



UPS

UNINTERRUPTIBLE POWER SUPPLY

THE **UPS** RANGE UP TO 800kVA



THE **GLOBAL SPECIALIST**
IN ELECTRICAL AND DIGITAL BUILDING INFRASTRUCTURE

 **legrand**[®]

INDEX

- **General** characteristics page 4

- Consumer and SOHO **UPS** page 10

- Conventional **UPS** page 16

- Modular **UPS** page 48

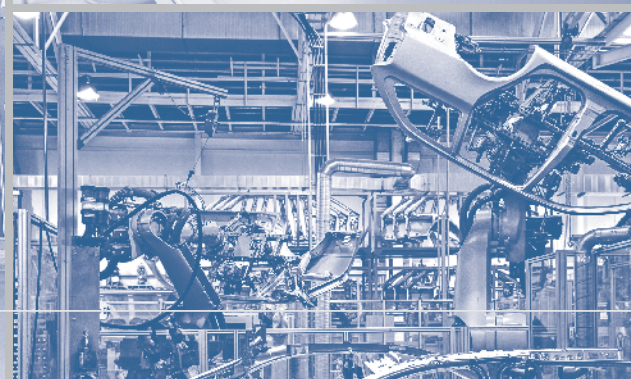
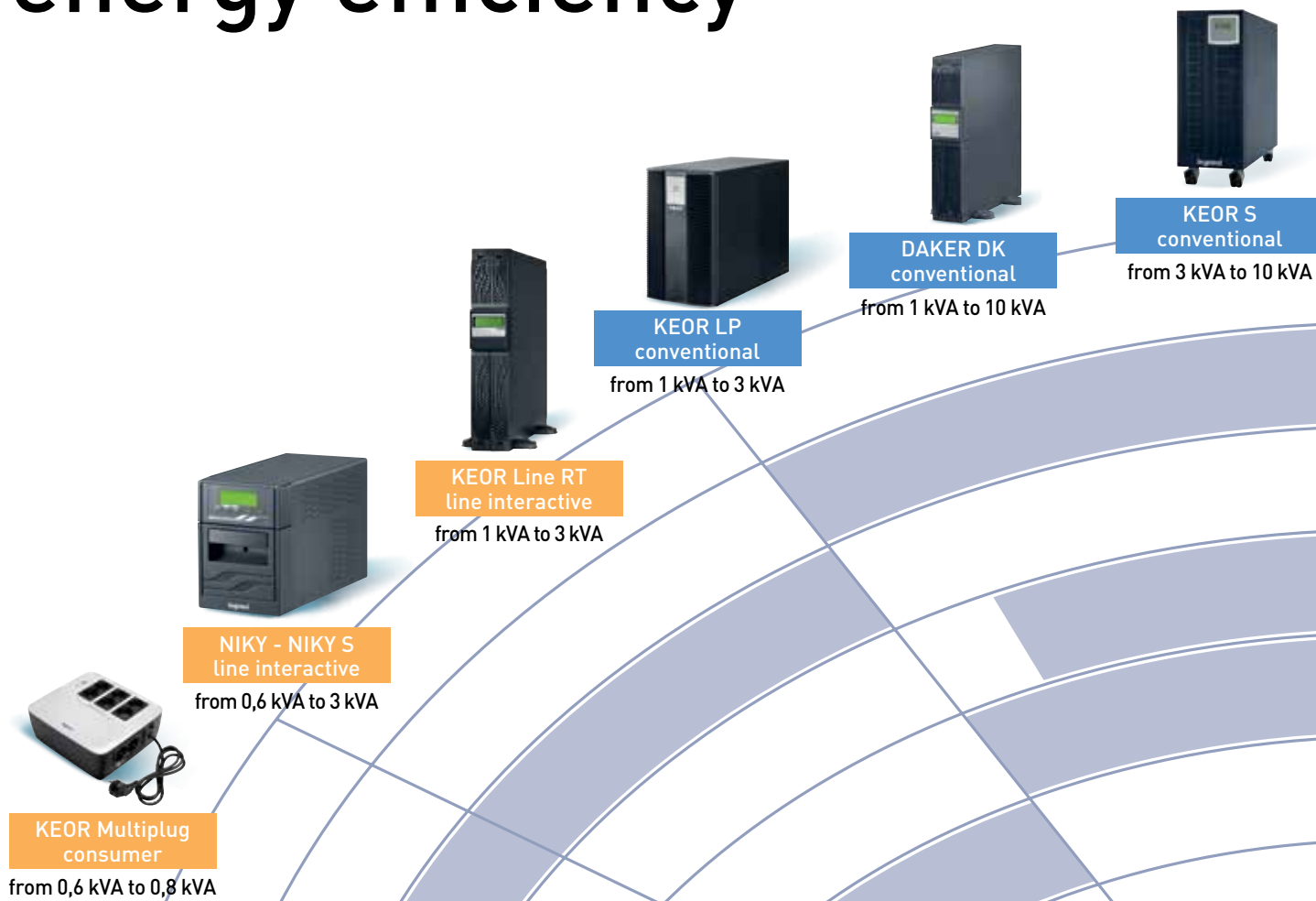
- **Communication** accessories page 70

- Customer **services** page 76



UPS

superior performance
service continuity
energy efficiency



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.



KEOR T
conventional
from 10 kVA to 120 kVA



KEOR HP
conventional
from 100 kVA to 800 kVA



MEGALINE
modular
from 1,25 kVA to 10 kVA



TRIMOD HE
modular
from 10 kVA to 60 kVA



ARCHIMOD HE
modular
from 20 kVA to 120 kVA





High efficiency

The innovative design and high quality of the components used enable our UPS to achieve up to 96% 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.

BRING YOUR POWER EFFICIENCY beyond the limit



Reliable electronics

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

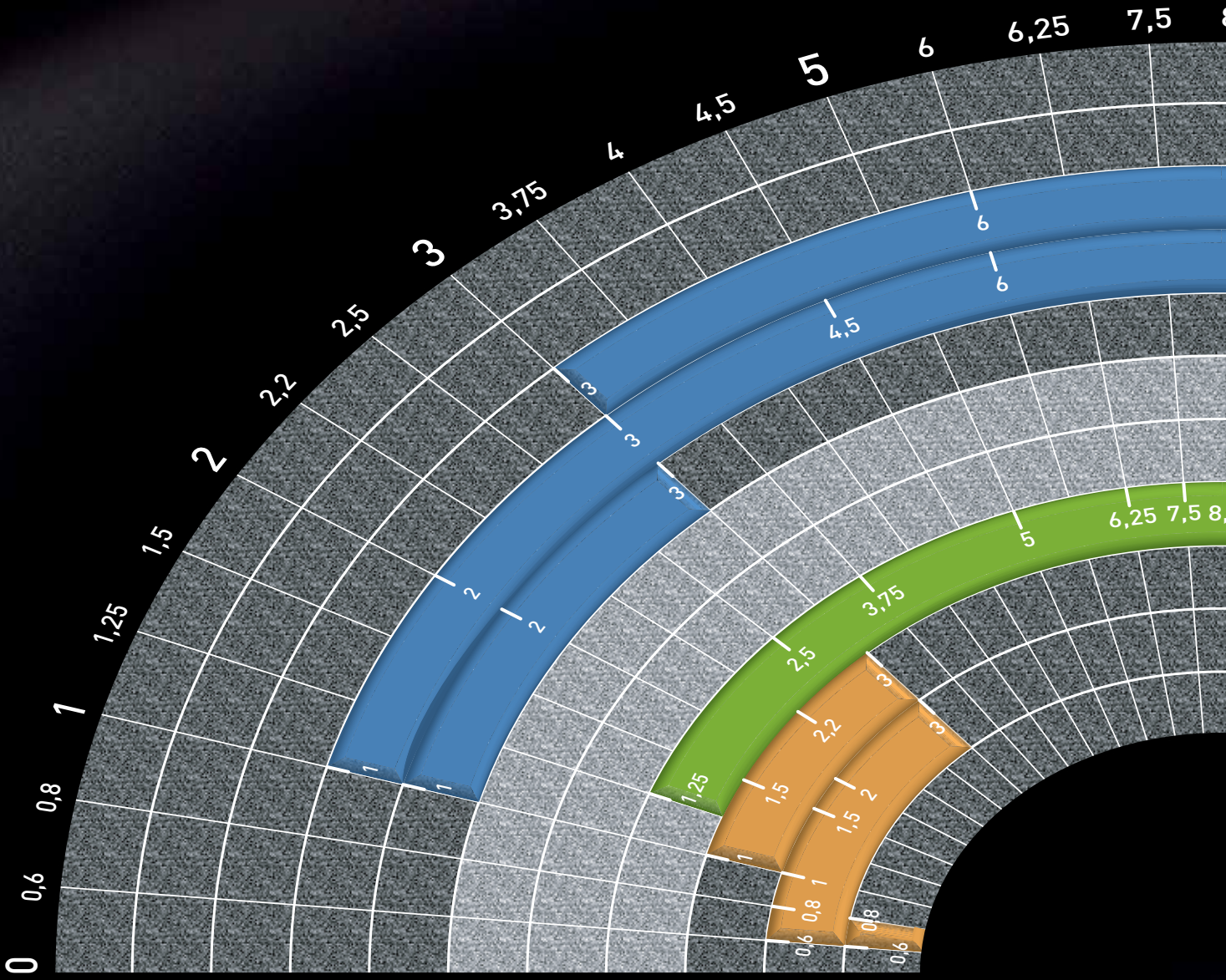
Latest generation components

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 UPS RANGE



KEOR HP
Three-phase UPS VFI
from 100 to 800 kVA

KEOR T
Three-phase UPS VFI
from 10 to 120 kVA

KEOR S
Single-phase UPS
from 3 to 10 kVA

DAKER DK
Single-phase UPS VFI,
from 1 to 10 kVA

KEOR LP
Single-phase UPS
from 1 to 3 kVA

ARCHIMOD HE
Three-phase modular
UPS VFI,
from 20 up to 120kW

TRIMOD HE
Three-phase modular
UPS VFI,
from 10 up to 60kW

MEGALINE
Single-phase
modular UPS VFI,
from 1,25 up to 10kVA

KEOR Line RT
Single-phase
line-interactive UPS,
from 1 up to 3kVA

NIKY - NIKY S
Single-phase line
interactive UPS VI,
from 600 up to 3000VA

KEOR Multiplug
Single-phase
600 and 800VA

1÷800 kVA

CONVENTIONAL

1,25÷120 kVA

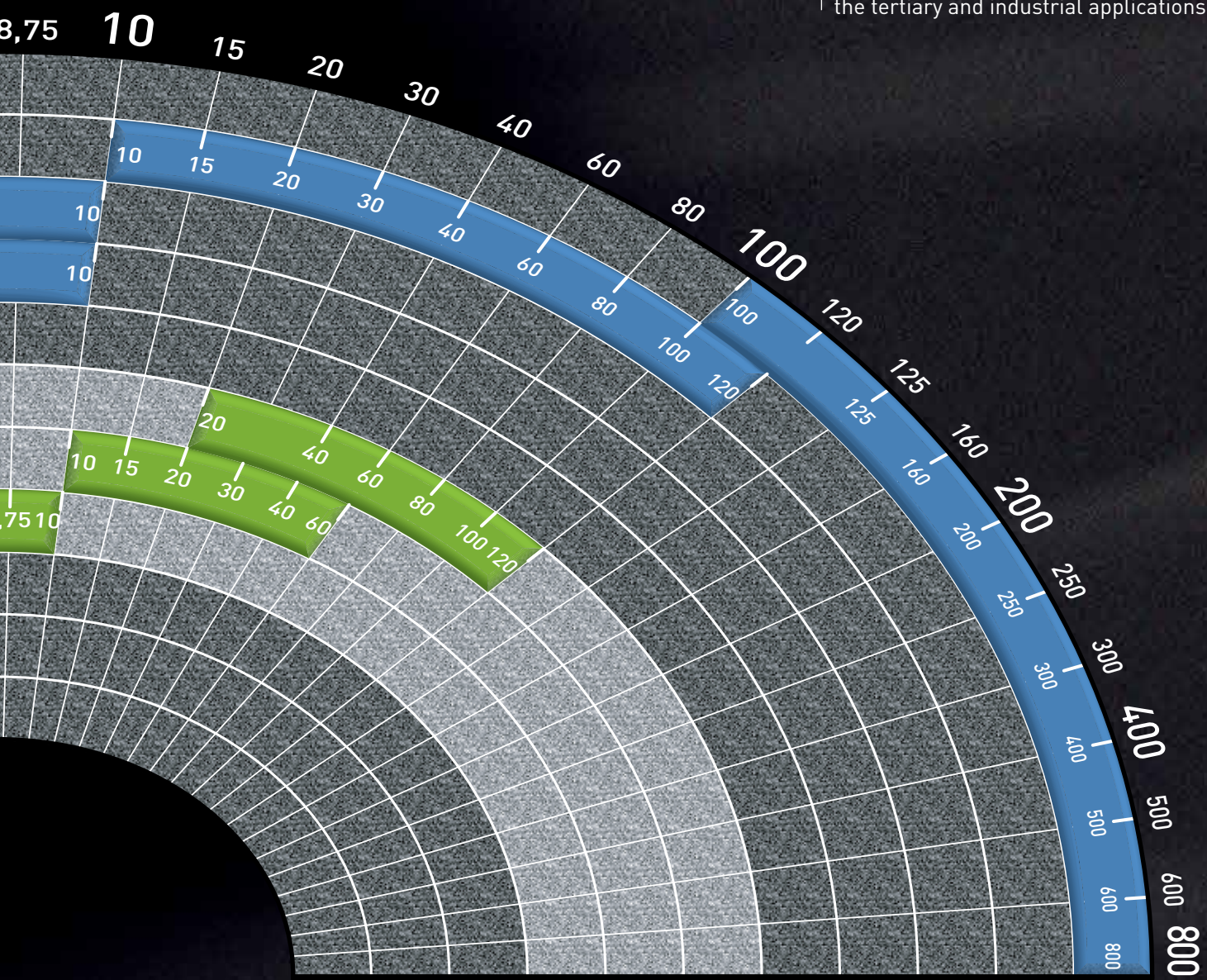
MODULAR

0,6÷3 kVA

CONSUMER

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 Data center, hospital and healthcare buildings, shopping centers and for a large part of the tertiary and industrial applications.



**SIMPLE
RELIABLE**

LOW COST

APPLICATION FIELDS



Shops



Small office



Home Entertainment systems

CONSUMER AND SOHO UPS

up to 3 kVA



KEOR Multiplug
Single-phase
600 and 800VA



NIKY
Single-phase
line interactive UPS VI,
from 600 up to 1500VA



NIKY-S
Single-phase
line interactive UPS VI-SS,
from 1 up to 3kVA



KEOR Line RT
Single-phase
line-interactive UPS,
from 1 up to 3kVA

CHARACTERISTICS OF THE RANGE

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.

KEOR Multiplug

Single phase



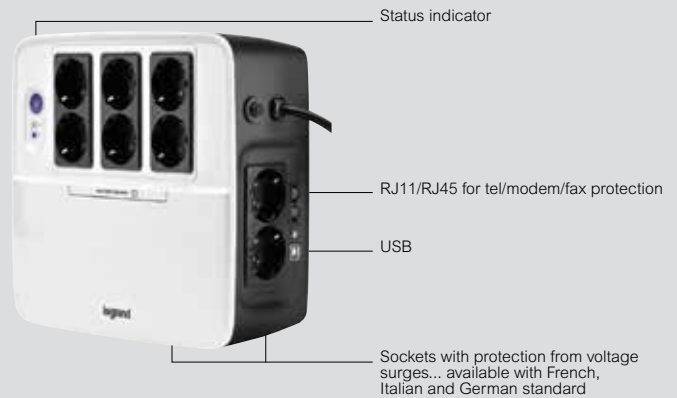
UPS

UPS for computers and audio and video equipment
 Complete protection: discharge, overload, short-circuit, thermal protection
 Supply button / LED indicators: provides a visual and audible indication of the UPS status
 Reset push-button for the circuit-breaker: for resetting in the event that the overload protection is activated
 Automatic start-up: when there is no mains supply or it is of poor quality, the UPS continues working using a battery and switches off if the network breaking time exceeds the back-up time
 Quick and easy battery replacement

Pack	Cat. No.		Single-phase multi-socket UPS				
			UPS with output sockets 6 protected sockets with protection from voltage surges 2 sockets with protection from voltage surges Input voltage: 180-270 V - 50-60 Hz Output voltage: 230 V~ ± 10% (battery mode) Ambient operating temperature: 0 to 40°C Relative humidity: 0 to 90% Conform to EN 62040-1 and EN 62040-2				
	French standard	German standard	Nominal power (VA)	Active power (W)	Back-up time ⁽¹⁾ (min)	Number of sockets	Communication ports
1	3 100 40	3 100 38	600	360	10 to 15	6 + 2	USB
1	3 100 41	3 100 39	800	480	10 to 15	6 + 2	USB

1: The back-up time values are estimated in minutes and may vary depending on the load characteristics and usage and environmental conditions

CHARACTERISTICS



WHY INSTALL A UPS?

Protection from electrical network disturbances

UPS protect sensitive equipment (TV, home cinema, telephone, computer, printer, etc.) from electrical network disturbances, and in the event of cuts to the power supply, providing a continuous supply for sensitive equipment connected using an integrated battery limited to the specified back-up time

Selecting the power and calculating the back-up time

In order to select the power and calculate the back-up time, add the power levels in watts stated on your connected sensitive equipment and select the UPS in accordance with the required power protection levels



You can complete a simulation in order to select the right UPS by connecting to the site configurator:
www.ups.legrand.com

NIKY

Line Interactive UPS - Single phase VI



3 100 02

3 100 13

Pack Cat. Nos. UPS with German standard output sockets

Pack	Cat. Nos.	Nominal power (VA)	Active power (W)	Backup time (min)	No. of IEC sockets	No. of German standard sockets	Communic. ports
1	3 100 00	600	300	3 to 30	-	1	USB
1	3 100 01	800	400	3 to 30	-	1	USB

UPS with German standard output sockets + IEC socket

Pack	Cat. Nos.	Nominal power (VA)	Active power (W)	Backup time (min)	No. of IEC sockets	No. of German standard sockets	Communic. ports
1	3 100 09	600	300	5 to 30	1	1	USB
1	3 100 10	800	400	5 to 30	1	1	USB
1	3 100 13	1000	600	5 to 30	2	2	RS232
1	3 100 14	1500	900	5 to 30	2	2	RS232

UPS with IEC multi-socket outlets

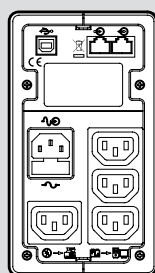
Pack	Cat. Nos.	Nominal power (VA)	Active power (W)	Backup time (min)	No. of IEC sockets	No. of German standard sockets	Communic. ports
1	3 100 02	600	300	5 to 30	3	-	USB
1	3 100 03	800	400	5 to 30	3	-	USB
1	3 100 04	1000	600	5 to 30	6	-	USB
1	3 100 05	1500	900	5 to 30	6	-	USB

UPS with French Belgium standard socket + IEC socket

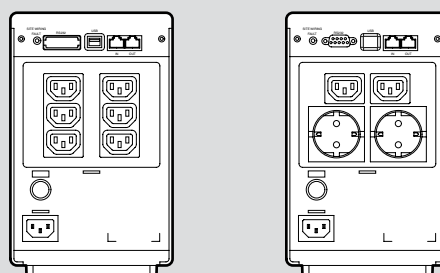
Pack	Cat. Nos.	Nominal power (VA)	Active power (W)	Backup time (min)	No. of IEC sockets	no. of French Belgium standard socket	Communic. ports
1	3 100 22	600	300	5 to 30	1	1	USB
1	3 100 23	800	400	5 to 30	1	1	USB
1	3 100 26	1000	600	5 to 30	2	2	RS232
1	3 100 27	1500	900	5 to 30	2	2	RS232

NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

600-800 VA



1000-1500 VA



Cat. Nos.	3 100 00*	3 100 01*	3 100 04	3 100 05
	3 100 02	3 100 03	3 100 13	3 100 14
	3 100 09	3 100 10	3 100 26	3 100 27
	3 100 22	3 100 23		
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 +/- 5%			
Input voltage range	160V-290V			
Output characteristics				
Output voltage	230V ± 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	12V, 7Ah	12V, 9Ah	12V, 7Ah	12V, 9Ah
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	RJ11/RJ45			
Remote control	Available			
Mechanical characteristics				
Dimensions H x W x D (mm)	171x95x349		239x147x354	
Net weight (kg)	7	7,5	13	16
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	EN62040-1, EN62040-2, EN62040-3			

* 3 100 00 battery 12V5Ah, 3 100 01 battery 12V 7Ah

NIKY S

Line Interactive UPS - Single phase VI-SS



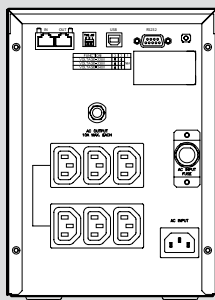
3 100 06

Pack	Cat. Nos.	UPS	Nominal power VA	Active power W	Backup time (min)	No. of sockets IEC	Communication ports
1	3 100 06		1000	600	9	6	USB-RS232
1	3 100 20		1500	900	8	6	USB-RS232
1	3 100 07		2000	1200	9	6	USB-RS232
1	3 100 08		3000	1800	8	6	USB-RS232

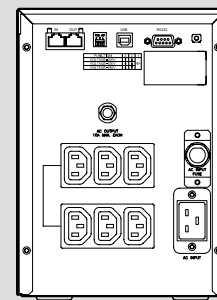
Cat. Nos.	3 100 06	3 100 20	3 100 07	3 100 08
General characteristics				
Nominal power (VA)	1000	1500	2000	3000
Active power (W)	600	900	1200	1800
Technology	Line interactive VI-SS			
Waveform	Sinusoidal			
Input characteristics				
Input voltage	230 V \pm 12% via mains \pm 5% via battery			
Input frequency	50-60 Hz \pm 3Hz			
Input voltage range	160 V-290 V			
Output characteristics				
Output voltage	230 V \pm 10%			
Output frequency (nominal)	50/60 Hz \pm 0.2%			
THD of output voltage	< 3% with linear load			
Batteries				
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
Communication and management				
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			
Mechanical characteristics				
Dimensions H x W x D (mm)	247x173x369		247x173x465	
Net weight (kg)	13	15	22	24
Ambient conditions				
Ambient operating temperature ($^{\circ}$ C)	0 to 40 $^{\circ}$ C			
Relative humidity (%)	0 to 95% non-condensing			
Noise at 1 m (dBA)	< 40			
Certifications				
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3			

NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

1000-1500-2000 VA



3000 VA



KEOR LINE RT

Line Interactive UPS - Single phase VI-SS



3 100 45

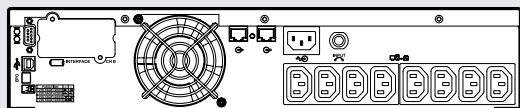
Pack	Cat. Nos.	UPS				
		Nominal power VA	Active power W	Backup time (min)	No. of sockets IEC (10A/16A)	Communication ports
1	3 100 45	1000	900	10	8 / -	USB-RS232
1	3 100 46	1500	1350	8	8 / -	USB-RS232
1	3 100 47	2200	1980	8	8 / 1	USB-RS232
1	3 100 48	3000	2700	8	8 / 1	USB-RS232

Pack	Cat. Nos.	Accessories	
		Description	
1	3 109 69	Volt-free contact card	
1	3 109 52	Rack support bracket kit	

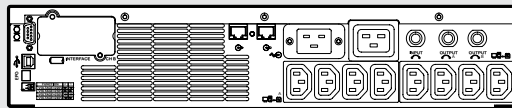
Cat. Nos.	3 100 45	3 100 46	3 100 47	3 100 48
General characteristics				
Nominal power (VA)	1000	1500	2200	3000
Active power (W)	900	1350	1980	2700
Technology	Line interactive VI-SS			
Waveform	Sinusoidal			
Input characteristics				
Input voltage	230 V ± 10 %			
Input frequency	45-65 Hz			
Input voltage range	165 V-300 V			
Output characteristics				
Output voltage	230 V ± 10 %			
Output frequency (nominal)	50/60 Hz +/-0,5 % autosensing			
THD of output voltage	< 3 % with linear load			
Batteries				
Number of batteries	3	3	6	6
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	Three buttons, display and three LEDs for real-time control of the status of the UPS			
Telephone protection	RJ11/RJ45			
Remote control	SNMP Slot			
Mechanical characteristics				
Dimensions W x D x H (mm)	440x405x88		440x650x88	
Net weight (kg)	19	20	34	37
Ambient conditions				
Ambient operating temperature (°C)	0 to 40°C			
Relative humidity (%)	0 ÷ 95 % non-condensing			
Noise at 1 m (dBA)	< 40			
Certifications				
Reference product standards	EN62040-1, EN62040-2, EN62040-3			

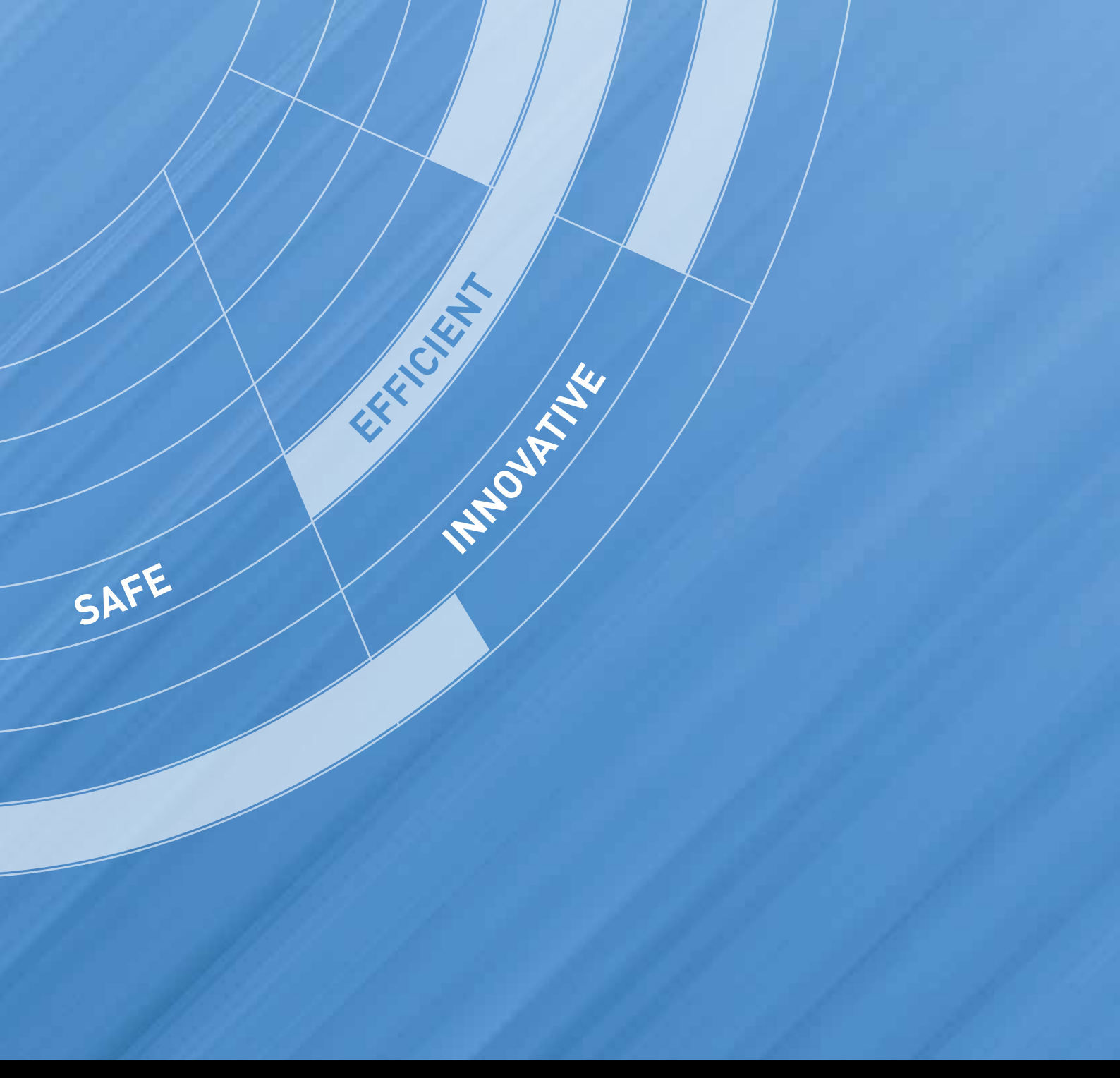
NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

1000-1500 VA



2200-3000 VA





APPLICATION FIELDS



Hospital and healthcare



Office and working areas



Museum

CONVENTIONAL UPS

from 0,8 up to 800 kVA



KEOR LP

Single-phase UPS
from 1 to 3 kVA



DAKER DK

Single-phase UPS VFI,
from 1 to 10 kVA



KEOR S

Single-phase UPS
from 3 to 10 kVA



KEOR T

Three-phase UPS VFI
from 10 to 120 kVA



KEOR HP

Three-phase UPS VFI
from 100 to 800 kVA

CHARACTERISTICS OF THE RANGE

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 800 kVA.

Transformer-free technology for high quality energy output with up to 96% efficiency.

DAKER DK

CONVERTIBLE 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.



KEOR S

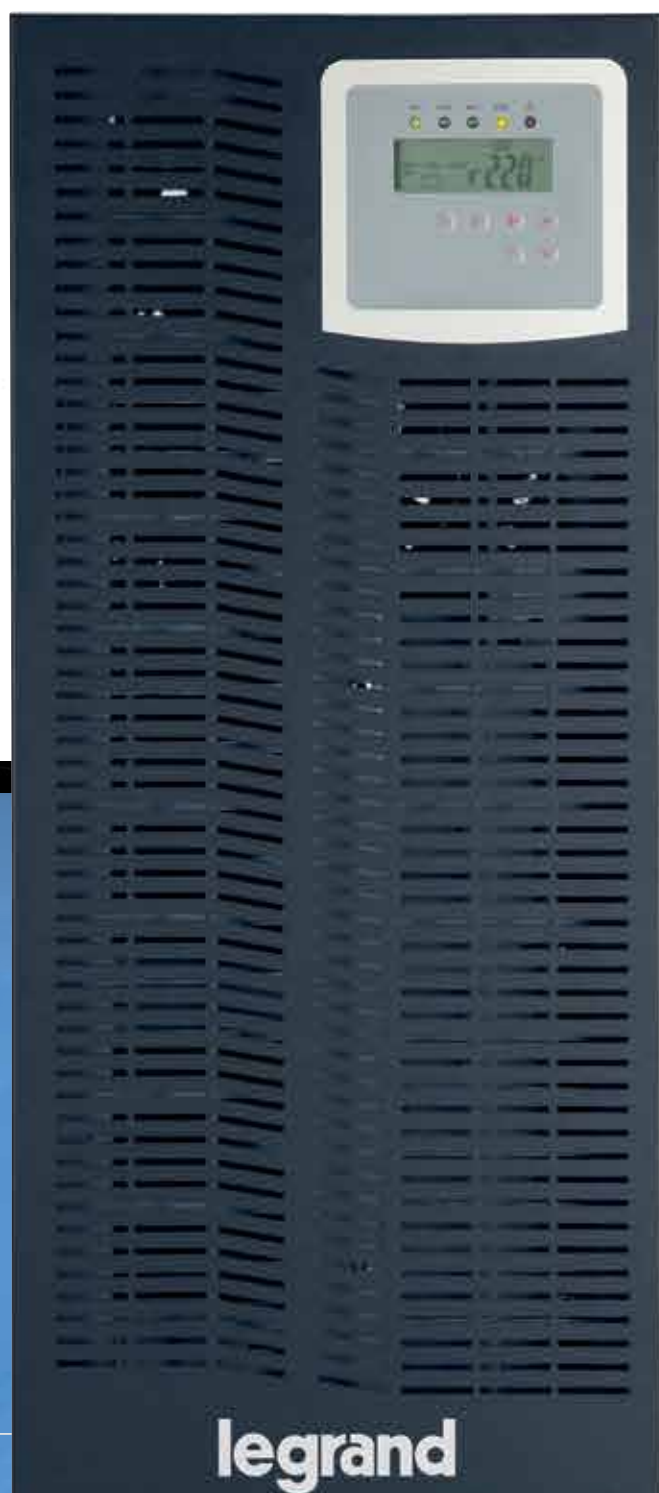
ONLINE SINGLE PHASE

The integrated maintenance bypass simplifies the maintenance operations, increases the service continuity and helps to reduce the complexity of the installations.

Easy access to circuit breakers,
INPUT/OUTPUT terminals,
maintenance bypass and
communication port



**ON LINE UPS
COMPACT AND
EASY TO MOVE**



legrand

SINGLE PHASE UPS DESIGNED FOR INDUSTRIAL APPLICATIONS

Compact and robust, Keor S is the perfect UPS to protect and supply loads in the industrial fields.

Power Range From 3 KVA up to 10KVA

Power factor 0,9 ¹

High Efficiency up to 94%

Built in paralleling feature up to 4 units ²

Built in Back Feed Protection

Protection Degree IP31

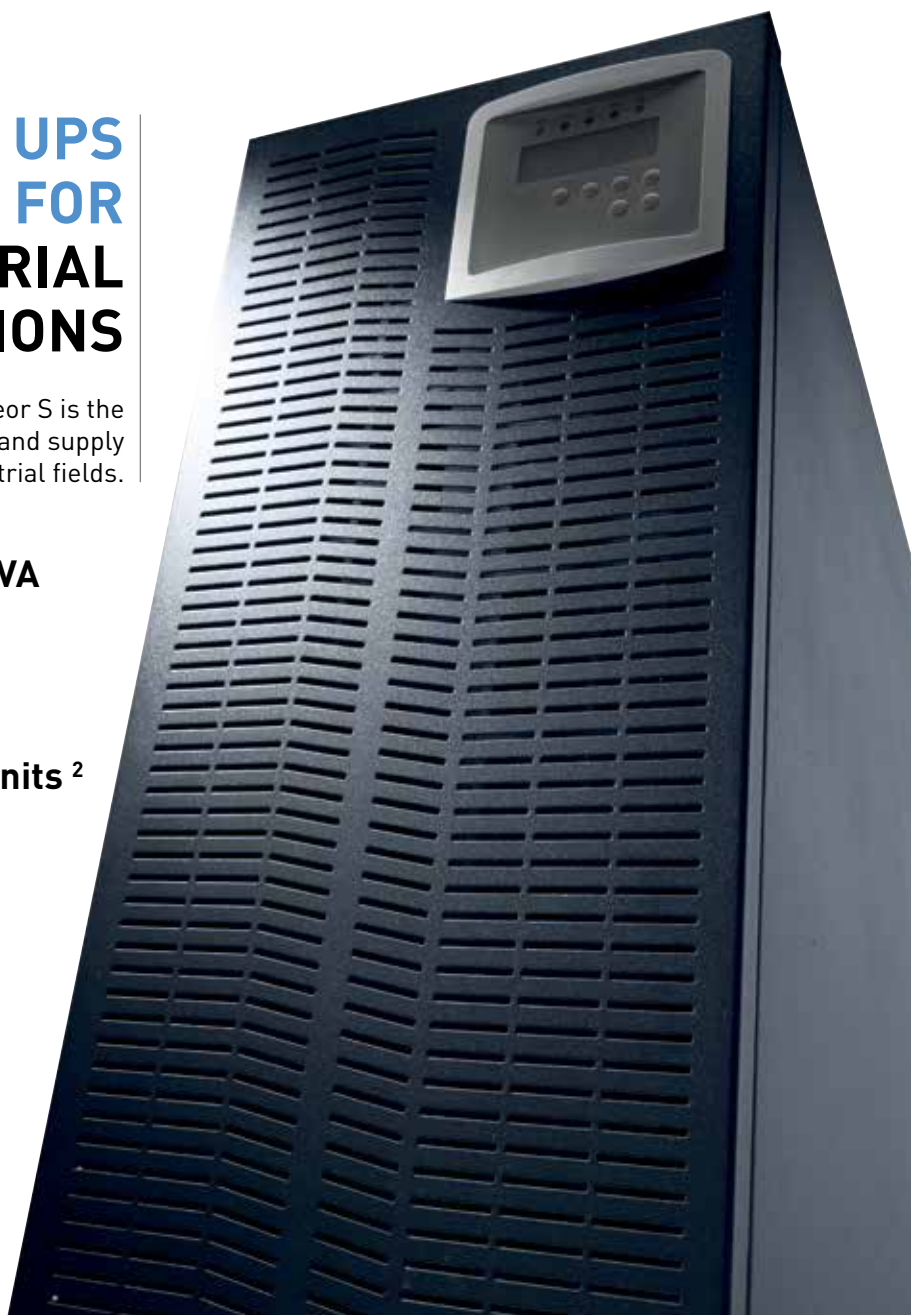
Long back up time availability

Integrated maintenance bypass ²

Integrated internal isolation transformer option

¹0,8 for 3kVA

²Only available for 6 and 10kVA models



User friendly Display



Remote control & Monitoring Supervision



Easy to move

KEOR T

THREE-PHASE UPS

KEOR T has been designed with advanced technologies and the latest generation components; realized to satisfy both users and installers for operational needs and performance. These UPS aim to be functional, safe and very easy to install and use.

Legrand has studied the best way to reconcile high-tech performance and ease of use, making user friendly technologically advanced products. KEOR T supplies maximum protection and power quality for any type of IT load, tertiary application, lighting or building.



Easy Installation

- Easy installation guaranteed by front access to all wiring connections.
- Availability of standard configurations with batteries or isolation transformers inside the UPS.
- Designed to easily connect an additional battery cabinet to obtain long back-up time.
- Standard internal backfeed protection which provides easy installation without additional cost in UPS supply switchboard.



Small Foot Print with Internal Batteries

KEOR T UPS present the only 60 kVA on the market with internal batteries, this saving the cost of the battery cabinet and valuable floor space, and simplifying installation.

Reduction of Total Cost Ownership (TCO)

Thanks to its design features and the high level of efficiency (up to 96% thanks to 3-Level technology), there is a drastic reduction of TCO, even from the installation phase; the key factors that allow you to gain these advantages are:

- Transformerless Design
- Significant reduction in power loss due to 3 level IGBT topology
- Reduced dimensions and power use for air conditioning
- Low Output Total Harmonic Distortion (THDV)



Dual input

KEOR T UPS can be powered from two separate AC supply sources: the dual input configuration can be selected at installation by simply removing a linking connector from its input terminal.



KEOR T

EASY MANAGEMENT



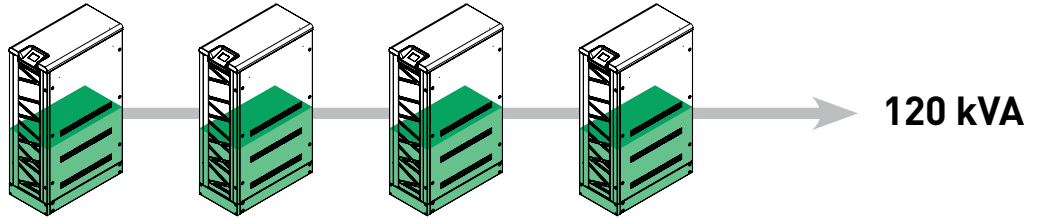
User friendly touch screen control panel

KEOR T is equipped with a touch screen graphic display that provides information, measurements, status and alarms of the UPS in different languages; the intuitive graphical icons allow you to browse through the various screens easily and quickly. In just a few steps you have access to all the operating parameters of the system. You can also configure and set the parameters to adapt the UPS to various operating modes in order to optimize your critical load supply.

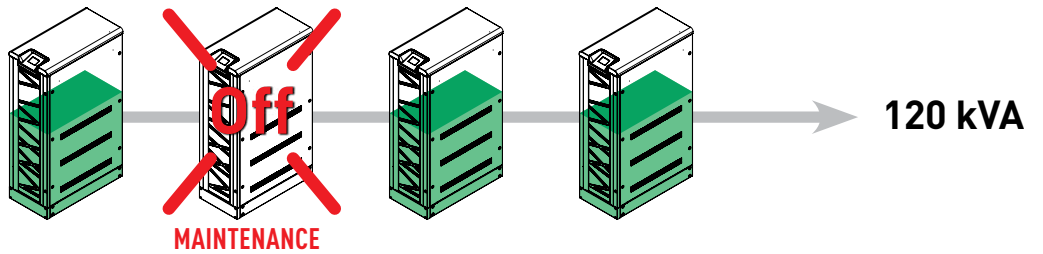
Scalable to increase the service continuity

The parallel connections between the UPS's allow different levels of redundancy hence the maximum continuity of service.

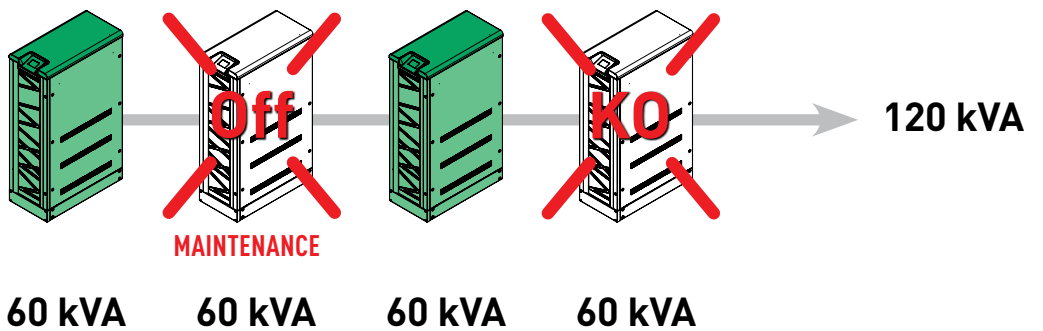
STANDARD WORKING CONDITION



AUTOMATIC LOAD RE-BALANCE IN MAINTENANCE CASE

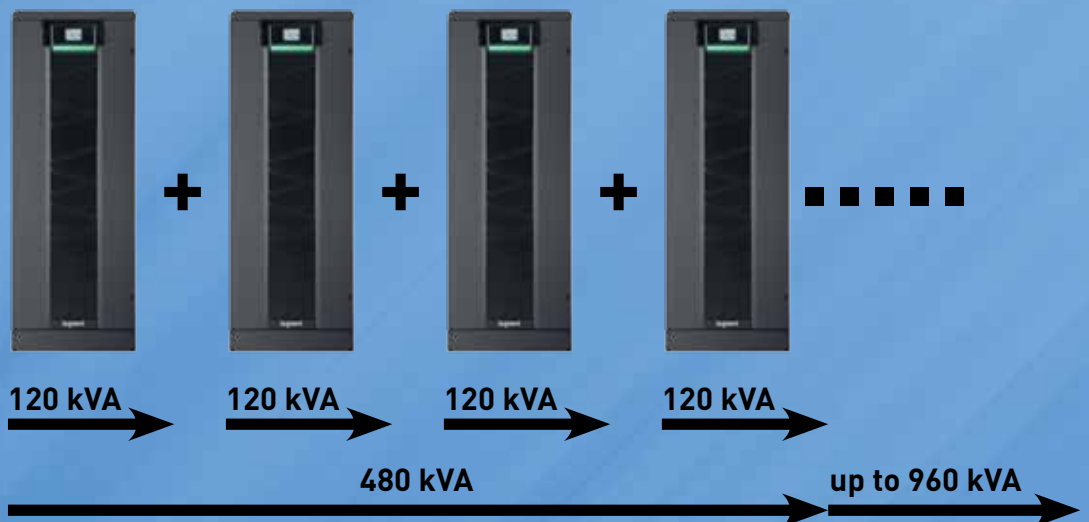


MAXIMUM AUTOMATIC LOAD BALANCE IN CASE OF FAILURE DURING MAINTENANCE



Parallelable to increase the power

Depending on the power demand, it is possible to connect in parallel operation up to 8 units of the same power rating. This allows delivery of total power up to 960 kVA.



KEOR T

EXCLUSIVE CHARACTERISTICS

Multicolor LED Bar

The LED bar is highly visible even from a distance, allowing instant visual communication of the UPS status. This allows significant time savings in the event of a failure or diagnosis and considerably reassures the user.





Internal battery up to 60kVA

With battery pack installed inside the UPS cabinet, NO additional battery cabinets are needed, hence a smaller footprint.

Isolation Transformer Option

Instead of batteries, an isolation transformer can be mounted inside the UPS cabinet upon request.

Safe and fast battery installation

The Battery drawers system allows:

- safe physical transport of battery and fast mounting on site
- safe and easy connection of individual battery strings outside of the cabinet
- lower UPS downtime for battery replacement.



Communication features

- Standard RS232
- ModBus
- Programmable dry contacts
- EPO & GenSet and Remote Monitoring Panel
- USB Converter (optional)
- Internal SNMP solutions (optional)



KEOR HP

THE NEW UPS
WITH POWER
UP TO
800kVA

The new Three-Phase UPS range is available in three types of cabinet with total power rating up to 4.8 MVA



KEOR HP
100-125-160

Compact size with the best balance between footprint and power

Integrated transformer for the galvanic separation between AC/DC side

EASY installation and maintenance

High efficiency up to 95% (TüV certified)

Parallelable up to 4,8MVA

Output power factor 0,9



legrand

**KEOR HP
200-250-300**



legrand

**KEOR HP
400-500-600-800**

KEOR HP

FLEXIBLE SOLUTIONS

EASY installation and maintenance

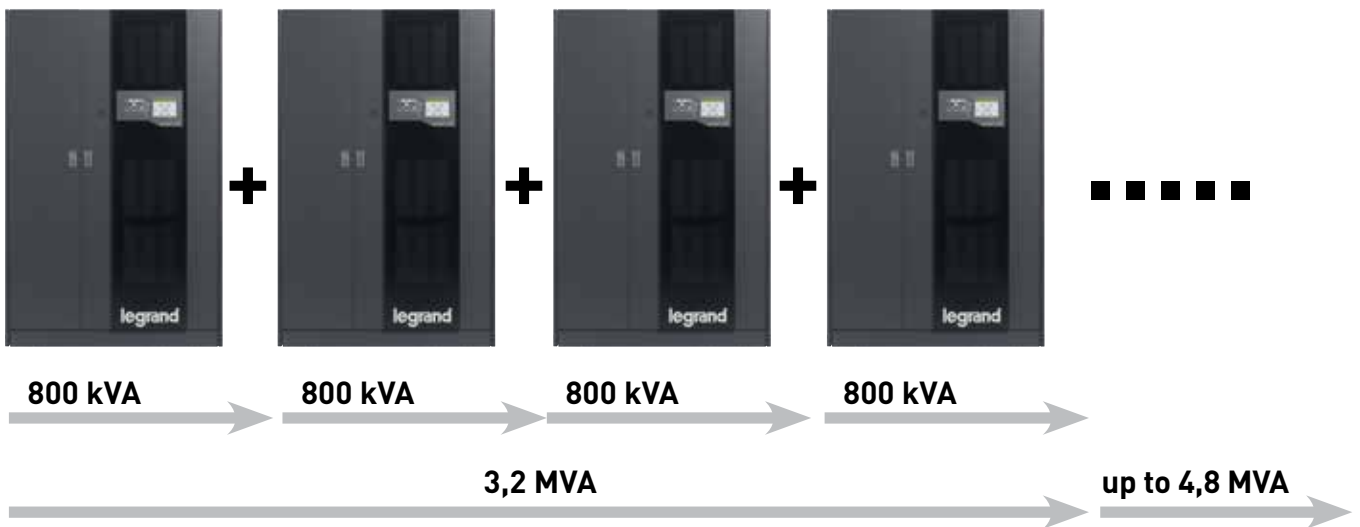
The optimised cooling system enables to position the UPS against the wall and side by side with other equipment without affecting performance. Full front access permits easy installation and fast maintenance operation.



PARALLELABLE UP 6 UNITS

To increase the power

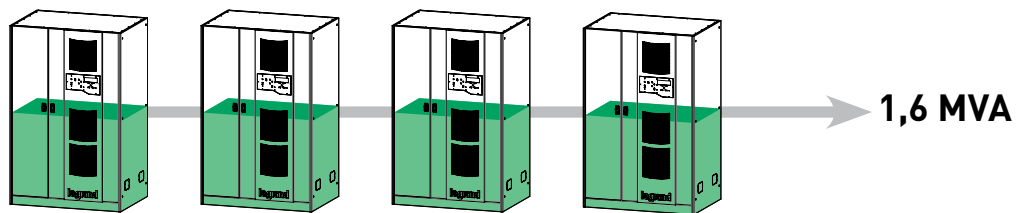
Depending on the power demand, it is possible to connect in parallel operation up to 6 units of the same power rating. This allows delivery of total power up to 4.8 MVA.



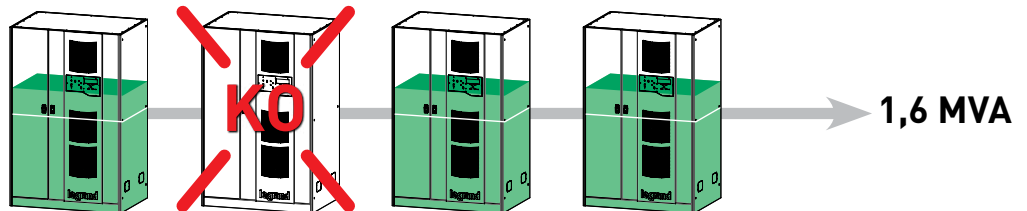
To increase the service continuity

The parallel connections between the UPS enables to realize different levels of redundancy and obtain the maximum continuity of service.

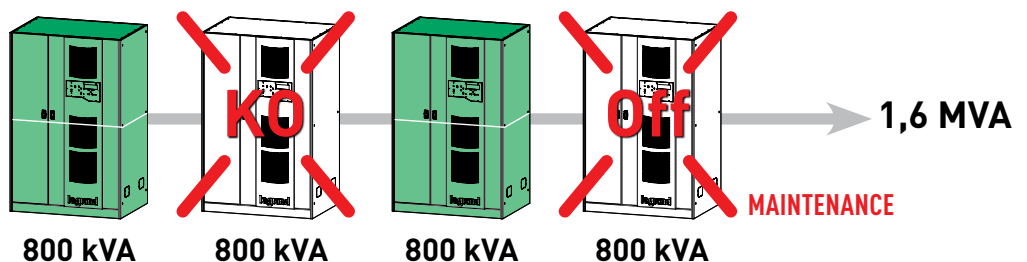
STANDARD WORKING CONDITION



AUTOMATIC LOAD BALANCE IN FAILURE CASE



MAXIMUM AUTOMATIC LOAD BALANCE IN FAILURE AND MAINTENANCE CASE



KEOR HP

WHEN POWER
TAKES CARE
OF THE

ENVIRONMENT 





HIGH EFFICIENCY UP TO 95%

Replacing an existing UPS with the KEOR HP allows immediate power savings for the same operational load.



HIGH TECHNOLOGY (IGBT RECTIFIER)

Thanks to the input circuit with integrated PFC (IGBT rectifier technology), the harmonic distortion on the input line is significantly reduced (THDi<3%).

The input power factor is almost unity (> 0.99).

These features make it highly compatible with the system upstream of the UPS without requiring additional filtering or over sizing.



LOW ENVIRONMENTAL IMPACT 30% LESS CO2 EMISSION

The innovative technology of KEOR HP allows:

- high performances
- reduction in power and cooling consumption
- minimum footprint
- minimum cost of infrastructure and management.

KEOR LP

Conventional UPS - Single phase On-line double conversion VFI



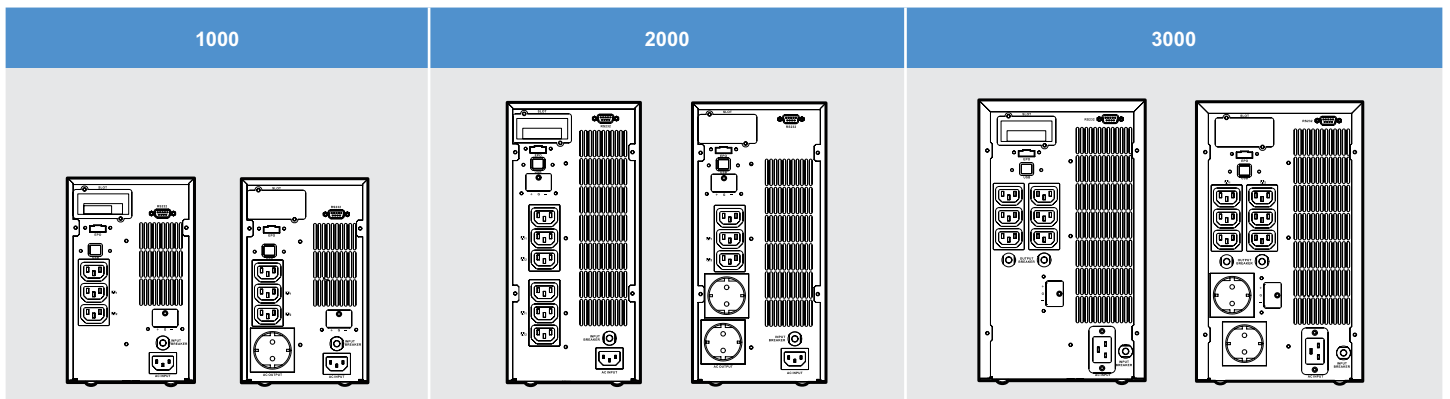
Pack	Cat. Nos.	UPS with IEC sockets						Weight (kg)
		Nominal power (VA)	Active power (W)	Backup time (min)	No. of sockets IEC 10A	No. of french socket		
1	3 101 54	1000	900	5	3	-	10	
1	3 101 56	2000	1800	5	6	-	17	
1	3 101 58	3000	2700	5	6	-	23	

Pack	Cat. Nos.	UPS with french standard sockets						Weight (kg)
		Nominal power (VA)	Active power (W)	Backup time (min)	No. of sockets IEC 10A	No. of french socket		
1	3 101 55	1000	900	5	3	1	10	
1	3 101 57	2000	1800	5	6	2	17	
1	3 101 59	3000	2700	5	6	2	23	

Pack	Cat. Nos.	Accessories
		Description
1	3 105 98*	Additional battery cabinet for 3 101 54 - 3 101 55
1	3 105 99*	Additional battery cabinet for 3 101 56 - 3 101 57
1	3 106 00*	Additional battery cabinet for 3 101 58 - 3 101 59
1	3 109 58	Additional battery charger for battery cabinet 3 105 98
1	3 109 60	Additional battery charger for battery cabinet 3 105 99
1	3 109 61	Additional battery charger for battery cabinet 3 106 00
1	3 109 53	Bypass

*Battery included

NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.



KEOR LP

Conventional UPS - Single phase On-line double conversion VFI

Cat. Nos.	3 101 54 3 101 55	3 101 56 3 101 57	3 101 58 3 101 59
General characteristics			
Nominal power (VA)	1000	2000	3000
Active power (W)	900	1800	2700
Technology	On-line double conversion VFI-SS-111		
Waveform	Sinusoidal		
Architecture	UPS with extendable backup time		
Input characteristics			
Input voltage	230 V		
Input frequency	45-65 Hz ± 2 % Autosensing		
Input voltage range	210 V \div 240 Vac at 100% load		
Input power factor	$> 0,99$		
Output characteristics			
Output voltage	230 V ± 1 %		
Efficiency	Up to 90 %		
Output frequency (nominal)	50/60 Hz synchronised		
Peak factor	3 : 1		
THD of output voltage	$< 3\%$ with linear load		
Overload capacity:	$< 105\%$ ONLINE mode, $121\div 150\%$ for 10 sec., $106\div 120\%$ for 30 sec., $> 151\%$ instant transfer to bypass		
Bypass	Automatic, internal, synchronised, electromechanical (for overloads and operating problems)		
Batteries			
Backup time extension	Si		
Battery voltage	24 Vdc	48 Vdc	72 Vdc
Backup time (min)	5		
Communication and management			
Screen and signalling	Multi-coloured LED status indicator, alarms and audible signalling		
Communication ports	1 RS232 serial port, 1 slot for network interface connection (ex. CS121)		
Emergency Power Off (EPO)	Yes		
Remote control	Software can be downloaded free of charge		
Mechanical characteristics			
Dimensions (H x W x D) (mm)	236 x 144 x 367	322 x 151 x 444	322 x 189 x 444
Dimensions of battery cabinet (H x W x D) (mm)	322 x 151 x 444	322 x 151 x 444	322 x 151 x 444
Battery cabinet Net weight (kg)	31	31	31
Ambient conditions			
Ambient operating temperature ($^{\circ}\text{C}$)	0 \div 40		
Relative humidity (%)	20 \div 80 non condensing		
Noise at 1 m (dBA)	< 50		
Certifications			
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3		

DAKER DK

Conventional UPS - 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)
1	3 100 50	1000	800	10	16
1	3 100 51	2000	1600	10	29.5
1	3 100 52	3000	2400	8	30
1	3 100 53	4500	4050	6	60
1	3 100 54	6000	5400	4	60

Pack	Cat. Nos.	Convertible UPS without batteries			
		Nominal power (VA)	Active power (W)	Phase configuration	Weight (kg)
1	3 100 56	4500	4050	1/1	25
1	3 100 57	6000	5400	1/1	25
1	3 100 58	10000	9000	1/1	26
1	3 100 59*	10000	9000	3/1	26

* 3-1 version

Pack	Cat. Nos.	Battery cabinet (with batteries)	
		Description	
1	3 107 69	Battery cabinet for 3 100 50 (12 x 12 V, 7.2 Ah batteries)	
1	3 107 70	Battery cabinet for 3 100 51 (12 x 12 V, 7.2 Ah batteries)	
1	3 107 71	Battery cabinet for 3 100 52 (12 x 12 V, 9 Ah batteries)	
1	3 107 72	Battery cabinet for 3 100 56 and 3 100 57 (20 x 12 V, 7.2 Ah batteries)	
1	3 107 66	Battery cabinet for 3 100 58 (20 x 12 V, 9 Ah batteries)	

Pack	Cat. Nos.	Battery cabinet (empty)	
		Description	
1	3 107 50	Battery cabinet for 3 100 50 (for 12 x 12 V, 7.2 Ah batteries)	
1	3 107 51	Battery cabinet for 3 100 51 (for 12 x 12 V, 7.2 Ah batteries)	
1	3 107 52	Battery cabinet for 3 100 52 (for 12 x 12 V, 9 Ah batteries)	
1	3 107 53	Battery cabinet for 3 100 56 and 3 100 57 (for 20 x 12 V, 7.2 Ah batteries)	
1	3 107 54	Battery cabinet for 3 100 58 (for 20 x 12 V, 9 Ah batteries)	

Pack	Cat. Nos.	Accessories	
		Description	
1	3 109 59	Additional charger (for Daker DK1000)	
1	3 109 60	Additional charger (for Daker DK2000-3000)	
1	3 109 54	Additional 1000 W charger (for Daker DK 4500-6000-10000)	
1	3 109 52	Rack support bracket kit	
1	3 109 53	External manual bypass (for Daker DK 1000-2000-3000)	
1	3 109 63	External manual bypass (for Daker DK 4500-6000-10000)	
1	3 109 69	Volt-free contact card	

NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

DAKER DK

Conventional UPS - 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	3 100 59
General characteristics									
Nominal power (VA)	1000	2000	3000	4500	6000	10000	10000		
Active power (W)	800	1600	2400	4050	5400	9000	9000		
Technology	On-line double conversion VFI-SS-111								
Waveform	Sinusoidal								
Architecture	Convertible tower and 19" rack								
Input characteristics									
Input voltage	230 V								380V 3P+N
Input frequency	50-60 Hz \pm 5% autosensing								
Input voltage range	160 V - 288 V full load								277-485V
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%								
Output characteristics									
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								
Batteries									
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	-	-	-
Communication and management									
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								
Mechanical characteristics									
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	60	25*	60	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	
Ambient conditions									
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	
Certifications									
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3								

* Weight without batteries

NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

DAKER DK

Configurations



	1000 VA 2 cabinets L 2U + 4U	3000 VA 3 cabinets L 2U + 2 U + 2U	6000 VA 2 cabinets L 2U + 3U	10000 VA 2 cabinets L 3U + 3U
TOWER version				



	1000 VA 2 cabinets H 6U (264mm)	3000 VA 3 cabinets H 6U (264mm)	6000 VA 2 cabinets H 5U (320 mm)	10000 VA 2 cabinets H 6U (264mm)
RACK version				

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'w	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)
	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)	
Daker DK 3 - 1	10000 VA	7'	440 x 132 x 650 + 440 x 132 x 680	3 100 59 + 3 107 66
		18'	440 x 132 x 650 + 440 x 132 x 680 (x2)	3 100 59 + 3 107 66 (x2)
		29'	440 x 132 x 650 + 440 x 132 x 680 (x3)	3 100 59 + 3 107 66 (x3)
		42'	440 x 132 x 650 + 440 x 132 x 680 (x4)	3 100 59 + 3 107 66 (x4)
		56'	440 x 132 x 650 + 440 x 132 x 680 (x5)	3 100 59 + 3 107 66 (x5)

NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

KEOR S

Conventional UPS - Single-phase On-line double conversion



3 101 21



3 107 41

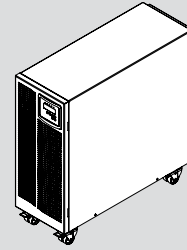
Pack	Cat. Nos.	Single-phase UPS			
		Nominal power (VA)	Active power (W)	Backup time (min)	Net weight (kg)
1	3 101 21	3000	2400	10	53
1	3 101 22	3000	2400	27	75
1	3 101 23	3000	2400	50	97
1	3 101 28	6000	5400	22	106
1	3 101 31	10000	9000	10	114

Pack	Cat. Nos.	Single-phase UPS with isolation transformer			
		Nominal power (VA)	Active power (W)	Backup time (min)	Net weight (kg)
1	3 101 25	3000	2400	10	85
1	3 101 29	6000	5400	0	100
1	3 101 35	10000	9000	0	126

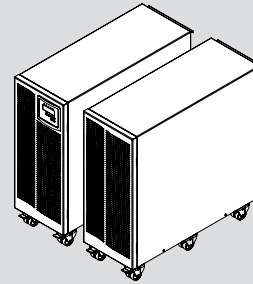
Pack	Cat. Nos.	Battery cabinet	
		Description	
1	3 107 40	Empty battery cabinet	
1	3 107 41	Battery cabinet with 2x6x12 Ah (for KEOR S 3000)	
1	3 107 42	Battery cabinet with 3x6x12 Ah (for KEOR S 3000)	
1	3 107 43	Battery cabinet with 6x6x12 Ah (for KEOR S 3000)	
1	3 107 44	Battery cabinet with 20x12 Ah (for KEOR S 6000-10000)	
1	3 107 45	Battery cabinet with 2x20x12 Ah (for KEOR S 6000-10000)	

Pack	Cat. Nos.	Accessories	
		Description	
1	3 109 61	Battery charger for additional battery cabinet (for 3 107 41 - 3 107 42 - 3 107 43)	
1	3 109 54	Battery charger for additional battery cabinet (for 3 107 44 - 3 107 45)	

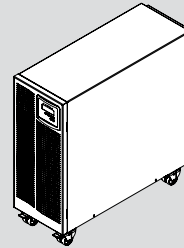
■ UPS with internal batteries backup time up to 50 min for 3 kVA



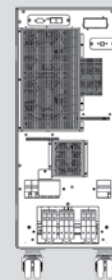
■ UPS for long autonomy with additional battery cabinet



■ UPS with isolation transformer built in



■ Rear pannel



Long backup time table

Power	UPS	Battery cabinet	Back up time (min.)
6000	3 101 28	3 107 44	55
6000	3 101 28	3 107 45	85
10000	3 101 31	3 107 44	27
10000	3 101 31	3 107 45	50
6000	3 101 29	3 107 45	55
6000	3 101 29	3 107 44	22
10000	3 101 35	3 107 44	10
10000	3 101 35	3 107 45	27

NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

KEOR S

Conventional UPS - Single-phase On-line double conversion

Model.	KEOR S 3kVA	KEOR S 6kVA	KEOR S 10kVA
General characteristics			
Nominal power (VA)	3000	6000	10000
Active power (W)	2400	5400	9000
Technology	On-line double conversion		
Waveform	Sinusoidal		
Architecture	conventional UPS		
Input characteristics			
Input voltage	220V-230V-240V		
Input frequency	45-65 Hz		
Input voltage range	160V-288V	195V-280 V	
THD of input current	6%		
Input power factor	> 0,99		
Output characteristics			
Output voltage	220V/230V/240V Adjustable from Front Panel		
Output frequency (nominal)	50 /60 Hz Adjustable from Front Panel +/- 0,05%		
Crest factor	2,5:1		
THD of output voltage	< 1,5% with linear load < 3% with non-linear load		
Overload capacity	10 seconds at 125%-150% 30 seconds at 106%-120%	120 seconds at 100%-120% 30 seconds at 121%-150%	
Efficiency in Eco mode	98%		
Bypass	-	Automatic bypass and manual maintenance bypass	
Batteries			
Backup time extension	Yes		
Battery type	VRLA - AGM		
Communication and management			
LCD Display	Available		
Communication Port	1 RS232 serial ports, 1 USB port, modbus and SNMP optional	1 RS232 serial ports, modbus and SNMP optional	
Remote Management	Available		
Physical characteristics			
Dimensions H x W x D (mm)	716 x 275 x 776		
Dimensions battery cabinet H x W x D (mm)	716 x 275 x 776		
Ambient conditions			
Operating temperature (°C)	0÷40		
Relative humidity (%)	20÷80 non condensing		
Protection index	IP31		
Noise at 1 m (dBA)	< 50		
Compliance			
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3		

KEOR T

Conventional UPS - Three-phase On-line double conversion VFI



KEOR T10-30

KEOR T10-30

KEOR T40-60-80-100

KEOR T120

Pack	Cat. Nos.	UPS			
		Nominal power kVA	Backup time (min.)	Dimensions H x W x D (mm)	Net weight (kg)
1	3 102 01	10	24	1345 x 400 x 800	253
1	3 102 02	10	35	1345 x 400 x 800	283
1	3 102 03	10	56	1650 x 400 x 800	406
1	3 102 05	15	12	1345 x 400 x 800	267
1	3 102 06	15	20	1345 x 400 x 800	297
1	3 102 07	15	33	1650 x 400 x 800	420
1	3 102 09	20	8	1345 x 400 x 800	269
1	3 102 10	20	14	1345 x 400 x 800	299
1	3 102 11	20	36	1650 x 400 x 800	494
1	3 102 13	30	8	1345 x 400 x 800	305
1	3 102 14	30	13	1650 x 400 x 800	428
1	3 102 15	30	20	1650 x 400 x 800	488
1	3 102 17	40	8	1650 x 600 x 900	539
1	3 102 18	40	13	1650 x 600 x 900	598
1	3 102 19	40	22	1650 x 600 x 900	748
1	3 102 21	60	8	1650 x 600 x 900	620
1	3 102 22	60	14	1650 x 600 x 900	770

Pack	Cat. Nos.	UPS empty for internal battery drawers			
		Nominal power kVA	Backup time (min.)	Dimensions H x W x D (mm)	Net weight (kg)
1	3 102 23	10	0	1650 x 400 x 800	140
1	3 102 24	15	0	1650 x 400 x 800	151
1	3 102 25	20	0	1650 x 400 x 800	162
1	3 102 26	30	0	1650 x 400 x 800	169
1	3 109 27	40	0	1650 x 600 x 900	241
1	3 109 28	60	0	1650 x 600 x 900	276

Pack	Cat. Nos.	UPS empty for external battery cabinet			
		Nominal power kVA	Backup time (min.)	Dimensions H x W x D (mm)	Net weight (kg)
1	3 102 00	10	0	1345 x 400 x 800	118
1	3 102 04	15	0	1345 x 400 x 800	132
1	3 102 08	20	0	1345 x 400 x 800	134
1	3 102 12	30	0	1345 x 400 x 800	140
1	3 102 16	40	0	1650 x 600 x 900	255
1	3 102 20	60	0	1650 x 600 x 900	277
1	3 102 27	80	-	1650 x 600 x 800	315
1	3 102 28	100	-	1650 x 600 x 800	350
1	3 102 29	120	-	1650 x 793 x 800	430

Pack	Cat. Nos.	UPS with insulation transformer			
		Nominal power kVA	Backup time (min.)	Dimensions H x W x D (mm)	Net weight (kg)
1	3 102 30	10	0	1345 x 400 x 800	240
1	3 102 31	15	0	1345 x 400 x 800	250
1	3 102 32	20	0	1345 x 400 x 800	255
1	3 102 33	30	0	1345 x 400 x 800	285
1	3 102 34	40	0	1650 x 600 x 900	525
1	3 102 35	60	0	1650 x 600 x 900	575

Pack	Cat. Nos.	Accessories			
		Description			
1	3 109 18	Battery cabinet empty (for 60 blocks 55 Ah)			
1	3 109 21	Internal cables kit for battery cabinet empty (for 60 blocks 55 Ah)			
1	3 109 11	Battery drawers kit for KEOR T 10-30 kVA (60 blocks 7-9 Ah)			
1	3 109 12	Battery drawers kit for KEOR T 40-60 kVA (60 blocks 7-9 Ah)			
1	3 109 13	Internal battery cables kit for battery drawers KEOR T 10-30 kVA			
1	3 109 14	Internal battery cables kit for battery drawers KEOR T 40-60 kVA			
1	3 109 15	Parallel kit/UPS (PCB + 5 m cable)			
1	3 109 16	Kit for both in & ext battery connections for 1345H			

NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

KEOR T

Conventional UPS - Three-phase On-line double conversion VFI

Model	KEOR T10	KEOR T15	KEOR T20	KEOR T30	KEOR T40	KEOR T60	KEOR T80	KEOR T100	KEOR T120
General characteristics									
Nominal power (kVA)	10	15	20	30	40	60	80	100	120
Active power (kW)	9	13,5	18	27	36	54	72	90	108
Technology	On-line double conversion VFI-SS-111								
Waveform	Sinusoidal								
Architecture	Stand Alone or Distributed Parallel up to 8 units								
Input characteristics									
Input voltage	380, 400, 415 V 3Ph+N+PE								
Input frequency	45-65 Hz								
Input voltage range (Ph-Ph)	half load 208 -467 / full load 312-467V								
THD of input current	< 3% at full load*								
Compatibility with diesel generators	Configurable for synchronization between the input and output frequencies, even for high frequency variations								
Input power factor	> 0,99								
Output characteristics									
Output voltage	380, 400, 415 V 3Ph+N (Adjustable from Front Panel)								
Efficiency	up to 96%								
Efficiency in Eco mode	up to 98,5%								
Output frequency (nominal)	50 /60 Hz ±0,01% free run (Adjustable from Front Panel)								
Crest factor	3:1								
THD of output voltage	< 2% (at full linear load)								
Output power factor	0,9								
Output voltage tolerance	± 1%								
Bypass	Built-in Automatic and Maintenance By-pass								
Isolation Transformer	Transformerless Design. Optional Internal Isolation Transformer on request								
Batteries									
Backup time extension	Scalable with additional battery cabinets								
Battery type	VRLA - AGM Maintenance-free								
Internal Battery	Yes								
Battery Test	Automatic or manual								
Battery Recharge Profile	IU (DIN41773)								
Communication and management									
LCD Display	Touch screen, led bar status, live synoptic view for real time								
Communication Ports	RS232, GenSet, Programmable 4 Relay Contacts, ModBus								
Back Feed Protection	Internal Back Feed Protection Device is Standard								
Audible Alarm	Acoustic alarms and warnings								
Net Interface Slot	optional SNMP card								
Emergency Power Off (EPO)	Yes								
Remote Management	Available								
Physical characteristics									
Dimensions H x W x D (mm)	1345/1650 x 400 x 800				1650 x 600 x 900		1650 x 600 x 800		1650 x 793 x 800
Dimensions battery cabinet H x W x D (mm)	1345 x 600 x 800				1650 x 800 x 900				
Ambient conditions									
Operating temperature (°C)	0÷40								
Relative humidity (%)	20÷95% not condensing								
Protection index	IP20								
Noise at 1 m (dBA)	< 55								
Compliance									
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3								

* 40-60 kVA

KEOR HP 100-125-160-200-250-300

Conventional UPS - Three-phase On-line double conversion VFI



KEOR HP 100



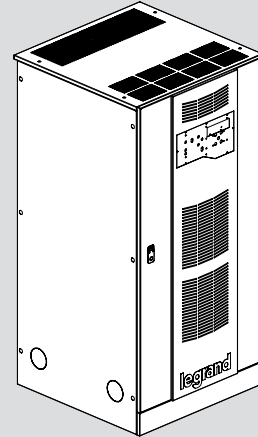
KEOR HP 200

Pack	Model	UPS (without batteries)			
		Nominal power kVA	Active power kW	Dimensions H x W x D (mm)	Net weight (kg)
1	KEOR HP 100	100	90	1670 x 815 x 825	625
1	KEOR HP 125	125	112,5	1670 x 815 x 825	660
1	KEOR HP 160	160	144	1670 x 815 x 825	715

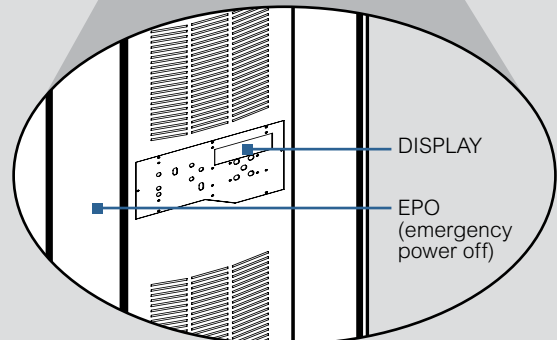
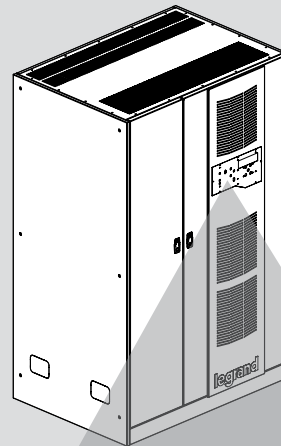
Pack	Model	UPS (without batteries)			
		Nominal power kVA	Active power kW	Dimensions H x W x D (mm)	Net weight (kg)
1	KEOR HP 200	200	180	1905 x 1220 x 855	970
1	KEOR HP 250	250	225	1905 x 1220 x 855	1090
1	KEOR HP 300	300	270	1905 x 1220 x 855	1170

Pack	Model	Options
		Description
1		Empty battery cabinet with cables and protection
1		Batteries 5 years / 10 years life time in cabinets or racks
1		Battery switch box with protection: fuses or MCCB
1		Battery monitoring system
1		BY PASS insulation transformer
1		External maintenance by-pass for parallel systems
1		Top entry cable cabinet
1		Remote control panel

Keor HP 100-125-160



Keor HP 200-250-300



NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

KEOR HP 100-125-160-200-250-300

Conventional UPS - Three-phase On-line double conversion VFI

Cat.Nos.	100	125	160	200	250	300
General characteristics						
Nominal power (kVA)	100	125	160	200	250	300
Active power (kW)	90	112,5	144	180	225	270
Technology	On-line double conversion VFI-SS-111					
Waveform	Sinusoidal					
Architecture	Conventional UPS, parallelable up to 6 unit					
Input characteristics						
Input voltage	380-415 V 3Ph+N					
Input frequency	50-60 Hz \pm 10% autosensing					
Input voltage range	400 V -20% / + 15%					
THD of input current	< 3%					
Compatibility with diesel generators	Configurable for synchronism between the input and output frequencies, even for the highest frequency variations					
Input power factor	> 0,99					
Output characteristics						
Output voltage	380, 400, 415 V 3Ph+N selected					
Efficiency	up to 95%					
Output frequency (nominal)	50 /60 Hz selected \pm 0,001%					
Crest factor	3:1					
THD of output voltage	<5% (with non-linear load)					
Output voltage tolerance	\pm 1% (with balance load)					
Overload capacity	10 minutes at 125%, 60 seconds at 150%, 10 seconds at 200%					
Efficiency in Eco mode	98%					
Bypass	Built-in Automatic and Maintenance By-pass					
Batteries						
Backup time extension	Scalable with additional battery cabinets					
Battery type	VRLA - AGM Maintenance-free Lead Acid Batteries					
Battery test	Automatic or manual					
Battery Recharge Profile	IU (DIN41773)					
Communication and management						
LCD Display	Four LED's to show status at a glance. Four menu-driven interface buttons. Four status at a glance LEDs					
Communication Ports	RS232 and USB serial ports					
Audible Alarm	Acoustic alarms and warnings, configurable delays					
Configuration Setting	Auto configuration by firmware, or manual by service engineer					
Net Interface Slot	Built-in dry contact PCB, optional SNMP card					
Emergency Power Off (EPO)	Yes					
Remote Management	Available					
Battery temperature probe	Yes					
Physical characteristics						
Dimensions H x W x D (mm)	1670 x 815 x 825			1905 x 1220 x 855		
Net Weight (kg)	625	660	715	970	1090	1170
Dimensions battery cabinet H x W x D (mm)	1900 x 1400 x 830 (50 batteries) 1900 x 2800 x 830 (100 batteries)			1900 x 1400 x 860 (50 batteries) 1900 x 2800 x 860 (100 batteries)		
Ambient conditions						
Operating temperature (°C)	0÷40			0÷40		
Relative humidity (%)	< 95% not condensing			< 95% not condensing		
Protection index	IP20			IP20		
Noise at 1 m (dBA)	< 60			< 62		
Certifications						
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3					

KEOR HP 400-500-600-800

Conventional UPS - Three-phase On-line double conversion VFI



KEOR HP 400

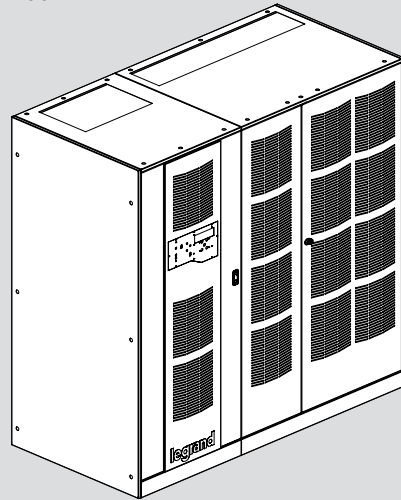
Pack	Model	UPS (without batteries)			
		Nominal power kVA	Active power kW	Dimensions A X L X P (mm)	Net weight (kg)
1	KEOR HP 400	400	360	1920 x 1990 x 950	1820
1	KEOR HP 500	500	450	2020 x 2440 x 950	2220
1	KEOR HP 600	600	540	2020 x 2440 x 950	2400
1	KEOR HP 800	800	720	1920 x 3640 x 950	3600

Options

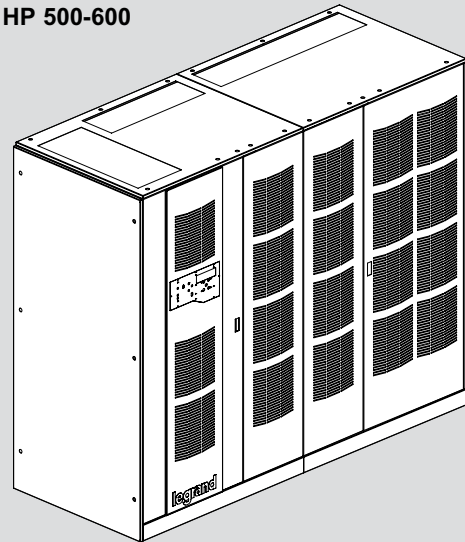
Description

- Empty battery cabinet with cables and protection
- Batteries 5 years / 10 years life time in cabinets or racks
- Battery switch box with protection : fuses or MCCB
- Battery monitoring system
- BY PASS insulation transformer
- External maintenance by-pass for parallel systems
- Top entry cable cabinet
- Remote control panel

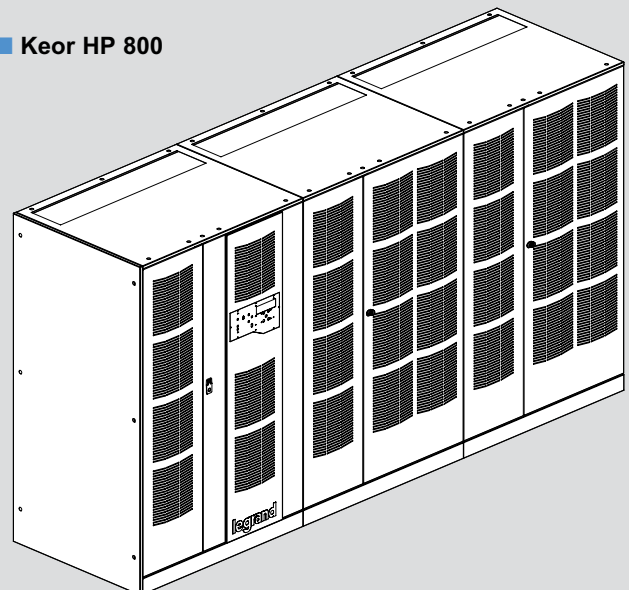
Keor HP 400



Keor HP 500-600



Keor HP 800



NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

KEOR HP 400-500-600-800

Conventional UPS - Three-phase On-line double conversion VFI

Cat.Nos.	400	500	600	800
General characteristics				
Nominal power (kVA)	400	500	600	800
Active power (kW)	360	450	540	720
Technology	On-line double conversion VFI-SS-111			
Waveform	Sinusoidal			
Architecture	Conventional UPS, parallelable up to 6 unit			
Input characteristics				
Input voltage	380-415 V 3Ph+N			
Input frequency	50-60 Hz \pm 10% autosensing			
Input voltage range	400 V -20% / + 15%			
THD of input current	<3%			
Compatibility with diesel generators	Configurable for synchronism between the input and output frequencies, even for the highest frequency variations			
Input power factor	>0,99			
Output characteristics				
Output voltage	380, 400, 415 V 3Ph+N selected			
Efficiency	up to 95%			
Output frequency (nominal)	50 /60 Hz selected \pm 0,001%			
Crest factor	3:1			
THD of output voltage	<5% (with non-linear load)			
Output voltage tolerance	\pm 1% (with balance load)			
Overload capacity	10 minutes at 125%, 60 seconds at 150%, 10 seconds at 200%			
Efficiency in Eco mode	>98%			
Bypass	Built-in Automatic and Maintenance By-pass			
Batteries				
Backup time extension	Scalable with additional battery cabinets			
Battery type	VRLA - AGM Maintenance-free Lead Acid Batteries			
Battery test	Automatic or manual			
Battery Recharge Profile	IU (DIN41773)			
Communication and management				
LCD Display	Four LED's to show status at a glance. Four menu-driven interface buttons. Four status at a glance LEDs			
Communication Ports	RS232 and USB serial ports			
Audible Alarm	Acoustic alarms and warnings, configurable delays			
Configuration Setting	Auto configuration by firmware, or manual by service engineer			
Net Interface Slot	Built-in dry contact PCB, optional SNMP card			
Emergency Power Off (EPO)	Yes			
Remote Management	Available			
Battery temperature probe	Yes			
Physical characteristics				
Dimensions H x W x D (mm)	1920 x 1990 x 950	2020 x 2440 x 950	2020 x 2440 x 950	1920 x 3640 x 950
Net Weight (kg)	1820	2220	2400	3600
Dimensions battery cabinet H x W x D (mm)	1900 x 2800 x 860 (100 batteries)			-
Ambient conditions				
Operating temperature (°C)	0÷40			
Relative humidity (%)	<95% not condensing			
Protection index	IP20			
Noise at 1 m (dBA)	<62			
Certifications				
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3			

FLEXIBLE
EXPANDABLE

REDUNDANT

APPLICATION FIELDS



Data center



Tertiary



Industry

MODULAR UPS

from 1,25 up to 120 kW



MEGALINE

Single-phase modular
UPS VFI,
from 1,25 up to 10kVA



TRIMOD HE

Three-phase modular
UPS VFI,
from 10 up to 60kW



ARCHIMOD HE

Three-phase modular
UPS VFI,
from 20 up to 120kW

CHARACTERISTICS OF THE RANGE

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.

MEGALINE

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

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.

SINGLE PHASE MODULAR UPS

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.





CLASS A/B (immunity emission)

All the MegaLine models comply with the most stringent standards in terms of both emission and immunity to electromagnetic interference so they can be used for any application, in either civil or industrial environments

ALARMS AND SIGNALS

An acoustic signal and high-visibility flashing on the backlit front panel ensure that any alarm signal is noticed immediately. The signals can be split into various categories based on their severity.



GREEN & NOT FLASHING - Normal Operation

Normal operation, no anomaly



YELLOW & FLASHING - Battery Mode

Battery operation, accompanied by a slow, intermittent alarm signal, which can be silenced



RED & FLASHING - Warning (together with an acoustic alarm signal)

- Operation blocked
- Output voltage anomaly

RED & NOT FLASHING - Severe alarm (together with an acoustic alarm signal)

- Failure of one or more power modules
- Incorrect connection of input neutral
- Overload

TRIMOD HE & ARCHIMOD HE

HIGH efficiency
HIGH performance
LOW environmental impact

THE TECHNOLOGY EVOLUTION

Legrand's modular UPS know-how goes back more than 20 years, when the first ever modular UPS were introduced in 1993. Since then, continuous firmware development and research on control and hardware components have led to no stop improvements in system reliability, quality and technical performance.

Continuous research combined with modern production methods has led Legrand to offer the market a cutting-edge, top-performing product: certified efficiency up to 96% and unity power factor.

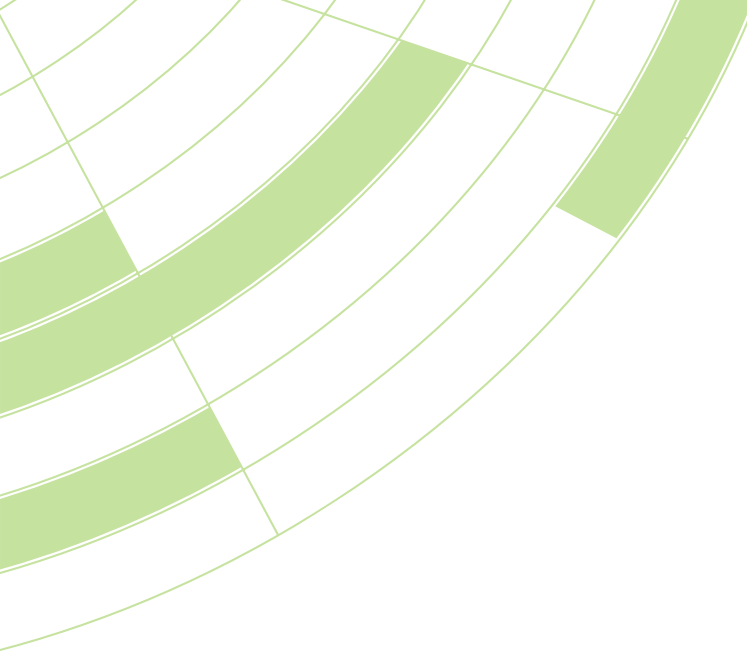
Combining high density with a structural design that optimises the space, the new TRIMOD HE and ARCHIMOD HE UPS are the ideal solution for advanced energy management and cost containment.



kVA = kW
POWER FACTOR 1

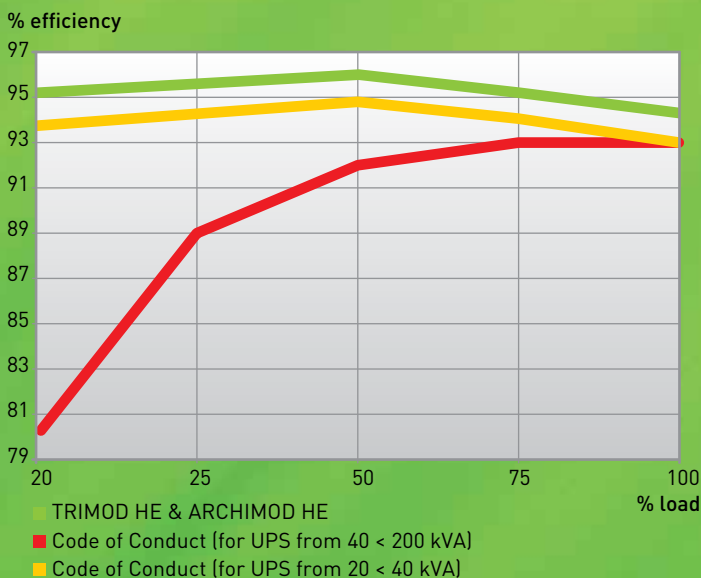
INCREASED POWER

Thanks to their unity power factor the new TRIMOD HE and ARCHIMOD HE UPS guarantee maximum real power; 11% more than competitor products offering 0,9 power factor, fully 25% more than those of 0.8 power factor.



GREATER EFFICIENCY 96%

TRIMOD HE and ARCHIMOD HE'S 96% efficiency, the highest in the market, is externally certified by the SIQ. The European Code of Conduct requires a minimum value of 92%. TRIMOD HE and ARCHIMOD HE are up to 4% more efficient, thus effectively dividing by 2 all UPS energy losses.



TRIMOD HE & ARCHIMOD HE

**FLEXIBILITY
MODULARITY
EXPANSION**

Gradual power adaptation

The three-phase UPS are made up of individual single phase modules which are redundant and «selfconfiguring», 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.

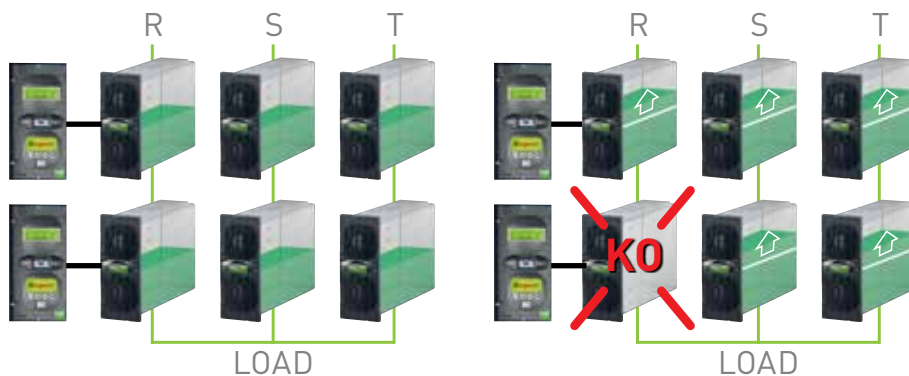


Extending the backup time

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.

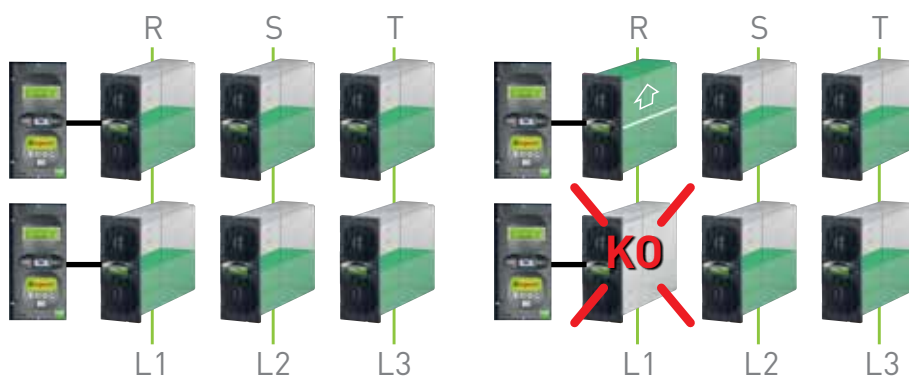
Redundancy on the single phase load

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.



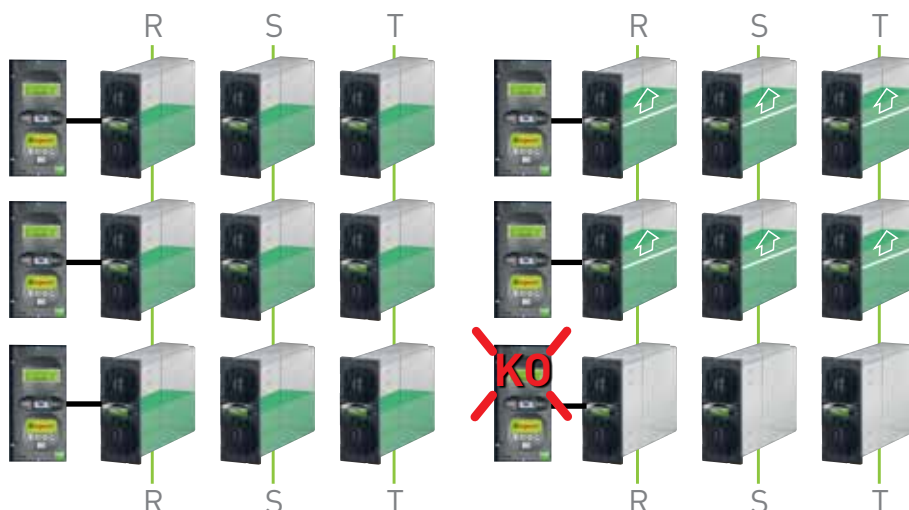
Redundancy on the phases

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.



HIGH LEVELS OF REDUNDANCY

Thanks to the construction technology of the TRIMOD HE and ARCHIMOD HE UPS systems, you can set various redundancy levels so that maximum service continuity is always guaranteed.

TRIMOD HE

HIGH DENSITY UPS

In addition to the standard size, TRIMOD HE offers taller cabinets which allow increased autonomy as a standard configurations. Yet another enhancement to the range that increase performance while occupying the same amount of floor space.

100% compatible

TRIMOD HE was developed to guarantee 100% compatibility hence simplifying servicing of any installed UPS systems.

Enhanced version with the same footprint

The new cabinets are taller but take up the same space in terms of footprint.

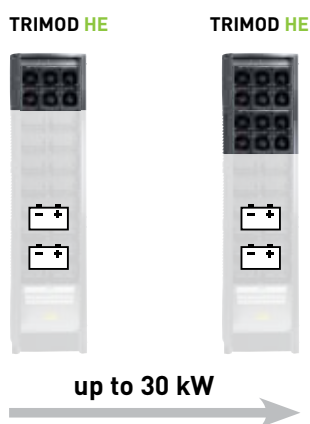


0.26 m²

NEW CABINETS MORE ADVANTAGES NEW SOLUTIONS

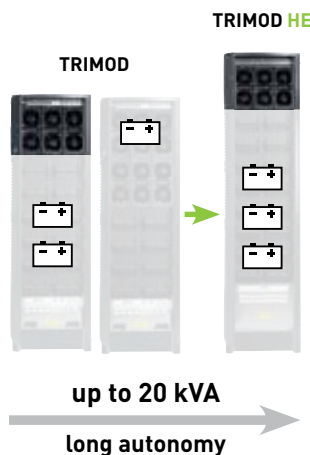
MORE redundancy and scalability

Redundancy on overall power or within each individual phase.
 Power scalability
 (versions with internal batteries):
 for versions from 10 kW to 20 kW
 for versions from 15 kW to 30 kW



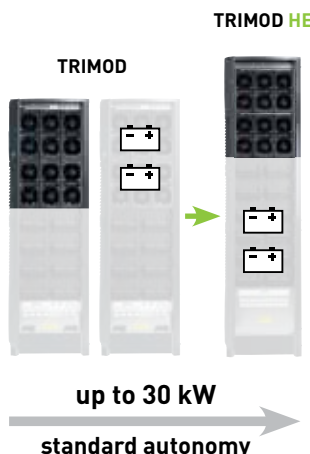
MORE autonomy

Optimising the number of cabinets for longer uptime of the 10-15-20 kW versions.



MORE configurations

It is possible to install standard batteries in the 30 kW version.



ARCHIMOD HE

MODULAR ARCHITECTURE UPS

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

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

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.



FLEXIBLE
EXPANDABLE

REDUN

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 kW. 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 kW) 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 kW 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 each with a very low safe DC voltage. 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.



MEGALINE

Modular UPS -Single-phase On-line double conversion VFI



3 103 60 + 3 107 78



3 108 62



3 107 85



3 108 35

Pack	Cat. Nos.	Single cabinet - without batteries			
		Nominal power (VA)	Active power (W)	Backup time (min)	Number of cabinets
1	3 103 51	1250	875	-	1
1	3 103 53	2500	1750	-	1
1	3 103 55	3750	2625	-	1
1	3 103 57	5000	3500	-	1

Pack	Cat. Nos.	Double cabinet - without batteries			
		Nominal power (VA)	Active power (W)	Backup time (min)	Number of cabinets
1	3 103 60 + 3 108 59	5000	3500	-	2
1	3 103 63 + 3 108 59	6250	4375	-	2
1	3 103 66 + 3 108 59	7500	5250	-	2
1	3 103 69 + 3 108 59	8750	6125	-	2
1	3 103 72 + 3 108 59	10000	7000	-	2

Pack	Cat. Nos.	Single cabinet (German standard)				
		Nominal power (VA)	Active power (W)	Backup time (min)	Number of cabinets	Weight (kg)
1	3 103 50	1250	875	13	1	23,5
1	3 103 52	2500	1750	13	1	34
1	3 103 54	3750	2625	13	1	43
1	3 103 56	5000	3500	13	1	53

Pack	Cat. Nos.	Double cabinet				
		Nominal power (VA)	Active power (W)	Backup time (min)	Number of cabinets	Weight (kg)
1	3 103 60 + 3 107 78	5000	3500	13	2	24+50
1	3 103 63 + 3 107 79	6250	4375	13	2	27+58
1	3 103 66 + 3 107 80	7500	5250	13	2	29+65
1	3 103 69 + 3 107 81	8750	6125	13	2	32+73
1	3 103 72 + 3 107 82	10000	7000	13	2	34+80

Pack	Cat. Nos.	Single cabinet (French standard)				
		Nominal power (VA)	Active power (W)	Backup time (min)	Number of cabinets	Weight (kg)
1	3 103 42	1250	875	13	1	23.5
1	3 103 43	2500	1750	13	1	34
1	3 103 44	3750	2625	13	1	43
1	3 103 45	5000	3500	13	1	53

Pack	Cat. Nos.	Single cabinet (British standard)				
		Nominal power (VA)	Active power (W)	Backup time (min)	Number of cabinets	Weight (kg)
1	3 103 46	1250	875	13	1	23.5
1	3 103 47	2500	1750	13	1	34
1	3 103 48	3750	2625	13	1	43
1	3 103 49	5000	3500	13	1	53

Pack	Cat. Nos.	Battery extensions	
		Description	
1	3 107 75	Cabinet with 1 BK	
1	3 107 76	Cabinet with 2 BK	
1	3 107 77	Cabinet with 3 BK	
1	3 107 78	Cabinet with 4 BK	
1	3 107 79	Cabinet with 5 BK	
1	3 107 80	Cabinet with 6 BK	
1	3 107 81	Cabinet with 7 BK	
1	3 107 82	Cabinet with 8 BK	
1	3 107 83	Cabinet with 9 BK	
1	3 107 84	Cabinet with 10 BK	

Pack	Cat. Nos.	Battery extensions with charger	
		Description	
1	3 107 86	Cabinet with 1 BK with charger	
1	3 107 87	Cabinet with 2 BK with charger	
1	3 107 88	Cabinet with 3 BK with charger	
1	3 107 89	Cabinet with 4 BK with charger	
1	3 107 90	Cabinet with 5 BK with charger	
1	3 107 91	Cabinet with 6 BK with charger	
1	3 107 92	Cabinet with 7 BK with charger	
1	3 107 93	Cabinet with 8 BK with charger	
1	3 107 94	Cabinet with 9 BK with charger	
1	3 107 95	Cabinet with 10 BK with charger	

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

NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

MEGALINE

Modular UPS -Single-phase On-line double conversion VFI

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					
General characteristics										
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									
Input characteristics										
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									
Output characteristics										
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%									
Overload capacity	300% for 1 s – 200% for 5 s – 150% for 30 s									
Backup time										
Backup time (min)	13									
Extension of backup time	Yes									
Equipment										
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)									
Mechanical characteristics										
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	
Ambient conditions										
Ambient operating temperature (°C)	0 to 40									
Protection index	IP 21									
Relative humidity (%)	20 to 80									
Noise at 1 m (dBA)	< 40									
Certifications										
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3									

MEGALINE RACK

Modular UPS -Single-phase On-line double conversion VFI



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)
1	3 103 79	1250	875	13	1	23.5
1	3 103 81	2500	1750	13	1	34
1	3 103 83	3750	2625	13	1	43
1	3 103 85	5000	3500	13	1	53

Pack	Cat. Nos.	RACKS (French standard)				
		Nominal power (VA)	Active power (W)	Backup time (min)	Number of cabinets	Weight (kg)
1	3 103 34	1250	875	13	1	23.5
1	3 103 35	2500	1750	13	1	34
1	3 103 36	3750	2625	13	1	43
1	3 103 37	5000	3500	13	1	53

Pack	Cat. Nos.	RACKS (British standard)				
		Nominal power (VA)	Active power (W)	Backup time (min)	Number of cabinets	Weight (kg)
1	3 103 38	1250	875	13	1	23.5
1	3 103 39	2500	1750	13	1	34
1	3 103 40	3750	2625	13	1	43
1	3 103 41	5000	3500	13	1	53

Pack	Cat. Nos.	RACKS - without batteries				
		Nominal power (VA)	Active power (W)	Backup time (min)	Number of cabinets	Weight (kg)
1	3 103 80	1250	875	-	1	23.5
1	3 103 82	2500	1750	-	1	34
1	3 103 84	3750	2625	-	1	43
1	3 103 86	5000	3500	-	1	53

Pack	Cat. Nos.	Backup time extensions		
		Nominal power (VA)	Additional BK	Expansion (min)
1	3 103 87	1250	1	30
1	3 103 88	1250	2	52
1	3 103 89	1250	3	75
1	3 103 90	2500	1	22
1	3 103 91	2500	2	30
1	3 103 92	3750	1	18

Pack	Cat. Nos.	Battery expansions for Rack UPS	
		Description	
1	3 107 96	Rack with 1 BK	
1	3 107 97	Rack with 2 BK	
1	3 107 98	Rack with 3 BK	
1	3 107 99	Rack with 4 BK	
1	3 108 00	Rack with 1 BK with charger	
1	3 108 01	Rack with 2 BK with charger	
1	3 108 02	Rack with 3 BK with charger	
1	3 108 03	Rack with 4 BK with charger	

Pack	Cat. Nos.	Accessories	
		Description	
1	3 108 35	Power module (PW 1250)	
1	3 108 04	Empty battery rack cabinet	
1	3 108 62	Manual bypass for single rack (BP/1)	
1	3 107 85	Additional charger (CB 36)	
1	3 109 72	Relay interface kit	
1	3 109 73	Telescopic runner kit for 6U rack	

NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

MEGALINE RACK

Modular UPS -Single-phase On-line double conversion VFI

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
General characteristics				
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 doppia conversione (VFI-SS-111)			
Architecture	Modular, expandable, N+X redundant with 1250 VA power cards, contained in a single rack			
Input characteristics				
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			
Output characteristics				
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%			
Overload capacity	300% for 1 s – 200% for 5 s – 150% for 30 s			
Backup time				
Backup time (min)	13			
Extension of backup time	Yes			
Equipment				
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)			
Mechanical characteristics				
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	-
Ambient conditions				
Ambient operating temperature (°C)	0+40			
Protection index	IP21			
Relative humidity (%)	20 to 80			
Noise at 1 m (dBA)	< 40			
Certifications				
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3			

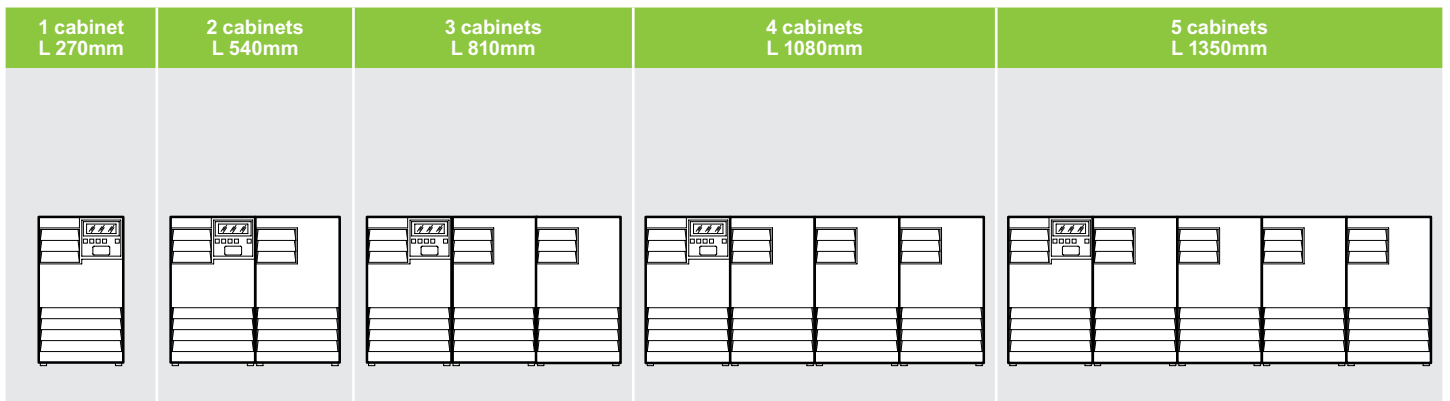
MEGALINE

Long backup time table for single cabinet and double cabinet versions

Model	Power	Backup time	Number of cabinets and dimensions W x H x D (mm)	Cat. Nos.
Single cabinet				
	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
Double cabinet				
	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 stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.



MEGALINE RACK

Long backup time table

Model	Power	Backup time	Number of cabinets and dimensions W x H x D (mm)	Cat. Nos.
Rack				
	1.250 VA	30'	1 (6U)	3 103 87
	1.250 VA	52'	1 (6U)	3 103 88
	1.250 VA	75'	1 (6U)	3 103 89
	2.500 VA	22'	1 (6U)	3 103 90
	2.500 VA	30'	1 (6U)	3 103 91
	2.500 VA	52'	2 (6U + 3U)	3 103 81 + 3 107 99
	2.500 VA	63'	3 (6U + 2x3U)	3 103 81 + 3 107 99 + 3 107 96
	3.750 VA	18'	1 (6U)	3 103 92
	3.750 VA	29'	2 (6U + 3U)	3 103 83 + 3 107 98
	3.750 VA	44'	3 (6U + 2x3U)	3 103 83 + 3 107 99 + 3 107 96
	3.750 VA	67'	3 (6U + 3x3U)	3 103 83 + 3 107 99 (x2)
	5.000 VA	22'	2 (6U + 3U)	3 103 85 + 3 107 97
	5.000 VA	30'	2 (6U + 2x3U)	3 103 85 + 3 107 99
	5.000 VA	46'	3 (6U + 3x3U)	3 103 85 + 3 107 99 + 3 107 98
	5.000 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 stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

1 cabinet H 266mm (6U)	2 cabinets H 532mm (9U)	3 cabinets H 798mm (12U)	4 cabinets H 1064mm (15U)	5 cabinets H 1330mm (18U)

TRIMOD HE

Modular UPS -Three-phase On-line double conversion VFI



3 104 42



3 108 71



3 108 43

Pack	Cat. Nos.	UPS	Nominal power kVA	Operating time (min.)	no. and type of cabinet	Weight (kg)
1	3 104 42	10	11	1A	167	
1	3 104 43	10	17	1A	223	
1	3 104 44	10	35	1A	279	
1	3 104 02	10	49	1B	350	
1	3 104 43 + 3 107 58	10	68	2A	527	
1	3 104 45	15	13	1A	220	
1	3 104 46	15	21	1A	279	
1	3 104 07	15	29	1B	350	
1	3 104 46 + 3 107 60	15	33	2A	413	
1	3 104 46 + 3 107 63	15	57	2A	550	
1	3 104 47	20	9	1A	220	
1	3 104 48	20	14	1A	279	
1	3 104 13	20	20	1B	350	
1	3 104 48 + 3 107 62	20	35	2A	572	
1	3 104 47 + 2 X 3 107 63	20	59	3A	574	
1	3 104 17	30	8	1B	325	
1	3 104 18 + 3 107 63	30	12	2A	434	
1	3 104 19 + 3 107 63	40	8	2A	564	
1	3 104 19 + 2 X 3 107 58	40	16	3A	801	
1	3 104 19 + 3 X 3 107 59	40	38	4A	439	
1	3 104 19 + 4 X 3 107 64	40	60	5A	1663	
1	3 104 20 + 2 X 3 107 58	60	9	3A	830	
1	3 104 20 + 2 X 3 107 64	60	15	3A	942	
1	3 104 20 + 4 X 3 107 63	60	27	5A	1579	

*Cabinet A h=1370, Cabinet B h=1650

Pack	Cat. Nos.	Power cabinet	Nominal power kVA	Type of cabinet	Operating time (min.)	NO. of installable battery drawers	Weight (kg)
1	3 103 96	10	A	0'	12	120	
1	3 103 97	10	B	0'	16	155	
1	3 104 08	15	A	0'	12	120	
1	3 104 03	15	B	0'	16	155	
1	3 104 14	20	A	0'	12	120	
1	3 104 09	20	A	0'	16	155	
1	3 104 18	30	A	0'	-	146	
1	3 104 15	30	B	0'	12	181	
1	3 104 19	40	A	0'	-	146	
1	3 104 20	60	A	0'	-	165	

		Power cabinets (empty)	NO. of inst. power modules	Type of cabinet	NO. of inst. battery drawers	Type of power module kVA	NO. of phases
1	3 104 22	3	A	12	3,4	1-1 / 3-3 / 3-1 / 1-3	
1	3 104 31	3	B	16	3,4	1-1 / 3-3 / 3-1 / 1-3	
1	3 104 23	3	A	12	5 or 6,7	1-1 / 3-3 / 3-1 / 1-3	
1	3 104 32	6	B	12	3,4	1-1 / 3-3 / 3-1 / 1-3	
1	3 104 33	3	A	16	5 or 6,7	1-1 / 3-3 / 3-1 / 1-3	
1	3 104 24	6	A	-	5	3-3	
1	3 104 25	6	A	-	5	1-1/3-3/3-1/1-3	
1	3 104 34	6	B	12	5	3-3	
1	3 104 26	6	A	-	6,7	3-3	
1	3 104 27	9	A	-	6,7	3-3	

		Accessories	Description
1	3 108 69	3.4 kVA power module	
1	3 108 71	5 kVA power module	
1	3 108 73	6.7 kVA power module	
1	3 108 51	Additional 15 A battery charger module	

		Battery accessories	Description
1	3 108 54	Kit of 4 empty battery drawers	
1	3 108 43	Single drawer with 5 7.2Ah batteries (installable in multiples of 4)	
1	3 108 45	Single drawer with 5 9Ah batteries (installable in multiples of 4)	
1	3 108 75	Single drawer with 5 9Ah long life batteries (installable in multiples of 4)	

		Additional empty battery cabinets	Description
1	3 108 05	16-drawer modular battery cabinet	
1	3 108 06	20-drawer modular battery cabinet	

		Additional battery cabinets with batteries	Description
Batteries			
7.2 Ah	9 Ah		
1	3 107 55	3 107 60	Modular battery cabinet with 4 drawers
1	3 107 56	3 107 61	Modular battery cabinet with 8 drawers
1	3 107 57	3 107 62	Modular battery cabinet with 12 drawers
1	3 107 58	3 107 63	Modular battery cabinet with 16 drawers
1	3 107 59	3 107 64	Modular battery cabinet with 20 drawers

		Additional battery cabinets for long-life 94 Ah batteries (empty)	Description
1	3 108 12	Battery cabinet (20 x 94Ah - WxLxD 1635x600x800 mm)	

NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

TRIMOD HE

Modular UPS -Three-phase On-line double conversion VFI

Cat. Nos.	3 103 96 3 103 97	3 104 03 3 104 08	3 104 09 3 104 14	3 104 15* 3 104 18*	3 104 19	3 104 20
General specifications						
Nominal power (kVA)	10	15	20	30	40	60
Active power (kW)	10	15	20	30	40	60
Module power (kVA)	3,4	5	6,7	5	6,7	6,7
Classification	On-Line double conversion VFI-SS-111					
System	Modular, expandable and redundant UPS system					
Input specifications						
Input voltage	380, 400, 415 3PH+N+PE (or 220, 230, 240 1PH)			380, 400, 415 3PH+N+PE		
Input frequency	45-65 Hz (43,0 ÷ 68.4 Hz)					
Input voltage range	400V +15%/-20% - 230V +15%/-20%			400V +15%/-20%		
THD input current	< 3% (at full load)					
Compatibility with power supply units	Si					
Input power factor	> 0,99					
Output Specifications						
Output voltage	380, 400, 415 3F+N+PE (o 220, 230, 240 1F)			380, 400, 415 3F+N+PE		
Efficiency	Up to 96%					
Efficiency in Eco mode	99%					
Nominal output frequency	50/60 Hz selectable by the user ±2 % (standard), ±14 % (extended)					
Crest factor	3:1					
Waveform	Sinusoidal					
Output voltage tolerance	±1%					
THD output voltage	<1%					
Overload capacity	10 minutes at 115%, 60 seconds at 135%					
Bypass	Automatic bypass (static and electromechanical) and manual maintenance bypass					
Batteries						
Battery module	Plug & play					
Battery series type/voltage	VRLA - AGM / 240 Vdc					
Operating time	Configurable					
Battery charger	Smart charge technology. 3-stage advanced cycle					
Communication and management						
Display and signals	4 x 20-character lines, 4 menu navigation buttons, LED multi-colour status indicator, alarms and audio signals					
Communication ports	2 RS232 serial ports, 1 logical gate, 5 ports with dry contacts, 1 slot for interfaces					
Backfeed protection	NC/NO auxiliary contact					
Emergency Power Off (EPO)	Yes					
Remote management	Available					
Physical Specifications						
Height (A-B)	1650 - 1370		1650 - 1370	1370	1370	
Width	414		414	414	414	
Depth	628		628	628	628	
Installed power modules	3		6	6	9	
Installable battery drawers (A-B)	Up to 16 - Up to 12		Up to 12 - 0	-	-	
Net weight kg (A-B)	155 - 120		181 - 146	146	165	
Ambient Conditions						
Operating temperature/humidity	0 - 40°C / 0 - 95% non condensing					
Protection rating	IP21					
Maximum audible noise at 1 m from the unit (dBA)	46					
Conformity						
Reference standard	Reference standard					

* Standard configurations with 3-3 distribution (multi IN/OUT conf available on request)

ARCHIMOD HE

Modular UPS -Three-phase On-line double conversion VFI



3 103 61



3 108 55



3 108 73

Pack	Cat. Nos.	Configurable cabinets			
		Nominal power (kVA)	Number of battery modules	Number of control modules	Number of phases
1	3 104 59	20	30	1	1-1/3-3/3-1/1-3
1	3 104 60	40	24	2	1-1/3-3/3-1/1-3
1	3 104 61	60	18	3	3-3
1	3 104 62	80	-	4	3-3
1	3 104 63	100	-	3	3-3
1	3 104 64	120	-	3	3-3

Additional cabinets for batteries

		Description
1	3 108 18	Empty modular battery cabinet
1	3 107 17	Empty Battery cabinet for long life batteries (21 x 94Ah - WxLxD 1635x600x800 mm)

Accessories

		Description
1	3 108 73	6.7 kVA power module
1	3 108 76	kit of 3 x long life battery trays
1	3 108 64	Front/rear door
1	3 108 55	Kit of 3 x 9 Ah battery drawers
1	3 108 56	Kit of 3 empty battery drawers
1	3 108 51	Additional charger module
1	3 108 65	Cover for empty battery slot
1	3 108 66*	3 Cover for empty power module slot

* always be used when there are empty slots

Configurations

20

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



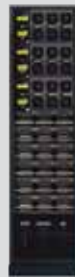
40

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



60

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



80

Power: 80 kVA
Backup time: 14 min
2 Cabinets
4 Control modules
12 Power modules
36 Battery drawers
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 drawers
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 drawers
1 Distribution module



NOTE: The stated back-up times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

ARCHIMOD HE

Modular UPS -Three-phase On-line double conversion VFI

Cat. Nos.	3 104 59	3 104 60	3 104 61	3 104 62	3 104 63	3 104 64
General characteristics						
Nominal power (kVA)	20	40	60	80	100	120
Active power (kW)	20	40	60	80	100	120
Module power (kVA)	6.7 per power module (20 kVA with 3 modules), $\cos\phi$ 1					
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					
Input characteristics						
Input voltage	380, 400, 415 3F+N+PE (o 220, 230, 240 1F)		380, 400, 415 3F+N+PE			
Input frequency	45-65 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					
Output characteristics						
Output voltage	380, 400, 415 3F+N+PE (o 220, 230, 240 1F)		380, 400, 415 3F+N+PE			
Efficiency	Up to 96%					
Nominal output frequency	50/60 Hz \pm 0.1					
Peak factor	3.5:1					
Tolerance on output voltage	\pm 1%					
Overload capacity	10 minutes at 113% and 60 seconds at 135%					
Efficiency in Eco mode	99%					
Bypass	Automatic and maintenance bypass					
Batteries						
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					
Communication and management						
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					
Physical characteristics						
Dimensions (H x W x D) (mm)	2080 x 570 x 912 (42U)					
Installable 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
Ambient conditions						
Operating temperature/humidity	0 - 40 °C / 0 - 95% non condensing					
Protection index	IP21					
Maximum noise audible at 1 m (dBA)	50÷65					
Conformity						
Certifications	EN 62040-1, EN 62040-2, EN 62040-3					

On its own, a UPS is unable to guarantee total protection of the data processing systems it powers. This is due to several factors, amongst which:

- Unexpected load connections, such as stoves and vacuum cleaners, can cause overloads which annul the protection provided by the UPS.
- Installation in unmanned areas such as EDP rooms and basements or round-the-clock operations can make alarm reception difficult or impossible. This consequently put critical equipment at risk.

Moreover, since the systems can be extremely costly to repair, also owing to the time relevant downtime, it is easy to understand the importance to equip a UPS with a supervision system able to inform the user of the imminent danger and automatically proceed with a series of actions to protect the data and the operating systems. Legrand offers 2 solutions for the UPS supervision according to the type of installation and the management method: software solution and hardware solution.

COMMUNICATION ACCESSORIES

UPS SUPERVISION SYSTEM



CHARACTERISTICS OF THE RANGE

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



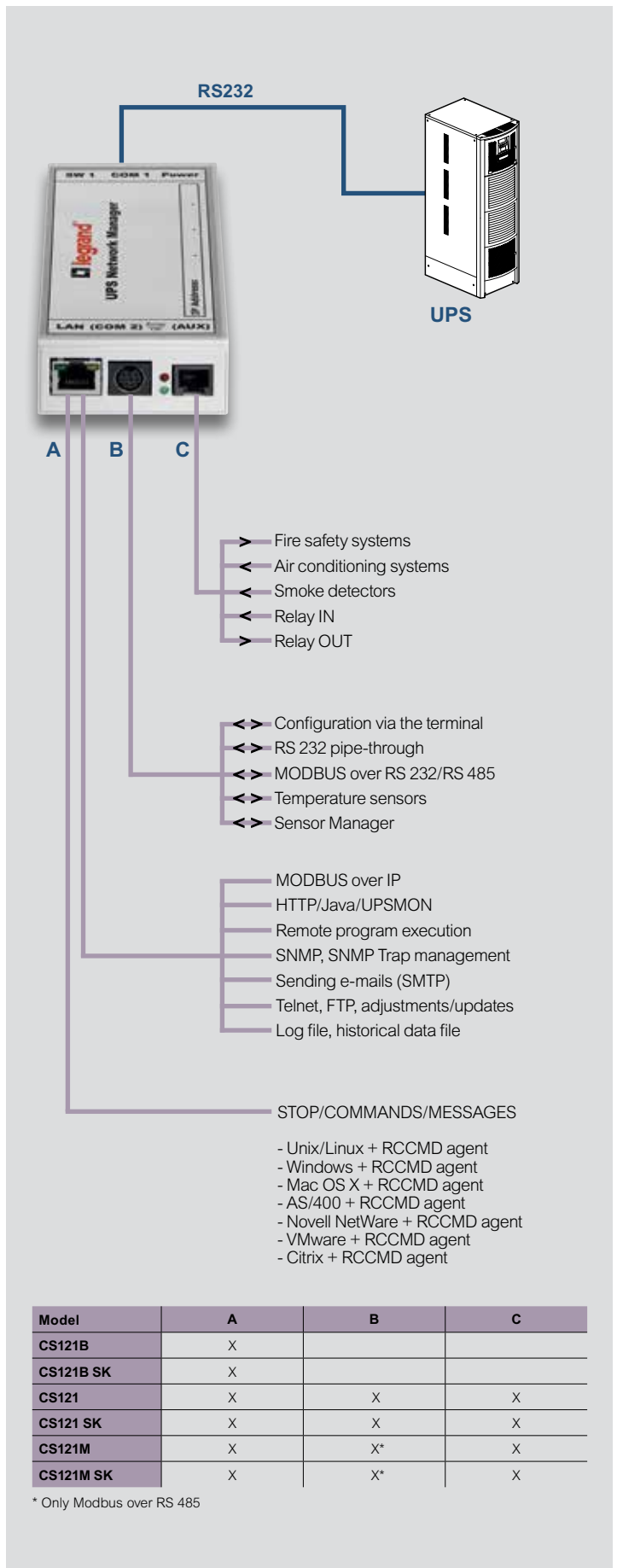
3 109 07

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.

Pack	Cat. Nos.	Network interface
		Description
1	3 108 81	CS121 SK PROFESSIONAL network interface, internal version (card)*
1	3 108 82	CS121B SK STANDARD network interface, internal version (card)*
1	3 108 83	CS121 PROFESSIONAL network interface, external version**
1	3 108 84	CS121B STANDARD network interface, external version**
1	3 109 06	CS121M INDUSTRIAL network interface, external version**
1	3 109 07	CS121M SK INDUSTRIAL network interface, internal version (card)*



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

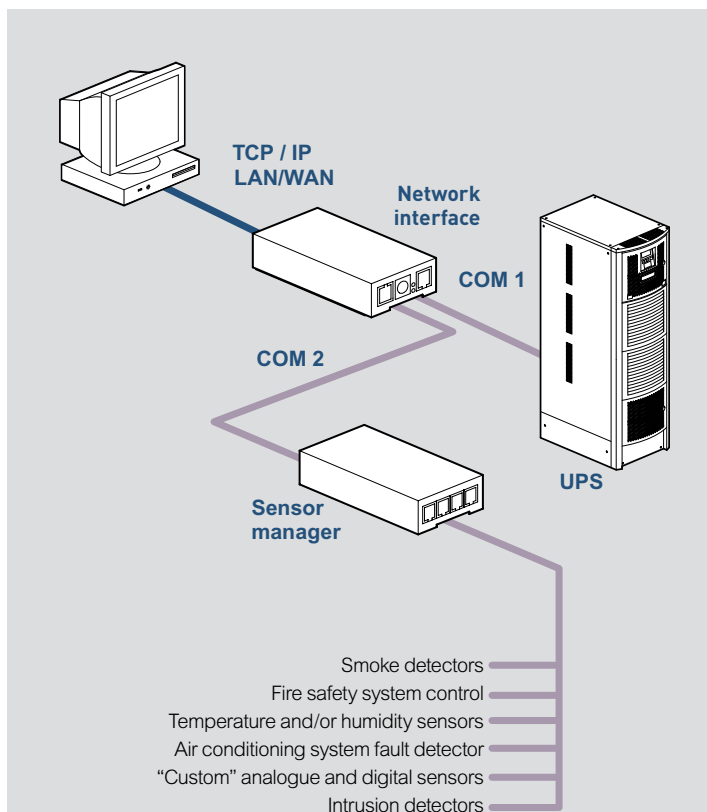
* Only Modbus over RS 485

Accessories

Sensors and other accessories



Pack	Cat. Nos.	Sensors
		Description
1	3 108 97	SM_T_COM 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.
1	3 108 98	SM_T_H_COM 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.
1	3 108 99	SensorManager 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 "Off set" configuration functions enable SensorManager to be used with any analogue device (see characteristics). It includes 1 "SM_T" temperature sensor.
1	3 109 00	SM_T Temperature sensor that can only be used with SensorManager. It enables another "SM_T" sensor to be connected using a special connector.
1	3 109 01	SM_T_H Combined temperature and humidity sensor that can only be used with SensorManager.
1	3 109 02	Sensore porta This consists of a reed switch and a magnet. Compatible with CS121, CS121 SK, CS121 M, CS121M SK and SensorManager.
1	3 109 03	SM_flash Flashing illuminated signal. Only compatible with SensorManager.
1	3 109 09	CON_R_AUX 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)	9-24
Temperature (°C)	0 ÷ 40
Non-condensing humidity (%)	10 ÷ 80
Analogue inputs (V)	0 ÷ 10
Digital inputs (V)	9 ÷ 24
10 mA digital outputs (V)	9 ÷ 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.

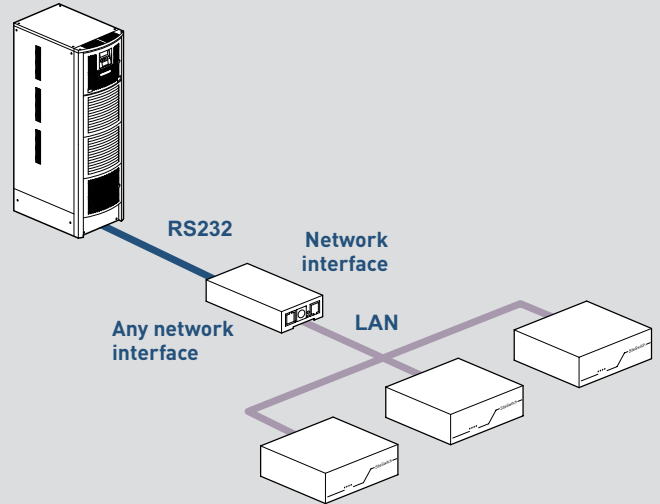
Pack	Cat. Nos.	Siteswitch 4
		Description
1	3 109 04	SS4 PROFESSIONAL load management control unit
1	3 109 05	SS4 AUX STANDARD load management control unit

■ 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.

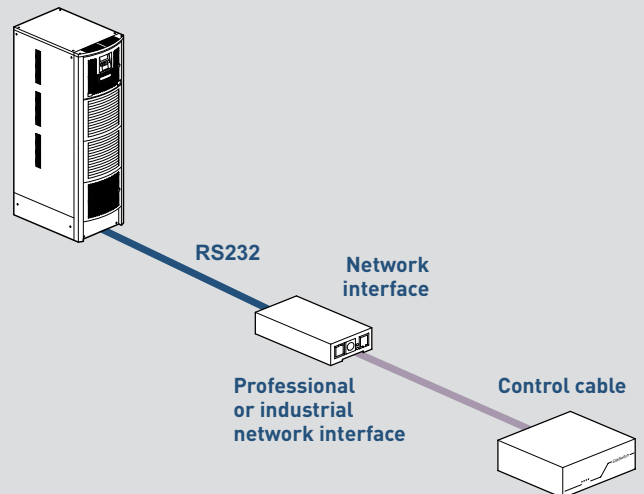
This enables the switching point to be installed close to the loads to be supplied and enables the UPS to control a potentially infinite number of control units.

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 / 8A max)	4 x (230 V / 8A 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 Mbit/s	RJ11 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

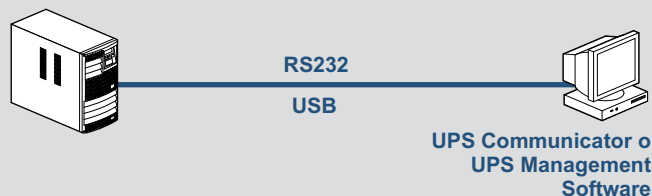


Pack	Cat. Nos.	Software
		Description
1	downloadable	UPS Communicator Set of applications for real-time control of the operation of the UPS and to ensure the integrity of the systems on the computers supplied by this UPS. Operates with an agent for executing commands on remote computers (RS System).
1	3 108 79	UPS Management Software 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).
1	3 108 80	UPS Management Software 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).
1	3 108 85	RCCMD Multi-OS RCCMD licence
1	3 108 86	RCCMD Pack of multi-OS RCCMD licences
1	3 108 87	RCCMD Pack of 10 multi-OS RCCMD licences
1	3 108 88	RCCMD Pack of 25 multi-OS RCCMD licences
1	3 108 89	RCCMD Pack of 50 multi-OS RCCMD licences
1	3 108 90	RCCMD 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.
1	3 108 91	UNMS UNMS licence for 25 UPS
1	3 108 92	UNMS UNMS licence for 50 UPS
1	3 108 93	UNMS UNMS licence for 150 UPS

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

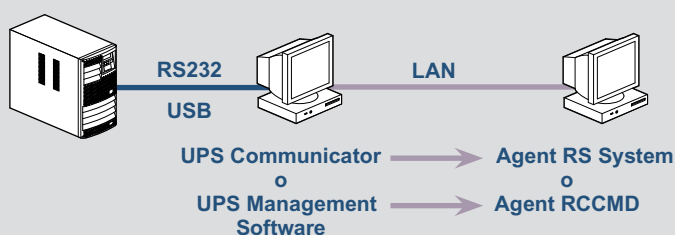
Local protection

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



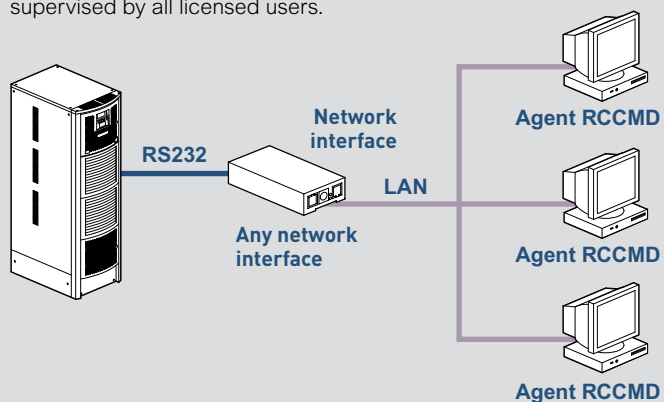
Extended local protection

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



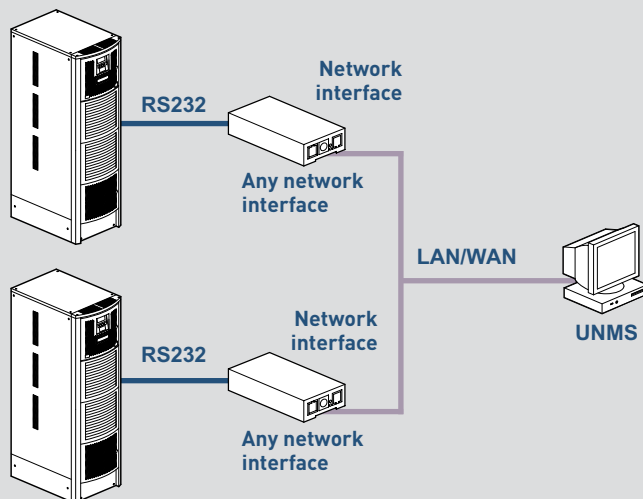
Protection via TCP/IP network

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

Directly present in more than 70 countries and servicing its products in more than 150 countries worldwide, a team of qualified engineers is available 24/7/365 to support your UPS system to ensure power quality and availability to the most critical loads.

Excellent

Legrand's competitive edge lies in its ability to provide high value-added UPS systems and services for both end users and business partners.

For Legrand, creating value means coming up with solutions for lower energy consumption, but also integrating product design into the overall development process. With around 200 000 catalogue items, the Group also provides all products required for electrical and digital building installations, particularly as integrated systems, finding solutions to fit everyone's needs.

Tailor-made

Legrand offers a complete range of specific solutions and services to meet customer requirements:

- Technical pre-sales support at the project design stage
- Factory acceptance test
- Supervision of installation, testing and commissioning, site acceptance test
- Operator training
- Site audit
- Warranty extension
- Annual maintenance contract
- Fast intervention on emergency call

SUPPORT



SITE INSPECTION, INSTALLATION SUPERVISION.

We perform a comprehensive check of the UPS environment to ensure safety and fault-free operation. Our technical experts give manufacturer's recommendations to the site engineer or electrical contractors, and supervise the UPS installation before load power-up.

SITE TEST, COMMISSIONING.

Our Service Engineers conduct rigorous site tests and full setting-up of the UPS system before going live. They also perform site acceptance tests according to your requirements. Commissioning operations for all UPS are carried out by qualified engineers to guarantee seamless start-up. After the final handing over of the UPS system, a Test and Commissioning report is delivered to you.

TRAINING



We offer on-site training to ensure your equipment's safe and efficient operation. Troubleshooting courses are also available in our plants for intensive hands-on practice on UPS training equipment.

MAINTENANCE



PREVENTIVE MAINTENANCE

Electronic equipment and power systems, such as UPS, contain life-limited components and parts that must be replaced according to the manufacturer's specifications.

To ensure optimal performance and to protect your critical application from potential downtime, it is crucial to perform

preventive maintenance operations on a regular basis and replace parts when needed. Our Service Contracts include cleaning, IR thermography, measurements, functional tests, event log and power quality analysis, battery health check, hardware and software upgrades, and technical reports. A Preventive Maintenance Plan is one of the most cost-effective actions that can preserve your initial investment and ensure your business continuity.

CORRECTIVE MAINTENANCE, EMERGENCY CALL

In the event of an Emergency Call, our worldwide service network, with engineers and spare-parts stocks strategically located as close as possible to your site, guarantees a fast intervention time with 24/7/365 assistance.

After connecting his laptop to your UPS, very powerful diagnostic software helps our engineer to identify the fault, thus ensuring short MTTR (Mean Time To Repair).

Corrective actions are performed such as part replacement, adjustments and upgrades to return the UPS system back to normal operation.



**World Headquarters and
International Department**
87045 Limoges Cedex - France
☎ : + 33 (0) 5 55 06 87 87
Fax : + 33 (0) 5 55 06 74 55

In accordance with its policy
of continuous improvement, the
Company reserves the right to change
specifications and designs without
notice. All illustrations, descriptions,
dimensions and weights in this
catalogue are given as a guide only.