# **Technicial Specification**



Diesel Generator Set KD 225 B&M

**Baudouin** 



### **Description**

This Katana® Power Generation commercial generator set is a fully integrated power generation system, providing optimum performance, reliability, and versatility for stationary standby, prime power and continuous duty applications.

#### **Features**

**Katana® heavy-duty engine -** Rugged 4-cycle industrial diesel delivers reliable power, low emissions and fast response to load changes.

**Alternator** - Low reactance 2/3 pitch windings; low waveform distortion with non- linear loads, fault clearing short-circuits capability, and class H insulation.

**Cooling system -** The standart integrated kit model radiator system designed and tested for nominal ambient temparatures, simplifres facility design requirements for heat rejected.

**Control system** – Datakom electronic control is standard equipment and provides total genset system integration, including auto remote start/stop, alarm and status message display.

**Canopy Types** - Optionally it is possible to make it protective and soundproof against adverse climatic conditions

**Warranty and service** - Backed by a comprehensive warranty and worldwide aftersales support, 10 years of spare parts supplying.

**Stand by Rating (ESP):** It is the way that generators operate under variable load at certaintime intervals. It can work as a backup power. It is not suitable to work under extreme load.

Prime Rating (PRP): Applicable for supplying power to varying electrical load for unlimited hours. PRP is in accordance with ISO 8528. 10 % overload capability is available for a period of 1 hour within 12-hour perod of operation, in accordance with ISO 3046.

Genset Model	Engine Model	Prime rating	Stand by rating
KD 225 B&M	6M16G220/5	205 kVA	225 kVA

# **Generator Set Specifications**

Governor regulation class	ISO 8528 G3		
Voltage regulation, no load to full load	± 1%		
Random voltage variation	± 1%		
Frequency regulation	Isochronous		
Random frequency variation	± 0.25%		
EMS compatibility	In compliance with BS 800 and VDE levels G and N		

# **Engine Specifications**

Engine brand	Baudouin Engine		
Aspiration Type	Turbocharged		
Engine Rated Speed	1500 rpm		
Bore	126 mm		
Stroke	130 mm		
Displacement	9.726 L		
Cylinder block	6 cylinder		
Oil Capacity low / High	19 / 22 L		
Coolant capacity for engine / Radiator and pipes	22 / 20 L		
Starting voltage	24 V		
Fuel system	Direct injection		
Fuel filter	Strata pore fuel filter		
Air cleaner type	Heavy duty air cleaner		
Compression ratio	17:1		
Cycle	4 stroke		
Cooling system	Liquid (water + 50% antifreeze)		
Governor Type	Electronic		
Fuel Consumption at 25% of generator set prime output Fuel Consumption at 50% of generator set prime output Fuel Consumption at 75% of generator set prime output	12.6 L/hr 22.4 L/hr 32.4 L/hr		
Fuel Consumption at 10% of generator set prime output Fuel Consumption at 100% of generator set stand by output	43.1 L/hr 46.9 L/hr		

# **Alternator Specifications**

Alternator brand	Megatron		
Туре	Brushless, revolving field		
Frequency	50 Hz		
Winding pitch	2/3 pitch		
Number of bearing	Single bearing		
Protection	IP23		
Insulation system	Class H		
Standard temperature rise	Standart 125°C ,Stand by 163°C		
Exciter type	Self - excitation or other excitation by PMG		
Phase rotation	A (U), B (V), C (W)		
Alternator cooling	Direct drive centrifugal blower fan		
AC waveform total harmonic distortion (THDV)	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%		

## **Generator Set Options**

Engine
□ Water jacket heater

Cooling

☐ Antifreeze -25°

Alternator

☐ H class insulation
☐ Exciter voltage regulator

Control panel

□ Datakom

□3 pole main circuit

breaker

☐ Motorised 4 pole circuit breaker

**Canopy Types** 

☐ Optional super silent

Warranty

☐ Global warranty

#### CONTROL SYSTEM

The D-500LITE MK2 is a cost effective modular genset controller ready for internet monitoring through plug-in modules.

### **FEATURES**

- · Diesel and gas genset support
- 400Hz operation support
- 400 event logs, full snapshot
- · All parameters front panel editable
- · 3 level configuration password
- · 128x64 graphical LCD display
- Downloadable languages
- Waveform display of V & I
- Harmonic analysis of V & I
- 16Amp MCB & GCB outputs
- 8 configurable digital inputs
- 6 configurable digital outputs
- 3 configurable analog inputs
- Both CANBUS-J1939 & MPU
- 3 configurable service alarms
- Multiple automatic exerciser · Weekly operation schedule
- · Dual mutual standby with equal aging of gensets
- · Manual "speed fine adjust" on selected ECUs
- · Automatic fuel pump control
- Disable protections feature
- Excess power protection
- Reverse power protection
- Overload IDMT protection
- · Load shedding, dummy load
- Multiple load management
- · Current unbalance protection
- · Voltage unbalance protection
- · Fuel filling & fuel theft alarms
- · Battery back-up real time clock
- Idle speed control
- · Battery charge run enabled
- Combat mode support
- · Multiple nominal conditions
- · Contactor & MCB drive
- 4 quadrant genset power counters
- · Mains power counters
- · Fuel filling counter
- Fuel consumption counter
- · Modem diagnostics display
- · Configurable through USB, RS-232 and GPRS
- · Free configuration program
- · Allows SMS controls
- · Ready for central monitoring
- Mobile genset support• Automatic GSM geo-location
- GPS connectivity (RS232)
- · Easy USB firmware upgrade
- · IP65 rating with optional gasket

### **FUNCTIONALITIES**

- AMF unit
- ATS unit
- · Remote Start Controller
- · Manual Start Controller
- Engine Controller

#### **TOPOLOGIES**

- •3 ph 4 w. star & delta
- •3 ph 3 w, 2 CTs
- •2 ph 3 w
- •1 phase 2 wires

### COMMUNICATION

- USB Device
- J1939-CANBUS
- · Geo-locating through GSM
- · Internet Central Monitoring
- SMS Message Sending
- E-mail Sending
- Free Pc Software: RainbowPlus
- Modbus RTU (2400-57600baud)
- Modbus TCP/IP

## **REMOTE MONITORING (OPTIONAL)**

- Single server supports up to 60'000 devices
- · Provides data security, data is sent to only server
- Uses internet-based interactive World map
- Real time display of status of devices are shown on the map, and on side panel
- · Hierarchical configuration and clustering
- · Remote control of devices
- · Supports all Datakom products, which are integrated with DKG 210 gateway
- Supports all devices, which supports Modbus protocol, by integrating DKG 210 gateway
- · Data recording, analysis and reporting
- · Tablet and smartphone interfaces

## PLUG-IN MODULES (OPTIONAL)

- GSM Modem (2G-3G-4G)
- Ethernet 100Mbps
- Wi-Fi (802.11 b/g/n)
- RS-485 (2400-57600baud)
- RS-232 (2400-57600baud)

### **MEASUREMENTS**

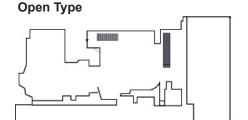
- · Mains & genset PN/PP voltages
- · Mains & genset frequency
- · Mains & genset phase currents
- · Mains & genset neutral currents
- · Mains & genset, phase & total, kW, kVA, kVAr, pf
- · Engine speed
- · Battery voltage

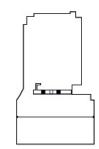


D-500LITE MK2 control operator / display panel

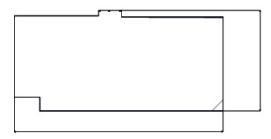
## **Canopy Standart Specifications**

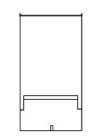
- Compact design connection with non-welded nuts and bolts.
- Integrated canopy,generator set,exhaust system fuel tank
- Body made from steel components treated with polyester powder coating
- · Easy access to all service points
- · Exhaust system inside canopy
- · Large doors on each side
- · Control panel viewing window in a lockable access door
- · Emergency stop push button mounted on cabin exterior
- Fuel fill and battery can only be reached via lockable access doors.
- Customer options available to meet your applications needs
- Katana makes its generating sets noise level tests in accordance with directive 2000/14/EC validation of the noise level test has been aproved by the notified body Szutest (CE conformity assessment body).





#### **Enclosure**





	Dry Weight (kg)	Lenght (mm)	Width (mm)	Height (mm)	Tank Capacity (L)
Open type	2170	3000	1200	1800	385
Canopy	2500	3500	1200	2500	385

#### **Certificates**



Katana Generator has Quality Management Systems certificate. ISO 9001:2015



Katana Generator has Occupational Health and Safety Management Systems certificate.

ISO 45001: 2018



Katana Generator has Environmental Management System certification. ISO 14001:2015



This generator set is available with CE certification.

Katana Power Products CO., Ltd.

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