Technicial Specification

Diesel Generator Set KD 44 B&M



# 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 ıntervals. 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 44 D&M | 4M06G44/5 | 46 kVA | 50 kVA |

[www.katana.com.tr](http://www.katana.com.tr/)

Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice.

# 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 | 89 Mm |
| Stroke | 92 Mm |
| Displacement | 2,3 L |
| Cylinder block | 4 cylinder,vertical |
| Oil Capacity | 7.1 L |
| Coolant Capacity for Engine | 5 L |
| Starting voltage | 12 V |
| Fuel system | Direct injection |
| Fuel filter | Strata pore fuel filter |
| Air cleaner type | Heavy duty air cleaner |
| Compression ratio | 17.5 : 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 | 2.8 L/H4.7 L/H 7,0 L/H9.5 L/H |

**Alternator Specifications**

|  |  |
| --- | --- |
| Alternator brand | Megatron |
| Type | 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 125ºC ,Stand by 163ºC |
| 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**

**Alternator Base frame**

**Canopy Types**

Water jacket heater

H class insulation Exciter voltage regulator

Double wall fuel tank

Optional super silent

**Cooling Control panel**

Antifreeze -25° Datakom

3 pole main circuit breaker

Motorised 4 pole circuit breaker

**Warranty**

Global warranty

# Control system

The new D300 MK2 genset controller is a cost effective modular genset controller ready for internet monitoring through plug-in modules.

Its main advantages are multifunctionality, support for multiple topologies, harmonic analysis and detailed power measurements.

# Description

Software features are complete with easy firmware upgra- de through USB port.

The Windows based PC software allows monitoring and programming through USB, RS-485, RS-232, Ethernet and GPRS.

The Rainbow Scada web service allows monitoring and control of an unlimited number of gensets from a single central location

# Major 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

**Functions**

* + AMF unit
	+ ATS unit
	+ Remote Start Controller
	+ Manual Start Controller
	+ Engine Controller
	+ Remote Display Panel

# Communications

* + 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
	+ HTML
	+ UDP

# Remote monitoring

* + 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

**D-300 MK2 control operator / display panel**

[www.katana.com.tr](http://www.katana.com.tr/)

**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 conformıty assessment body).

**Open**



**Enclosed**



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Dry Weight (Kg) | Lenght (Mm) | Width (Mm) | Height (Mm) | Tank Capacity (L) |
| **Open type** | 850 | 2000 | 900 | 1700 | 126,4 |
| **Canopy** | 950 | 2300 | 900 | 1800 | 126,4 |

**Certificates**

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

Katana Generator has Environmental Management System certification.

ISO 14001:2015

**Katana Power Products**

**Katana Güç Ürünleri San. Tic. Ltd. Şti.**

Katana Generator has Occupational Health and Safety Management Systems certificate.

ISO 18001: 2007

This generator set is available with CE certification.

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