

APD22C-RP



**POWER
YOUR
FUTURE**

**22 kVA / 17.6 kW
POWERED BY CUMMINS**

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

| MODEL | | | APD22C-RP |
|------------------|---------|-----|-----------|
| Power Pf. 0.8 | Standby | kVA | 22 |
| | | kW | 17.6 |
| | Prime | kVA | 20 |
| | | kW | 16 |

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 | | 4B3.9G11 |
| Engine Power Output at rated rpm | kWm | 22 |
| | HP | 29 |
| Aspiration and Cooling | | Natural |
| Total Displacement | Litre | 3.9 |
| No. of Cylinders and Build | | 4- Inline |
| Engine Speed | rpm | 1500 |
| Bore and Stroke | mmxmm | 102x120 |
| Compression Ratio | | 18:1 |
| Governor | | Mechanical |
| Fuel Consumption at full load | L/hr | 5.7 |
| Fuel Tank Capacity | Litre | 230 |
| Oil Capacity | Litre | 10.9 |
| Coolant Capacity | Litre | 13.2 |
| Radiator Cooling Air | m ³ /min | 120 |
| Air Intake – Engine | m ³ /min | 1.97 |
| Exhaust Gas Flow | m ³ /min | 4.47 |
| Sound Level(1M) | dBA | 80.5 |
| Sound Level(7M) | dBA | 68.5 |

- ✓ Heavy duty Cummins diesel engine
- ✓ Four stroke, water cooled, Natural
- ✓ Direct injection fuel system
- ✓ Mechanical 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 PI144D

| | |
|---------------------------------------|--|
| 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



IntelLite 4 AMF 9

b) Product description:

- | | |
|--|---|
| <ul style="list-style-type: none"> ✓ 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 ✓ In-built PLC, complemented with a PLC monitoring tool in IntelliConfig ✓ Full remote communications support (AirGate 2.0, WSV) ✓ Internet access using Ethernet / 4G, Modbus TCP/RTU, SNMP v1/v2c ✓ Active SMS and emails ✓ Detailed history log with up to 150 records ✓ Dual Mutual Standby application support ✓ Remote display | <ul style="list-style-type: none"> ✓ 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

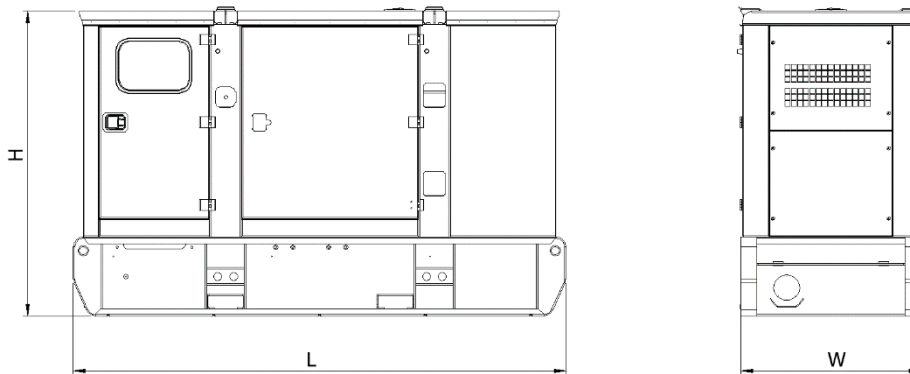
CHASSIS

- ✓ 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 | 2800x1063x1703 |
| DRY WEIGHT | kg | 1460 |

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