



GENERATION

11 kVA / 11 kW POWERED by AKSA

DIESEL GENERATING SET 230/115 V - 50 Hz - 1 Phase

| | MODEL | | APD17MA |
|------------------|---------|-----|---------|
| Power Pf. 1.0 | Standby | kVA | 11 |
| | | kW | 11 |
| | Prime | kVA | 10 |
| | | kW | 10 |

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

| AKSA | | | | | |
|-------------------------------|---------|---------------------|--|--|--|
| Model | A4CRX18 | | | | |
| Engine Power Output (Net) | kWm | 17 | | | |
| at rated rpm | HP | 22.8 | | | |
| Aspiration and Cooling | | Natural | | | |
| Total Displacement | Litre | 1.808 | | | |
| No. of Cylinders and Build | | 4 - Inline | | | |
| Engine Speed | rpm | 1500 | | | |
| Bore and Stroke | mmxmm | 80x90 | | | |
| Compression Ratio | | 18:1 | | | |
| Governor | | Mechanical | | | |
| Fuel Consumption at full load | L/hr | 4.6 | | | |
| Fuel Tank Capacity | Litre | Open: 32/Canopy: 32 | | | |
| Oil Capacity | Litre | 6.5 | | | |
| Coolant Capacity | Litre | 18.5 | | | |
| Radiator Cooling Air | m³/min | 210 | | | |
| Air Intake – Engine | m³/min | 1.26 | | | |
| Exhaust Gas Flow | m³/min | 5.8 | | | |

✓ Heavy duty Aksa 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

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 | 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:

Generator kVA

Generator kW

Generator Cos (σ)

1. Auto Mains Failure Control Panel

- Panel equipments:
- ✓ Control with AMF module
- ✓ Static battery charger
- ✓ Emergency stop push button

a) Generating set control module DSE6120 features:

- \checkmark The module is used to monitor main supply and starts and stops of a standby generating set
- ✓ Micro-processor based design
- 1 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
- ✓ 4 configurable analogue/digital inputs, 8 configurable digital inputs
- ✓ 6 configurable DC outputs
- ✓ Easy push button control
- STOP/RESET MANUAL AUTO TEST START

b) Metering via LCD display:

- Generator Volts (L-L / L-N)
- √ Engine oil pressure (PSI-Bar)
- ✓ Generator Ampere (L1,L2,L3) Engine temperature (° C&° F)
- 1
- Generator Frequency (Hz) 1
- Plant battery volts Engine hours run
- Mains Volts (Ph-Ph/Ph-N) ~



DSE 6120

c) Alarms:

- Over and Under Speed
- 1 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
- 1 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

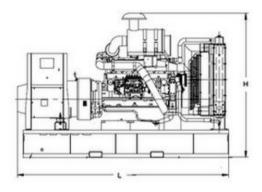
Panel

- ✓ Charge ammeter
- ✓ Transfer Switch 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

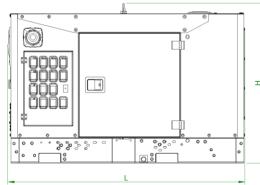


- $\checkmark\,$ The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- $\checkmark\,$ Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- ✓ Base frame design incorporates an integral fuel tank (Up to 750 kVA)
- ✓ The generating set 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 | 1400x760x927 | | | | | |
| DRY WEIGHT | kg | 390 | | | | | |
| SOUND ATTENUATED TYPE | | | | | | | |
| SOUN | D ATTENU | ATED TYPE | | | | | |
| SOUN DIMENSIONS (LxWxH) | D ATTENU | ATED TYPE 1672x823x1127 | | | | | |

CANOPY



- ✓ All canopy parts are designed with modular principles
- ✓ Without welding assembly
- ✓ Doors on each side
- $\checkmark\,$ 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

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