

# APD45A-6



**POWER  
YOUR  
FUTURE**

**45 kVA / 36 kW  
POWERED by AKSA**

## DIESEL GENERATING SET 480/277 V,380/220V,220/127V- 60 Hz

| MODEL            |         |     | APD45A-6 |
|------------------|---------|-----|----------|
| Power<br>Pf. 0.8 | Standby | kVA | 45       |
|                  |         | kW  | 36       |
|                  | Prime   | kVA | 41       |
|                  |         | kW  | 32.8     |

**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.

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<https://www.generadoresytransformadores.com/producto/planta-electrica-45-kva-36-kw-apd45a-6/>

## ENGINE

| AKSA                                |                     |              |
|-------------------------------------|---------------------|--------------|
| Model                               |                     | A3CRX32T     |
| Engine Power Output<br>at rated rpm | kWm                 | 43           |
|                                     | HP                  | 57.663       |
| Aspiration and Cooling              |                     | Turbocharged |
| Total Displacement                  | Litre               | 3.12         |
| No. of Cylinders and Build          |                     | 3- Inline    |
| Engine Speed                        | rpm                 | 1800         |
| Bore and Stroke                     | mmxmm               | 105x120      |
| Compression Ratio                   |                     | 17:1         |
| Governor                            |                     | Mechanical   |
| Fuel Consumption at full load       | L/hr                | 10.3         |
| Fuel Tank Capacity                  | Litre               | 76           |
| Oil Capacity                        | Litre               | 14           |
| Coolant Capacity                    | Litre               | 18.1         |
| Radiator Cooling Air                | m <sup>3</sup> /min | 120          |
| Air Intake – Engine                 | m <sup>3</sup> /min | 4.302        |
| Exhaust Gas Flow                    | m <sup>3</sup> /min | 11.02        |

- ✓ Heavy duty Aksa diesel engine
- ✓ Four stroke, water cooled
- ✓ 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                        | 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 IP21 (\*IP22/IP23 is available.)
- ✓ Self-exciting and self-regulating

- ✓ Impregnation with tropicalized epoxy varnish
- ✓ Solid state Automatic Voltage Regulator
- ✓ Stator winding with 2/3 pitch for improved harmonics

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## 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 equipment's:

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

### a) Generating set control module DSE6120 features:

- ✓ The module is used to monitor main 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
- ✓ 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)    | Generator kVA     |
| ✓ Engine oil pressure (PSI-Bar)  | Generator kW      |
| ✓ Generator Ampere (L1,L2,L3)    | Generator Cos (σ) |
| ✓ Engine temperature (° C & ° F) |                   |
| ✓ Generator Frequency (Hz)       |                   |
| ✓ Plant battery volts            |                   |
| ✓ Engine hours' run              |                   |
| ✓ Mains Volts (Ph-Ph/Ph-N)       |                   |



DSE 6120

### 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

### d) LED indications

- ✓ Mains available
- ✓ Generator available
- ✓ 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

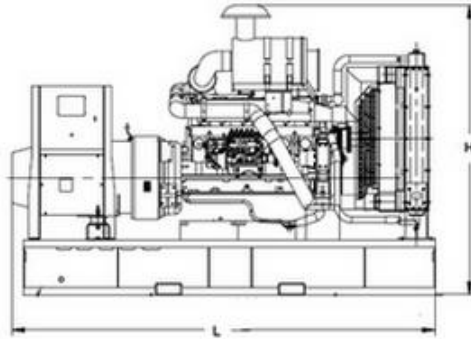
### Panel

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

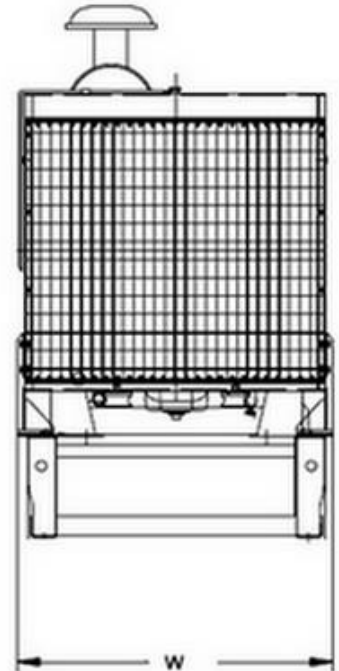
### Accessories

- ✓ 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 1000 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

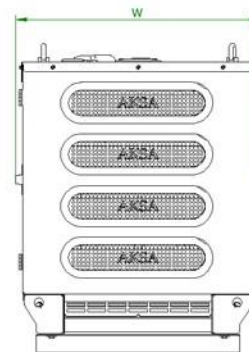
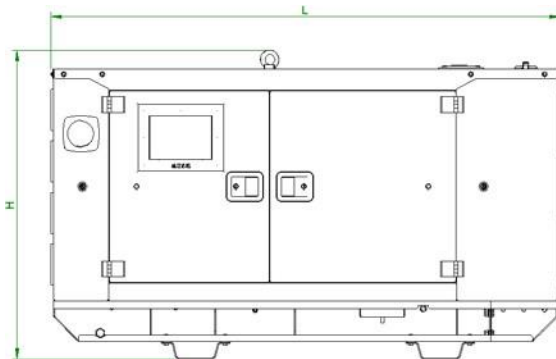
### OPEN TYPE

|                    |    |               |
|--------------------|----|---------------|
| DIMENSIONS (LxWxH) | mm | 1840x892x1171 |
| DRY WEIGHT         | kg | 780           |

### SOUND ATTENUATED TYPE

|                    |    |               |
|--------------------|----|---------------|
| DIMENSIONS (LxWxH) | mm | 2094x950x1359 |
| DRY WEIGHT         | kg | 940           |

## 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