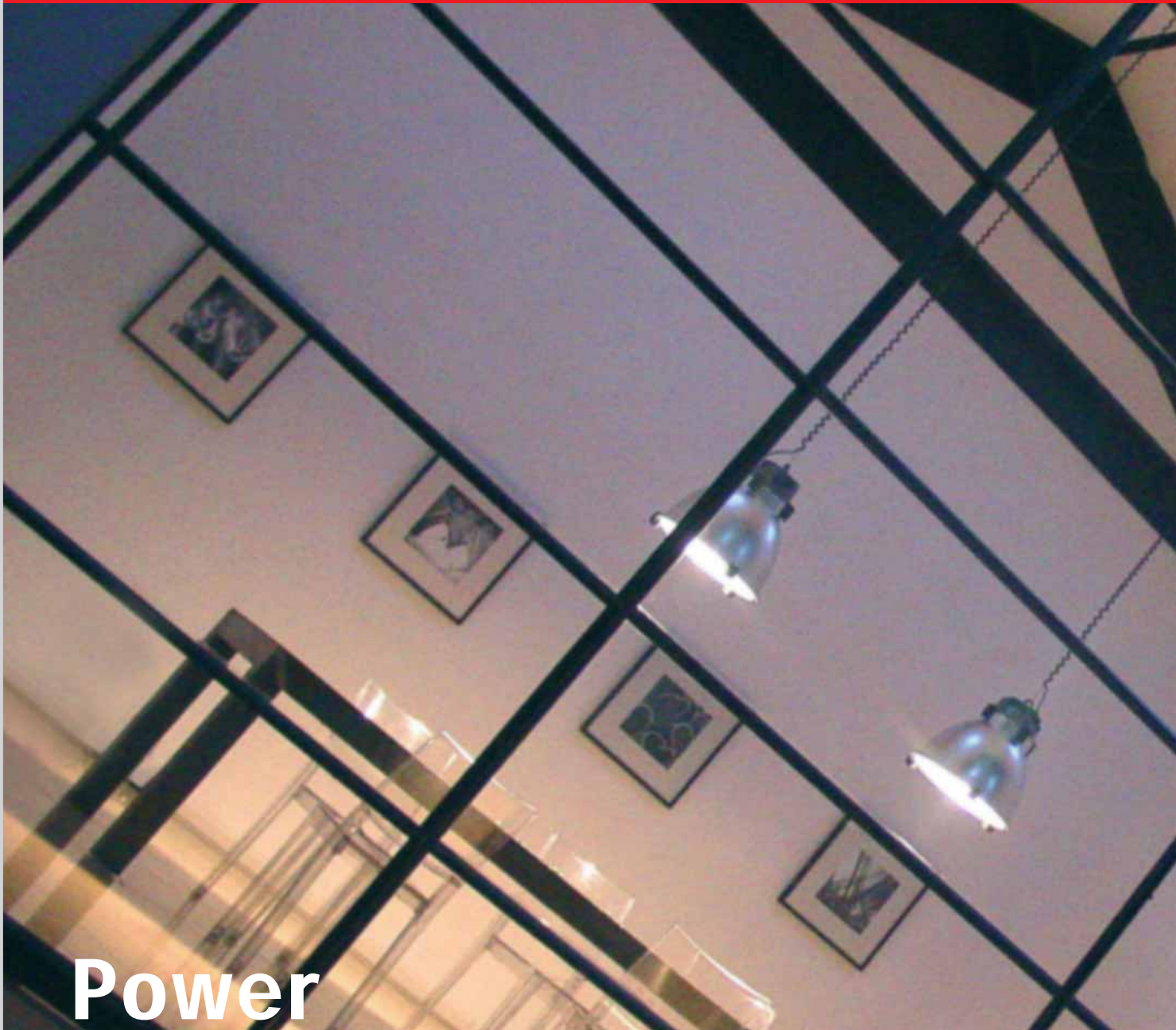


THE POWER STATION



Power and Security

There really are a whole host of possible applications for the DHEA.

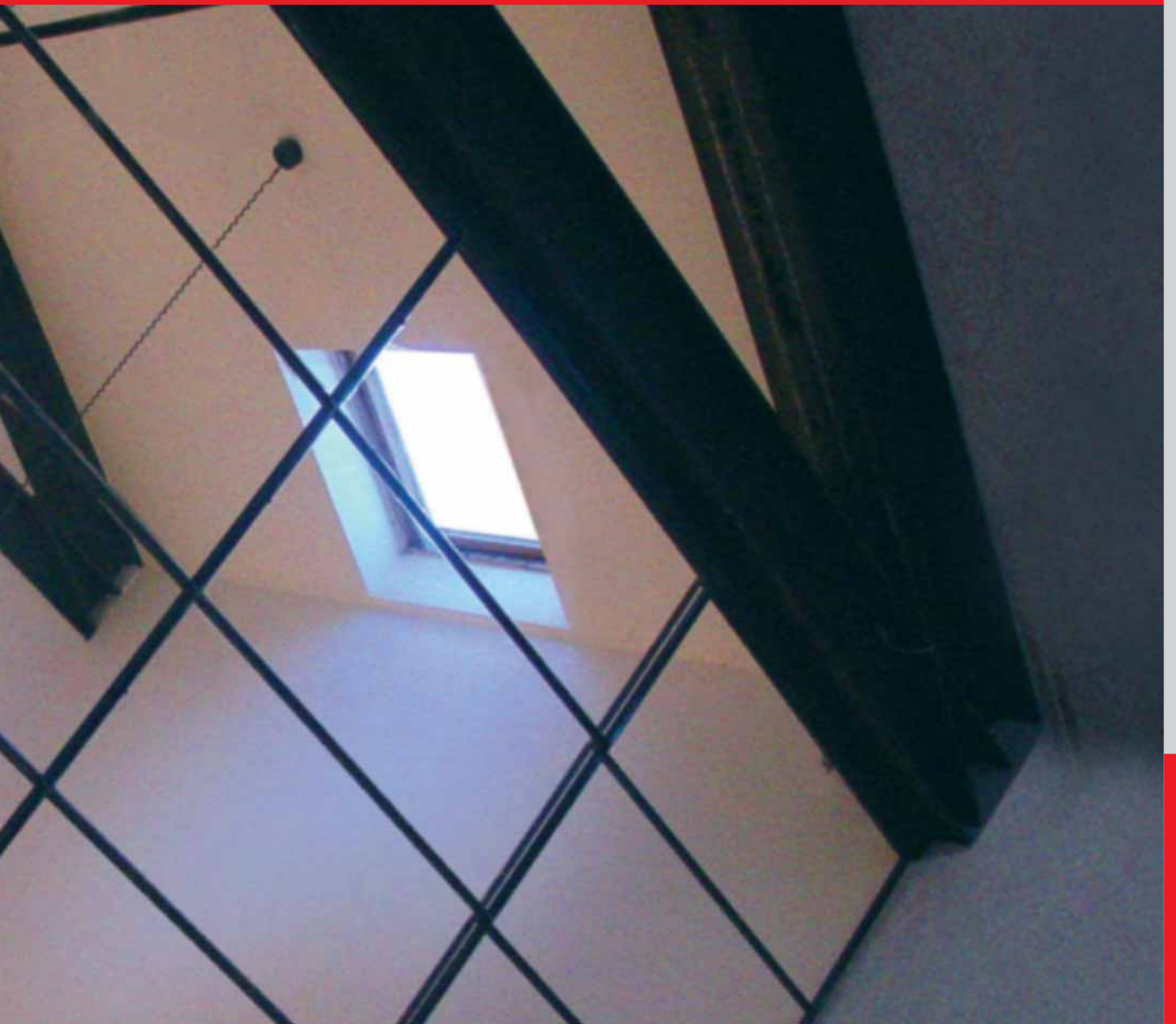
Designed to support medium power loads and provided with 3 output lines - which can be programmed separately for runtime management based on a user-designated hierarchy - these UPS were designed to offer the long runtimes needed by businesses, for homes and in multi-storey buildings, where stairwell lighting, audio and video intercom entry systems and electrically-operated access has to be guaranteed at all times.

Repeated power black outs are a considerable headache for retailers, who are often not able to operate the cash register and complete a sale, or find themselves in the dark when the lights go off, or even locked in because the sliding doors won't work.

All of these events disturb normal business and are detrimental to the services offered; they also have a financial impact and damage the retailer's image.

The DHEA is the perfect solution! The DHEA can provide long runtimes thanks to its streamlined and very attractive, modular battery pack system, meeting the specific demands of the user.

They are also readily used in multi-storey buildings, providing uninterrupted power for the lighting on the stairs, for the audio and video intercom systems and for automated access. Professionals routinely work with appliances that are sensitive to the "quality" of the mains electricity and that may even fail to operate correctly if there is a break in power, or sags or surges in the mains voltage. DHEAs are on line double conversion, so they



are able to correct mains power problems, offering protection for all the loads connected up to it. There are many who think UPS are just for the professionals: actually, domestic applications also need support in order to safeguard their continuity of power, just like professional equipment, especially because homeowners are increasingly adopting electronic appliances in order to automate their home and enhance their comfort.

The DHEA was designed with these demands in mind, guaranteeing long runtimes with a minimum impact on space. Automatic gates, lighting, surfing the internet, audio and video systems... a DHEA can take care of all of these, discreetly and "continuously".

Shops



Cafés



Homes



Offices / studios



Dental surgeries



Multi-storey buildings



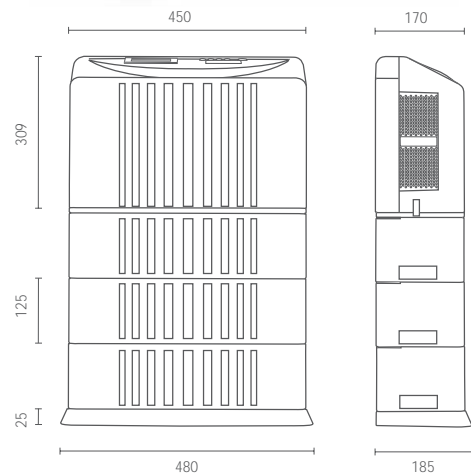
The DHEA has an inverter section and battery modules (battery packs) with a stackable design and plug and play connectivity.

The lead batteries contained inside the battery packs are hermetically sealed so they do not emit any gas whatsoever. As a result, they can be used in the home without any need for maintenance.

They are available in versions supplying 1000 / 1500 VA of power, whereas their runtime configuration can be determined according to requirements, even with very long back up times thanks to the system of stackable battery packs, which also gives them a very small footprint. This system means siting your UPS is not a problem should space be an issue (e.g. behind a door), however their very pleasant design means they are attractive even if in full view).

Designed with on line double conversion technology, the DHEA supplies perfectly sinusoidal, stabilised output voltage, protecting appliances that are susceptible to any interference or sudden shifts in the mains power supply. They are also fitted with an input power factor corrector (PFC) and therefore act as a phase advancer, offering benefits in terms of consumption for both the consumer and the electricity supplier.

The stackable battery packs offer the option of long runtimes while taking up a minimum of space: with a DHEA UPS, you can beat the growing phenomenon of power black outs, causing problems not just for private homes but also for businesses requiring need longer power back up, rather than high levels of power.



ON LINE

On line double conversion technology solves any issues with the power supply caused by shifts in the input voltage or frequency. The DHEAs have a special input stage that enables them to be used with a wide range of power supply voltages, avoiding frequent switchovers to battery power. They can also be used with gen-sets and as frequency converters.



3 OUTPUT LINES

The 1500 version is complete with 3 outputs, including 2 time-phased ones that cut out after a pre-set time when the inverter is running, so you can safeguard the power supply to more important loads based on how much back up time is left.



DISPLAY

The 1500 version also has an user-friendly LCD display fitted into the front panel makes monitoring and programming extremely easy and immediate, even for the less expert among us. In the DHEA's setup, you can set its operating parameters in order to optimise its operation. You can also enter a schedule for switching the UPS on and off and for carrying out battery tests.

Long Runtimes

Stacking the battery packs is quick and easy, so increasing runtimes is not a problem: forget about limiting tasks to the time needed simply to save data and close down any open applications (typical with computers). Now we can really talk about long runtimes, even in terms of hours, as a DHEA can easily meet the needs of a stable and continuous source of electricity for applications in all areas of life, for use at home, in professional studios and offices, in shops and small businesses.



Battery Packs	Runtime @ 100 load	
	1000 VA	1500 VA
1	17 min	12 min
2	45 min	30 min
3	1 h 20 min	51 min
4	2 h	1 h 15 min
5	2 h 40 min	1 h 40 min
6	3 h 25 min	2 h
7	4 h 15 min	2 h 30 min
8	5 h	3 h
9	6 h	3 h 30 min
10	6 h 55 min	4 h



Use with a gen-set

The DHEA's design also caters for connection of its electronic section to a gen-set in order to considerably increase system autonomy in case of very lengthy power black outs. Gen-sets, especially low power products, typically provide power with considerable voltage fluctuation together with characteristic frequency instability. The DHEA's input stage was also designed to handle this type of power supply and delivers output voltage with perfectly stable amplitude and frequency.

Hot-swappable battery pack connections

The battery pack contains all its batteries and relative connections. Connecting up to the electronic unit is simple and safe, so that even the less expert among us can transport and install all of the various system parts with total confidence and ease.

Thanks to the hot-swappable system, battery packs can be added or replaced at any time, with no need to switch off the inverter unit, guaranteeing total continuity of power to the load.

The inverter's rated voltage is 72V but this is only present when the module has been connected up. During transport, there's only 36V across the battery pack terminals, safeguarding maximum safety and compliance with current standards. An unlimited number of batteries can be connected up to the electronic unit so you can get exactly the runtime you need.



Model	DHEA 1000	DHEA 1500	Battery Pack
SPECIFICATIONS			
Nominal Power [VA]	1000	1500	-
Active Power [W]	700	1050	-
Technology	On line double conversion (VFI)		-
INPUT			
Input Voltage [V]	230		-
Input Voltage Range [V]	184 ÷ 264 @ 100% load		-
Minimum Operating Voltage (on mains power) [V]	100 @ 50% load		-
Input Power Factor	> 0.99 from 80% load		-
Input Frequency [Hz]	50 / 60 ± 2% autosensing		-
OUTPUT			
Output Voltage [V]	230 ± 1%		-
Output Frequency [Hz]	50 / 60 synchronized		-
Output Voltage THD	< 1% with non-linear load		-
Wave form	Sinusoidal		-
Crest Factor	3.5 : 1		-
Overload capacity	300% for 1 s - 200% for 5 s - 150% for 30 s		-
BATTERIES			
Batteries per Battery Pack	-		2 x (series of 3)
Runtime Extensibility	Refer to extended runtime table		
GENERAL SPECIFICATIONS			
Bypass	Electromechanical, internally synchronized, automatic (for overload or anomaly)		-
Signals and Alarms	Multicolour status indicator and acoustic signalling	Wide 4-line alphanumeric display, multicolour status indicator, acoustic signalling	-
Communication Ports	N.1 RS232 port, N.4 dry contact outputs (2 pins)		-
UPS Communicator Software	Download free of charge from the website (www.metasystem.it)		-
Protection	Electronic protection against overloads, short circuits and excessive battery discharge Operation blocked at end of runtime Sensor for correct neutral connection Inrush limitation when switching on EPO contact (emergency power off)		Internal fuses
Output Lines	1 line	3 lines (2 with timer)	-
MECHANICAL SPECIFICATIONS			
Net Weight [Kg]	4		16
Dimensions (W x H x D) [mm]	450 x 309 x 170		450 x 125 x 170
ENVIRONMENTAL DATA			
Working Temperature	0 ÷ 40		
Relative Humidity	20% ÷ 80% non condensing		
Acoustic Noise @ 1 m	< 40		-
STANDARDS			
Standards	EN62040-1-1, EN50091-2, EN62040-3		
GUARANTEE			
Guarantee	2 years, including batteries		
ITEM CODE	P42100	P42101	P4220



DHEA 1000



DHEA 1500