## APD200C





KSA POWER

200 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.

- $\checkmark$  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	kWm	180			
at rated rpm	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	Open: 350/Canopy: 350			
Oil Capacity	Litre	27.6			
Coolant Capacity	Litre	41.3			
Radiator Cooling Air	m³/min	186			
Air Intake – Engine	m³/min	12.36			
Exhaust Gas Flow	m³/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  $\checkmark$
- Starter battery (with lead acid) including Rack and Cables  $\checkmark$
- Flexible fuel connection hoses and manual oil sump drain valve
  Industrial capacity exhaust silencer and steel bellows
- Jacket water heater(at automatic models)  $\checkmark$
- ✓ 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

 $\checkmark$ Solid state Automatic Voltage Regulator

✓ Stator winding with 2/3 pitch for improved harmonics

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

**OPTIONAL EQUIPMENTS** 

3/4 Pole Output Circuit Breaker

✓ Anti-condensation Heater

- 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

**Diesel Engine** 

✓Oil heater

Alternator

✓ Mains Volts (Ph-Ph/Ph-N)

#### Panel

Generator kVA

Generator kW

Generator Cos (o)

- ✓ 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

#### c) Alarms:

- Over and Under Speed
- ✓ Low and High Battery Volt.
- ✓ Start and Stop Failure
- Charge fail
- ✓ Over Current
- Under / Over Generator Voltage
- ✓ 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

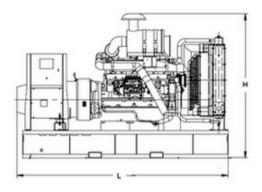


DSE 6020



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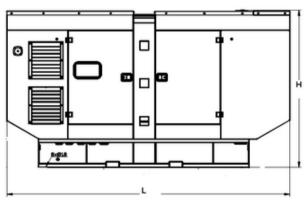


- $\checkmark$  The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- $\checkmark\,$  Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- ✓ Base frame design incorporates an integral fuel tank (Up to 750 kVA)
- ✓ The generating set 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)

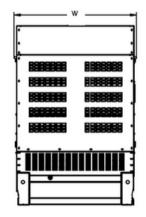
## DIMENSIONS

OPEN TYPE							
DIMENSIONS (LxWxH)	mm	2336*1100*1652					
DRY WEIGHT	kg	1780					
SOUND ATTENUATED TYPE							
SOUN	D ATTENU	ATED TYPE					
SOUN DIMENSIONS (LxWxH)	D ATTENU	ATED TYPE 3265*1163*1858					

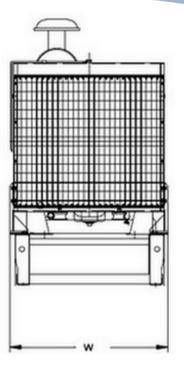
## CANOPY



- ✓ 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