



APD-EPAC200

POWER YOUR FUTURE!

**200- 180 kW
POWERED by CUMMINS**



DIESEL GENERATING SET 480/277 V, 208/120V - 60 Hz

MODEL			APD-EPAC200
Power Pf. 0.8	Standby	kVA	250
		kW	200
	Prime	kVA	225
		kW	180

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

ENGINE

- Heavy duty Cummins diesel engine
- Four stroke, water cooled, Turbo charged
- Direct injection fuel system
- ECM governor system
- 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

- 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



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

ENGINE



CUMMINS

Model		QSB7-G5
EPA Certification		TIER 3
Engine Power Output at rated rpm	BHP	324.4
	kWm	242
	HP	324
Aspiration and Cooling		Turbo charged
Total Displacement	Cu.in.	408
	Litre	6.69
No. of Cylinders and Build		6-inline
Engine Speed	rpm	1800
Bore and Stroke	inches	4.21x4.88
	mmxmm	107x124
Compression Ratio		17.2:1
Governor		ECM
Starter Motor Voltage		12/24V
Fuel Consumption @ 100 % load	gal/hr L/hr	50
Fuel Consumption @ 75% load		40
Fuel Consumption @ 50% load		30
Fuel Consumption @ 25% load		15
Fuel Tank Capacity	gal. Litre	N/A
Oil Capacity	gal.	5
	Litre	18.9
Coolant Capacity	gal.	2.7
	Litre	10.2
Radiator Cooling Air	cfm m³/min	N/A
Air Intake – Engine	cfm	569
	m³/min	16.14
Exhaust Gas Flow	cfm m³/min	43.92
Standard operating temp degree of radiator	°C	40
Sound Level @1 meter / @ 7 meter	dB	N/A

ALTERNATOR

Model	Marathon-MP-160-4
Size(mm)	852X600X865
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(PMG excitation is optional)
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%



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 DSE 7320 features:

- The module is used to monitor mains 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
- Easy push button control
- STOP/RESET - MANUAL - TEST - AUTO - MUTE ALARM - START

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
- Mains Volts (Ph-Ph/Ph-N)
- Generator kVA, kWh
- Generator kW as % of rated kW setting
- Generator Cos (σ)



DSE 7320

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
- kW overload
- Unbalanced load
- Independent earth fault trip

d) LED Indications

Four configurable LED's like:

- Mains available
- Generator available
- Mains on load
- Generator on load

2. Power Outlet Terminal Board Mounted on the Genset Base frame

OPTIONAL EQUIPMENTS

Diesel Engine

- Oil heater

Alternator

- 3/4 Pole Output Circuit Breaker
- Anti-condensation Heater

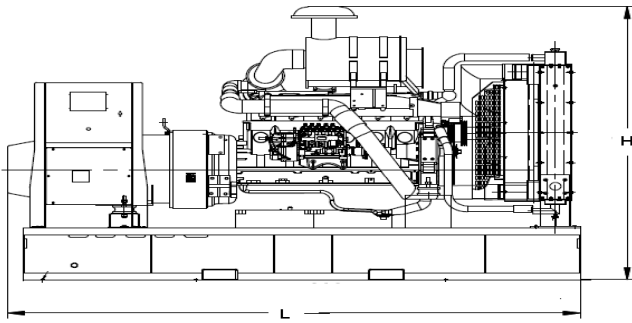
Panel

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

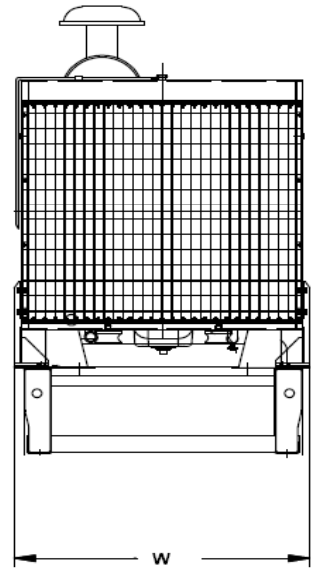
Accessories

- 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



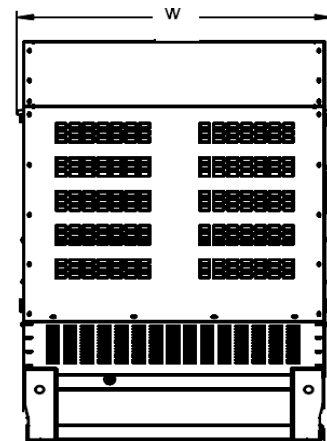
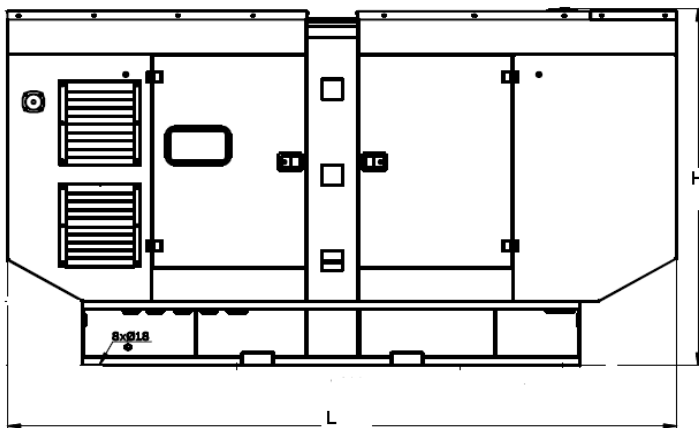
- The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- Base frame design incorporates an integral fuel tank (Up to 750 kVA) NON -UL
- The generating set can be lifted or carefully 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)	inches mm	<u>90.6x43.3x66.2</u> <u>2300x1100x1681</u>
DRY WEIGHT	Lb. Kg	4101 1860.2
SOUND ATTENUATED TYPE		
DIMENSIONS (LxWxH)	inches mm	<u>128.7x46x74.8</u> <u>3269x1168x1900</u>
DRY WEIGHT	Lb. Kg	5026 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

Aksa Power Generation

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