

DAKER DK PLUS 1 kVA (UL)

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1. GENERAL SPECIFICATIONS

The Legrand UPS model Daker DK Plus 1000 is an uninterruptible power source with high frequency PWM technology, Double Conversion On-Line, solid neutral, Rated Power 1000 VA – 900 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 5 minutes at 70% 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 distortion of the input current THD_{lin} < 7% 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, allows you to access all 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 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 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 1000 Static Uninterruptible Power Supply bears the UL FCC, cTUVus marking, pursuant to UL, and is designed and built in compliance with the following standards:

- Safety: UL1778 V4 (cTUVus)
- EMC: FCC Part 15 Class A

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2. TECHNICAL SPECIFICATIONS

General specifications

Nominal power (VA)	1000
Active power (W)	900
Technology	On-Line Double Conversion VFI-SS-111
Output waveform	Sinusoidal
UPS architecture	Convertible tower and rack 19

Input

Nominal Voltage	120V 1ph+N+PE
Voltage Range	90 – 150V Ph-N full load 55 – 150V Ph-N %60 load"
Frequency	44 - 66Hz
THDin	< 7% at full load
Power Factor	> 0.99

Output

Output Voltage	120V 1ph+N+PE
Output Frequency (nominal)	50/60 Hz $\pm 0.2\%$ (can be set from the LCD panel)
Crest Factor	3:1
THD Output voltage	< 3%
Output voltage Tolerance	$\pm 1\%$
Bypass	Internal automatic Bypass (included)

Batteries

Type	Lead Acid, sealed, free maintenance VRLA
Uptime Expansion	Yes
Nominal UPS Battery Voltage	± 24 Vdc
Number of batteries	2
Battery series Type/Voltage	12V 7.2Ah

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

Dimensions (H x W x D)	440 x 88 (2U) x 405
Battery Cabinet	
Measurements H x L x D (mm)	440 x 88 (2U) x 600
Net Weight (kg)	11

Environmental specs

Noise level @ 1m	< 50dBA
Operating temperature range	from 0°C to +40°C
Stock temperature range	from -10°C to +50°C
Humidity range	0-95% not condensing
Protection degree	IP20

Certifications

Safety	UL1778 V4 (cTUVus)
EMC	FCC Part 15 Class A
Markings	FCC, cTUVus