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Daker DK Plus 5000

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1. GENERAL FEATURES

The Legrand UPS model Daker DK Plus 5000 is an uninterruptible power source with high frequency PWM technology, Double Conversion On-Line, solid neutral, Rated Power 5000 VA – 5000 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 4 minutes at 80% of the load.
The electronics and batteries are contained in just four rack units.

The rectifier of 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 distortion 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 synchronized, the bypass must be disabled.

A diagnostic and shutdown software (UPS Communicator), if accordingly installed in a PC connected to the UPS, which 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 Plus 5000 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 synchronized 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 Plus 5000 Static Uninterruptible Power Supply bears the CE marking, pursuant to Directives 2014/35, 2104/30, 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)	5000
Active power (W)	5000
Technology	On-Line Double Conversion VFI-SS-111
Waveform	Sinusoidal
UPS architecture	convertible tower and rack 19
Surge Rating	1900
ECO Mode efficiency	%98

Input	
Input voltage	230 V
Input frequency	50-60 Hz ±5% Autosensing
Input Voltage Range	170V - 288V on full load
THD Input current	< 3%
Input power factor	> 0.99

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	Linear load 2% Nonlinear load 5%
Output Voltage Tolerance	±1%

2. TECHNICAL FEATURES *(continued)*

Batteries	
Uptime Expansion	No
Number of batteries	20
Battery series Type/Voltage	12V 5Ah
Uptime with 80% load (min)	4

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)	440x176 (4U) x680
Battery Cabinet Measurements H x L x D (mm)	440x132 (3U) x680
Net Weight (kg)	60

Environmental conditions	
Operating temperature (°C)	0 ÷ 40 °C
Degree of protection	IP20
Relative humidity (%)	0-95% non-condensing
Noise level at 1 m (dBA)	< 50
Heat Loss (BTU/h)	982

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