# **Technicial Specification**



Diesel Generator Set KD 225 O&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 shortcircuits 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	Max. kVA rating
KD 225 O&M	OPE 7.5 TWE-1	170 kVA	196 kVA	225 kVA

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# **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	Optimus Engine		
Aspiration Type	Turbocharged		
Engine Rated Speed	1500 rpm		
Bore	113 mm		
Stroke	125 mm		
Displacement	7,52 L		
Cylinder block	6 cylinder,vertical		
Oil capacity	16 L		
Cooling water	30 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	Water cooled		
Governor Type	Mechanical		
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 110% of generator set prime output			

## **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

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

### **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

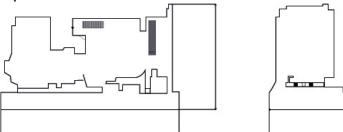
# **Canopy Standart Specifications**

• Compact design connection with non-welded nuts and bolts.

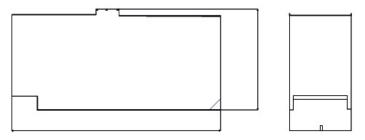
• Integrated canopy,generator set,exhaust system fuel tank.

- 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).

#### Open



Enclosed



	Dry Weight (kg)	Lenght (mm)	Width (mm)	Height (mm)	Tank Capacity (L)
Open type	1630	2750	1050	1900	198
Canopy	1880	3100	1050	2100	198

#### Certificates



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

ISO 14001

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



Katana Generator has Occupational Health and Safety Management Systems certificate. ISO 45001: 2018

This generator set is available with CE certification.

Katana Power Products Katana Güç Ürünleri San. Tic. Ltd. Şti.

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