Diesel
Generator Set
KD 35 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 35 O\&M | OPE 3.6 WE | $26,4 \mathrm{kVA}$ | $30,4 \mathrm{kVA}$ | 35 kVA |

Generator Set Specifications

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

## Engine Specifications

| Engine brand | Optimus Engine |
| :--- | :--- |
| Aspiration Type | Natural |
| Engine Rated Speed | 1500 rpm |
| Bore | 100 mm |
| Stroke | 115 mm |
| Displacement | $3,61 \mathrm{~L}$ |
| Cylinder block | 4 cylinder, vertical |
| Oil capacity | 13 L |
| Cooling water | 17 L |
| Starting voltage | 12 V |
| Fuel system | Direct injection |
| Fuel filter | Strata pore fuel filter |
| Air cleaner type | Heavy duty air cleaner |
| Compression ratio | $17: 1$ |
| Cycle | 4 stroke |
| Cooling system | Water cooled |
| Governor Type | Mechanical |
| Fuel Consumption at $25 \%$ of generator set prime output | $4,28 \mathrm{~L} / \mathrm{hr}$ |
| Fuel Consumption at $50 \%$ of generator set prime output | $6,42 \mathrm{~L} / \mathrm{hr}$ |
| Fuel Consumption at $75 \%$ of generator set prime output | $8,56 \mathrm{~L} / \mathrm{hr}$ |
| Fuel Consumption at $100 \%$ of generator set prime output | $9,50 \mathrm{~L} / \mathrm{hr}$ |

## 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 $125^{\circ} \mathrm{C}$, Stand by $163^{\circ} \mathrm{C}$ |
| 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

$\square$ Water jacket
heater
Cooling
$\square$ Antifreeze - $25^{\circ}$

## Alternator

$\square$ H class insulation
$\square$ Exciter voltage regulator

## Control panel

-Datakom
$\square 3$ pole main circuit
breaker
$\square$ Motorised 4 pole circuit breaker

Canopy Types
$\square$ Optional super silent
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 upgrade 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
- 400 Hz 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

## 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 | 750 | 1800 | 900 | 1250 | 112 |
| Canopy | 860 | 2005 | 900 | 1550 | 112 |

## Certificates

|  | Katana Generator has Quality Management Systems certificate. ISO 9001:2015 |  |
| :---: | :---: | :---: |
|  | Katana Generator has Environmental Management System certification. ISO 14001:2015 |  |

Katana Generator has Occupational Health and Safety Management Systems certificate.
ISO 18001: 2007

This generator set is available with CE certification.

Katana Power Products
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