td>
<td>kVA</td>
</tr>
<tr>
<td></td>
<td>kW</td>
</tr>
<tr>
<td>Prime</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

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

www.aksapowergen.com
### ENGINE

| Model          | AKSA  
| Engine Power Output at rated rpm | kW/HP  
| 18/24.1        |  
| Aspiration and Cooling |  
| Total Displacement | Litre  
| 1.357          |  
| No. of Cylinders and Build |  
| 3-Inline       |  
| Engine Speed | rpm  
| 1500           |  
| Bore and Stroke | mm/mm  
| 80x90          |  
| Compression Ratio |  
| 18:1           |  
| Governor | Mechanical  
| Fuel Consumption at full load | L/hr  
| 5             |  
| Fuel Tank Capacity | Litre  
| Open: 32/Canopy: 32 |  
| Oil Capacity | Litre  
| 4.5           |  
| Coolant Capacity | Litre  
| 7             |  
| Radiator Cooling Air | m³/min  
| 80            |  
| Air Intake – Engine | m³/min  
| 1.6           |  
| Exhaust Gas Flow | m³/min  
| 4.5           |  

- Heavy duty Aksa diesel engine
- Four stroke, water cooled, Forced water cooling
- Direct injection fuel system
- Mechanical 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

| 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 | 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 IP21 (*IP22/IP23 is availab.)
- 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 DSE6020 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
   ✓ 4 configurable analogue/digital inputs, 6 configurable digital inputs
   ✓ 4 configurable DC outputs
   ✓ Easy push button control
   STOP/RESET - MANUAL - AUTO - TEST – START

b) Metering via LCD display:
   ✓ Generator Volts (L-L / L-N)             Generator kVA
   ✓ Engine oil pressure (PSI/Bar)         Generator kW
   ✓ Generator Ampere (L1,L2,L3)           Generator Cos (\(\sigma\))
   ✓ 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 3Pole
 ✓ 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**

**OPEN TYPE**

<table>
<thead>
<tr>
<th>DIMENSIONS (LxWxH)</th>
<th>mm</th>
<th>1400x760x927</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRY WEIGHT</td>
<td>kg</td>
<td>390</td>
</tr>
</tbody>
</table>

**SOUND ATTENUATED TYPE**

<table>
<thead>
<tr>
<th>DIMENSIONS (LxWxH)</th>
<th>mm</th>
<th>1672x823x1127</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRY WEIGHT</td>
<td>kg</td>
<td>520</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