# APD1250BD



1250 kVA / 1000 kW POWERED by BAUDOUIN

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

| MODEL            |         |     | APD1250BD |
|------------------|---------|-----|-----------|
| Power<br>Pf. 0.8 | Standby | kVA | 1250      |
|                  |         | kW  | 1000      |
|                  | Prime   | kVA | 1125      |
|                  |         | kW  | 900       |

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 hours period. In accordance with ISO 8528, ISO 3046.

- $\checkmark$  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 off-road trailer











# **ENGINE**

| BAUDOUIN                      |        |                              |  |  |  |  |
|-------------------------------|--------|------------------------------|--|--|--|--|
| Model                         |        | 12M33G1250/5                 |  |  |  |  |
| Engine Power Output           | kWm    | 1108                         |  |  |  |  |
| at rated rpm                  | HP     | 1486                         |  |  |  |  |
| Aspiration and Cooling        |        | Turbocharged and Aftercooled |  |  |  |  |
| Total Displacement            | Litre  | 39.2                         |  |  |  |  |
| No. of Cylinders and Build    |        | 12 - Vee                     |  |  |  |  |
| Engine Speed                  | rpm    | 1500                         |  |  |  |  |
| Bore and Stroke               | mm×mm  | 150 × 185                    |  |  |  |  |
| Compression Ratio             |        | 15:1                         |  |  |  |  |
| Governor                      |        | Electronic                   |  |  |  |  |
| Fuel Consumption at full load | L/hr   | 236.2                        |  |  |  |  |
| Fuel Tank Capacity            | Litre  | -                            |  |  |  |  |
| Oil Capacity                  | Litre  | 160                          |  |  |  |  |
| Coolant Capacity              | Litre  | 272                          |  |  |  |  |
| Radiator Cooling Air          | m³/min | 2280                         |  |  |  |  |
| Air Intake – Engine           | m³/min | 74.1                         |  |  |  |  |
| Exhaust Gas Flow              | m³/min | 225.1                        |  |  |  |  |

- √ Heavy duty diesel engine
- √ Four stroke, water cooled
- ✓ Direct injection fuel system
- ✓ Electronic Governor system
- √ 24Vdc 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 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

## **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 7320

#### a) Generating set control module DSE 7320 features:

- √The module is used to monitor a mains supply and starts and stops a standby generating set
- √ Micro-processor based design
- ✓ Automatic control of mains and generator contactors
- √ Monitors engine performance and AC power output
- ✓ LED alarm indication
- ✓ Front panel configuration of timers and alarm trip points
- ✓Easy push button control STOP/RESET MANUAL -TEST- AUTO MUTE ALARM START

#### b) Metering via LED display:

- ✓ Generator Volts (L-L / L-N)
- ✓ Engine oil pressure (PSI-Bar)
- ✓ Generator Ampere (L1,L2,L3)
- ✓ Engine temperature (° C&° F)
- ✓ Generator Frequency (Hz)
- ✓ Plant battery volts
- ✓ Engine hours run
- ✓ Mains Volts (Ph-Ph/Ph-N)
- ✓ Generator kVA, kWh
- ✓ Generator kW as % of rated kW setting
- ✓ Generator Cos (σ)

#### 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
- √ kW overload
- ✓ Unbalanced load
- ✓ Independent earth fault trip

#### d) LED indications

Four configurable LED's like:

- ✓ Mains available
- √ Generator available
- ✓ Mains on load
- √ Generator on load

### 2. Power Outlet Terminal Board Mounted on the Genset 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 (L×W×H)    | mm | 4772x1970x2552 |  |  |  |  |  |
| DRY WEIGHT            | kg | 8300           |  |  |  |  |  |
| SOUND ATTENUATED TYPE |    |                |  |  |  |  |  |
| DIMENSIONS (L×W×H)    | mm | 7528x2302x3420 |  |  |  |  |  |
| DRY WEIGHT            | kg | 11600          |  |  |  |  |  |

# **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