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Daker DK 1000

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1. GENERAL FEATURES

The Legrand UPS model Daker DK 1000 is an uninterruptible power source with high frequency PWM technology, Double Conversion OnLine, solid neutral, Rated Power 1,000 VA – 800 W, equipped with valve-regulated, hermetically-sealed accumulator batteries, contained in a specific compartment inside the UPS or in one or more external cabinets, sized to guarantee a minimum uptime of 8 minutes at 80% of the load.
The electronics and batteries are contained in just two rack units.

The architecture of this UPS means it can be installed in either a Tower configuration or inside Rack cabinets.
The rectifier for the UPS is comprised of a control and regulating circuit (PFC), which, in addition to normal rectifier functions also:
- automatically corrects the power factor of the load to restore it to a value of >0.99 with a load applied at the output at 20% of the rated load;
- power the inverter without requiring energy from the batteries, even when there is very low voltage from the mains;
- ensures a total harmonic distorsion of the input current THDIin < 3% without the addition of filters or supplementary parts.

The bypass circuit is designed and built in compliance with the following:
- Electromechanical switch
- Command and control logic managed by a microprocessor that:
  - automatically transfers the load directly onto the primary mains line without interrupting the power supply if any conditions of overload, over temperature, continuous voltage outside of the tolerances and inverter anomaly arise;
  - automatically re-transfers the primary mains line load to an inverter line, without interrupting the power supply, once normal conditions of the load have been restored;
  - if the primary mains line and the inverter are not synchronised, the bypass must be disabled.

A diagnostic and shutdown software (UPS Communicator), if accordingly installed in a PC connected to the UPS, allows you to access all of the DHEA's operational data, make adjustments and settings to the special functions and control Windows and Linux operating system shutdown.
An optional software (UPS management software) offers hierarchic multiserver shutdown and remote management of the UPS for any operating system in a heterogeneous network (Windows, Novell, Linux and the common Unix).

Daker DK 1000 is managed by a microprocessor and is able to display, on a control panel and LCD screen, the alarms and operating modes described below:

- normal operation
- output frequency that is not synchronised with the input
- battery-powered operation
- operation in bypass mode
- faulty power module
- overloaded
- generic anomaly
- incorrect neutral connection
- back-up time
- end of uptime

The Daker DK 1000 Static Uninterruptible Power Supply bears the CE marking, pursuant to Directives 73/23, 93/68, 89/336, 92/31, 93/68, and is designed and built in compliance with the following standards:
- EN 62040-1 “General and safety requirements for UPSs used in areas that are accessible to the operator”
- EN 62040-2 “Electromagnetic Compatibility requirements (EMC)”
- EN 62040-3 “Performance and test method requirements”.

2. TECHNICAL FEATURES

General Features	
Nominal power (VA)	1000
Active power (W)	800
Technology	On-Line Double Conversion VFI-SS-111
Waveform	Sinusoidal
UPS architecture	convertible tower and rack 19

Input	
Input voltage	230 V
Input frequency	50-60 Hz ±5% Autosensing
Input Voltage Range	160V - 288V on full load
THD Input current	< 3%
Input power factor	> 0,99
Compatibility with Power-Supply Units	Configurable to set up synchronism between the input and output frequencies, also for broader frequency ranges, ±14%

Output	
Output voltage	230V ± 1%
Output frequency (nominal)	50/60 Hz (can be set from the LCD panel) +/- 0.1%
Crest Factor	1:3
THD Output voltage	< 3%
Output Voltage Tolerance	±1%
Bypass	Automatic and maintenance bypass (OPTIONAL)

2. TECHNICAL FEATURES *(continued)*

Batteries	
Uptime Expansion	yes
Number of batteries	3
Battery series Type/Voltage	12V 7.2Ah
Uptime with 80% load (min)	8

Communication and management	
Display and Signals	Four buttons and four LEDs to monitor the status of the UPS in real time
Communication Ports	RS232 serial ports, USB
Remote Management	available
Network interface slot	SNMP

Mechanical features	
Measurements H x L x D (mm)	440x88 (2U) x412
Battery Cabinet Measurements H x L x D (mm)	440x176 (4U) x405
Net Weight (kg)	16

Environmental conditions	
Operating temperature (°C)	0 ÷ 40 °C
Degree of protection	IP21
Relative humidity (%)	20÷80 % non-condensing
Noise level at 1 m (dBA)	< 50
Heat Loss (BTU/h)	490

Certifications	
Standards	EN 62040-1, EN 62040-2, EN 62040-3