

# 888 kVA / 710.4 kW POWERED by CUMMINS









# DIESEL GENERATING SET 400/230 V - 50 Hz

MODEL			APD888C
Power Pf. 0.8	Standby	kVA	888
		kW	710.4
	Prime	kVA	810
		kW 📙	648

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**

CUMMINS					
Model	1	KTA38G2B			
Engine Power Output	kWm	789			
at rated rpm	HP	1057			
Aspiration and Cooling	1	Turbocharged&Aftercooled			
Total Displacement	Litre	38			
No. of Cylinders and Build		12 V			
Engine Speed	rpm	1500			
Bore and Stroke	mmxmm	159x159			
Compression Ratio	1	14.5:1			
Governor	1	Electronic			
Fuel Consumption at full load	L/hr	170			
Fuel Tank Capacity	Litre	900			
Oil Capacity	Litre	135.1			
Coolant Capacity	Litre	199.5			
Radiator Cooling Air	m³/min	1500			
Air Intake – Engine	m³/min	62.46			
Exhaust Gas Flow	m³/min	176.16			

- ✓ 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
AC Waveform Total Harmonic Distortion	inear 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

Self-exciting and self-regulating

- Standard degree of protection IP21 (\*IP22/IP23 is availab.) ✓ Stator winding with 2/3 pitch for improved harmonics
- ✓ Impregnation with tropicalised epoxy varnish
- ✓ Solid state Automatic Voltage Regulator



### **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 a mains supply and starts and stops a standby generating set
- ✓ Micro-processor based design
- ✓ Automatic control of mains and generator contactors
- ✓ Monitors engine performance and AC power output
- ✓ LED alarm indication
- ✓ Front panel conguration 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)

### **OPTIONAL EQUIPMENTS**

#### **Diesel Engine**

✓ Oil heater

#### **Altemator**

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

#### **Panel**

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



**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

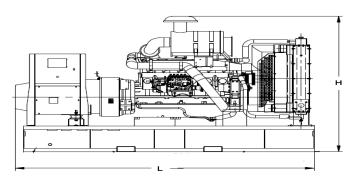
Four configurable LED's like:

- ✓ Mains available
- ✓ Generator available
- ✓ Mains on load
- ✓ Generator on load
- 2. Power Outlet Terminal Board Mounted on the Genset Base frame

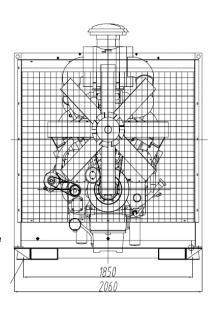
#### **Accessories**

- ✓ 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**

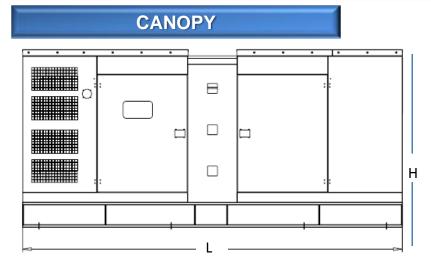


- √ The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- Base frame design incorporates an integral fuel tank (Up to 750 kVA)
- The generating set can be lifted or carefully pushed / 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)	ı mm	4370x2060x2132				
DRY WEIGHT	kg	7700				
SOUND ATTENUATED TYPE						
DIMENSIONS (LxWxH)	mm	5800 x 2260 x 2550				
DRY WEIGHT	l kg	12550				



- 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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