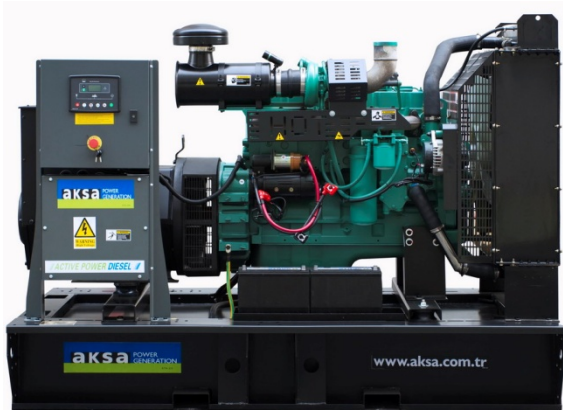


APD200C

POWER
YOUR
FUTURE200 kVA / 160 kW
POWERED by CUMMINS

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

| MODEL | | | APD200C |
|------------------|---------|-----|---------|
| Power Pf. 0.8 | Standby | kVA | 200 |
| | | kW | 160 |
| | Prime | kVA | 180 |
| | | kW | 144 |

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.

ENGINE

CUMMINS

| | | |
|----------------------------------|---------------------|----------------------------|
| Model | | 6CTA8.3G2 |
| Engine Power Output at rated rpm | kWm | 180 |
| | HP | 241 |
| Aspiration and Cooling | | Turbocharged & Aftercooled |
| Total Displacement | Litre | 8.3 |
| No. of Cylinders and Build | | 6- Inline |
| Engine Speed | rpm | 1500 |
| Bore and Stroke | mmxmm | 114x135 |
| Compression Ratio | | 17.3:1 |
| Governor | | Electronic |
| Fuel Consumption at full load | L/hr | 42 |
| Fuel Tank Capacity | Litre | 340 |
| Oil Capacity | Litre | 27.6 |
| Coolant Capacity | Litre | 41.3 |
| Radiator Cooling Air | m ³ /min | 186 |
| Air Intake – Engine | m ³ /min | 12.36 |
| Exhaust Gas Flow | m ³ /min | 34.68 |

- ✓ 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

| | |
|---------------------------------------|--|
| 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 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 DSE6120 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, 8 configurable digital inputs
- ✓ 6 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 (σ) |
| ✓ Engine temperature ($^{\circ}$ C & $^{\circ}$ F) | |
| ✓ Generator Frequency (Hz) | |
| ✓ Plant battery volts | |
| ✓ Engine hours run | |
| ✓ Mains Volts (Ph-Ph/Ph-N) | |



DSE 6120

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

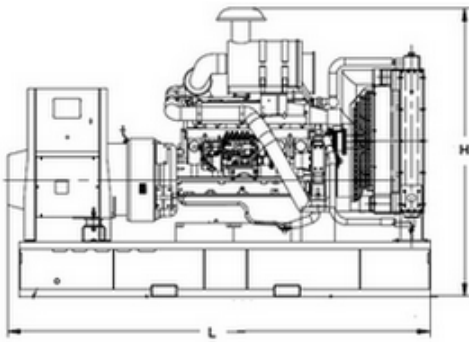
Panel

- ✓ Charge ammeter
- ✓ Transfer Switch 3 Pole
- ✓ Transfer Switch 4 Pole
- ✓ Earth Fault, single set

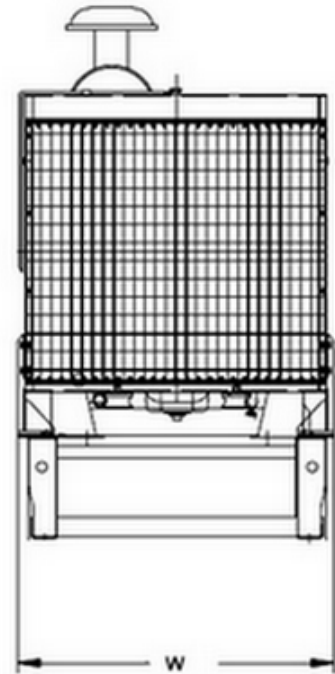
Accessories

- ✓ 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



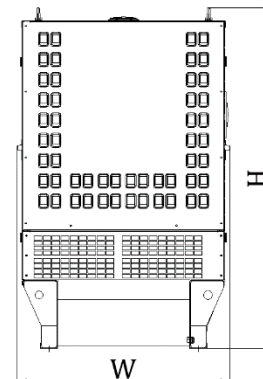
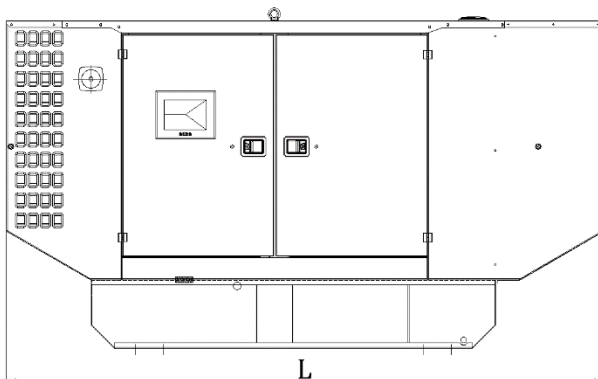
- ✓ The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- ✓ Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- ✓ Base frame design incorporates an integral fuel tank (Up to 750 kVA)
- ✓ The generating set can be lifted or carefully pushed / pulled by the base frame
- ✓ Dial type fuel gauge and drain plug on the fuel tank
- ✓ Forklift pockets within base frame (up to 500kVA)



DIMENSIONS

| OPEN TYPE | | |
|-----------------------|----|----------------|
| DIMENSIONS (LxWxH) | mm | 2300X1080X1742 |
| DRY WEIGHT | kg | 1620 |
| SOUND ATTENUATED TYPE | | |
| DIMENSIONS (LxWxH) | mm | 3417x1136x2022 |
| DRY WEIGHT | kg | 2140 |

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

Aksa Power Generation

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