# **Technicial Specification**



Diesel Generator Set KD 575 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 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	Stand by	Overload
KD 575 O&M	WY460TLD	477 kVA	525 kVA	577 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	Optimus Engine		
Aspiration Type	Turbocharged		
Engine Rated Speed	1500 rpm		
Bore	138 mm		
Stroke	170 mm		
Displacement	15,2 L		
Cylinder block	6 cylinder		
Oil capacity	33-41 L		
Cooling water	26 L		
Starting voltage	24 V		
Fuel system	Direct injection		
Fuel filter	Strata pore fuel filter		
Air cleaner type	Heavy duty air cleaner		
Firing Order (From Free End)	1-5-3-6-2-4		
Cycle	4 stroke		
Cooling system	Water cooled		
Governor Type	Electronic		
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(g/kw.h)	55,66 L/hr 83,50 L/hr 111,33 L/hr ≤220		

# **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**

☐ Antifreeze -25°

□ Datakom □ 3 pole main circuit

breaker

Motorised 4 pole circuit breaker

Canopy Types

□ Optional super silent

Warranty

□ 3000 working hours or 3 years warranty

### Control system

The new D500 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

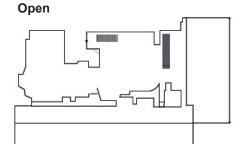
- Single server supports up to 60'000 devices
- · Provides data security, data is sent to only server
- Uses internet-based interactive World map
- Real time display of status of devices are shown on the map, and on side panel
- Hierarchical configuration and clustering
- · Remote control of devices
- · 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

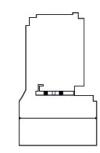


D-500 MK2 control operator / display panel

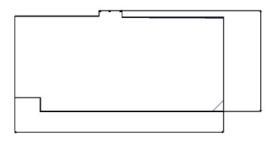
### **Canopy Standart Specifications**

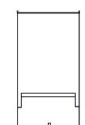
- Compact design connection with non-welded nuts and bolts.
- Integrated canopy,generator set,exhaust system fuel tank.
- Body made from steel components treated with polyester powder coating
- · Easy access to all service points
- Exhaust system inside canopy
- · Large doors on each side
- Control panel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





#### **Enclosed**





	Dry Weight (kg)	Lenght (mm)	Width (mm)	Height (mm)	Tank Capacity (L)
Open type	9200	6000	1500	3000	925
Canopy	10800	6000	1500	3500	925

#### **Certificates**



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



Katana Generator has Occupational Health and Safety Management Systems certificate.



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





This generator set is available with CE certification.

ISO 45001: 2018



Turkish Standards institution certificate of conformity to Turkish standards

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