APD125A

**125 kVA / 100 kW**

POWERED by AKSA

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

<table>
<thead>
<tr>
<th>MODEL</th>
<th>kVA</th>
<th>kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standby</td>
<td>125</td>
<td>100</td>
</tr>
<tr>
<td>Prime</td>
<td>115</td>
<td>92</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></th>
<th>AKSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>A6CRX65TI</td>
</tr>
<tr>
<td>Engine Power Output</td>
<td>kWm: 120 / HP: 161</td>
</tr>
<tr>
<td>Aspiration and Cooling</td>
<td>Turbocharged with intercooler</td>
</tr>
<tr>
<td>Total Displacement</td>
<td>Litre: 6.49</td>
</tr>
<tr>
<td>No. of Cylinders and Build</td>
<td>6 – Inline</td>
</tr>
<tr>
<td>Engine Speed</td>
<td>rpm: 1500</td>
</tr>
<tr>
<td>Bore and Stroke</td>
<td>mmXmm: 105X125</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td></td>
</tr>
<tr>
<td>Governor</td>
<td>Electronic</td>
</tr>
<tr>
<td>Fuel Consumption at full load</td>
<td>L/hr: 26.3</td>
</tr>
<tr>
<td>Fuel Tank Capacity</td>
<td>Litre: Open: 350 / Canopy: 350</td>
</tr>
<tr>
<td>Oil Capacity</td>
<td>Litre: 16</td>
</tr>
<tr>
<td>Coolant Capacity</td>
<td>Litre: 38</td>
</tr>
<tr>
<td>Air Intake – Engine</td>
<td>m³/min: 190</td>
</tr>
<tr>
<td>Exhaust Gas Flow</td>
<td>m³/min: 26.69</td>
</tr>
<tr>
<td>Cooling radiator and fan</td>
<td></td>
</tr>
<tr>
<td>Starter battery (with lead acid) including Rack and Cables</td>
<td></td>
</tr>
<tr>
<td>Flexible fuel connection hoses and manual oil sump drain valve</td>
<td></td>
</tr>
<tr>
<td>Industrial capacity exhaust silencer and steel bellows</td>
<td></td>
</tr>
<tr>
<td>Jacket water heater(at automatic models)</td>
<td></td>
</tr>
<tr>
<td>Operation manuals and circuit diagram documents</td>
<td></td>
</tr>
</tbody>
</table>

- Heavy duty Aksa diesel engine
- Four stroke, water cooled, natural & intercooled
- 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></th>
<th>Brushless single bearing, revolving field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>2/3 pitch</td>
</tr>
<tr>
<td>Stator</td>
<td>Single bearing, flexible disc</td>
</tr>
<tr>
<td>Rotor</td>
<td>Class H</td>
</tr>
<tr>
<td>Insulation System</td>
<td>255 - 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

   ✓ Generator Cos (σ)
   **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

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

www.aksapowergen.com
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 2300x1100x1675</td>
<td>mm 3265x1163x1858</td>
</tr>
<tr>
<td>DRY WEIGHT</td>
<td>kg 1570</td>
<td>kg 2070</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