#### Ì

## APD110C-RP





110 kVA / 88 kW POWERED by CUMMINS

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

MODEL			APD110C-RP
Power Pf. 0.8	Standby	kVA	110
		kW	88
	Prime	kVA	100
		kW	80

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		6BT5.9G2			
Engine Power Output	kWm	92			
at rated rpm	HP	123			
Aspiration and Cooling		Turbocharged			
Total Displacement	Litre	5.9			
No. of Cylinders and Build		6- Inline			
Engine Speed	rpm	1500			
Bore and Stroke	mmxmm	102x120			
Compression Ratio		17.3:1			
Governor		Electronic			
Fuel Consumption at full load	L/hr	22			
Fuel Tank Capacity	Litre	Canopy: 550			
Oil Capacity	Litre	16.4			
Coolant Capacity	Litre	34.9			
Radiator Cooling Air	m³/min	136			
Air Intake – Engine	m³/min	6.48			
Exhaust Gas Flow	m³/min	16.8			
Sound Level(1M)	dBA	77			
Sound Level(7M)	dBA	65			

- √ Heavy duty Cummins diesel engine
- ✓ Four stroke, water cooled, turbocharged
- ✓ 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

### **STAMFORD ALTERNATOR UCI274C**

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 IP23
- ✓ 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) Product description:

- ✓ Single Gen-set controller for stand-by and prime power applications
- ✓ All-in-one intuitive & powerful PC tool for configuration/monitoring/control, locally or remotely
- ✓ Easy to install, configure and use



InteliLite 4 AMF 9

#### b) Product description:

- ✓ Stand-by and prime-power application in one unit
- ✓ 8 binary outputs, 8 + 1 binary inputs, 3 analog inputs (U/I/R)
- √ +5 V output reference for analog inputs
- ✓ 2 high-current E-Stop binary outputs
- √ 1 slot for extension plug-in module (Modbus, Internet, SMS, inputs/outputs)
- ✓ Extension CAN modules
- ✓ ECU support (Tier 4 Final, Stage V)
- √ RTC with battery back-up (full calendar)
- ✓ Power over USB for controller configuration
- ✓ Zero power mode
- ✓ True RMS measurement
- $\checkmark$  In-built PLC, complemented with a PLC monitoring tool in InteliConfig
- ✓ Full remote communications support (AirGate 2.0, WSV)
- √ Internet access using Ethernet / 4G, Modbus TCP/RTU, SNMP v1/v2c
- $\checkmark$  Active SMS and emails
- ✓ Detailed history log with up to 150 records
- ✓ Dual Mutual Standby application support
- ✓ Remote display

- ✓ User setpoints and protections
- ✓ 5 languages in the controller & Translator functionality
- ✓ User Access Management
- ✓ Cyber security improvement
- ✓ Alternative configurations
- ✓ Multi-purpose schedulers
- √ 3 maintenance timers
- ✓ Modbus register mapping possibility
- √ Fuel pump management
- ✓ Run Hours source selector
- ✓ Cut-out: 172 × 112 mm

#### 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 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

### aksa POWER GENERATIO

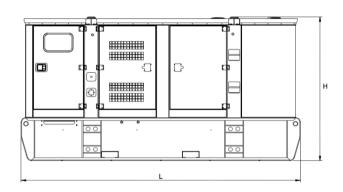
### **CHASSIS**

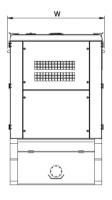
- ✓ The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- ✓ Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- ✓ Base frame design incorporates an integral fuel tank (Up to 750 kVA)
- ✓ The generating set can be lifted or carefully 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	N/A					
DRY WEIGHT	kg	N/A					
SOUND ATTENUATED TYPE							
DIMENSIONS (LxWxH)	mm	3400x1163x1823					
DRY WEIGHT	kg	2100 kg					

# CANOPY(RAL-1015)





- ✓ 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