# APD28MA-6



POWER
YOUR
FUTURE

**23.1 kVA / 23.1 kW
POWERED by AKSA**

## DIESEL GENERATING SET  220/110V- 60 Hz

| MODEL | | | APD28MA-6 |
|---|---|---|---|
| Power Pf. 1.0 | Standby | kVA | 23.1 |
| | | kW | 23.1 |
| | Prime | kVA | 21 |
| | | kW | 21 |

**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



ISO 9001  ISO 14001  ISO 45001  CE

# ENGINE

| AKSA | | |
|---|---|---|
| Model | | A4CRX25 |
| Engine Power Output at rated rpm | kWm | 28.6 |
| | HP | 38 |
| Aspiration and Cooling | | Natural |
| Total Displacement | Litre | 2.543 |
| No. of Cylinders and Build | | 4 - Inline |
| Engine Speed | rpm | 1800 |
| Bore and Stroke | mmxmm | 90x100 |
| Compression Ratio | | 18:1 |
| Governor | | Mechanical |
| Fuel Consumption at full load | L/hr | 6.5 |
| Fuel Tank Capacity | Litre | 60 |
| Oil Capacity | Litre | 8.5 |
| Coolant Capacity | Litre | 20 |
| Radiator Cooling Air | m³/min | 180 |
| Air Intake – Engine | m³/min | 2.268 |
| Exhaust Gas Flow | m³/min | 5.88 |

✓ 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 | 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:

### 1. Auto Mains Failure Control Panel

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

DSE 6120

### 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)

### 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
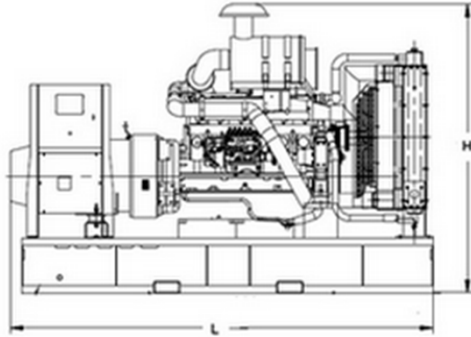- ✓ Anti-condensation Heater

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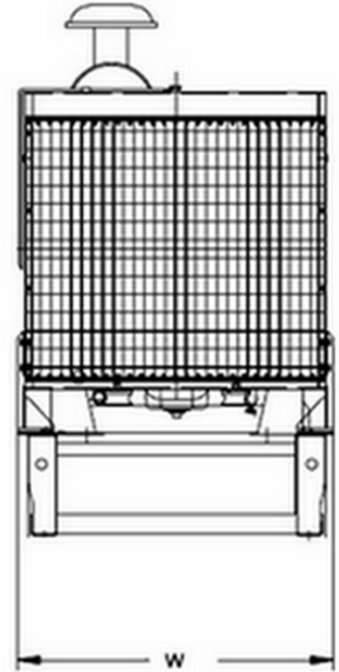- ✓ Earth Fault ,single set

### 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 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
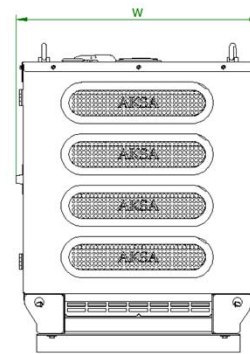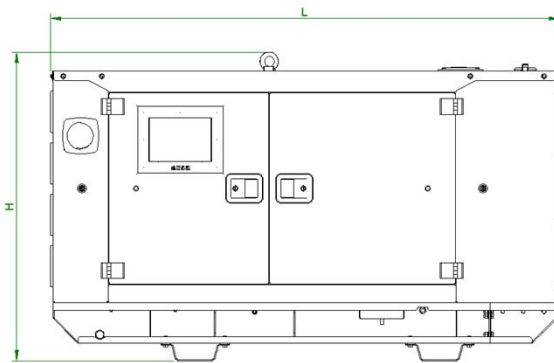- Forklift pockets within base frame (up to 500kVA)

# DIMENSIONS

| OPEN TYPE | | |
|---|---|---|
| DIMENSIONS (LxWxH) | mm | 1696x892x1003 |
| DRY WEIGHT | kg | 580 |
| SOUND ATTENUATED TYPE | | |
| DIMENSIONS (LxWxH) | mm | 1980x950x1200 |
| DRY WEIGHT | kg | 810 |

# 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

**Aksa Power Generation**
Ruzgarlibahce Mahallesi - Özalp Cikmazi No:10 34805 Kavacik Beykoz - Istanbul / Turkey
Tel:+90 212 444 46 30      E-mail: aksa@aksapowergen.com
**www.aksapowergen.com**
Aksa Power Generation is a member of KAZANCI HOLDING www.aksa.com.tr