Technicial Specification



Diesel Generator Set KD 2500 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 2500 B&M | 20M33G2500/5 | 2273 kVA | 2500 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 | 150 mm | | |
| Stroke | 185 mm | | |
| Displacement | 65.4 L | | |
| Cylinder block | 20 cylinder,vertical | | |
| Oil Capacity low / High | 210 / 240 L | | |
| Coolant capacity for engine / Radiator and pipes | 140 / 270 L | | |
| Starting voltage | 24 V | | |
| Fuel system | Direct injection | | |
| Fuel filter | Strata pore fuel filter | | |
| Air cleaner type | Heavy duty air cleaner | | |
| Compression ratio | 15:1 | | |
| 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 Fuel Consumption at 100% of generator set prime output Fuel Consumption at 100% of generator set stand by output | 131 L/hr 240,5 L/hr 360.7 L/hr 466.4/hr 538,5 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

 $\square\,3$ 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

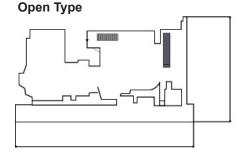
- · Mains & genset PN/PP voltages
- · Mains & genset frequency
- · Mains & genset phase currents
- · Mains & genset neutral currents
- · Mains & genset, phase & total, kW, kVA, kVAr, pf
- · Engine speed
- · Battery voltage

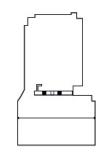


D-500LITE MK2 control operator / display panel

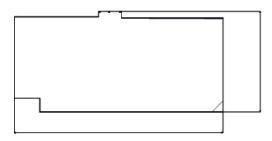
Canopy Standart Specifications

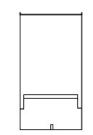
- Compact design connection with non-welded nuts and bolts.
- Integrated canopy,generator set,exhaust system fuel tank.
- Body made from steel components treated with polyester powder coating
- · Easy access to all service points
- Exhaust system inside canopy
- · Large doors on each side
- · Control 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 | 16500 | 8500 | 3000 | 3800 | 1100 |
| Canopy | 19000 | 8500 | 3000 | 3800 | 1100 |

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 Katana Güç Ürünleri San. Tic. Ltd. Şti.

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