

# DIALOG DUAL

## [3, 3-4KVA single/single-phase]

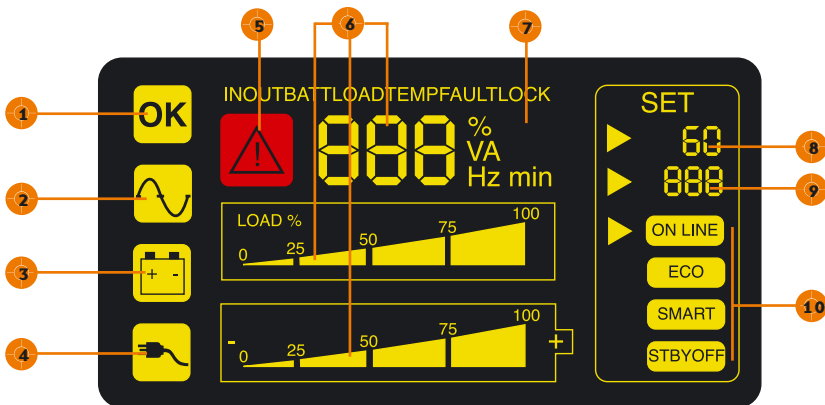


High Battery reliability with  
**LRC**D system

The **DIALOG DUAL** range is available in 3300-4000VA models, with on-line double conversion (VFI) technology. The **DIALOG DUAL** range may be mounted directly on the floor or, in the case of networking applications, in rack cabinets (compatible with the Multi Shelters cabinet range).

In terms of technology, features (Economy and Smart Active Mode available), diagnostics (digital display provided as standard, RS232 and USB interfaces with Powershield2 software included, network interface slot) **DIALOG DUAL** is easily the best solution for protecting "mission critical" users and safety devices (electro-medical), guaranteeing the highest level of reliability.

The ease and flexibility of installation and use (batteries may be replaced by the user), and the large range of communication options available, make the **DIALOG DUAL** ideally suited for a whole range of applications from IT to safety devices.



### STATUS

- 1 Normal
- 2 UPS on Mains
- 3 UPS on Battery
- 4 Load on By-pass
- 5 **ALARM**  
UPS shut-down (permanent), Stand-by (flashing)
- 6 **MEASUREMENTS**  
Input voltage and frequency  
Output voltage and frequency  
Battery voltage  
Output current  
Output load (%)  
Battery charge (%)  
Remaining back-up time  
Internal temperature

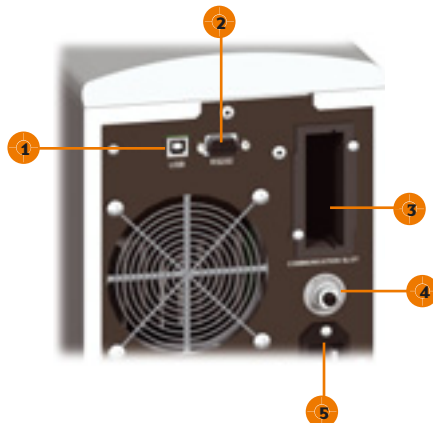
### ACOUSTIC ALARMS

Start-up/shut-down - Output synchronised with input - Switchover from inverter to by-pass and vice versa - Operating in battery mode - Overload - Problem/stopped-etc...

### CONFIGURATIONS

- 7 Timer set
- 8 Frequency selected
- 9 Voltage selected
- 10 Operating mode selected

- 1 USB port
- 2 Serial port
- 3 SNMP (for communication via network, auxiliary serial board,...)
- 4 Input thermal protection re-set
- 5 Input connector
- 6 Output connectors
- 7 Connector for battery extension



## FEATURES

### FLEXIBILITY OF INSTALLATION AND USE

- the UPS may be adapted and mounted either on the floor (tower version) or in a cabinet (rack version), simply by pulling out and rotating the mimic panel display (with the key provided)
- low noise level (<40dBA) thanks to the digitally PWM controlled ventilation system whose operation depends on the size of the load, and to the use of an inverter with a high switchover frequency (>20kHz, above the audible range), making this UPS suitable for installation in any environment.

### PERSONALISE RUNNING OF THE MACHINE

- option of selecting alternative operating modes other than the On Line mode:
  - Economy Mode: this uses Line Interactive (VI) technology, allowing you to power non-critical loads from the mains power supply under certain conditions. This function may be programmed using software, or set manually on the UPS itself.
  - Smart Active: if the mains power supply is no longer within the accepted tolerance limits, the UPS powers the load via the inverter. When the mains power supply returns within the accepted tolerance limits, the UPS first performs a diagnostic test of the mains power supply, before switching the load back to the mains.
  - Emergency: the UPS may be set to operate only when the mains power supply is absent (function suitable for emergency lighting)
- frequency converter function (50 or 60Hz)
- other possible selections:
  - auto-restart (automatic when the mains returns. This may be programmed using software or the mimic panel display on the UPS)
  - output voltage selection (220-230-240V)
  - stand by-pass: when the unit is off, the load is supplied through the by-pass
  - shut down for absence of load
  - end of discharge pre-alarm
  - delay (when the unit turns-on)

### QUALITY OF POWER SUPPLY

- filtered, stable and reliable voltage (On Line double conversion (VFI) technology in accordance with EN50091-3 standard) with filters for the suppression of atmospheric noise
- quality of the output voltage guaranteed even with distorting loads (IT loads with peak factors up to 3:1)
- low impact on mains: UPS input power factor close to 1 and sinusoidal current absorption

### 2 - YEAR WARRANTY



### APPLICATIONS:

- Local Area Networks (LAN)
- Servers
- Data centers
- Industrial PLCs
- Cash Registers
- Emergency devices (lights/alarms)
- Electro-medical devices
- Telecommunications devices

### HIGHLY RELIABLE

- completely digitally controlled
- uninterrupted automatic by-pass
- the by-pass can be activated manually
- use of IMS (Insulated Metallic Substrates) modules

### ADVANCED DIAGNOSTICS

- status, measurements, and alarms available on standard, backlit display
- UPS can be updated digitally (flash upgradeable)

### OPTIMAL BATTERY MANAGEMENT

- highly reliable batteries (automatic and manual battery tests)
- reduced ripple (which damages the batteries) thanks to the "LRCD system" (Low Ripple Current Discharge) system
- batteries may be replaced by the user, without shutting the machine down or interrupting the power to the load (Hot Swap)
- back-up time may be extended indefinitely by using the dedicated modular Battery Boxes
- the batteries do not intervene when mains failures of <40msec (elevated hold up time) and for fluctuations in the input voltage ranging from 84V to 276V

### ENHANCED ELECTRICAL PERFORMANCE

- input protected by resettable thermally activated switch
- back-feed protection standard: to prevent current back-feed
- elevated short circuit current on the by-pass
- elevated overload capacity: 150% in inverter mode (even with mains power supply absent)
- performance guaranteed in temperatures up to 40°C (the components are designed for high temperatures, with lower stress obviously when temperatures are normal)
- manual switch to by-pass

**MICROSOFT CERTIFICATION:** the UPS and communication software have been certified by Microsoft laboratories

### ADVANCED COMMUNICATION

- advanced, multiplatform communication for all operating systems and network environments: PowerShield2 supervision and shut-down software included, with SNMP agent, for Windows 95, 98, 2000, Me, NT4.0, XP, Mac OSX, 9.X, Linux, Novell operating systems. The UPS is Plug and Play
- USB port
- RS232 serial port
- slot for the installation of a NET adapter or second RS232 serial port

MODELS	DLD 330	DLD 400
<b>INPUT</b>		
Rated voltage	220-230-240 Vac single phase	
Minimum voltage	164Vac @ 100% load 84Vac @ 50% load	
Rated frequency	50 - 60 Hz $\pm$ 5 Hz	
Power factor	$>=0.98$	
Current distortion with distorting load	$\leq 7\%$	
<b>BYPASS</b>		
Voltage range	180 – 264 Vac (window selectable in Economy Mode and SMART ACTIVE MODE)	
Frequency range	Selected frequency $\pm 5\%$ (user configurable from 1 to 10%)	
<b>BATTERY</b>		
Recharge time	4-6 h	
<b>OUTPUT</b>		
Rated voltage	220 / 230 / 240 Vac selectable	
Static variation	1,5%	
Dynamic variation	$\leq 5\%$ in 20ms	
Waveform	Sinewave	
Voltage distortion with linear load	$< 3\%$	
Voltage distortion with distorting load	$< 6\%$	
Frequency	50 / 60 Hz selectable	
Crest factor	3 : 1	
Rated power in VA/W	3300VA/2300W	4000VA/2400W
<b>OVERLOAD TIMES (inverter mode)</b>		
100% < Load < 110%	1'	
110% Load < 150%	4''	
Load 150%	0.5 s	
<b>INSTALLATION INFORMATION</b>		
Efficiency	90%	
Efficiency Line-interactive/Smart Active	98%	
Operating temperature	0 – 40 °C	
Humidity	$< 90\%$ non condensing	
Protection	Low battery – overcurrent – short-circuit - overvoltage - undervoltage – temperature	
Compliance	EN 50091-1-1, Directives 73 / 23 EEC and 93/68 /EEC EN 50091-2 cl. A, Directive 89/336 EEC	
Color	Metal gray	
Noise	$< 40$ dBA	
Maximum input current	15A	16A
Differential input current*	$< 1$ mA	
Standard tools (provided with the unit): 2 cables (10A); 16A plug; software; serial cable; tools for mimic panel rotation		

\* This value must be added to the differential current of the equipment.

Description	Power VA/W	Back-up (min.)	Dimensions (HWD)mm	Weights (Kg)	
Dialog Dual DLD330 tower	3300VA/2300W	12'	455x175x520	38	DLD330
Dialog Dual DLD330 rack	3300VA/2300W	12'	175x483x520	38	DLDR330
Dialog Dual DLD400 tower	4000VA/2400W	10'	455x175x520	40	DLD400
Dialog Dual DLD400 rack	4000VA/2400W	10'	175x483x520	40	DLDR400

### Back-up extension modules

UPS MODEL	Back-up (UPS+internal battery)	Dimensions (HWD)**		Weights (Kg)		Battery Module type*
		Batt. Module	(tower /rack)	Batt. Module		
DLD 330	12'	455x175x520/4Ux483x520		30		BB108-7
	17'	455x175x520/4Ux483x520		50		BC108-14
	32'	2x(455x175x520)/2x(4Ux483x520)		80		BB108-7+BC108-14
	45'	2x(455x175x520)/2x(4Ux483x520)		100		2xBC108-14
	60'	3x(455x175x520)/3x(4Ux483x520)		130		2xBC108-14+BB108-7
	74'	3x(455x175x520)/3x(4Ux483x520)		150		3xBC108-14
DLD 400	10'	455x175x520/4Ux483x520		30		BB108-7
	15'	455x175x520/4Ux483x520		50		BC108-14
	30'	2x(455x175x520)/2x(4Ux483x520)		80		BB108-7+BC108-14
	42'	2x(455x175x520)/2x(4Ux483x520)		100		2xBC108-14
	55'	3x(455x175x520)/3x(4Ux483x520)		130		2xBC108-14+BB108-7
	70'	3x(455x175x520)/3x(4Ux483x520)		150		3xBC108-14

\* The BC version includes a battery charger

\*\* The battery box are also available for rack mounting (same dimensions as the rackable UPS)

### Options

Description	
SNMP network slot-in adapter	
Communications software	See software section (PowerShield <sup>2</sup> standard version included)
Auxiliary RS232 communication interface	
Multi serial port	
Handles for rack version	