

# UPS

## UNINTERRUPTIBLE POWER SUPPLY



GLOBAL SPECIALIST IN ELECTRICAL AND DIGITAL  
BUILDING INFRASTRUCTURES

 **legrand**<sup>®</sup>



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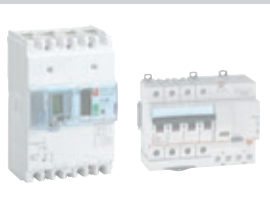
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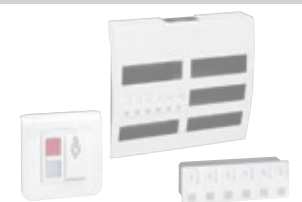

VDI STRUCTURED CABLING



ELECTRICAL PROTECTION



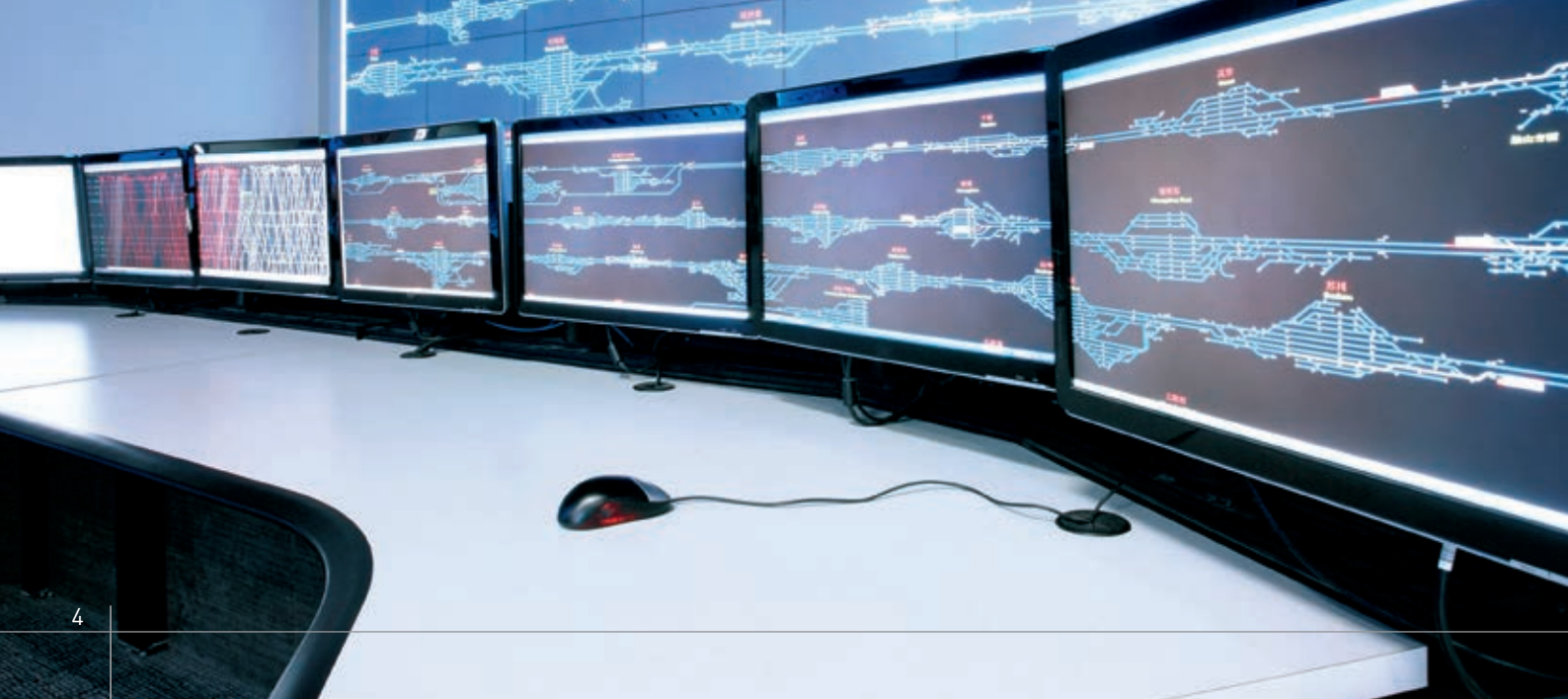
LIGHTING MANAGEMENT



HOSPITAL SIGNALLING



ENERGY MANAGEMENT



# SERVICE SECTOR

## AN OFFER THAT IS CONSTANTLY EVOLVING



MEASUREMENT SYSTEMS



ENERGY DISTRIBUTION

**UPS UNINTERRUPTIBLE POWER SUPPLY**



SUPERVISION OF INSTALLATIONS



FIRE ALARM SYSTEMS

The guarantee  
of optimum  
“Continuity  
of service”

Legrand, world leader in the manufacture of electrical equipment, offers an extensive range of solutions to meet all the needs of service sector installations, from structured cabling systems for data networks through to control and management of the installation, including trunking and distribution systems.

Incorporating an environmentally-friendly approach to technological development and to address a constantly changing market, Legrand is now offering its new range of UPS and additional functions to ensure maximum continuity of service for all installations.



## Energy efficiency and economy

# Maximum energy quality



## High efficiency

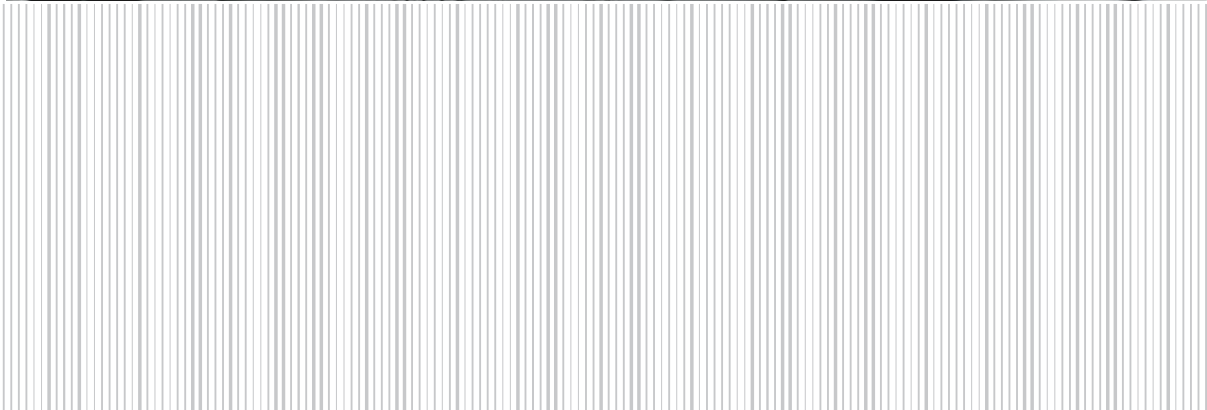
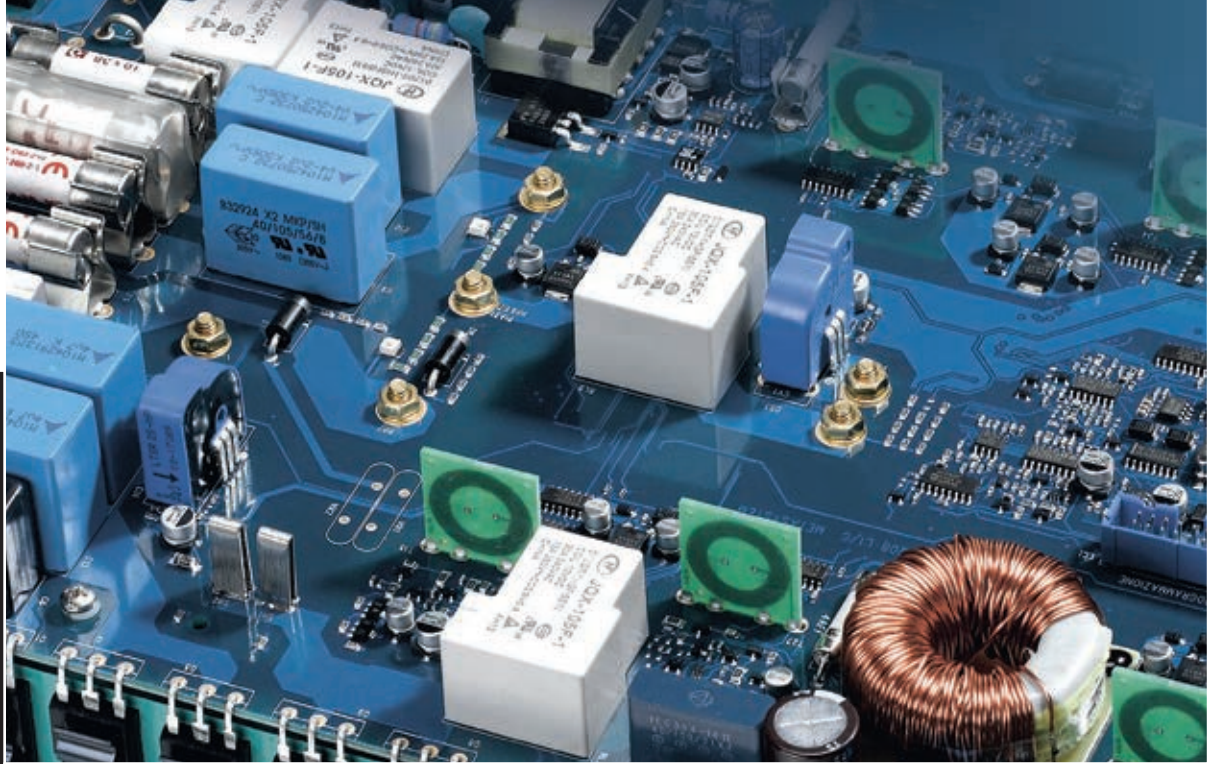
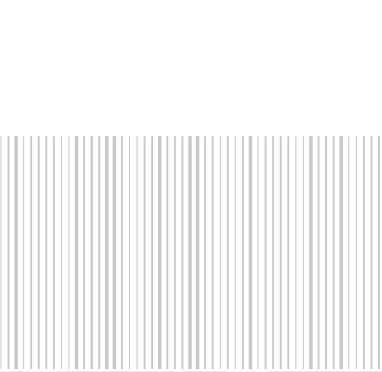
The innovative design and high quality of the components used enable our UPS to achieve up to 95% efficiency, leading to significant energy savings.

## Advanced technology

The On-line Double Conversion technology ensures provision of a top quality power supply and maximum energy efficiency

## Environmentally responsible approach

Our UPS are built with the greatest care with a view to sustainable development. Moreover, Legrand has developed an innovative testing system which reduces the energy consumed for each device manufactured.





# Reliability and safety

## technological excellence applied to UPS



### Reliable electronics

The optimum sizing of the power stages and thorough testing of each unit ensure excellent reliability.

### Latest generation components

A careful search for the best electronic components on the market, together with the most up-to-date manufacturing methods, ensure that Legrand UPS use leading-edge technology and provide optimum reliability.

### High performance batteries

The batteries used in Legrand UPS are the best on the market. The innovative charging system significantly extends battery life by up to 50%.

# THE RANGE



## p12 MODULAR



UPS up to 120 kVA providing maximum safety (power and control), for applications requiring easy expansion and fast maintenance.



## p32 CONVENTIONAL



UPS providing a safe, reliable power supply up to 10 kVA.

## The right solution for every context

Legrand has a UPS range that it divided into 3 different families. It is an offer suitable for all applications with solutions providing the best performance levels in terms of power and backup time.

Legrand UPS are ideal for all your requirements.



p44

### LINE INTERACTIVE



UPS up to 3 kVA. Ideal protection for individual workstations, telephone switchboards or home automation applications and even for small service sector companies.



p50

### COMMUNICATION ACCESSORIES



A complete range of communication devices for managing, configuring and controlling the UPS remotely.



# MODULAR UPS



**MEGALINE**



**TRIMOD**



**ARCHIMOD**

Flexible, expandable, redundant solutions

Modular UPS enable the power supply to be sized exactly to requirements, without precluding any future expansion.

They are made up of “standard” modules that can be added to existing configurations to increase their power or backup time.

Their innovative three-phase system, made up of individual single phase modules, provides the highest possible level of redundancy.

# ARCHIMOD AND TRIMOD

## DYNAMIC THREE-PHASE SYSTEMS

UPS offering optimum adaptability for all types of installation with their exclusive technology.

The innovative modular design of these UPS means that the availability of the power can be optimised, the flexibility of the system increased and the total cost of ownership (TCO) reduced.

Highly standardised components, consisting of individual single phase modules, provide the most flexible expandability on the market.



*Product Differentiation  
Excellence Award 2011*



**Gradual power adaptation**

The three-phase UPS are made up of individual single phase modules which are redundant and "self-configuring", so that power can be increased quickly and safely.



**Optimisation of work**

The compact and lightweight power modules (only 8.5 kg) make the UPS easy to transport, install and maintain.

**FLEXIBILITY  
MODULARITY  
EXPANSION**

**ARCHIMOD  
AND TRIMOD**

# ARCHIMOD AND TRIMOD

## EXCLUSIVE CHARACTERISTICS

### Expanding the power

The power can be increased very quickly and easily inside the cabinet itself for both product families, without the need to reconfigure the installation or the UPS.



**TRIMOD**  
from 10 to 60 kVA



**ARCHIMOD**  
from 20 to 120 kVA



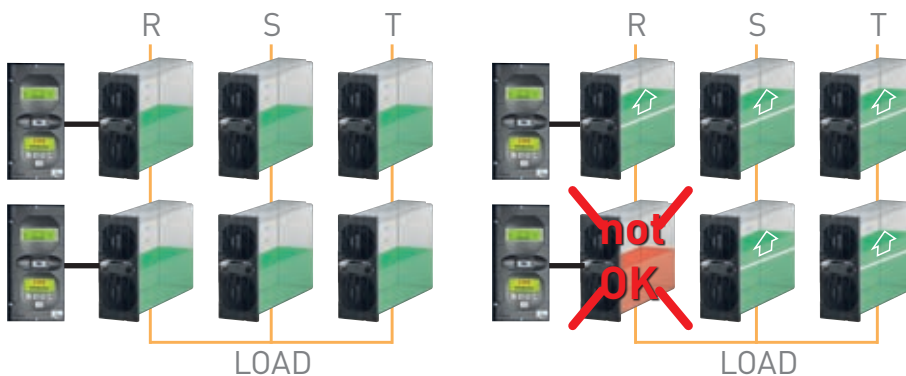
### Extending the backup time

The backup time can be extended either by adding battery trays in the same cabinet or by adding another battery cabinet, depending on the power of the UPS and the backup time required. Non-modular compact battery cabinets are also available for extending the backup time to several hours.



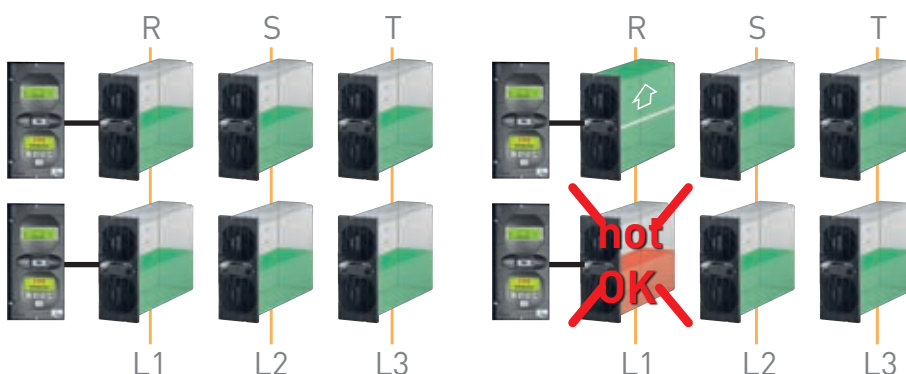
### Redundancy on the single phase load

In a three-phase power supply system with single phase loads, if one of the modules fails, there is no loss of power as the power is distributed over the other modules that are still operational.



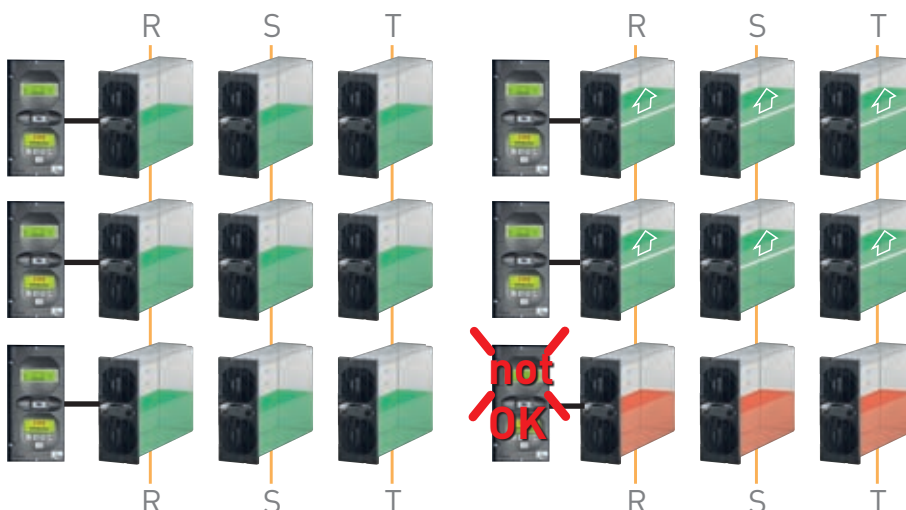
### Redundancy on the phases

In a system with three-phase outputs, it is possible to create redundancy on each individual phase. If one of the power modules fails, the other modules for this phase take over from the faulty module.



### Redundancy on the control

In UPS that include several control modules, the failure of one of the control modules results in the modules it controls being stopped. However continuity of service is assured by the automatic distribution of the lost power over the other modules.



# THREE-PHASE

# MODULAR UPS

Maximum redundancy levels

The innovative design of the modular UPS enables different levels of redundancy to be obtained so that maximum continuity of service is maintained at all times.

# ARCHIMOD THREE-PHASE MODULAR UPS

Efficiency up to 95%  
when operating in  
ON LINE MODE

Plug-in modules  
with self-configuring  
Plug&Play system

Power factor at the input  
close to 1 at 20% load

Multiple I/O to obtain  
different three-phase/  
single phase  
configurations as  
required



ARCHIMOD: expandable, modular  
architecture UPS, power  
from 20 to 120 kVA,  
in a 19" rack cabinet.

The system comprises a set of standard,  
pre-assembled components which simplify  
and optimise the design and building of  
infrastructures.

# MODULAR ARCHITECTURE

## 1 Control module

Equipped with a microprocessor, it manages 3 power modules. If it is used with a power expansion module, it can manage up to 6 power modules, thus increasing the power from 20 to 40 kVA.

It has a screen and a multifunction keypad for monitoring the operating parameters of the UPS and for configuring numerous functions. It can be connected in parallel to other control modules and used with power expansion modules.

The front panel has a backlit status indicator for immediate checking of the operating status of the system and an RS 232 port for connecting a PC for maintenance.

## 2 Power modules

The power modules (nominal power 6.7 kVA) are extremely compact and easy to handle. They have a plug-in hot swap system, making them quick to install and maintain. They work in parallel with all modules that are present to ensure optimum system performance.

## 3 Power expansion module

This must be used with a control module. It increases the power from 20 to 40 kVA and can be used to establish individual redundancy on each phase.

## 4 Battery modules

Each module contains batteries that can be connected in series, forming separate strings. The compactness and functionality of the single (plug-in) module make it easy to handle, and expansion operations are possible without any modification of the structure of the installed system.

## 5 Distribution module

This is used to configure the distribution type of the UPS (three-phase/three-phase, three-phase/single phase, single phase/single phase or single phase/three-phase). It has I/O connection blocks, handling and protection devices, and the connection for additional battery cabinets. The power supply can be configured on two separate input sources (main and backup).

## 6 Cable entry

Special sleeves enable entry and exit of the input and output cables, via the top and via the bottom.



# TRIMOD THREE-PHASE MODULAR UPS

Space-saving modular  
and expandable with  
powers from 10 to 60 kVA  
in a compact structure.

The totally modular design of TRIMOD UPS enables each power module to be programmed to obtain the required I/O configuration.

It is possible to have three-phase or single phase voltage inputs and outputs to obtain one of the following configurations: three-phase/three-phase, three-phase/single phase, single phase/three-phase or single phase/single phase. It is also possible to have single phase and three-phase output lines simultaneously, or several single phase of different powers (optional).

## Control screen

The TRIMOD system is totally controlled by a microprocessor. Using the LCD screen and the keypad, it is possible to:

- Set and view the operating data in real time
- Configure and control the parameters of each power module
- Access the event logs
- Perform a series of functional tests



## Compact, space-saving versions

The compact size, low vertical structure and the 2 small wheels at the back make it easy to position and transport the UPS, even in locations that are difficult to access.

Redundant modular UPS, expandable up to 10 kVA with the best performance levels in their category

# MEGALINE SINGLE PHASE MODULAR UPS

AVAILABLE IN THREE VERSIONS:

- SINGLE CABINET
- DOUBLE CABINET
- 19" RACK"

All models have a configurable microprocessor control card, an LCD display unit, 1250 VA power modules and battery kits (BK) containing three 9 Ah batteries.

The single cabinet and 19" rack versions distribute powers of 1250 to 5000 VA, and can take up to 4 power modules 4 battery kits. To increase the backup time, additional batteries can be added in dedicated cabinets, which are easy to connect.

The range also includes double cabinets. They consist of 2 cabinets: 1 power cabinet and 1 battery cabinet. The former houses up to eight 1250 VA modules, reaching a maximum power of 10 kVA. The latter can take up to 10 battery kits and an additional charger. To increase the backup time still further, other identical battery cabinets can be added.



# ARCHIMOD

## Double conversion VFI three-phase modular UPS



3 104 54



3 108 55



3 108 40

Pack	Cat. Nos.	CONFIGURABLE CABINETS				
		The cabinets are supplied empty and are preset for the power and capacity indicated in the table				
		NOMINAL POWER (kVA)	NUMBER OF BATTERY MODULES	NUMBER OF CONTROL MODULES	NO. OF POWER EXPANSION MODULES	NUMBER OF PHASES
	<b>3 104 51 *</b>	20	12	1	-	3-1/3-3
	<b>3 104 52</b>	20	30	1	-	3-1/3-3
	<b>3 104 53</b>	40	24	2	-	3-3/3-3
	<b>3 104 54</b>	60	18	3	-	3-3
	<b>3 104 55</b>	80	-	3	1	3-3
	<b>3 104 56</b>	100	-	3	2	3-3
	<b>3 104 57</b>	120	-	3	3	3-3

\* Capacity of cabinet: 18 U

### ADDITIONAL CABINETS FOR BATTERIES

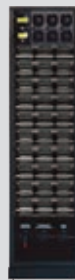
	DESCRIPTION
<b>3 108 18</b>	Empty modular battery cabinet
<b>3 108 21</b>	Battery cabinet for 20 kVA UPS with 21 x 94 Ah long life batteries
<b>3 108 22</b>	Battery cabinet for 200-60 kVA UPS with 21 x 94 Ah long life batteries
<b>3 108 23</b>	Battery cabinet for 80 kVA UPS with 21 x 94 Ah long life batteries
<b>3 108 24</b>	Battery cabinet for 100-120 kVA UPS with 21 x 94 Ah long life batteries
<b>3 108 65</b>	Cover for empty battery slot
<b>3 108 66</b>	Cover for empty power module slot

### ACCESSORIES

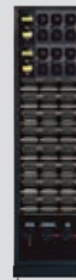
	DESCRIPTION
<b>3 108 40</b>	6.7 kVA power module
<b>3 108 64</b>	Front/rear door
<b>3 108 55</b>	Kit of 3 x 9 Ah battery trays
<b>3 108 56</b>	Kit of 3 empty battery trays
<b>3 108 51</b>	Additional charger module

### CONFIGURATIONS

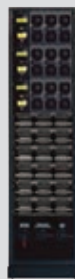
**20**  
Power: 20 kVA  
Backup time: 65 min  
1 Cabinet  
1 Control module  
3 Power modules  
30 Battery modules  
1 Distribution module



**40**  
Power: 40 kVA  
Backup time: 21 min  
1 Cabinet  
2 Control modules  
6 Power modules  
24 Battery modules  
1 Distribution module



**60**  
Power: 60 kVA  
Backup time: 8 min  
1 Cabinet  
3 Control modules  
9 Power modules  
18 Battery modules  
1 Distribution module



**80**  
Power: 80 kVA  
Backup time: 14 min  
2 Cabinets  
3 Control modules  
1 Power expansion module  
12 Power modules  
36 Battery modules  
1 Distribution module



**100**  
Power: 100 kVA  
Backup time: 10 min  
2 Cabinets  
3 Control modules  
2 Power expansion modules  
15 Power modules  
36 Battery modules  
1 Distribution module



**120**  
Power: 120 kVA  
Backup time: 8 min  
2 Cabinets  
3 Control modules  
3 Power expansion modules  
18 Power modules  
36 Battery modules  
1 Distribution module



**NOTE:** The backup times, expressed in minutes, are measured under optimum operating conditions.

# ARCHIMOD

## Double conversion VFI three-phase modular UPS

Cat. Nos.	3 104 51 3 104 52	3 104 53	3 104 54	3 104 55	3 104 56	3 104 57
<b>General characteristics</b>						
Nominal power (kVA)	20	40	60	80	100	120
Active power (kW)	18	36	54	72	90	108
Module power (kVA)	6.7 per power module (20 kVA with 3 modules), $\cos\phi$ 0.9					
Technology	On-line double conversion VFI-SS-111					
System	Modular, expandable and redundant system in a single cabinet, 19" rack					
Hot Swap capacity	The power and/or battery modules can be replaced without switching off the UPS					
<b>Input characteristics</b>						
Input voltage	230 V 1P+N, 400 V 3P+N	400 V 3P+N				
Input frequency	50-60 Hz $\pm$ 2% autosensing					
Input voltage range	230 V + 15%/-20% 1P 400 V + 15%/-20% 3P	400 V +15%/-20% 3P				
THD of input current	< 3%					
Compatibility with gensets	Configurable for synchronisation between the input and output frequencies, even for the highest frequency ranges, $\pm$ 14%					
Input power factor	> 0.99 at 20% load					
<b>Output characteristics</b>						
Output voltage	230 V 1P, 400 V 3P	400 V 3P				
Efficiency	Up to 95%					
Nominal output frequency	50/60 Hz $\pm$ 0.1					
Peak factor	3.5:1					
Tolerance on output voltage	$\pm$ 1%					
Permitted overload	10 minutes at 125% and 60 seconds at 150%					
Efficiency in Eco mode	99%					
Bypass	Automatic and maintenance bypass					
<b>Batteries</b>						
Battery modules	The battery modules are designed for easy insertion in the cabinet. No special operation is required to connect them					
Battery range type/voltage	VRLA - AGM/252 VDC					
Backup time	Configurable and extendable, both internally and with additional battery cabinets					
Battery charging	Smart Charge technology 3-step advanced cycle					
<b>Communication and management</b>						
Screen and signalling	4 x 20-character lines, 4 menu navigation buttons, multi-coloured LED status indicator					
Communication ports	For each control module: 2 x RS232 serial ports, 1 logic level port, 5 volt-free contact ports, 2 slots for SNMP interfaces (optional)					
Back-feed protection	N/C + N/O auxiliary contact					
Emergency stop	Yes					
Remote control	Available					
<b>Physical characteristics</b>						
Dimensions (H x W x D) (mm)	2080 x 570 x 912 (42 U)					
Installed power modules	3	6	9	12	15	18
Installable battery modules	Up to 30	Up to 24	Up to 18	-	-	-
Net weight (kg)	205	240	276	272	318	364
<b>Ambient conditions</b>						
Operating temperature/humidity	0 - 40°C/20 - 80%					
Protection index	IP 21					
Maximum noise audible at 1 m (dBA)	50 to 65					
Heat dissipation (BTU/h)	2730	5460	8190	10920	13650	16380
<b>Conformity</b>						
Certifications	EN 62040-1, EN 62040-2, EN 62040-3					
<b>Services</b>						
Installation	Can be carried out by the user, modular architecture with "plug and play" power modules and batteries for easy installation and configuration					
Maintenance	Can be carried out by the user, optional services available from the manufacturer					

# TRIMOD

## Double conversion VFI three-phase modular UPS



3 103 99



3 108 40



3 108 43

Pack	Cat. Nos.	UPS			
		NOMINAL POWER (kVA)	BACKUP TIME (min)	NUMBER OF CABINETS	WEIGHT (kg)
	<b>3 103 99</b>	10	11	1	167
	<b>3 104 00</b>	10	17	1	223
	<b>3 104 01</b>	10	35	1	279
	<b>3 104 00 + 3 107 57</b>	10	54	2	471
	<b>3 104 00 + 3 107 58</b>	10	68	2	527
	<b>3 104 05</b>	15	13	1	220
	<b>3 104 06</b>	15	21	1	279
	<b>3 104 06 + 3 107 60</b>	15	33	2	413
	<b>3 104 06 + 3 107 63</b>	15	57	2	550
	<b>3 104 04 + 3 108 08</b>	15	110*	2	865
	<b>3 104 11</b>	20	9	1	220
	<b>3 104 12</b>	20	14	1	279
	<b>3 104 12 + 3 107 62</b>	20	35	2	572
	<b>3 104 10 + 3 108 08</b>	20	82*	2	865
	<b>3 104 12 + 3 107 63 + 3 107 62</b>	20	59	3	574
	<b>3 104 16 + 3 107 57</b>	30	5	2	378
	<b>3 104 16 + 3 107 63</b>	30	12	2	434
	<b>3 104 16 + 3 108 09</b>	30	50*	2	890
	<b>3 104 16 + 2 x 3 108 09</b>	30	110*	3	1645
	<b>3 104 21 + 3 107 63</b>	40	8	2	564
	<b>3 104 21 + 2 x 3 107 58</b>	40	16	3	801
	<b>3 104 21 + 3 108 10</b>	40	33*	2	925
	<b>3 104 21 + 3 x 3 107 59</b>	40	38	4	439
	<b>3 104 21 + 4 x 3 107 64</b>	40	60	5	1663
	<b>3 104 21 + 2 x 3,108 10</b>	40	82*	3	1700
	<b>3 104 21 + 3 x 3,108 10</b>	40	120*	4	2430
	<b>3 104 28 + 2 x 3 107 58</b>	60	9	3	830
	<b>3 104 28 + 2 x 3 107 64</b>	60	14	3	942
	<b>3 104 28 + 3 108 11</b>	60	17*	2	952
	<b>3 104 28 + 4 x 3 107 63</b>	60	27	5	1579
	<b>3 104 28 + 2 x 3,108 11</b>	60	50*	3	1715
	<b>3 104 28 + 3 x 3,108 11</b>	60	82*	4	2474
	<b>3 104 28 + 4 x 3,108 11</b>	60	110*	5	3234

\* Configurations with battery cabinet (20 x 94 Ah).  
Battery cabinet dimensions and weight: H x W x D 1635 x 600 x 800 (mm), 785 kg

Pack	Cat. Nos.	POWER CABINET				
		NOMINAL POWER kVA	ACTIVE POWER kW	BACKUP TIME (min)	NUMBER OF CABINETS	WEIGHT (kg)
	<b>3 103 98</b>	10	9	0'	1	120
	<b>3 104 04</b>	15	13.5	0'	1	120
	<b>3 104 10</b>	20	18	0'	1	120
	<b>3 104 16</b>	30	27	0'	1	146
	<b>3 104 21</b>	40	36	0'	1	146
	<b>3 104 28</b>	60	54	0'	1	165

POWER CABINET (EMPTY)					
	NO. OF POWER MODULES	NO. OF BATTERY MODULES	TYPE OF POWER MODULE	NO. OF PHASES	
	<b>3 104 36</b>	3	12	3 x 3.4 kVA	1-1/3-3/3-1/1-3
	<b>3 104 37</b>	3	12	3 x 5 or 6.7 kVA	1-1/3-3/3-1/1-3
	<b>3 104 38</b>	6	-	6 x 5 kVA	3-3
	<b>3 104 39</b>	6	-	6 x 5 kVA	1-1/3-3/3-1/1-3
	<b>3 104 40</b>	6	-	6 x 6.7 kVA	3-3
	<b>3 104 41</b>	9	-	9 x 6.7 kVA	3-3

ACCESSORIES	
	DESCRIPTION
<b>3 108 36</b>	3.4 kVA power module
<b>3 108 38</b>	5 kVA power module
<b>3 108 40</b>	6.7 kVA power module
<b>3 108 51</b>	Additional charger module

ACCESSORIES FOR BATTERIES	
	DESCRIPTION
<b>3 108 54</b>	Kit of 4 empty battery trays
<b>3 108 43</b>	Single battery tray with 5 x 7.2 Ah batteries (can be installed in multiples of 4)
<b>3 108 45</b>	Single battery tray with 5 x 9 Ah batteries (can be installed in multiples of 4)

ADDITIONAL BATTERY CABINETS	
	DESCRIPTION
<b>3 108 05</b>	Modular battery cabinet (empty) with 16 trays.
<b>3 108 06</b>	Modular battery cabinet (empty) with 20 trays.
<b>3 107 55</b>	Modular battery cabinet with 4 battery trays (7.2 Ah)
<b>3 107 56</b>	Modular battery cabinet with 8 battery trays (7.2 Ah)
<b>3 107 57</b>	Modular battery cabinet with 12 battery trays (7.2 Ah)
<b>3 107 58</b>	Modular battery cabinet with 16 battery trays (7.2 Ah)
<b>3 107 59</b>	Modular battery cabinet with 20 battery trays (7.2 Ah)
<b>3 107 60</b>	Modular battery cabinet with 4 battery trays (9 Ah)
<b>3 107 61</b>	Modular battery cabinet with 8 battery trays (9 Ah)
<b>3 107 62</b>	Modular battery cabinet with 12 battery trays (9 Ah)
<b>3 107 63</b>	Modular battery cabinet with 16 battery trays (9 Ah)
<b>3 107 64</b>	Modular battery cabinet with 20 battery trays (9 Ah)
<b>3 108 07</b>	Battery cabinet for 10 kVA UPS with 20 x 94 Ah long life batteries
<b>3 108 08</b>	Battery cabinet for 20 kVA UPS with 20 x 94 Ah long life batteries
<b>3 108 09</b>	Battery cabinet for 30 kVA UPS with 20 x 94 Ah long life batteries
<b>3 108 10</b>	Battery cabinet for 40 kVA UPS with 20 x 94 Ah long life batteries
<b>3 108 11</b>	Battery cabinet for 60 kVA UPS with 20 x 94 Ah long life batteries

NOTE: The backup times, expressed in minutes, are measured under optimum operating conditions.



# TRIMOD

## Double conversion VFI three-phase modular UPS

Cat. Nos.	3 103 98	3 104 04	3 104 10	3 104 16	3 104 21	3 104 28
<b>General characteristics</b>						
Nominal power (kVA)	10	15	20	30	40	60
Active power (kW)	9	13.5	18	27	36	54
Module power (kVA)	3.4	5	6.7	5	6.7	6.7
Technology	On-line double conversion VFI-SS-111					
System	Modular, expandable and redundant in a single cabinet/expandable and redundant modular system					
<b>Input characteristics</b>						
Input voltage	230 V 1P+N, 400 V 3P+N				400 V 3P+N	
Input frequency	50-60 Hz $\pm$ 2% autosensing					
Input voltage range	400 V +15%/-20% - 230 V +15%/-20%				400 V +15%/-20%	
THD of input current	< 3%					
Compatibility with gensets	Configurable for synchronism between the input and output frequencies, even for the highest frequency ranges, $\pm$ 14%					
Input power factor	> 0.99 at 20% load					
<b>Output characteristics</b>						
Output voltage	230 V 1P+N, 400 V 3P+N				400 V 3P+N	
Efficiency	Up to 95%					
Nominal output frequency	50/60 Hz can be selected by the user $\pm$ 1 Hz					
Peak factor	3.5:1					
Tolerance on output voltage	$\pm$ 1%					
Permitted overload	10 minutes at 125% and 60 seconds at 150%					
Efficiency in Eco mode	98%					
Bypass	Automatic and maintenance bypass					
<b>Batteries</b>						
Battery module	The battery modules are designed for easy insertion in the cabinet. No special operation is required to connect them					
Battery range type/voltage	VRLA - AGM/240 VDC (internal redundant range)					
Backup time	Configurable and extendable, both internally and with additional battery cabinets					
Battery charging	Smart Charge technology 3-step advanced cycle					
<b>Communication and management</b>						
Screen and signalling	4 x 20-character lines, 4 menu navigation buttons, multi-coloured LED status indicator, alarms and audible signalling					
Communication ports	2 x RS232 serial ports, 1 logic level port, 4 volt-free contact ports, 1 slot for interfaces					
Back-feed protection	N/C + N/O auxiliary contact					
Emergency stop	Yes					
Remote control	Available					
<b>Physical characteristics</b>						
Dimensions (H x W x D) (mm)	1370 x 414 x 628					
Installed power modules	3		6	6	6	9
Installable battery modules	Up to 12		-	-	-	-
Net weight (kg)	120		146	146	146	165
<b>Ambient conditions</b>						
Operating temperature/humidity	0 - 40°C/20 - 80%					
Protection index	IP 21					
Maximum noise audible at 1 m (dBA)	46					
Heat dissipation (BTU/h)	1436	2155	2873	4310	5746	8619
<b>Conformity</b>						
Certifications	EN 62040-2, EN 62040-3, EN 62040-1					
<b>Services</b>						
Installation	Can be carried out by the user, modular architecture with "plug and play" power modules and batteries					
Maintenance	Can be carried out by the user, optional services available from the manufacturer					
Easy management	Advanced diagnostic functions on the screen					

# MEGALINE

## Double conversion VFI single phase modular UPS



3 103 60 + 3 107 78



3 108 57



3 108 62



3 108 63



3 108 35

Pack	Cat. Nos.	SINGLE CABINET (German standard)				
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	NUMBER OF CABINETS	WEIGHT (kg)
	<b>3 103 50</b>	1250	875	13	1	23.5
	<b>3 103 52</b>	2500	1750	13	1	34
	<b>3 103 54</b>	3750	2625	13	1	43
	<b>3 103 56</b>	5000	3500	13	1	53

DOUBLE CABINET						
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	NUMBER OF CABINETS	WEIGHT (kg)
	<b>3 103 60 + 3 107 78</b>	5000	3500	13	2	24+50
	<b>3 103 63 + 3 107 79</b>	6250	4375	13	2	27+58
	<b>3 103 66 + 3 107 80</b>	7500	5250	13	2	29+65
	<b>3 103 69 + 3 107 81</b>	8750	6125	13	2	32+73
	<b>3 103 72 + 3 107 82</b>	10000	7000	13	2	34+80

SINGLE CABINET (French standard)						
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	NUMBER OF CABINETS	WEIGHT (kg)
	<b>3 103 42</b>	1250	875	13	1	23.5
	<b>3 103 43</b>	2500	1750	13	1	34
	<b>3 103 44</b>	3750	2625	13	1	43
	<b>3 103 45</b>	5000	3500	13	1	53

SINGLE CABINET (British standard)						
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	NUMBER OF CABINETS	WEIGHT (kg)
	<b>3 103 46</b>	1250	875	13	1	23.5
	<b>3 103 47</b>	2500	1750	13	1	34
	<b>3 103 48</b>	3750	2625	13	1	43
	<b>3 103 49</b>	5000	3500	13	1	53

Pack	Cat. Nos.	SINGLE CABINET - WITHOUT BATTERIES			
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	NUMBER OF CABINETS
	<b>3 103 51</b>	1250	875	-	1
	<b>3 103 53</b>	2500	1750	-	1
	<b>3 103 55</b>	3750	2625	-	1
	<b>3 103 57</b>	5000	3500	-	1

DOUBLE CABINET - WITHOUT BATTERIES					
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	NUMBER OF CABINETS
	<b>3 103 60 + 3 108 59</b>	5000	3500	-	2
	<b>3 103 63 + 3 108 59</b>	6250	4375	-	2
	<b>3 103 66 + 3 108 59</b>	7500	5250	-	2
	<b>3 103 69 + 3 108 59</b>	8750	6125	-	2
	<b>3 103 72 + 3 108 59</b>	10000	3500	-	2

BATTERY EXTENSIONS	
	DESCRIPTION
<b>3 107 75</b>	Cabinet with 1 BK
<b>3 107 76</b>	Cabinet with 2 BK
<b>3 107 77</b>	Cabinet with 3 BK
<b>3 107 78</b>	Cabinet with 4 BK
<b>3 107 79</b>	Cabinet with 5 BK
<b>3 107 80</b>	Cabinet with 6 BK
<b>3 107 81</b>	Cabinet with 7 BK
<b>3 107 82</b>	Cabinet with 8 BK
<b>3 107 83</b>	Cabinet with 9 BK
<b>3 107 84</b>	Cabinet with 10 BK

BATTERY EXTENSIONS WITH CHARGER	
	DESCRIPTION
<b>3 107 86</b>	Cabinet with 1 BK with charger
<b>3 107 87</b>	Cabinet with 2 BK with charger
<b>3 107 88</b>	Cabinet with 3 BK with charger
<b>3 107 89</b>	Cabinet with 4 BK with charger
<b>3 107 90</b>	Cabinet with 5 BK with charger
<b>3 107 91</b>	Cabinet with 6 BK with charger
<b>3 107 92</b>	Cabinet with 7 BK with charger
<b>3 107 93</b>	Cabinet with 8 BK with charger
<b>3 107 94</b>	Cabinet with 9 BK with charger
<b>3 107 95</b>	Cabinet with 10 BK with charger

ACCESSORIES	
	DESCRIPTION
<b>3 108 35</b>	Power module (PW 1250)
<b>3 108 57</b>	Single cabinet backup extension (MegaLine BK/1)
<b>3 108 58</b>	Double cabinet backup extension (MegaLine BK/2)
<b>3 108 59</b>	Empty battery cabinet
<b>3 108 60</b>	Y cable for connecting a second additional battery cabinet
<b>3 108 61</b>	Battery cabinet extension kit for tower configuration (PL MegaLine cable)
<b>3 108 62</b>	Manual bypass for single cabinet (BP/1)
<b>3 108 63</b>	Manual bypass for double cabinet (BP/2)
<b>3 107 85</b>	Additional charger (CB 36)
<b>3 109 72</b>	Relay interface kit

NOTE: The backup times, expressed in minutes, are measured under optimum operating conditions.

# MEGALINE

## Double conversion VFI single phase modular UPS

Cat. Nos.	3 103 42	3 103 43	3 103 44	3 103 45	3 103 60 +	3 103 63 +	3 103 66 +	3 103 69 +	3 103 72 +
	3 103 46	3 103 47	3 103 48	3 103 49	3 107 78	3 107 79	3 107 80	3 107 81	3 107 82
	SINGLE CABINET				DOUBLE CABINET				
<b>General characteristics</b>									
Nominal power (VA)	1250	2500	3750	5000	5000	6250	7500	8750	10000
Active power (W)	875	1750	2625	3500	3500	4375	5250	6125	7000
Max. expansion (VA)	5000				10000				
Max. expansion (W)	3500				7000				
Technology	On-line double conversion VFI-SS-111								
Architecture	Modular, expandable, N+X redundant with 1250 VA power cards, contained in a single cabinet								
<b>Input characteristics</b>									
Nominal input voltage	230 V								
Input voltage range	184 V to 264 V at 100% load								
Minimum operating voltage	100 V at 50% load								
THD of input current	< 3%								
Input power factor	> 0.99 at 20% load								
Input frequency	50 Hz/60 Hz ± 2% autosensing								
<b>Output characteristics</b>									
Output voltage	230 V ± 1%								
Output frequency	50 Hz/60 Hz synchronised								
THD of output voltage	< 1% with non-linear load								
Waveform	Sinusoidal								
Peak factor	3.5:1								
Efficiency	up to 92%								
Permitted overload	300% for 1 s – 200% for 5 s – 150% for 30 s								
<b>Backup time</b>									
Backup time (min)	13								
Extension of backup time	Yes								
<b>Equipment</b>									
Bypass	Automatic, internally synchronised, static and electromechanical (for overloads and operating problems)								
Signalling and alarms	Wide screen with 4 alphanumeric lines, multi-coloured status indicator, audible signalling								
Communication ports	1 RS 232 port, 2 logic level ports								
Communicator UPS software	Can be downloaded free of charge (after requesting an activation code)								
Protection	Electronic devices for protection against overloads, short-circuits and excessive battery discharge. Operation stops at end of backup time. Inrush current limiter on start-up. Sensor for correct neutral switching. Back-feed protection (electrical safety insulation of the input plug during battery-based operation). EPO (emergency power off) contact								
I/O mains connection	German standard/terminal connector with universal multi-socket outlet (Italian/German standard)								
<b>Mechanical characteristics</b>									
Net weight (kg)	23.5	34	43	53	24 + 50	26.5+57.5	29 + 65	31.5+72.5	34 + 80
Dimensions (H x W x D) (mm)	475 x 270 x 570				2 x 475 x 270 x 570				
Installed power cards	1	2	3	4	4	5	6	7	8
Free power expansion slots	3	2	1	-	4	3	2	1	-
Installed battery kits	1	2	3	4	4	5	6	7	8
Free backup time extension slots	3	2	1	-	6	5	4	3	2
<b>Ambient conditions</b>									
Ambient operating temperature (°C)	0 to 40								
Protection index	IP 21								
Relative humidity (%)	20 to 80								
Noise at 1 m (dBA)	< 40								
<b>Certifications</b>									
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3								

# MEGALINE RACK

## Double conversion VFI single phase modular UPS



3 103 85



3 107 96



3 108 62



3 107 85



3 109 73

- Wide input voltage and frequency range
- Operating frequency: 50 or 60 Hz with auto-recognition
- 50-60 Hz frequency conversion in both directions
- Extension of the input frequency range for operation with gensets
- Eco mode (energy-saving) operation
- Load waiting mode operation (protection on request)

- Output voltage can be adjusted in 1 volt steps from front panel
- Low noise
- Internal and external temperature measurement
- Ventilation control according to temperature and load
- Designed for remote emergency stop

Pack	Cat. Nos.	RACKS (German standard)				
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	NUMBER OF CABINETS	WEIGHT (kg)
	<b>3 103 79</b>	1250	875	13	1	23,5
	<b>3 103 81</b>	2500	1750	13	1	34
	<b>3 103 83</b>	3750	2625	13	1	43
	<b>3 103 85</b>	5000	3500	13	1	53

Pack	Cat. Nos.	BACKUP TIME EXTENSIONS		
		NOMINAL POWER (VA)	ADDITIONAL BK	EXPANSION (min)
	<b>3 103 87</b>	1250	1	30
	<b>3 103 88</b>	1250	2	52
	<b>3 103 89</b>	1250	3	75
	<b>3 103 90</b>	2500	1	22
	<b>3 103 91</b>	2500	2	30
	<b>3 103 92</b>	3750	1	18

RACKS (French standard)						
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	NUMBER OF CABINETS	WEIGHT (kg)
	<b>3 103 34</b>	1250	875	13	1	23,5
	<b>3 103 35</b>	2500	1750	13	1	34
	<b>3 103 36</b>	3750	2625	13	1	43
	<b>3 103 37</b>	5000	3500	13	1	53

RACKS (British standard)						
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	NUMBER OF CABINETS	WEIGHT (kg)
	<b>3 103 38</b>	1250	875	13	1	23,5
	<b>3 103 39</b>	2500	1750	13	1	34
	<b>3 103 40</b>	3750	2625	13	1	43
	<b>3 103 41</b>	5000	3500	13	1	53

RACKS - WITHOUT BATTERIES					
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	NUMBER OF CABINETS
	<b>3 103 80</b>	1250	875	-	1
	<b>3 103 82</b>	2500	1750	-	1
	<b>3 103 84</b>	3750	2625	-	1
	<b>3 103 86</b>	5000	3500	-	1

BATTERY EXPANSIONS FOR RACK UPS	
	DESCRIPTION
<b>3 107 96</b>	Rack with 1 BK
<b>3 107 97</b>	Rack with 2 BK
<b>3 107 98</b>	Rack with 3 BK
<b>3 107 99</b>	Rack with 4 BK
<b>3 108 00</b>	Rack with 1 BK with charger
<b>3 108 01</b>	Rack with 2 BK with charger
<b>3 108 02</b>	Rack with 3 BK with charger
<b>3 108 03</b>	Rack with 4 BK with charger

ACCESSORIES	
	DESCRIPTION
<b>3 108 35</b>	Power module (PW 1250)
<b>3 108 04</b>	Empty battery rack cabinet
<b>3 108 62</b>	Manual bypass for single rack (BP/1)
<b>3 107 85</b>	Additional charger (CB 36)
<b>3 109 72</b>	Relay interface kit
<b>3 109 73</b>	Telescopic runner kit for 6U rack

NOTE: The backup times, expressed in minutes, are measured under optimum operating conditions.

# MEGALINE RACK

## Double conversion VFI single phase modular UPS

Cat. Nos.	3 103 34 3 103 38 3 103 79	3 103 35 3 103 39 3 103 81	3 103 36 3 103 40 3 103 83	3 103 37 3 103 41 3 103 85
<b>General characteristics</b>				
Nominal power (VA)	1250	2500	3750	5000
Active power (W)	875	1750	2625	3500
Max. expansion (VA)	5000			
Max. expansion (W)	3500			
Technology	On-line double conversion VFI-SS-111			
Architecture	Modular, expandable, N+X redundant with 1250 VA power cards, contained in a single rack			
<b>Input characteristics</b>				
Nominal input voltage	230 V			
Input voltage range	184 V to 264 V at 100% load			
Minimum operating voltage via mains	100 V at 50% load			
THD of input current	< 3%			
Input power factor	> 0.99 at 20% load			
Input frequency	50 Hz/60 Hz ± 2% autosensing			
<b>Output characteristics</b>				
Output voltage	230 V ± 1%			
Output frequency	50 Hz/60 Hz synchronised			
THD of output voltage	< 1% with non-linear load			
Waveform	Sinusoidal			
Peak factor	3.5:1			
Efficiency	up to 92%			
Permitted overload	300% for 1 s – 200% for 5 s – 150% for 30 s			
<b>Backup time</b>				
Backup time (min)	13			
Extension of backup time	Yes			
<b>Equipment</b>				
Bypass	Automatic, internally synchronised, static and electromechanical (for overloads and operating problems).			
Signalling and alarms	Large screen with 4 alphanumeric lines, multi-coloured status indicator, audible signalling			
Communication ports	1 RS 232 port, 2 logic level ports			
Communicator UPS software	Can be downloaded free of charge (after requesting an activation code)			
Protection	Electronic devices for protection against overloads, short-circuits and excessive battery discharge. Operation stops at end of backup time. Inrush current limiter on start-up. Sensor for correct neutral switching. Back-feed protection (electrical safety insulation of the input plug during battery-based operation). EPO (emergency power off) contact			
I/O mains connection	German standard/terminal connector with universal multi-socket outlet (Italian/German standard)			
<b>Mechanical characteristics</b>				
Net weight (kg)	23.5	34	43	53
Dimensions (H x W x D) (mm)	266 x 483 x 582			
Installed power cards	1	2	3	4
Free power expansion slots	3	2	1	-
Installed battery kits	1	2	3	4
Free backup time extension slots	3	2	1	-
<b>Ambient conditions</b>				
Ambient operating temperature (°C)	0 to 40			
Protection index	IP 21			
Relative humidity (%)	20 to 80			
Noise at 1 m (dBA)	< 40			
<b>Certifications</b>				
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3			

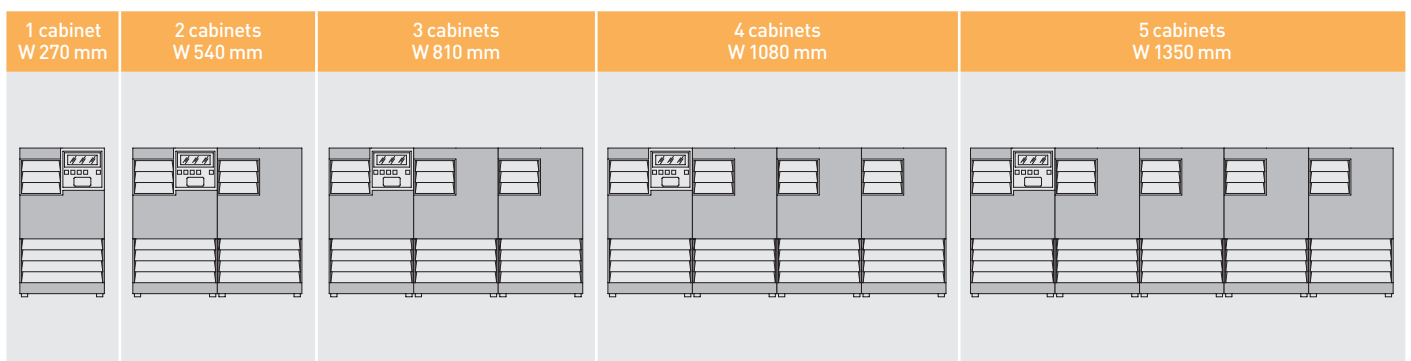
# MEGALINE

## Backup times for single cabinet and double cabinet versions

Model	Power	Backup time	Number of cabinets and dimensions W x H x D (mm)	Cat. Nos.
<b>Single cabinet</b>				
	1250 VA	30'	1x (270 x 475 x 570)	3 103 73
	1250 VA	52'	1x (270 x 475 x 570)	3 103 74
	1250 VA	75'	1x (270 x 475 x 570)	3 103 75
	2500 VA	22'	1x (270 x 475 x 570)	3 103 76
	2500 VA	30'	2x (270 x 475 x 570)	3 103 77
	2500 VA	52'	2x (270 x 475 x 570)	3 103 52 + 3 107 78
	2500 VA	63'	2x (270 x 475 x 570)	3 103 52 + 3 107 79
	3750 VA	18'	1x (270 x 475 x 570)	3 103 78
	3750 VA	29'	2x (270 x 475 x 570)	3 103 54 + 3 107 77
	3750 VA	44'	2x (270 x 475 x 570)	3 103 54 + 3 107 79
	3750 VA	67'	2x (270 x 475 x 570)	3 103 54 + 3 107 82
	5000 VA	22'	2x (270 x 475 x 570)	3 103 56 + 3 107 76
	5000 VA	30'	2x (270 x 475 x 570)	3 103 56 + 3 107 78
	5000 VA	46'	2x (270 x 475 x 570)	3 103 56 + 3 107 81
	5000 VA	63'	2x (270 x 475 x 570)	3 103 56 + 3 107 84
<b>Double cabinet</b>				
	5000 VA	22'	2x (270 x 475 x 570)	3 103 60 + 3 107 80
	5000 VA	30'	2x (270 x 475 x 570)	3 103 60 + 3 107 82
	5000 VA	46'	3x (270 x 475 x 570)*	3 103 60 + 3 107 84 + 3 107 75
	5000 VA	63'	3x (270 x 475 x 570)*	3 103 60 + 3 107 84 + 3 107 78
	6250 VA	20'	2x (270 x 475 x 570)	3 103 63 + 3 107 81
	6250 VA	30'	2x (270 x 475 x 570)	3 103 63 + 3 107 84
	6250 VA	47'	3x (270 x 475 x 570)*	3 103 63 + 3 107 84 + 3 107 78
	6250 VA	60'	3x (270 x 475 x 570)*	3 103 63 + 3 107 84 + 3 107 81
	7500 VA	18'	2x (270 x 475 x 570)	3 103 66 + 3 107 82
	7500 VA	30'	3x (270 x 475 x 570)*	3 103 66 + 3 107 84 + 3 107 76
	7500 VA	48'	3x (270 x 475 x 570)*	3 103 66 + 3 107 84 + 3 107 81
	7500 VA	59'	3x (270 x 475 x 570)*	3 103 66 + 3 107 84 (x2)
	8750 VA	20'	2x (270 x 475 x 570)	3 103 69 + 3 107 84
	8750 VA	30'	3x (270 x 475 x 570)*	3 103 69 + 3 107 84 + 3 107 78
	8750 VA	45'	3x (270 x 475 x 570)*	3 103 69 + 3 107 84 + 3 107 83
	8750 VA	61'	4x (270 x 475 x 570)*	3 103 69 + 3 107 84 (x2) + 3 107 78
	10000 VA	22'	3x (270 x 475 x 570)*	3 103 72 + 3 107 84 + 3 107 76
	10000 VA	30'	3x (270 x 475 x 570)*	3 103 72 + 3 107 84 + 3 107 80
	10000 VA	46'	4x (270 x 475 x 570)*	3 103 72 + 3 107 84 (x2) + 3 107 76
	10000 VA	60'	4x (270 x 475 x 570)*	3 103 72 + 3 107 84 (x2) + 3 107 81

\* This configuration requires the use of a Y cable Cat. No. 3 108 60. The number of cables required is equal to the total number of cabinets minus 2.

**NOTE: The backup times, expressed in minutes, are measured under optimum operating conditions.**

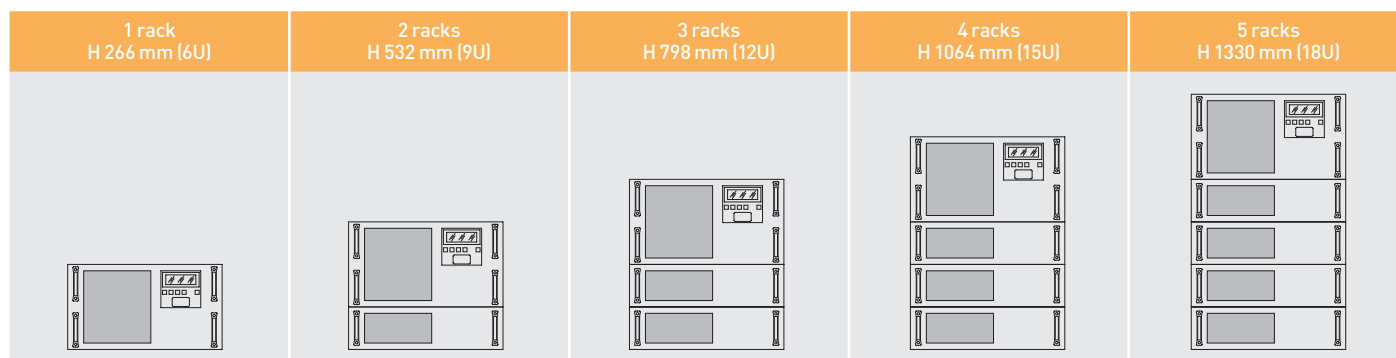


# MEGALINE RACK

## Backup times

Model	Power	Backup time	Number of racks and dimensions W x H x D (mm)	Cat. Nos.
<b>Racks</b>				
	1250 VA	30'	1 (6U)	3 103 87
	1250 VA	52'	1 (6U)	3 103 88
	1250 VA	75'	1 (6U)	3 103 89
	2500 VA	22'	1 (6U)	3 103 90
	2500 VA	30'	1 (6U)	3 103 91
	2500 VA	52'	2 (6U + 3U)	3 103 81 + 3 107 99
	2500 VA	63'	3 (6U + 2x3U)	3 103 81 + 3 107 99 + 3 107 96
	3750 VA	18'	1 (6U)	3 103 92
	3750 VA	29'	2 (6U + 3U)	3 103 83 + 3 107 98
	3750 VA	44'	3 (6U + 2x3U)	3 103 83 + 3 107 99 + 3 107 96
	3750 VA	67'	3 (6U + 3x3U)	3 103 83 + 3 107 99 (x2)
	5000 VA	22'	2 (6U + 3U)	3 103 85 + 3 107 97
	5000 VA	30'	2 (6U + 2x3U)	3 103 85 + 3 107 99
	5000 VA	46'	3 (6U + 3x3U)	3 103 85 + 3 107 99 + 3 107 98
	5000 VA	63'	4 (6U + 4x3U)	3 103 85 + 3 107 97 + 3 107 99 (x2)
			6U= 483 x 266 x 582 3U= 483 x 133x 584	

**NOTE:** The backup times, expressed in minutes, are measured under optimum operating conditions.







# CONVENTIONAL UPS



**Daker DK**



**WHAD**



**DHEA**

Safe, efficient, innovative solutions

On-line double conversion UPS with DSP microprocessors for precise, constant control of all measurements and of the power factor correction circuit (PFC).

Professional solutions with power up to 10 kVA.

Transformer-free technology for high quality energy output with up to 93% efficiency.

# Daker DK CONVENTIONAL SINGLE PHASE UPS

On-Line double conversion UPS that can be used in both tower and rack configurations

The main parameters of the system and the status of the UPS, including the battery charge level and faults, are displayed on the LCD screen.

Additional battery cabinets are available to increase the backup time of the UPS. A charger can be added in all battery cabinets for fast, safe charging.



**Tower version with additional battery cabinet**

## Three standard sizes for power up to 10 kVA

The UPS and additional battery cabinets are available in sizes ranging from 2 to 4 units, depending on the required power and backup time.



**UPS and 2-unit battery cabinet**

**UPS and 3-unit battery cabinet**

**UPS and 4-unit battery cabinet**



### Reversible screen

With the reversible screen, the Daker DK UPS can be used in both tower and 19" rack configuration.

On-Line double  
conversion UPS for low  
and medium power  
applications

# WHAD CONVENTIONAL SINGLE PHASE UPS

The distributed power, from 800 VA to 6000 VA, provides high level electrical protection for medium power devices.

The UPS comprise a single card with incorporates power, control logic, control and diagnostics.

With their compact size and slender, narrow shape, WHAD UPS take up very little space, even if they are located at a work station.

Models up to 2500 VA have a backup time that can be extended by adding battery cabinets.

The highest performance versions have a special connector for connecting SNMP communication interfaces.



# DHEA

## ENERGY STATION

# CONVENTIONAL

# SINGLE PHASE

# UPS

On-Line double conversion UPS that can be extended with stackable, automatic-connection units



### Load management

The 1500 VA model has 3 outputs, 2 of which are timed, deactivating themselves after a pre-set time, thus extending the supply to the most important loads according to the available backup time.

The system comprises a UPS unit and battery packs with automatic connections and a hot-swap system.

The compact size (depth: 185 mm) enables the UPS to be installed in very small spaces.

The special sealed, fume-free batteries enable it to be used in the home.



### Plug-in connection with hot-swap system

The "standard" units with automatic connections make it very easy for inexperienced users to install all the system's components. With the hot-swap system, battery packs can be added or replaced at any time, without switching off the UPS.

# Daker Dk

## Conventional UPS - Single phase On-line double conversion VFI



The main parameters of the UPS, including the battery charge level and faults, are displayed on the LCD screen on the front panel. The integrated communication software not only controls the UPS and its switch-off if there is a malfunction, and enables the user to test the main functions remotely, communicate via SNMP/Internet/network adaptor and access the functions of the UPS via the Internet, but can also send the user an SMS if specific events occur. The internal extension connector enables a WEB/SNMP card or a relay interface to be installed which provides insulated contacts for applications on industrial control panels or remote alarm panels. If there is an electronic fault, overload, overheating or for scheduled maintenance operations, the automatic or manual (optional) bypass ensures continuity of the power supply for critical loads. A bypass switch is available for maintenance.

Pack	Cat. Nos.	CONVERTIBLE UPS WITH BATTERIES			
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	WEIGHT (kg)
	<b>3 100 50</b>	1000	800	10	16
	<b>3 100 51</b>	2000	1600	10	29,5
	<b>3 100 52</b>	3000	2400	8	30
	<b>3 100 53</b>	4500	4050	6	60
	<b>3 100 54</b>	6000	5400	4	60

Pack	Cat. Nos.	MISCELLANEOUS ACCESSORIES
		DESCRIPTION
	<b>3 109 50</b>	Additional 200 W charger (for Daker DK 1000-2000-3000)
	<b>3 109 54</b>	Additional 1000 W charger (for Daker DK 4500-6000-10000)
	<b>3 109 52</b>	Rack support bracket kit
	<b>3 109 53</b>	External manual bypass (for Daker DK 1000-2000-3000)
	<b>3 109 69</b>	Volt-free contact card

CONVERTIBLE UPS WITHOUT BATTERIES					
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	WEIGHT (kg)
	<b>3 100 56</b>	4500	4050	-	25
	<b>3 100 57</b>	6000	5400	-	25
	<b>3 100 58</b>	10000	9000	-	26

BATTERY CABINET (WITH BATTERIES)	
	DESCRIPTION
<b>3 107 69</b>	Battery cabinet for 3 100 50 (12 x 12 V, 7.2 Ah batteries)
<b>3 107 70</b>	Battery cabinet for 3 100 51 (12 x 12 V, 7.2 Ah batteries)
<b>3 107 71</b>	Battery cabinet for 3 100 52 (12 x 12 V, 9 Ah batteries)
<b>3 107 72</b>	Battery cabinet for 3 100 56 and 3 100 57 (20 x 12 V, 7.2 Ah batteries)
<b>3 107 66</b>	Battery cabinet for 3 100 58 (20 x 12 V, 9 Ah batteries)

BATTERY CABINET (EMPTY)	
	DESCRIPTION
<b>3 107 50</b>	Battery cabinet for 3 100 50 (for 12 x 12 V, 7.2 Ah batteries)
<b>3 107 51</b>	Battery cabinet for 3 100 51 (for 12 x 12 V, 7.2 Ah batteries)
<b>3 107 52</b>	Battery cabinet for 3 100 52 (for 12 x 12 V, 9 Ah batteries)
<b>3 107 53</b>	Battery cabinet for 3 100 56 and 3 100 57 (for 20 x 12 V, 7.2 Ah batteries)
<b>3 107 54</b>	Battery cabinet for 3 100 58 (for 20 x 12 V, 9 Ah batteries)

NOTE: The backup times, expressed in minutes, are measured under optimum operating conditions.

# Daker Dk

## Conventional UPS - Single phase On-line double conversion VFI

Cat. Nos.	3 100 50	3 100 51	3 100 52	3 100 53	3 100 56	3 100 54	3 100 57	3 100 58
<b>General characteristics</b>								
Nominal power (VA)	1000	2000	3000	4500		6000		10000
Active power (W)	800	1600	2400	4050		5400		9000
Technology	On-line double conversion VFI-SS-111							
Waveform	Sinusoidal							
Architecture	Convertible tower and 19" rack							
<b>Input characteristics</b>								
Input voltage	230 V							
Input frequency	50-60 Hz $\pm$ 5% autosensing							
Input voltage range	160 V - 288 V full load							
THD of input current	< 3%							
Input power factor	> 0.99							
Compatibility with gensets	Configurable for synchronism between the input and output frequencies, even for the highest frequency ranges, $\pm$ 14%							
<b>Output characteristics</b>								
Output voltage	230 V $\pm$ 1%							
Output frequency (nominal)	50/60 Hz (configurable via LCD panel) $\pm$ 0.1%							
Peak factor	1:3							
THD of output voltage	< 3% with linear load							
Output voltage tolerance	$\pm$ 1%							
Bypass	Automatic bypass and optional external manual bypass							
<b>Batteries</b>								
Backup time extension	Yes							
Number of batteries	3	6	6	20	-	20	-	-
Battery range type/voltage	12 V 7.2 Ah	12 V 7.2 Ah	12 V 9 Ah	12 V 5 Ah	-	12 V 5 Ah	-	-
Backup time (min)	10	10	8	6	-	4	-	-
<b>Communication and management</b>								
Screen and signalling	Four buttons and four LEDs for real-time control of the status and the main parameters of the UPS							
Communication ports	RS232 and USB serial ports			RS232 serial ports				
Remote control	Available							
Connector for network interface	SNMP							
Back feed protection	yes							
Emergency power off (EPO)	yes							
<b>Mechanical characteristics</b>								
Dimensions (H x W x D) (mm)	440x88 (2U) x405	440x88 (2U) x650	440x88 (2U) x650	440x176 (4U) x680	440x88 (2U) x680	440x176 (4U) x680	440x88 (2U) x680	440x132 (3U) x680
Net weight (kg)	16	29.5	30	52	25*	52	25*	26*
Dimensions of battery cabinet H x W x D (mm)	440x176 (4U) x405	440x88 (2U) x650	440x88 (2U) x650	-	440x132 (3U) x680	-	440x132 (3U) x680	440x132 (3U) x680
<b>Ambient conditions</b>								
Operating temperature (°C)	0 $\div$ 40°C							
Protection index	IP 21							
Relative humidity (%)	20 to 80%							
Noise at 1 m (dBA)	< 50							
Heat dissipation (BTU/h)	490	654	818	982		1310	1636	
<b>Certifications</b>								
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3							

\* Weight without batteries

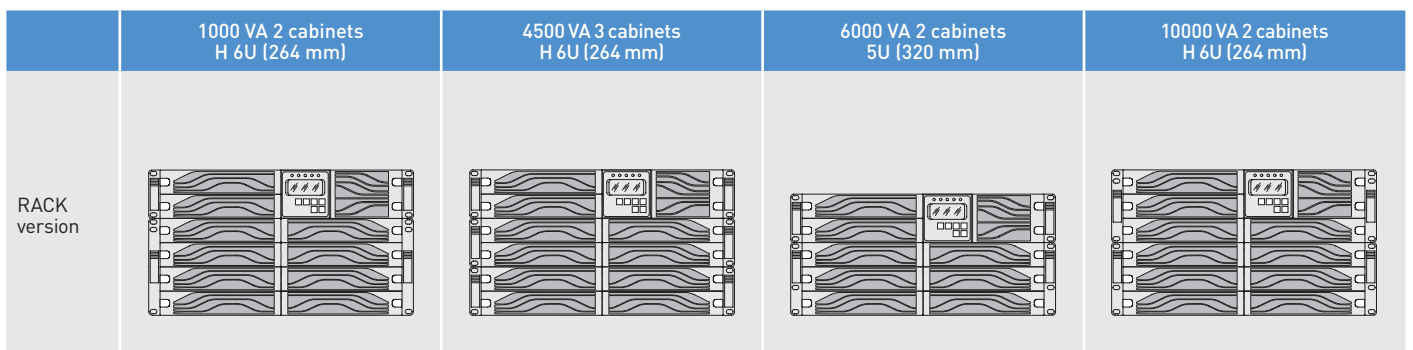
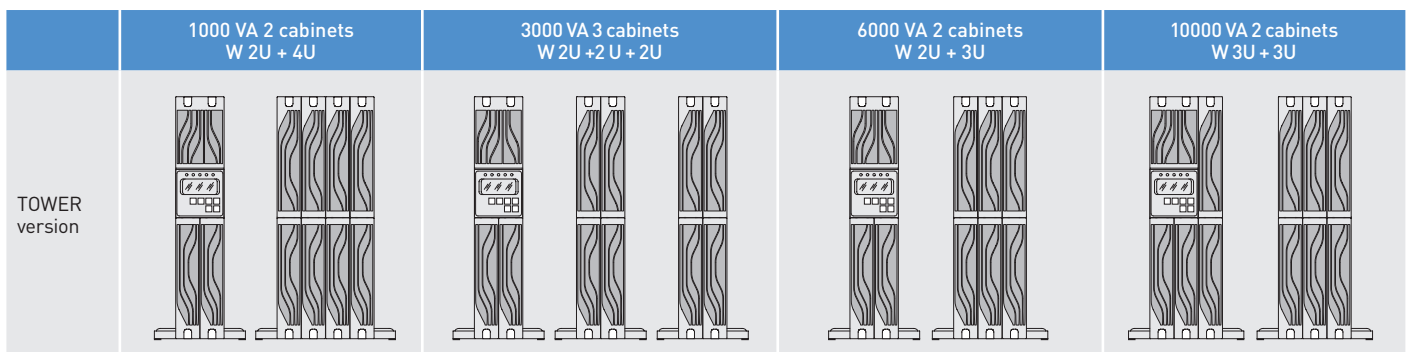
NOTE: The backup times, expressed in minutes, are measured under optimum operating conditions.

# Daker Dk

## Long backup time table

Model	Power	Backup time	Dimensions and number of cabinets H x W x D (mm)	Cat. Nos.
Daker DK	1000 VA	10'	440 x 88 x 405	3 100 50
		1h 22'	440 x 88 x 405 + 440 x 176 x 405	3 100 50 + 3 107 69
		2h 44'	440 x 88 x 405 + 440 x 176 x 405 (x2)	3 100 50 + 3 107 69 (x2)
		4h 22'	440 x 88 x 405 + 440 x 176 x 405 (x3)	3 100 50 + 3 107 69 (x3)
		5h 52'	440 x 88 x 405 + 440 x 176 x 405 (x4)	3 100 50 + 3 107 69 (x4)
	2000 VA	10'	440 x 88 x 650	3 100 51
		39'	440 x 88 x 650 (x2)	3 100 51 + 3 107 70
		1h 22'	440 x 88 x 650 (x3)	3 100 51 + 3 107 70 (x2)
		1h 57'	440 x 88 x 650 (x4)	3 100 51 + 3 107 70 (x3)
		2h 44'	440 x 88 x 650 (x5)	3 100 51 + 3 107 70 (x4)
	3000 VA	8'	440 x 88 x 650	3 100 52
		34'	440 x 88 x 650 (x2)	3 100 52 + 3 107 71
		1h 6'	440 x 88 x 650 (x3)	3 100 52 + 3 107 71 (x2)
		1h 33'	440 x 88 x 650 (x4)	3 100 52 + 3 107 71 (x3)
		2h 3'	440 x 88 x 650 (x5)	3 100 52 + 3 107 71 (x4)
	4500 VA	10'	440 x 88 x 650 + 440 x 132 x 680	3 100 56 + 3 107 72
		31'	440 x 88 x 650 + 440 x 132 x 680 (x2)	3 100 56 + 3 107 72 (x2)
		56'	440 x 88 x 650 + 440 x 132 x 680 (x3)	3 100 56 + 3 107 72 (x3)
		1h 30'	440 x 88 x 650 + 440 x 132 x 680 (x4)	3 100 56 + 3 107 72 (x4)
	6000 VA	10'	440 x 88 x 650 + 440 x 132 x 680	3 100 57 + 3 107 72
		29'	440 x 88 x 650 + 440 x 132 x 680 (x2)	3 100 57 + 3 107 72 (x2)
		49'	440 x 88 x 650 + 440 x 132 x 680 (x3)	3 100 57 + 3 107 72 (x3)
		1h 11'	440 x 88 x 650 + 440 x 132 x 680 (x4)	3 100 57 + 3 107 72 (x4)
	10000 VA	7'	440 x 132 x 650 + 440 x 132 x 680	3 100 58 + 3 107 66
		18'	440 x 132 x 650 + 440 x 132 x 680 (x2)	3 100 58 + 3 107 66 (x2)
		29'	440 x 132 x 650 + 440 x 132 x 680 (x3)	3 100 58 + 3 107 66 (x3)
		42'	440 x 132 x 650 + 440 x 132 x 680 (x4)	3 100 58 + 3 107 66 (x4)
		56'	440 x 132 x 650 + 440 x 132 x 680 (x5)	3 100 58 + 3 107 66 (x5)

NOTE: The backup times, expressed in minutes, are measured under optimum operating conditions.





# DHEA

## Conventional UPS - Single phase On-line double conversion VFI



3 101 08



3 107 73

- System can be combined with a genset to increase the backup time if there are prolonged faults.
- Battery packs with integrated batteries and automatic connectors.
- Up to 10 battery packs can be added.
- UPS supply voltage only present when the pack is connected.

Cat. Nos.	3 101 07	3 101 08
<b>General characteristics</b>		
Nominal power (VA)	1000	1500
Active power (W)	700	1050
Technology	On-line double conversion	
Waveform	Sinusoidal	
Nominal input voltage	230 V	
Input voltage range	184 V ÷ 265 V at 100% load	
Minimum mains operating voltage	184 V with nominal load/100 V at 50% of nominal load	
Input frequency	50/60 Hz ± 2% (± 14% in extended range)	
Input power factor	> 0.99 at 20% load	
Output voltage	230 V ± 1%	
Output voltage distortion	< 1%	
Output frequency (battery operation)	50/60 Hz ± 1%	
Batteries	2 x 36 V 7.2 Ah stacking battery packs	
Acoustic noise at 1 m (dBA)	< 40	
Net weight (kg)	4 (UPS) + 16 (battery pack)	
Dimensions (H x W x D) (mm)	309 x 450 x 170 (UPS) - 125 x 450 x 170 (battery pack)	
Regulations	EN 62040-1, EN 62040-2, EN 62040-3	
External connections	1 x RS 232 + 3 contact outputs (2 poles) + EPO	
Protection index	IP 21	
Output sockets	1 line	3 lines (2 of which are timed)

Pack	Cat. Nos.	ENERGY STATIONS	
		NOMINAL POWER VA	ACTIVE POWER W
	<b>3 101 07</b>	1000	700
	<b>3 101 08</b>	1500	1050

BATTERIES	
DESCRIPTION	
<b>3 107 73</b>	Battery pack

No. of battery packs	Backup time	
	1000 VA	1500 VA
1	38'	22'
2	1h 24'	53'
3	2h 16'	1h 25'
4	3h 16'	1h 56'
5	4h 8'	2h 40'
6	5h 4'	3h 18'
7	5h 46'	3h 53'
8	6h 55'	4h 32'
9	8h 8'	5h 7'
10	9h 7'	5h 36'

NOTE: The backup times, expressed in minutes, are measured under optimum operating conditions.

# WHAD

## Conventional UPS - Single phase On-line double conversion VFI



All models have:

- Logic level port which can be connected to a relay interface kit (except for Cat. Nos 3 100 87, 3 100 90 and 3 100 93).
- Slot for connecting internal versions of SNMP, CS121 SK and CS121B SK communication interfaces (for 3, 4, 5 and 6 kVA).
- An external maintenance bypass device can be connected, which is designed to be connected to the I/O connector on the back of the UPS (for 3, 4, 5 and 6 kVA).

Pack	Cat. Nos.	UPS WITH GERMAN STANDARD SOCKETS			
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	WEIGHT (kg)
	<b>3 100 87</b>	800	560	24	12
	<b>3 100 90</b>	1000	700	18	12
	<b>3 100 93</b>	1500	1050	10	12
	<b>3 100 96</b>	2000	1400	13	23
	<b>3 100 97</b>	2500	1750	10	23
	<b>3 100 98</b>	3000	2100	23	55
	<b>3 100 99</b>	4000	2800	14	55
	<b>3 101 00</b>	5000	3500	16	65
	<b>3 101 01</b>	6000	4200	12	65

		UPS WITH FRENCH STANDARD SOCKETS			
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	WEIGHT (kg)
	<b>3 100 88</b>	800	560	24	12
	<b>3 100 91</b>	1000	700	18	12
	<b>3 100 94</b>	1500	1050	10	12
	<b>3 101 09</b>	2000	1400	13	23
	<b>3 101 11</b>	2500	1750	10	23

		UPS WITH BRITISH STANDARD SOCKETS			
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	WEIGHT (kg)
	<b>3 100 89</b>	800	560	24	12
	<b>3 100 92</b>	1000	700	18	12
	<b>3 100 95</b>	1500	1050	10	12
	<b>3 101 10</b>	2000	1400	13	23
	<b>3 101 12</b>	2500	1750	10	23

MISCELLANEOUS ACCESSORIES	
	DESCRIPTION
<b>3 107 74</b>	Additional battery cabinet for 800 - 1000 - 1500
<b>3 108 20</b>	Additional battery cabinet for 2000 - 2500
<b>3 109 71</b>	Y cable for connecting two battery cabinets
<b>3 108 62</b>	Manual bypass for 3000 VA/4000 VA UPS
<b>3 109 77</b>	Manual bypass for 5000 VA/6000 VA UPS
<b>3 109 72</b>	Relay interface kit

Model	Power	Backup time	Dimensions and no. of cabinets H x W x D (mm)	Cat. Nos.
WHAD	800 VA	1h 40'	88 x 355 x 390 + 160 x 319 x 390	3 100 87 + 3 107 74
		3h 5'	88 x 355 x 390 + 160 x 319 x 390 (x2)	3 100 87 + 3 107 74 (x2)*
	1000 VA	1h 15'	88 x 355 x 390 + 160 x 319 x 390	3 100 90 + 3 107 74
		2h 23'	88 x 355 x 390 + 160 x 319 x 390 (x2)	3 100 90 + 3 107 74 (x2)*
	1500 VA	40'	88 x 355 x 390 + 160 x 319 x 390	3 100 93 + 3 107 74
		1h 30'	88 x 355 x 390 + 160 x 319 x 390 (x2)	3 100 93 + 3 107 74 (x2)*
	2000 VA	47'	460 x 160 x 425 + 160 x 319 x 390	3 100 96 + 3 108 20
		1h 23'	460 x 160 x 425 + 2x(160 x 319 x 390)	3 100 96 + 3,108 20 (x2)*
	2500 VA	38'	460 x 160 x 425 + 160 x 319 x 390	3 100 97 + 3 108 20
		1h 7'	460 x 160 x 425 + 2x(160 x 319 x 390)	3 100 97 + 3,108 20 (x2)*

\* This configuration requires the use of a Y cable Cat. No. 3 109 71. The number of cables required is equal to the total number of cabinets minus 1.

NOTE: The backup times, expressed in minutes, are measured under optimum operating conditions.

# WHAD

## Conventional UPS - Single phase On-line double conversion VFI

Cat. Nos.	3 100 87 3 100 88 3 100 89	3 100 90 3 100 91 3 100 92	3 100 93 3 100 94 3 100 95	3 100 96 3 101 09 3 101 10	3 100 97 3 101 11 3 101 12	3 100 98	3 100 99	3 101 00	3 101 01	
<b>General characteristics</b>										
Nominal power (VA)	800	1000	1500	2000	2500	3000	4000	5000	6000	
Active power (W)	560	700	1050	1400	1750	2100	2800	3500	4200	
Technology	On-line double conversion VFI-SS-111									
Waveform	Sinusoidal									
Architecture	Conventional with extendable backup time									
<b>Input characteristics</b>										
Input voltage	230 V									
Input frequency	50-60 Hz ± 5% autosensing									
Input voltage range	184 V÷265 V at 100% load									
THD of input current	3%									
Input power factor	> 0.99									
<b>Output characteristics</b>										
Output voltage	230 V ± 1%									
Efficiency	up to 93%			up to 92%			up to 94%			
Output frequency (nominal)	50/60 Hz synchronised									
Peak factor	3.5:1									
THD of output voltage	1%									
Permitted overload	300% for 1 sec, 200% for 5 sec, 150% for 30 sec									
Bypass	Automatic, internal, synchronised, electromechanical (for overloads and operating problems)									
<b>Batteries</b>										
Backup time extension	Yes					No				
Battery range type/voltage	VRLA - AGM 48 VDC			VRLA - AGM 36 VDC		VRLA - AGM 144 VDC		VRLA - AGM 192 VDC		
Backup time (min)	24	18	10	13	10	23	14	16	12	
<b>Communication and management</b>										
Screen and signalling	Multi-coloured LED status indicator, alarms and audible signalling									
Communication ports	1 RS232 serial port			1 RS 232 serial port, 1 logic level port		1 RS 232 serial port, 1 logic level port, 1 slot for network interface connection (eg: CS121)				
Remote control	Software can be downloaded free of charge									
<b>Mechanical characteristics</b>										
Dimensions (H x W x D) (mm)	355 x 88 x 390			460 x 160 x 425			475 x 270 x 570			
Dimensions of battery cabinet (H x W x D) (mm)	319 x 160 x 402			319 x 160 x 402			-			
Net weight (kg)	12			23			55		65	
<b>Ambient conditions</b>										
Ambient operating temperature (°C)	0 to 40									
Relative humidity (%)	20 to 80									
Protection index	IP 21									
Noise at 1 m (dBA)	< 40			< 42			< 40			
Heat dissipation (BTU/h)	150	190	287	380	478	570	760	952	1140	
<b>Certifications</b>										
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3									

NOTE: The backup times, expressed in minutes, are measured under optimum operating conditions.



# LINE INTERACTIVE UPS



**Niky**



**Niky S**

Simple, reliable, low-cost solutions

Compact, easy to install and configure.

With an electronic voltage regulator, an LED indicator and telephone protection, they provide total, reliable protection of the installation.

They provide an excellent quality/price ratio and guarantee of a lasting investment.

Ideal protection  
for small office  
and home office  
applications

This range offers the best quality/price ratio for the safety of data in the office or the home.

Microprocessor controlled and with an electronic automatic voltage regulator (AVR) and an intelligent communication interface, they provide optimum protection management.



## Niky line interactive

Advanced management according to battery discharge level  
AVR (automatic voltage regulator)  
Integrated self-diagnostics  
Cold start function  
Microprocessor control  
RS232 or USB interface  
MODEM/LAN telephone protection



# Niky S

## line interactive

- Sinusoidal output
- Microprocessor control
- MODEM/LAN telephone protection
- RS-232 or USB interface
- Cold start function
- Protection against voltage peaks
- Integrated self-diagnostics
- Intelligent battery management
- Overload and short-circuit protection
- Excellent voltage regulation

# Niky

## Line Interactive UPS - Single phase VI



3 100 00



3 100 13

Pack	Cat. Nos.	UPS WITH GERMAN STANDARD OUTPUT SOCKETS					
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	NO. OF SOCKETS IEC	NO. OF GERMAN STANDARD SOCKETS	COMMUNIC. PORTS
	<b>3 100 00</b>	600	300	5 to 30	-	1	USB
	<b>3 100 01</b>	800	400	5 to 30	-	1	USB

		UPS WITH GERMAN STANDARD OUTPUT SOCKETS + IEC SOCKET					
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	NO. OF IEC SOCKETS	NO. OF GERMAN STANDARD SOCKETS	COMMUNIC. PORTS
	<b>3 100 09</b>	600	300	5 to 30	1	1	USB
	<b>3 100 10</b>	800	400	5 to 30	1	1	USB
	<b>3 100 13</b>	1000	600	5 to 30	2	2	RS232
	<b>3 100 14</b>	1500	900	5 to 30	2	2	RS232

		UPS WITH IEC MULTI-SOCKET OUTLETS					
		NOMINAL POWER (VA)	ACTIVE POWER (W)	BACKUP TIME (min)	NO. OF IEC SOCKETS	NO. OF GERMAN STANDARD SOCKETS	COMMUNIC. PORTS
	<b>3 100 02</b>	600	300	5 to 30	3	-	USB
	<b>3 100 03</b>	800	400	5 to 30	3	-	USB
	<b>3 100 04</b>	1000	600	5 to 30	6	-	USB
	<b>3 100 05</b>	1500	900	5 to 30	6	-	USB

Cat. Nos.	3 100 00 3 100 02 3 100 09	3 100 01 3 100 03 3 100 10	3 100 04 3 100 13	3 100 05 3 100 14
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General characteristics				
Nominal power (VA)	600	800	1000	1500
Active power (W)	300	400	600	900
Technology	Line interactive VI			
Waveform	Pseudo-sinusoidal			

Input characteristics	
Input voltage	230 V
Input frequency	50-60 Hz
Input voltage range	160 V-290 V

Output characteristics	
Output voltage	230 V ± 10%
Output frequency (nominal)	50/60 Hz +/- 1%
THD of output voltage	< 3% with linear load

Batteries				
Number of batteries	1	1	2	2
Battery range type/voltage	12 V, 7 Ah	12 V, 9 Ah	12 V, 7 Ah	12 V, 9 Ah

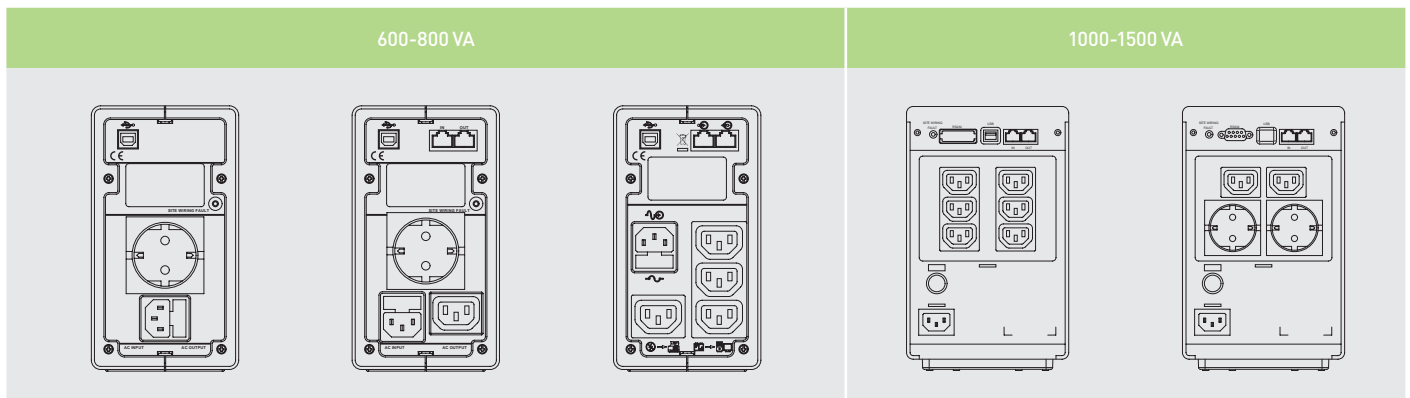
Communication and management		
Screen and signalling	One button and 2 LEDs for real-time control	One button and 4 LEDs for real-time control
Telephone protection	RJ 11/RJ 45	
Remote control	Available	

Mechanical characteristics			
Dimensions H x W x D (mm)	171x95x349		239x147x354
Net weight (kg)	7	7.5	13

Ambient conditions	
Ambient operating temperature (°C)	0 to 40°C
Relative humidity (%)	0 to 95%
Noise at 1 m (dBA)	< 40

Certifications	
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3

NOTE: The backup times, expressed in minutes, are measured under optimum operating conditions.





# Niky S

## Line Interactive UPS - Single phase VI-SS

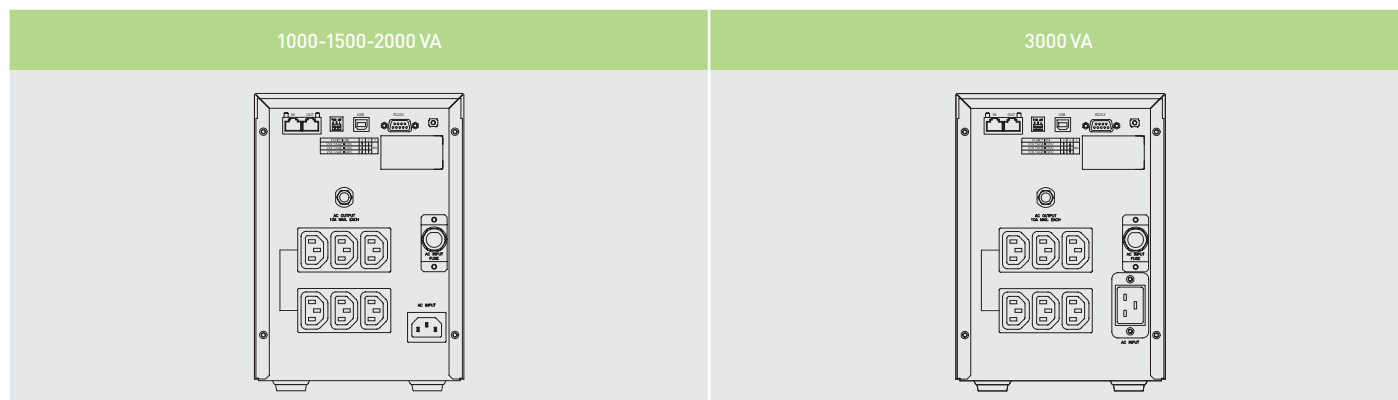


3 100 06

Pack	Cat. Nos.	UPS				
		NOMINAL POWER VA	ACTIVE POWER W	BACKUP TIME (min)	NO. OF SOCKETS IEC	COMMUNICATION PORTS
	<b>3 100 06</b>	1000	600	9	6	USB-RS 232
	<b>3 100 20</b>	1500	900	8	6	USB-RS 232
	<b>3 100 07</b>	2000	1200	9	6	USB-RS 232
	<b>3 100 08</b>	3000	1800	8	6	USB-RS 232

Cat. Nos.	3 100 06	3 100 20	3 100 07	3 100 08
<b>General characteristics</b>				
Nominal power (VA)	1000	1500	2000	3000
Active power (W)	600	900	1200	1800
Technology	Line interactive VI-SS			
Waveform	Sinusoidal			
<b>Input characteristics</b>				
Input voltage	230 V ± 12% via mains ± 5% via battery			
Input frequency	50-60 Hz			
Input voltage range	160 V-290 V			
<b>Output characteristics</b>				
Output voltage	230 V ± 10%			
Output frequency (nominal)	50/60 Hz +/-0.2%			
THD of output voltage	< 3% with linear load			
<b>Batteries</b>				
Number of batteries	2	2	4	4
Battery range type/voltage	12 V, 7 Ah	12 V, 9 Ah	12 V, 7 Ah	12 V, 9 Ah
<b>Communication and management</b>				
Screen and signalling	Three buttons and three LEDs for real-time control of the status of the UPS			
Telephone protection	RJ 11/RJ 45			
Remote control	Available			
<b>Mechanical characteristics</b>				
Dimensions H x W x D (mm)	247x173x369		247x173x465	
Net weight (kg)	13	15	22	24
<b>Ambient conditions</b>				
Ambient operating temperature (°C)	0 to 40°C			
Relative humidity (%)	0 to 95% non-condensing			
Noise at 1 m (dBA)	< 40			
<b>Certifications</b>				
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3			

**NOTE:** The backup times, expressed in minutes, are measured under optimum operating conditions.





# COMMUNICATION ACCESSORIES



## UPS supervision system

Network interfaces,  
for remote control of UPS.

Sensors for monitoring the  
ambient temperature  
and humidity.

Communication and  
supervision software for  
accessing the operating  
parameters of the UPS,  
carrying out full diagnostics  
and configuring specific  
functions.

# ACCESSORIES

## Network interfaces



3 108 84



3 109 06



3 108 82



3 109 07

The network interfaces for managing UPS do not require any external software. They include a 32-bit processor, with a proprietary system capable of real-time control of the operation of the UPS and managing numerous events (no power, overload, bypass, problem, etc.) and as a result executing a series of actions, such as:

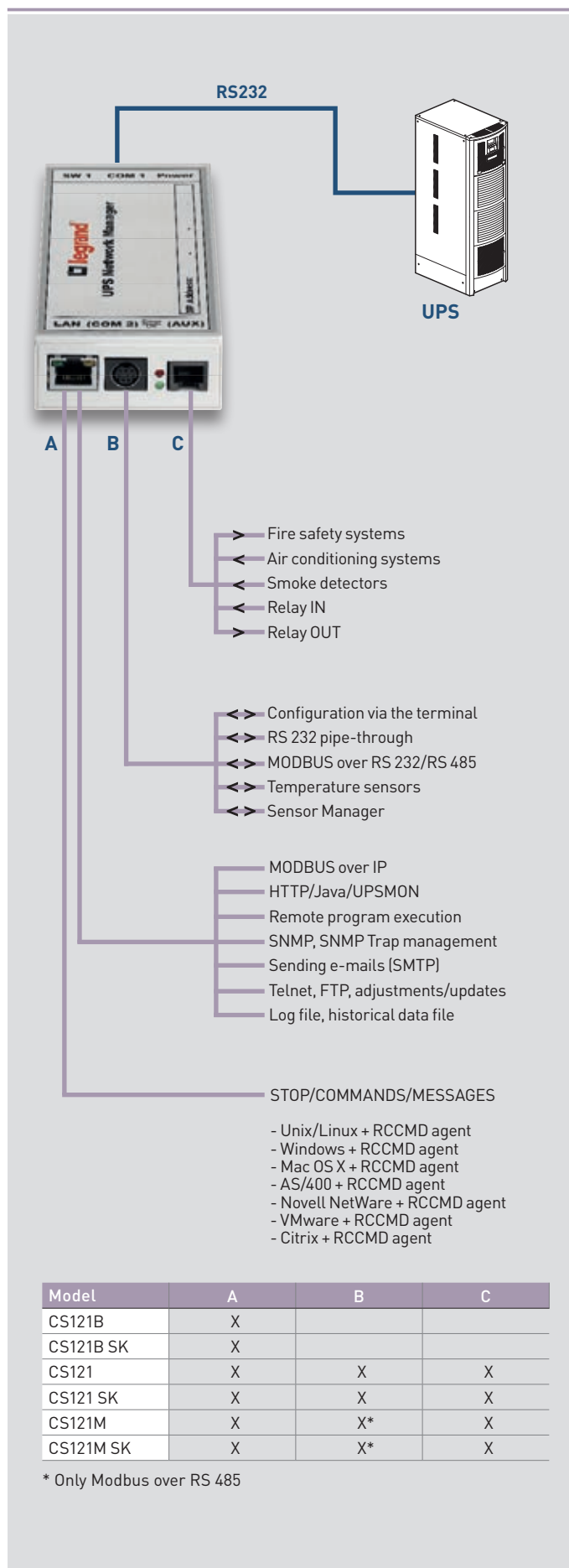
- Memorisation of events in time-stamped log files
- Regular memorisation of the main operating parameters
- Sending e-mails
- Execution of scheduled actions
- Display of pop-up messages, switch-off, and execution of customised commands on remote computers (the RCCMD software agent must be installed on these computers)
- Stopping and restarting the UPS
- Sending "Wake on LAN (WOL)" signals
- Support of the SNMP protocol and the main management software (HP OpenView, IBM Tivoli, etc.)
- Sending SNMP trap messages
- Displaying data and configuration via a web browser (Internet Explorer, Mozilla Firefox, Opera, etc.) or via Telnet
- Updating the firmware using special software, which can be downloaded free of charge on the Internet
- Ethernet 10/100 Base-T (half-duplex and full-duplex) connection with auto-recognition function
- DHCP function
- 1 RCCMD licence included

Available in internal and external versions, it is inserted in a dedicated slot in the UPS. Supply voltage 9 - 30 VDC (power supply included in external versions). The professional and industrial versions have programmable digital contacts and additional RS 232/RS 485 communication ports.

Model	Cat. Nos.	NETWORK INTERFACE
		DESCRIPTION
CS121 SK	<b>3 108 81</b>	PROFESSIONAL network interface, internal version (card)*
CS121B SK	<b>3 108 82</b>	STANDARD network interface, internal version (card)*
CS121	<b>3 108 83</b>	PROFESSIONAL network interface, external version**
CS121B	<b>3 108 84</b>	STANDARD network interface, external version**
CS121M	<b>3 109 06</b>	INDUSTRIAL network interface, external version**
CS121M SK	<b>3 109 07</b>	INDUSTRIAL network interface, internal version (card)*

\* For Archimod, Trimod, DK (all powers) and WHAD 3000, 4000, 5000 and 6000 VA.

\*\* For Megaline (all powers) and WHAD 800, 1000, 1500, 2000 and 2500 VA.



Model	A	B	C
CS121B	X		
CS121B SK	X		
CS121	X	X	X
CS121 SK	X	X	X
CS121M	X	X*	X
CS121M SK	X	X*	X

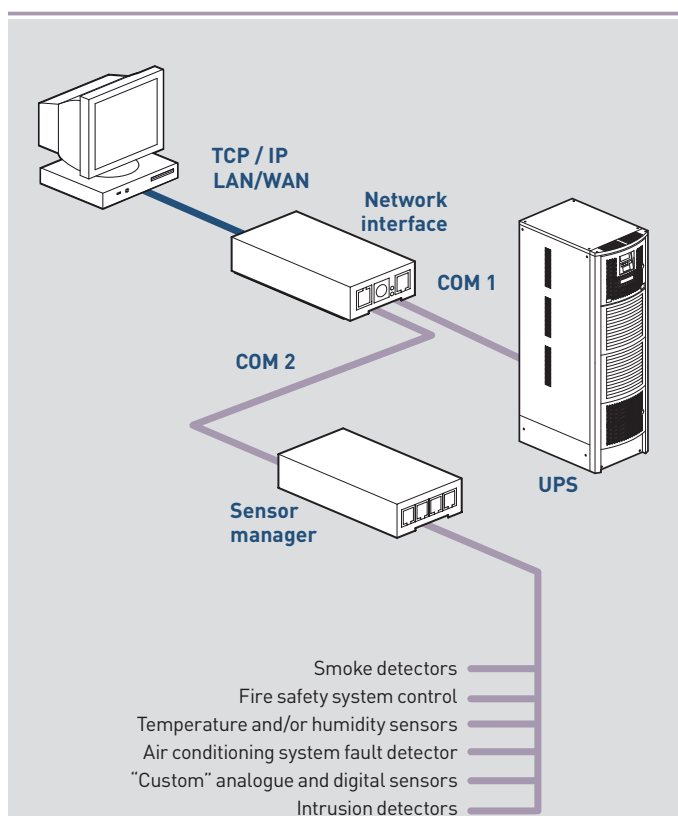
\* Only Modbus over RS 485

# ACCESSORIES

## Sensors and other accessories



Model	Cat. Nos.	SENSORS
		DESCRIPTION
SM_T_COM	<b>3 108 97</b>	Temperature sensor for direct connection to the COM2 port on the CS121 and CS121 SK interfaces and SiteSwitch 4 (SS4 model only). Cannot be used with SensorManager.
SM_T_H_COM	<b>3 108 98</b>	Combined temperature and humidity sensor for direct connection to the COM2 port on the CS121 and CS121 SK interfaces and SiteSwitch 4 (SS4 model only). Cannot be used with SensorManager.
SensorManager	<b>3 108 99</b>	Manager for sensors: connects to the COM2 port on the CS121 and CS121 SK interfaces and SiteSwitch 4 (SS4 model only) and manages up to 8 analogue inputs, 4 digital inputs and 4 digital outputs. The configuration is managed directly by the CS121 interfaces (PROFESSIONAL version), described previously. The "Scale Divisor" and "Offset" configuration functions enable SensorManager to be used with any analogue device (see characteristics). It includes 1 "SM_T" temperature sensor.
SM_T	<b>3 109 00</b>	Temperature sensor that can only be used with SensorManager. It enables another "SM_T" sensor to be connected using a special connector.
SM_T_H	<b>3 109 01</b>	Combined temperature and humidity sensor that can only be used with SensorManager.
Door sensor	<b>3 109 02</b>	This consists of a reed switch and a magnet. Compatible with CS121, CS121 SK, CS121 M, CS121M SK and SensorManager.
SM_flash	<b>3 109 03</b>	Flashing illuminated signal. Only compatible with SensorManager.
CON_R_AUX	<b>3 109 09</b>	Hardware interfaces with 4 digital inputs and 4 relay outputs, whose state will be displayed via LEDs. With hardware interfaces you are able to connect external devices to the network interfaces (professional or industrial), which require potential-free relay outputs and/or are installed at most 100 meters away from the connection terminal. It provides 4 AUX channels, which can be defined as in- or rather outputs. The kit are composed by connector cable RJ12 (length 1 metres) and power supply 12V.



### SENSOR MANAGER TECHNICAL CHARACTERISTICS

Supply voltage (VDC)	9 to 24
Temperature (°C)	0 to 40
Non-condensing humidity (%)	10 to 80
Analogue inputs (V)	0 to 10
Digital inputs (V)	9 to 24
10 mA digital outputs (V)	9 to 24
Dimensions (WxDxH) (mm)	70 x 126 x 30

### SENSOR TECHNICAL CHARACTERISTICS

	3 108 97	3 108 98	3 109 00	3 109 01
Supply voltage VDC	9 to 15*	9 to 15*	9 to 24**	9 to 24**
Temperature range °C	-25 to +100	-25 to +100	0 to +100	0 to +100
Relative humidity ± 5% (%)		0 to 100		0 to 100
Connection cable included (m)	1.8	1.8	5	5
Dimensions H x W x D (mm)	27 x 70 x 70			

\* Direct from the network interface

\*\* Direct from SensorManager

# ACCESSORIES

## Load management control unit (SiteSwitch)



3 109 04

This device is used to control the energy distribution, enabling all the loads connected to it to be switched on/off individually, via four separate power supply outputs.

For example, if there is a power failure, a UPS can send a command to switch off the least important loads (such as laser printers) in order to provide a longer backup time for critical equipment. When the power supply is restored, the UPS can send a command to switch these loads back on.

The 5 LEDs on the front panel can be used to check the status of the main power supply and of each output.

Supplied with brackets for installation in 19" rack cabinets.

The SiteSwitch 4 is available in two versions: SS4 and SS4 AUX.

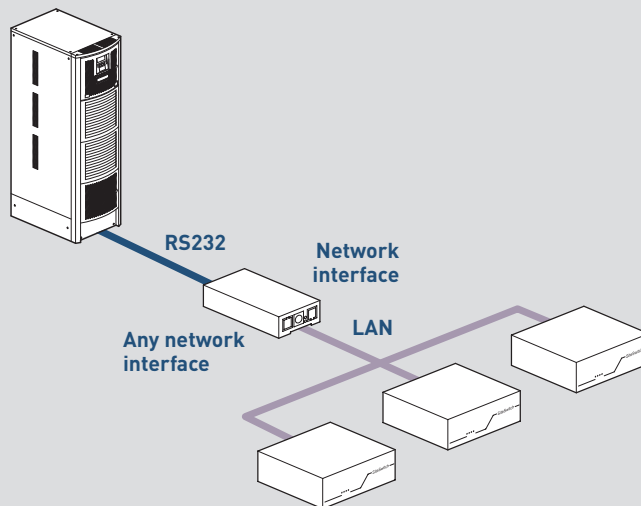
Model	Cat. Nos.	SITESWITCH 4
		DESCRIPTION
SS4	<b>3 109 04</b>	PROFESSIONAL load management control unit
SS4 AUX	<b>3 109 05</b>	STANDARD load management control unit

### SS4

This is the version with the highest performance. It incorporates a network card with receives, via TCP/IP, the commands sent via the CS121 network interface (any model) of the UPS.

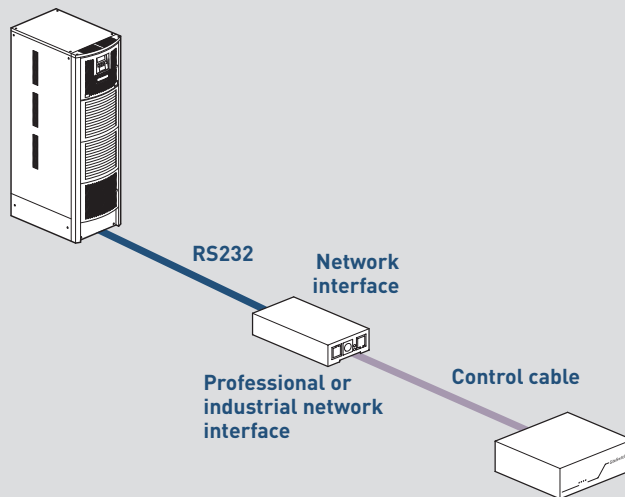
This enables the switching point to be installed close to the loads to be supplied and enables the UPS to control a potentially infinite number of control units.

The presence of a CS121 SK network interface inside the SS4 also ensures its standalone operation, i.e. without receiving commands from a UPS: it is in fact possible to send commands to computers (via the RCCMD software), program starts and stops, send e-mails and manage sensors from its web interface. It is compatible with the SNMP protocol.



### SS4 AUX

This is the standard solution. It must be controlled by a UPS equipped with a professional or INDUSTRIAL interface. Ideal solution if it is installed close to the UPS (for example inside the same rack cabinet) and in all cases a maximum of 15 metres away.



### TECHNICAL CHARACTERISTICS

Type	SS4	SS4 AUX
Supply voltage	230 V/16 A	230 V/16 A
Output sockets	4 x (230 V/8 A max)	4 x (230 V/8 A max)
Management of output sockets	Internal/CS121 (all models)	CS121 (PROFESSIONAL and INDUSTRIAL versions)
Type of connection for management of output sockets	Ethernet 10/100 Mbps	RJ111 cable approx. 5 m (included)
Dimensions (H x W x D) (mm)	60 x 260 x 180	60 x 260 x 180

# ACCESSORIES

## Management software

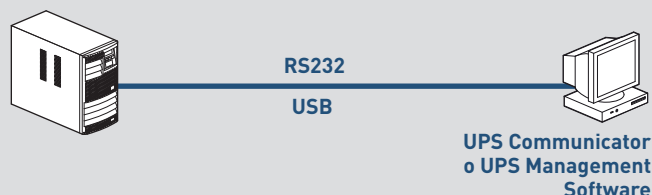


Model	Cat. Nos.	SOFTWARE DESCRIPTION
UPS Communicator	downloadable	Set of applications for real-time control of the operation of the UPS and to ensure the integrity of the systems on the computers supplied by this UPS. Operates with an agent for executing commands on remote computers (RS System).
UPS management software	3 108 79	Set of applications for real-time control of the operation of the UPS and to ensure the integrity of the systems on the computers supplied by this UPS. Requires the addition of an agent for executing commands on remote computers (RCCMD).
UPS management software	3 108 80	Set of applications for real-time control of the operation of the UPS and to ensure the integrity of the systems on the computers supplied by this UPS. Requires the addition of an agent for executing commands on remote computers (RCCMD). Includes an RS232/USB converter.
RCCMD		Software enabling a computer to receive and execute, using the TCP/IP protocol, all the remote commands sent by the management systems of the UPS. An RCCMD licence is necessary for each computer to be controlled. Only the licences are supplied: the software can be downloaded on the Internet (after requesting the activation code).
RCCMD	3 108 85	Multi-OS RCCMD licence
RCCMD	3 108 86	Pack of multi-OS RCCMD licences
RCCMD	3 108 87	Pack of 10 multi-OS RCCMD licences
RCCMD	3 108 88	Pack of 25 multi-OS RCCMD licences
RCCMD	3 108 89	Pack of 50 multi-OS RCCMD licences
RCCMD	3 108 90	RCCMD licence for AS/400 (minimum release: V5R3M0)
UNMS		"WEB based" application capable of real-time supervision of the status of all UPS, via the management systems of the UPS and the TCP/IP protocol.
UNMS	3 108 91	UNMS licence for 25 UPS
UNMS	3 108 92	UNMS licence for 50 UPS
UNMS	3 108 93	UNMS licence for 150 UPS
UNMS	3 108 94	UNMS licence for 250 UPS
UNMS	3 108 95	UNMS licence for 500 UPS
UNMS	3 108 96	UNMS licence for 1000 UPS

Examples of types of management and communication that can be created with software and hardware

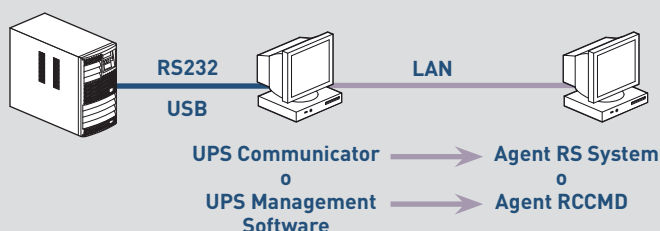
### LOCAL PROTECTION

Protects and controls a single station (PC or server) which must be located less than 12 metres away.



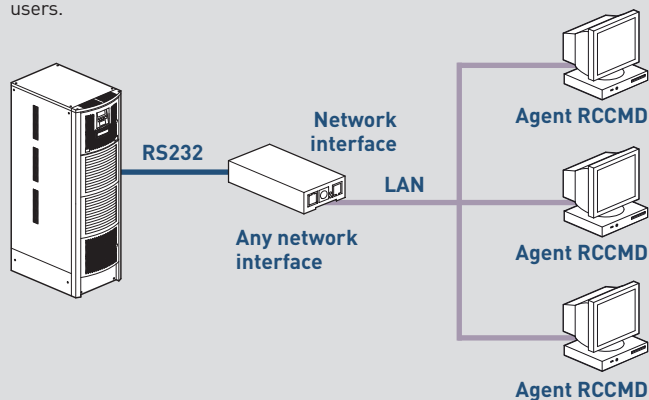
### EXTENDED LOCAL PROTECTION

Protects a larger number of stations (PC or server) but they are all controlled by the station directly connected to the UPS.



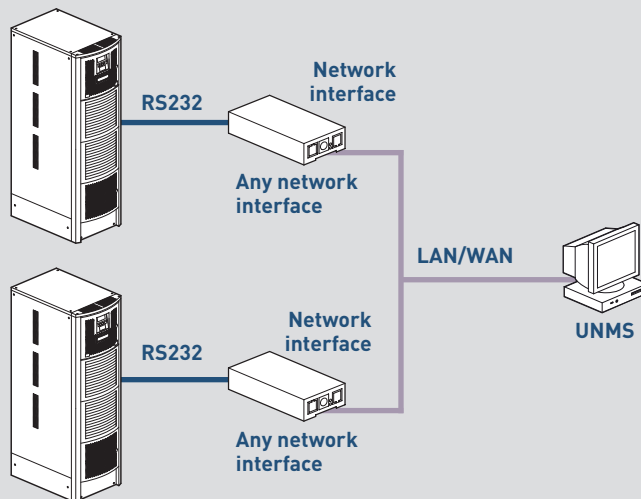
### PROTECTION VIA TCP/IP NETWORK

Enables control of all the stations that can communicate with the network interface. The management of the system can be supervised by all licensed users.



### CENTRALISED PROTECTION

Using the UNMS supervision software, it is possible to control all the UPS connected to a TCP/IP network.





# Customer services

## Reliable

LEGRAND ensures its customers get the highest level of reliability from its products and services. Quality, efficiency and innovation are the key points of the whole range.

## Excellent

A team of qualified, professional specialists is available to answer customers' technical and commercial questions quickly and efficiently, in order to reduce machine stoppages.

## Specific

The offer is centred around the specific requirements of each customer. LEGRAND provides a personalised Scheduled Maintenance support service with made-to-measure assistance programmes and preset licence fees.





# UPS PowerCall

**UPS PowerCall** is the monitoring and remote diagnostics system which provides continuous checking of the UPS via the 24-hour a day, 365 days-a-year link with the control centre. The PowerCall service provides day-to-day support, real-time remote diagnostics and fast on-site response if there are problems.

**During normal operation:**

The UPS sends data to the control centre, the information is collected, logged and evaluated by a team of experts. The data that is collected is recorded in a report that is sent regularly to customers.

**If there is a problem, there are 3 possible solutions**, depending on how serious it is:

- The event is logged
- The problem is solved remotely
- An engineer is sent on-site

**If there is an emergency:**

The technical department deals with the customer's request in real time. The customer is contacted immediately in order to check the operating conditions of the UPS.

A specialist engineer goes to the site to repair the fault.

# Types of warranty

2 types of warranty are available to meet customers' requirements.

**EXCHANGE WARRANTY**

Provides for total replacement of the product if there is a fault or a malfunction. After noting the problem, the technical department sends the customer a form with instructions for returning the UPS.



**ON-SITE WARRANTY**

Provides for the visit of an engineer to the site where the product to be repaired is installed.

In the standard on-site warranty, the engineer will visit within 3 working days of the call, and 2 days for MV range UPS.

Customers can choose a made-to-measure warranty if they subsequently want to reduce the response time.

# Pre-sales and After-sales services

**CONSULTANCY CONCERNING A PROJECT**

Assistance with designing installations with UPS, in line with current regulations. Definition of the most suitable solution for the customer's requirements.

**CONFIGURATION AND SIZING**

Checking the requirements of the application to be protected and selection of the most suitable UPS.

**ANALYSIS OF THE INSTALLATION**

Measurement of overall consumption trends in the installation and the applications to be protected.

**WARRANTY MANAGEMENT**

Dedicated technical staff, specialist services and hotline for products under warranty.



**INSTALLATION**

On-site installation and start-up.

**PREVENTIVE MAINTENANCE**

Regular maintenance to ensure reliability of the UPS over time and to prevent any faults or problems.

**REMOTE MANAGEMENT**

Remote monitoring, real-time diagnostics and automatic activation of the repair service.

**BATTERY REPLACEMENT**

"Turnkey" replacement of battery packs.

**HARDWARE UPDATES**

Updating of the power and backup time of the equipment, for modular UPS.







**World Headquarters and  
International Department**

87045 Limoges Cedex - France

☎ : + 33 (0) 5 55 06 87 87

Fax : + 33 (0) 5 55 06 74 55

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