



Transformadores Mora

Liderazgo y excelencia a su servicio

APD200C



200 kVA / 160 kW
POWERED by CUMMINS

DIESEL GENERATING SET 400/230 V - 50 Hz

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		17:1
Governor		Electronic
Fuel Consumption at full load	L/hr	40
Fuel Tank Capacity	Litre	Open: 350/Canopy: 350
Oil Capacity	Litre	23.8
Coolant Capacity	Litre	41.3
Radiator Cooling Air	m ³ /min	186
Air Intake – Engine	m ³ /min	11.52
Exhaust Gas Flow	m ³ /min	31.14

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



DSE 6020

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 ($^{\circ}$ C & $^{\circ}$ 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

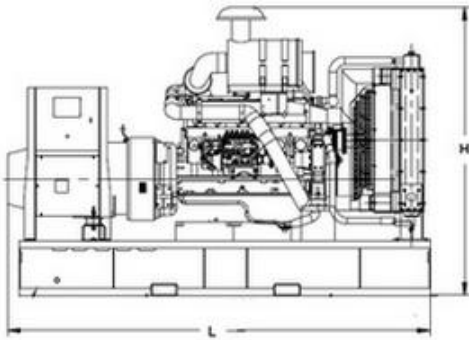
Panel

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

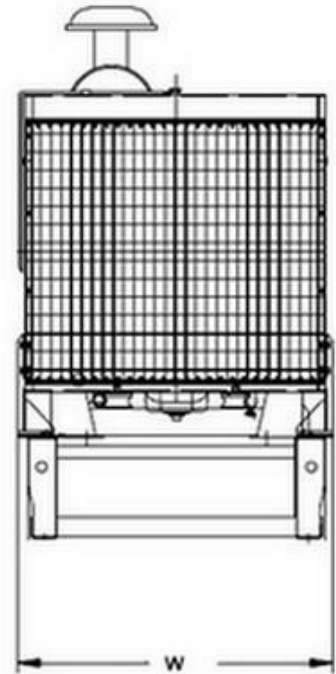
Accessories

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 500kVA)



DIMENSIONS

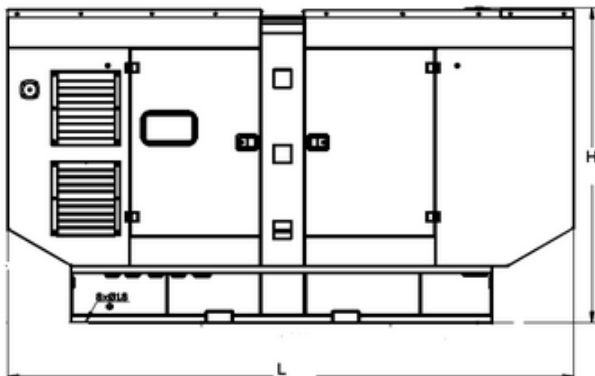
OPEN TYPE

DIMENSIONS (LxWxH)	mm	2336*1100*1681
RY WEIGHT	kg	1860

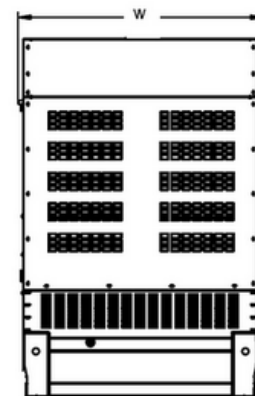
SOUND ATTENUATED TYPE

DIMENSIONS (LxWxH)	mm	3269*1168*1866
RY WEIGHT	kg	2280

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