

UPS

UNINTERRUPTIBLE POWER SUPPLY

up to 21 MVA

GENERAL CATALOGUE 2023

GLOBAL SPECIALIST IN ELECTRICAL
AND DIGITAL BUILDING INFRASTRUCTURES



UPS systems: UPS units up to

SINGLE-PHASE UPS

Consumer and Soho

Keor Multiplug



Single-phase UPS
line interactive VI
from 600 to 800 VA

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Keor SP



Single-phase UPS
line interactive VI
from 600 to 2000 VA

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21 MVA

Modular

Conventional

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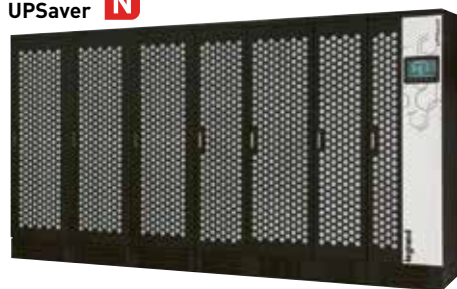


Three-phase UPS, on-line double conversion VFI from 600 to 2100 kVA

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UPSaver

UPSaver



Three-phase UPS, on-line double conversion VFI from 670 to 2670 kVA. Parallelable up to 21 MVA

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and software

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UPS

High performance, uninterruptible service and energy efficiency.

The wide diffusion of UPS systems generally stems from an increasing dependence on electricity and the need to protect a range of equipment, data and processes that are crucial to companies. Power electronics is focused on the design and development of static UPS with increasing performance, which provide adequate energy saving along with lower environmental impact.

Safety and uninterruptible service

Any electronic device that is not properly protected by UPS systems may be subject to disturbances from the mains supply. Electrical events such as voltage dips, black-outs, voltage surges, or other voltage or frequency anomalies, can generate serious consequences including:

- interruption of services
- loss of data and information
- faults or damage to the actual electronic devices.

The solution to these problems is provided by Uninterruptible Power Supplies (UPS) which, when installed between the power supply network and the equipment, **improve the quality of the power** by ensuring **uninterruptible service** and **protection** of all devices that perform functions that are critical to the business life of companies.

Energy efficiency

Thanks to the use of the latest technologies, the new concept UPS boast high efficiency and an intelligent battery charging system that extends its useful life. In addition to significantly reducing UPS consumptions and operating costs, these features contribute to reducing the environmental impact of battery disposal.





LEGRAND IS A WORLD LEADER IN THE MANUFACTURING OF ELECTRICAL EQUIPMENT,

and offers a wide range of solutions for the tertiary sector, that meet all system demands, from cabling systems for data networks, to channelling and distribution systems, to plant control and management.

Today, with a view to technological development that respects the environment and in order to face a constantly evolving market, Legrand proposes a new UPS range, a complementary offer of technological functions able to guarantee maximum protection for all systems.

Legrand UPS is currently the manufacturer with the highest growth rate on the market; it also recently received two major awards worldwide and was named Company of the Year and Company with the highest growth rate by Frost & Sullivan (an international market research and consulting firm).

These results have been achieved through a number of factors such as recent acquisitions, product development activity and, above all, growth in sales of products and services.



SUSTAINABILITY

Corporate Social Responsibility

Green management and sustainable supply chain: these concepts are part of Legrand's Corporate Social Responsibility, which is the company's commitment to drawing up a strategy and implementing it with practical actions aimed at socially responsible behaviour towards everything around it, such as people, things and environment.

CSR involves the management of human resources, the organization and division of labour and the management of natural resources. CSR aims to assess the impact that the company's actions and decisions have internally, but also externally, on the stakeholders and the environment.

Circular economy

We are committed to creating a system that involves all stakeholders to share values, objectives and actions in order to control and reduce the environmental impact of all our economic and production processes, reduce waste and environmental impact and transform what would once have been defined as «waste» into new resources.

Controlling these aspects has an impact on the entire life cycle of the product, starting from the design of new concepts and new specifications for the materials the UPS is made of; this is possible through responsible design and procurement processes (so-called «green procurement»), with a strong focus on research and the use of innovative materials from the circular economy and alternative raw materials. When a product ends its life, all these materials can become high value-added resources that can be used in other production cycles.

Digitalization

New information technologies allow us to reduce the use of several paper documents in favor of the digital format: in this way the information is always and everywhere accessible from a PC or smartphone and at the same time we can avoid the felling of many trees.

Digitization also becomes an important driver of the circular economy, since it allows the use of tools for performance data analysis and preventive diagnostics, both useful for optimizing the life cycle and durability of the product.



BUSINESS ECOSYSTEM

or how Legrand interacts ethically with the whole ecosystem of its activities.

PEOPLE

or how Legrand engages with all of its employees and stakeholders.

ENVIRONMENT

or how Legrand intends to limit the Group's environmental impact.



Efficiency

Our R&D team is constantly working on the development of increasingly efficient UPSs that allow high and incremental performance with minimum energy dissipation; with regard to CO₂ emissions, we are implementing processes and products that represent an improvement in the percentage of carbon footprint compared to the past. But efficiency is not only synonymous with high performance. For us, efficiency also means ecodesign: this implies that the UPS is designed to be easily repaired, maintained and it's easy to separate its components. This means increasing the durability of our UPSs and the possibility of reusing and recycling them at the end of their life.

EPD/PEP

For each product range we draw up an EPD (Environmental Product Declaration) or PEP (Profil Environnemental Produit) in line with ISO 14025: it is a declaration that is a sort of environmental photograph of the product. The EPD is drawn up according to the concept of Life Cycle Assessment: it examines the environmental impact of a product throughout its life cycle, from the development of product specifications to the choice of materials to be used and the end-of-life destination of the product itself.





LEGRAND UPS

Distinguishing characteristics

High performance

The innovative design and high quality of the components used enable our UPS to achieve up to 97.2% efficiency, leading to significant energy savings.

Latest generation components

In-depth research on the best electronic components on the market combined with state-of-the-art manufacturing methods, make Legrand UPS extremely reliable and abreast of the times.

Environmentally sustainable products

Efficient UPS built with maximum attention to detail. Moreover, Legrand has developed an innovative testing system which reduces the energy consumed for each device manufactured.

Advanced technology

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

Reliable electronics

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

High performance batteries

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

Services

Legrand provides a complete range of services to meet the demands of all its customers



Range of **application**

Each type of UPS is characterised by different design properties, which means that the range is ideally suitable and usable in different environments, from domestic to tertiary and industrial sectors, and applications in specific fields.

DOMESTIC APPLICATIONS

Video surveillance, home alarms, smart TV, Home Entertainment systems

TRADE AND TERTIARY SECTORS

Offices, shops, points of sale

HEALTH AND HOSPITALITY SECTORS

Hospitals, medical centres, hotels

INDUSTRIAL AND LARGE TERTIARY STRUCTURE SECTORS

Factories, warehouses, shopping centres

TRANSPORT

Airports, rail and ship transport

DATA PROCESSING CENTRES

Server room, Datacenter, Colocation, Cloud



RANGE

LEGRAND offers a range of UPS products that are divided into 2 different types of products:
single-phase and three-phase.

The range is wide and complete, with solutions that guarantee maximum performance in terms of power and backup time.



Keor LP



Keor S



Daker DK Plus



Megaline -
Megaline Rack

Online

SINGLE-PHASE UPS



Trimod HE



Trimod MCS



Keor MOD



Keor Compact



Keor T Evo



Keor HP

Modular

THREE-PHASE UPS



Keor Multiplug



Keor SP



Keor SPE Tower



Keor SPE RT



Keor PDU

Line Interactive



Off-line



Keor HPE



Keor XPE



UPSaver

Conventional



UPSaver



SINGLE-PHASE UPS

The Legrand single-phase UPS range

is comprehensive and complete, with solutions that meet the demands of different application sectors, from domestic to tertiary.

The range is available from 600 VA up to 10000 VA and is divided into 2 types of products:

- **Consumer and Line interactive**
- **On-Line double conversion**

On-Line double conversion

These UPS use high frequency PWM technology, suitable for use in professional environments such as **IT application, offices, factories, shops and points of sale.**

They are fitted with:

- DSP microprocessors for precise, constant control of all measurements and of the power factor correction circuit (PFC)
- Transformer-free technology electronics for high quality energy output with up to 96% efficiency.
- Hermetically-sealed, maintenance-free, valve regulated rechargeable batteries, lodged inside a designated section of the UPS or in one or more external cabinets.

The products that are part of this version are:

Keor LP- Daker DK Plus - Keor S - Megaline.

Consumer and Line Interactive

These are compact UPS, easy to install and configure and provide an excellent high quality/price ratio together with the guarantee of a long-term investment.

They are equipped with LED indicators that provide monitoring of the UPS status, whilst guaranteeing protection of the devices connected to the same.

The Line Interactive products are equipped with a filtering and stabilizing circuit (AVR: Automatic Voltage Regulator).

This version comprises:

Keor Multiplug - Keor SP - Keor SPE Tower - Keor SPE RT - Keor PDU.



Keor LP

UPS for low and medium power applications, available with different types of output sockets. All versions have a slot for connecting SNMP communication interfaces.

THE ON-LINE RANGE



Keor LP
from 1000 to 3000 VA



Keor Multiplug - Keor SP - Keor SPE Tower - Keor SPE RT

These are line-interactive technology UPS that guarantee total and reliable protection for all Small-Office and Home-Office applications. They are supplied with electronic voltage regulator and telephone protection.

THE CONSUMER AND LINE INTERACTIVE RANGE



Keor Multiplug
from 600 to 800 VA



Keor SP
from 600 to 2000 VA



Keor SPE Tower
from 750 to 3000 VA



Keor SPE RT
from 750 to 3000 VA



Keor PDU
800 VA



Keor PDU

It is specifically designed for installation in 19" panels and racks. IT is equipped with devices to protect against full battery discharge, overloads and short circuits.



Daker DK Plus

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



Daker DK Plus
from 1000 to 10000 VA



Keor S

Compact, robust and easy to move, Keor S is the perfect UPS to protect and supply loads in the industrial fields. Two different models are available as internal configuration; internal battery only or input isolation transformer with internal battery. Protection Degree IP31.



Keor S
from 3000 to 10000 VA



Megaline e Megaline Rack

These are the only modular UPS units in the single-phase range. The single cabinet and 19" rack deliver a power of 1250 to 5000 VA and can house a maximum of 4 power modules and 4 battery kits. The range also includes double cabinets with a nominal power of up to 10000 VA. Further batteries can be housed in specific cabinets, and are easy to connect thanks to the backup extension fittings.



Megaline e Megaline Rack
from 1250 to 10000 VA

Keor Multiplug

Single-phase VI



3 100 82

- Characteristics:**
- Replaceable fuse in case of short-circuits
 - LED indicators
 - USB Charger
 - Available outputs sockets in German or French type

Item	UPS				
	Nominal power (VA)	Active power (W)	Back-up time (min)	No. of sockets	Type of power socket
3 100 81	600	360	up to 15	4+2	DE standard
3 100 83	600	360			FR standard
3 100 82	800	480			DE standard
3 100 84	800	480			FR standard

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



Characteristics

General Characteristics	3 100 81 3 100 83	3 100 82 3 100 84
Nominal power (VA)	600	800
Active power (W)	360	480
Technology	Line interactive VI	
Waveform	Simulated Sinewave	
Input		
Input voltage	230 V	
Input frequency	50-60 Hz +/- 5Hz	
Input voltage range	170 - 290 VAC	
Output		
Output voltage	230 V ± 10%	
Nominal output frequency	50/60 Hz +/-1 Hz	
USB Charger	USB type A (female)	
Mechanical Characteristics		
Dimensions HxWxD (mm)	190 x 89.5 x 296	
Net weight (kg)	5	5.5
Ambient Conditions		
Operating temperature (°C)	0 – 40	
Relative humidity (%)	< 95% non condensing	
Noise at 1 m (dBA)	< 40	
Estimated content of circular economy derived materials	24%	
Recyclability rate calculated using the method described in technical report IEC/TR 62635*	42%	
Conformity		
Certifications	EN 62040-1, EN 62040-2, EN 62040-3	

* The published value is based on data collected from an industrially organised technology supply chain and does not foresee the actual use by this supply chain of the electrical and electronic products at the end of their useful life.

Keor SP

Single-phase VI



3 101 83

3 101 92

Characteristics:

- 3-colour LED bar
- Mute Button (Silent)
- Internal AVR (automatic voltage regulator)
- USB Port
- Output sockets available for IEC, French or German standards

UPS with IEC output sockets

Item	Nominal power (VA)	Active power (W)	Back-up time (min)	No. of sockets IEC	Communication ports
3 101 80	600	360	up to 15	4	USB HID
3 101 83	800	480	up to 15	4	USB HID
3 101 86	1000	600	up to 10	6	USB HID +RS232
3 101 89	1500	900	up to 10	6	USB HID +RS232
3 101 92	2000	1200	up to 10	6	USB HID +RS232

UPS with IEC output socket + German standard

Item	Nominal power (VA)	Active power (W)	Back-up time (min)	No. of sockets IEC+German standard	Communication ports
3 101 81	600	360	up to 15	1+1	USB HID
3 101 84	800	480	up to 15	1+1	USB HID
3 101 87	1000	600	up to 10	2+2	USB HID +RS232
3 101 90	1500	900	up to 10	2+2	USB HID +RS232
3 101 93	2000	1200	up to 10	2+2	USB HID +RS232

UPS with IEC+ French socket

Item	Nominal power (VA)	Active power (W)	Back-up time (min)	No. of sockets IEC+FR	Communication ports
3 101 82	600	360	up to 15	1+1	USB HID
3 101 85	800	480	up to 15	1+1	USB HID
3 101 88	1000	600	up to 10	2+2	USB HID +RS232
3 101 91	1500	900	up to 10	2+2	USB HID +RS232
3 101 94	2000	1200	up to 10	2+2	USB HID +RS232

Accessories

3 110 78 10A British Standard cable for all Keor SP

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



Characteristics

General Characteristics	3 101 80	3 101 83	3 101 86	3 101 89	3 101 92
Nominal power (VA)	600	800	1000	1500	2000
Active power (W)	360	480	600	900	1200
Technology	Line Interactive VI				
Waveform	Simulated Sinewave				

Input

Input voltage	230 V $\pm$ 10%
Input frequency	50-60 Hz $\pm$ 5Hz
Input voltage range	170 V-290 V

Output

Output voltage	230 V $\pm$ 10%
Output frequency (nominal)	50/60 Hz $\pm$ 1Hz
USB Charger	-
USB type A (female)	available

Communication and Management

Screen and signalling	2 buttons and LED bar to monitor UPS status in real-time
Remote control	available

Mechanical Characteristics

Dimensions HxWxD (mm)	120 x 138 x 330		148 x 173 x 380		
Net weight (kg)	5	5.5	9	10.5	11.8

Ambient Conditions

Operating temp. (°C)	0 – 40
Relative humidity (%)	< 95% non condensing
Noise at 1 m (dBA)	< 40

Estimated content of circular economy derived materials

27%

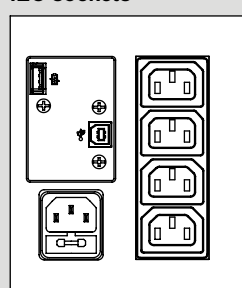
Recyclability rate calculated using the method described in technical report IEC/TR 62635*

43%

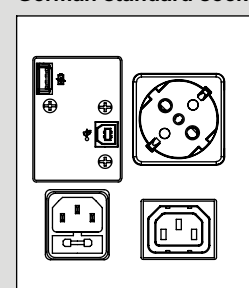
Conformity

Certifications	EN 62040-1, EN 62040-2, EN 62040-3
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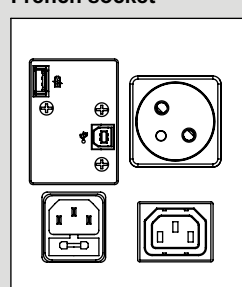
IEC sockets



German standard sockets



French socket



NOTES: The drawings refer to the Keor SP 800 version

* This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life of this product.

For the choice of communication accessories, see the dedicated section of this catalogue.

Keor PDU

Single-phase VFD



3 103 32



3 110 18

Characteristics:

- Low energy consumption
- Economically advantageous solution
- More sockets with complete protection
- Front installation and maintenance
- Silent operations
- Less space occupied inside the cabinet
- Lower installation weight
- Ease of wiring and installation

Item	UPS					
White	Nominal power (VA)	Active power (W)	Back-up time (min)	Type of power socket	Number - type of output socket	Communication ports
3 103 30	800	480	up to 15	FR	8 - FR	USB HID
3 103 31				FR/DE/IT	8 - IEC	
3 103 32				FR/DE/IT	8 - DE/IT	
3 103 33				UK	8 - IEC	
Black	Nominal power (VA)	Active power (W)	Back-up time (min)	Type of power socket	Number - type of output socket	Communication ports
3 110 16	800	480	up to 15	FR	8 - FR	USB HID
3 110 17				FR/DE/IT	8 - IEC	
3 110 18				FR/DE/IT	8 - DE/IT	
3 110 19				UK	8 - IEC	

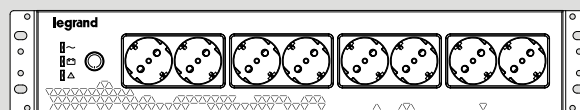
NOTE: the stated backup times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.



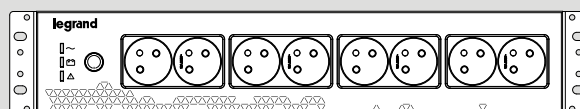
Characteristics

General Characteristics	
Nominal power (VA)	800
Active power (W)	480
Input	
Input voltage	230 V
Input frequency	45-65 Hz
Input voltage range	180 - 270 VAC
Output	
Output voltage	220/230/240 V a.c. ±10%
Nominal output frequency	50/60 Hz ±1%
Power factor	0.6
Battery	
Type	VRLA - AGM without maintenance
Charge time (h)	4-6 (90% capacity)
Communication and Management	
Remote control	Available
Screen and signalling	3 LEDs to monitor UPS status in real-time
Protection	
Protection type	Protection against battery dying, overload and short circuit
Mechanical Characteristics	
Dimensions HxWxD (mm)	88 x 440 x 150
Net weight (kg)	5.5
Ambient Conditions	
Operating temperature (°C)	0 – 40
Relative humidity (%)	< 95% (non condensing)
Protection rating	IP20
Noise at 1 m (dBA)	< 40
Estimated content of circular economy derived materials	37%
Recyclability rate calculated using the method described in technical report IEC/TR 62635*	73%
Conformity	
Certifications	EN 62040-1, EN 62040-2, EN 62040-3

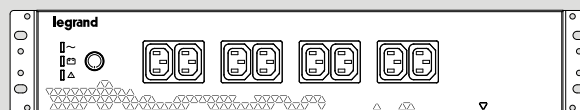
DE/IT standard sockets



FR standard sockets



IEC standard sockets



Rear sockets



*This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life of this product.

Keor SPE tower

Line Interactive UPS - Single phase VI-SS



3 110 60

Characteristics

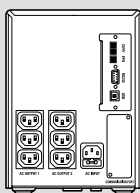
- Power Factor: 0.8
- User friendly LCD display
- Wide input voltage range and frequency
- Hot swappable battery
- Programmable extended quantity of outlets
- Overload, short circuit, back-feed, overtemperature protection
- Powerful built-in charger
- Cold start (DC power on)
- RS232 & USB - SNMP Slot
- EPO (Emergency Power Off)
- 2 dry contacts
- Compact size & light weight

Item	UPS Keor SPE Tower				
	Nominal power (VA)	Active power (W)	Back up time (min)	Number of sockets (10A/16A) IEC	Communication ports/slot
3 110 60	750	600	9	6 / -	USB - RS232 - SNMP
3 110 61	1000	800	7	8 / -	USB - RS232 - SNMP
3 110 62	1500	1200	7	8 / -	USB - RS232 - SNMP
3 110 63	2000	1600	7	8 / -	USB - RS232 - SNMP
3 110 64	3000	2400	4	8 / 1	USB - RS232 - SNMP

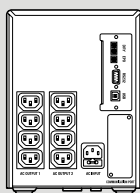
Item	Accessories	
3 110 78	10 A British Standard cable for 3 110 60 - 3 110 61 - 3 110 62	
3 110 79	16 A British Standard cable for 3 110 63 - 3 110 64	

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

Keor SPE 750 - 1000 VA

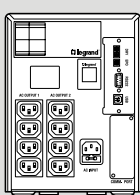


3 110 60

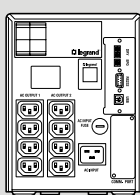


3 110 61

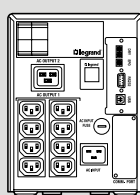
Keor SPE 1500 - 2000 - 3000 VA



3 110 62



3 110 63



3 110 64

Characteristics

General Characteristics	3 110 60	3 110 61	3 110 62	3 110 63	3 110 64
Nominal Power (VA)	750	1000	1500	2000	3000
Active Power (W)	600	800	1200	1600	2400
Power Factor	0.8				
Technology	Line Interactive VI				
Waveform	Pure sinewave				

Input	
Number of input phases	1Ph
Voltage (V)	Nominal: 230 / Range: 175 - 288 @ full load
Frequency (Hz)	47-63Hz (50/60Hz auto-sensing)

Output	
Output Voltage	230, adjustable to 200/208/220/230/240
Frequency (Hz)	50 or 60Hz +/- 0.5 %
Programmable Outlets	YES (1-group programmable)
Number of output phases	1Ph

Batteries	
Battery type	Lead-acid sealed without maintenance (VRLA)
Battery replacement	Front Access (Hot-swappable)
Charging Time (0-90%)	6-8 hours

Communication and management	
Screen and signalling	Five buttons, display and three-colored LED Bar for real-time control of the status of the UPS
Communication	RS232 - USB - SNMP Slot - EPO (ROO) 2-dry contacts
Protections	Electronic circuits against overloads and short-circuit, back-feed, emergency power off (EPO), overtemperature

Physical characteristics	
Dimensions W x H x D (mm)	170x238x325 170x238x438
Net weight (kg)	14 14.5 18.9 23 26.5

Environmental conditions	
Operating temperature	0 - 40°C / +32°F - + 104° F
Relative humidity range (%)	0-95% (Non-Condensing)
Storage temperature	0 °C +50 °C / +32 °F to +122 °F
Protection degree	IP20
Acoustic Noise at 1m (dBA)	< 40

Estimated content of circular economy derived materials	≈ 41%
Recyclability rate calculated using the method described in technical report IEC/TR 62635*	≈ 78%

Conformity	
Reference product standards	IEC/EN 62040-1, IEC/EN 62040-2, IEC/EN 62040-3

* This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life of this product.

Keor SPE RT

Line Interactive UPS - Single phase VI-SS



3 110 65



3 110 67



3 110 71



3 110 75

Characteristics

- Convertible Rack/Tower (19" rack)
- Wide input voltage range and frequency
- Convertible display helps to use both for tower and rack applications
- USB, RS232 and SNMP: all works simultaneously
- EPO (adjustable as NC/NO via LCD)
- Extended battery cabinet for RT 2U/3U Models
- 2-Dry Contacts: input failure and battery low alarm

UPS Keor SPE RT						
Item	Size (Number of units)	Nominal power (VA)	Active power (W)	Back up time (min)	Number of sockets (10A/16A) IEC	Communication ports/slot
3 110 65	1U	750	525	10	5 / -	USB - RS232 - SNMP
3 110 66	1U	1000	700	7	5 / -	USB - RS232 - SNMP
3 110 67	2U	1000	800	8	8 / -	USB - RS232 - SNMP
3 110 68	1U	1500	1050	8	5 / -	USB - RS232 - SNMP
3 110 69	2U	1500	1200	10	8 / -	USB - RS232 - SNMP
3 110 70	2U	2200	1980	8	8 / 1	USB - RS232 - SNMP
3 110 71	3U	2200	1980	8	8 / 1	USB - RS232 - SNMP
3 110 72	2U	3000	2700	6	8 / 1	USB - RS232 - SNMP
3 110 73	3U	3000	2700	6	8 / 1	USB - RS232 - SNMP

Battery cabinets	
3 110 74	For UPS ref. 3 110 67
3 110 75	For UPS ref. 3 110 69
3 110 76	For UPS ref. 3 110 70/71
3 110 77	For UPS ref. 3 110 72/73

Accessories	
3 109 52	Rack support bracket kit
3 109 53	External manual by-pass
3 110 78	10 A British Standard cable for 3 110 65 - 3 110 66 - 3 110 67 - 3 110 68 - 3 110 69
3 110 79	16 A British Standard cable for 3 110 70 - 3 110 71 - 3 110 72 - 3 110 73

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

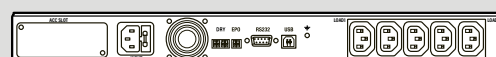
In accordance with its policy of continuous improvement, the Company reserves the right to change specifications and designs without notice. All illustrations, descriptions, dimensions and weights in this catalogue are given as a guide only.

Characteristics

Keor SPE - 1 Units

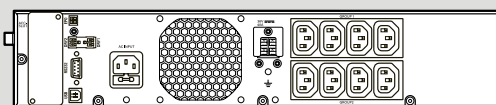


3 110 65 / 3 110 66

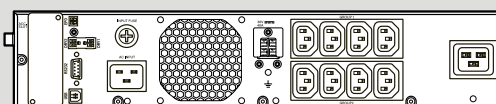


3 110 68

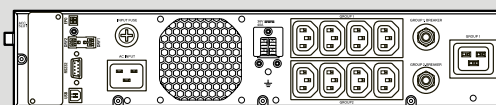
Keor SPE - 2 Units



3 110 67 / 3 110 69

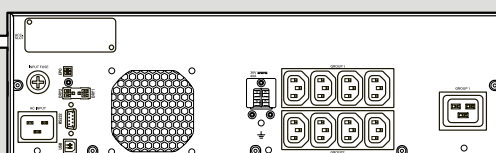


3 110 70

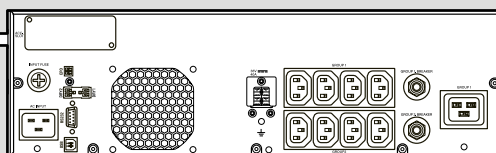


3 110 72

Keor SPE - 3 Units



3 110 71



3 110 73

Keor SPE RT

Line Interactive UPS - Single phase VI-SS

Characteristics

General specifications	3 110 65	3 110 66	3 110 67	3 110 68	3 110 69	3 110 70	3 110 71	3 110 72	3 110 73
Nominal Power (VA)	750	1000	1000	1500	1500	2200	2200	3000	3000
Active Power (W)	525	700	800	1050	1200	1980	1980	2700	2700
Power Factor	0.7		0.8	0.7	0.8	0.9			
Rack Unit	1U		2U	1U	2U		3U	2U	3U
Technology	Line Interactive VI								
Waveform	Pure sinewave								
Input									
Number of input phases	1Ph								
Voltage (V)	Nominal: 230 / Range: 175 - 288 @ full load								
Frequency (Hz)	47-63Hz (50/60Hz auto-sensing)								
Output									
Output Voltage	230 V, adjustable to 200/208/220/230/240 V								
Frequency (Hz)	50 or 60Hz +/- 0.5 %								
Programmable Outlets	YES (2-group for 1U) (1-group for 2U/3U)								
Batteries									
Battery type	Lead-acid sealed without maintenance (VRLA)								
Battery replacement	Front Access (Hot-swappable)								
Battery extension	Only 2U/3U: YES (max. 4 pcs)								
Legrand references	N/A		3 110 74	N/A	3 110 75	3 110 76		3 110 77	
Charging Time (0-90%)	6-7 hours								
Communication and management									
Screen and signalling	Five buttons, display and three-colored LED Bar for real-time control of the status of the UPS								
Communication	RS232 - USB - SNMP Slot - EPO - 2-dry contacts								
Protections	Electronic circuits against overloads and short-circuit, back-feed, emergency power off (EPO), overtemperature								
Physical characteristics									
Dimensions W x H x D (mm)	440 x 44 x 513		440 x 88 x 440	440 x 44 x 557	440 x 88 x 440	440 x 88 x 600	440 x 132 x 500	440 x 88 x 600	440 x 132 x 500
Net weight (kg)	13.5		16.9	16.8	17.5	28.3		29.5	
Battery cabinet dimensions W x H x D (mm)	N/A		440 x 88 x 440	N/A	440 x 88 x 440				
Net weight (kg)	-	-	27.5	-	27.5	28.7			
Environmental conditions									
Operating temperature	0 – 40°C / +32°F – + 104° F								
Relative humidity range (%)	0 – 95% (Non-Condensing)								
Storage temperature	0 °C +50 °C / +32 °F to +122 °F								
Protection degree	IP20								
Acoustic Noise at 1m (dBA)	< 40	< 45	< 50	< 45	< 50	< 55			
Estimated content of circular economy derived materials	≈ 41%								
Recyclability rate calculated using the method described in technical report IEC/TR 62635*	≈ 78%								
Conformity									
Reference product standards	IEC/EN 62040-1, IEC/EN 62040-2, IEC/EN 62040-3								

*This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life of this product.

Megaline

Modular single-phase double conversion UPS VFI



3 103 60 + 3 107 78



3 108 77



3 107 85



3 108 35

Characteristics:

- Modular single-phase UPS
- Power from 1250 to 10000 VA
- On-Line double conversion VFI-111
- Adaptable, expandable and redundant solutions in a single cabinet
- Swift and simple maintenance and management
- Low environmental impact (high efficiency and reduced footprint)
- Single or double cabinet UPS unit depending on the output power
- Wide range of input voltage and frequency ranges
- Operating frequency of 50 - 60 Hz with self-recognition mode
- Frequency converter 50 in - 60 out or vice versa
- Extension of the input frequency rate for operations with genset units
- Eco Mode operations (energy saving)
- Load waiting mode operations (protection on demand)
- Output voltage adjustable in 1 volt steps from the front control panel
- Very low noise level
- Internal and external temperature reader
- Controls ventilation depending on the temperature and load
- Emergency remote shutdown option

Item	Single cabinet (German standard)				
	Nominal power (VA)	Active power (W)	Back-up time (min.)	No. Cabinet	Weight (kg)
3 103 50	1250	875	13	1	23.5
3 103 52	2500	1750	13	1	34
3 103 54	3750	2625	13	1	43
3 103 56	5000	3500	13	1	53

Double Cabinet					
	Nominal power (VA)	Active power (W)	Back-up time (min.)	No. Cabinet	Weight (kg)
3 103 60 + 3 107 78	5000	3500	13	2	24+50
3 103 63 + 3 107 79	6250	4375	13	2	27+58
3 103 66 + 3 107 80	7500	5250	13	2	29+65
3 103 69 + 3 107 81	8750	6125	13	2	32+73
3 103 72 + 3 107 82	10000	7000	13	2	34+80

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

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

Item	Single cabinet - without batteries			
	Nominal power (VA)	Active power (W)	Back-up time (min.)	Number of cabinets
3 103 51	1250	875	13	1
3 103 53	2500	1750	13	1
3 103 55	3750	2625	13	1
3 103 57	5000	3500	13	1

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

with charger		Battery extensions	
3 107 75	3 107 86	Cabinet with 1 bk	
3 107 76	3 107 87	Cabinet with 2 bk	
3 107 77	3 107 88	Cabinet with 3 bk	
3 107 78	3 107 89	Cabinet with 4 bk	
3 107 79	3 107 90	Cabinet with 5 bk	
3 107 80	3 107 91	Cabinet with 6 bk	
3 107 81	3 107 92	Cabinet with 7 bk	
3 107 82	3 107 93	Cabinet with 8 bk	
3 107 83	3 107 94	Cabinet with 9 bk	
3 107 84	3 107 95	Cabinet with 10 bk	

Accessories	
3 108 35	Power module (PW 1250)
3 108 57	Single cabinet backup extension (bk Megaline/1)
3 108 58	Double cabinet backup extension (bk Megaline/2)
3 108 59	Empty battery cabinet
3 108 60	Y cable for connecting a second additional battery cabinets (check the long life tables for the number of cables)
3 108 61	Battery cabinet extension kit for tower configuration (Megaline PL cable)
3 108 77	Manual bypass for single cabinet (BP/1)
3 108 78	Manual bypass for double cabinet (BP/2)
3 107 85	Additional battery charger (CB 36)
3 109 72	Relay interface kit

For the choice of communication accessories, see the dedicated section of this catalogue.

bk: battery kit

Megaline Rack

Modular single-phase double conversion UPS VFI



3 103 85



3 107 96



3 108 77



3 107 85



3 109 73

Characteristics:

- Modular single-phase UPS
- Output from 1250 to 5000 VA
- Wide range of input voltage and frequency ranges
- Operating frequency of 50 - 60 Hz with self-recognition mode
- Frequency converter 50 in - 60 out or vice versa
- Extension of the input frequency rate for operations with genset units
- Eco Mode operations (energy saving)
- Load waiting mode operations (protection on demand)
- Output voltage adjustable in 1 volt steps from the front control panel
- Very low noise level
- Internal and external temperature reader
- Controls ventilation depending on the temperature and load
- Emergency remote shutdown option

Item	RACKs (German standard)				
	Nominal power (VA)	Active power (W)	Backup time (min)	Number of cabinets	Weight (kg)
3 103 79	1250	875	13	1	23.5
3 103 81	2500	1750	13	1	34
3 103 83	3750	2625	13	1	43
3 103 85	5000	3500	13	1	53

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

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

Item	RACKs - without batteries				
	Nominal power (VA)	Active power (W)	Backup time (min)	Number of cabinets	
3 103 80	1250	875	-	1	
3 103 82	2500	1750	-	1	
3 103 84	3750	2625	-	1	
3 103 86	5000	3500	-	1	

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

Battery expansions for Rack UPS

3 107 96	Rack with 1 bk
3 107 97	Rack with 2 bk
3 107 98	Rack with 3 bk
3 107 99	Rack with 4 bk
3 108 00	Rack with 1 bk with charger
3 108 01	Rack with 2 bk with charger
3 108 02	Rack with 3 bk with charger
3 108 03	Rack with 4 bk with charger

Accessories

3 108 35	Power module (PW 1250)
3 108 77	Manual bypass for single cabinet (BP/1)
3 107 85	Additional charger (CB 36)
3 109 72	Relay interface kit
3 109 73	Telescopic runner kit for 6U rack

bk: battery kit

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

For the choice of communication accessories, see the dedicated section of this catalogue.

Megaline and Megaline Rack

Modular single-phase double conversion UPS VFI

Characteristics

General Characteristics	3 103 42	3 103 43	3 103 44	3 103 45	3 103 60 + 3 107 78	3 103 63 + 3 107 79	3 103 66 + 3 107 80	3 103 69 + 3 107 81	3 103 72 + 3 107 82
	3 103 46	3 103 47	3 103 48	3 103 49					
	3 103 50	3 103 52	3 103 54	3 103 56					
	3 103 34	3 103 35	3 103 36	3 103 37					
	3 103 38	3 103 39	3 103 40	3 103 41					
	3 103 79	3 103 81	3 103 83	3 103 85					
	Single CABINET and RACK				Double CABINET				
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)								
UPS Architecture	Modular, expandable, redundant N+X with 1250 VA Power modules, contained in one single Cabinet/ Rack								
Input									
Nominal input voltage	230 V								
Input voltage range	184 - 264 VAC at 100% load								
Minimum operating voltage	100 VAC at 50% load								
THD Input current	< 3%								
Input Power Factor	> 0.99 from 20% load								
Input frequency	50 Hz / 60 Hz ± 2% autosensing								
Output									
Output voltage	230 V ± 1%								
Frequency output	50 Hz / 60 Hz synchronised								
THD Output Voltage	< 1% with non-linear load								
Waveform	Sinusoidal								
Peak Factor	3:1								
Efficiency	up to 92%								
Overload capacity	300% for 1 sec, 200% for 5 sec, 150% for 30 sec								
Batteries									
Backup time extension	Yes								
Accessories supplied									
Bypass	Automatic, internally synchronised, static and electromechanical (for overloads and operating problems)								
Alarms and signals	Wide screen with 4 alphanumeric lines, multi-coloured status indicator, audible signalling								
Communication ports	1 RS232 port2 logic level ports								
Protections	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.								
IN/ OUT 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
Megaline Dimensions (HxWxD) (mm)	475 x 270 x 570				2 x 475 x 270 x 570				
Megaline Rack Dimensions (HxWxD) (mm)	266 x 483 x 582				-				
Power modules installed	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 extension slots	3	2	1	-	6	5	4	3	2
Ambient conditions									
Operating temperature (°C)	0 – 40								
Protection rating	IP20								
Relative humidity (%)	< 95% (non condensing)								
Noise at 1 m from the unit (dBA)	< 40								
Certifications									
Standards	EN 62040-1, EN 62040-2, EN 62040-3								
Warranty									
Standard Warranty	2 years with the On Site formula batteries included, interventions c/o the installation location								

Megaline and Megaline Rack

Modular single-phase double conversion UPS VFI

Long backup time table for single and double cabinet versions

Model	Power	Back-up time	no. cabinets and dimensions HxWxD (mm)	Codes
Single Cabinet				
	1,250 VA	30'	1x (270 x 475 x 570)	3 103 73
	1,250 VA	52'	1x (270 x 475 x 570)	3 103 74
	1,250 VA	75'	1x (270 x 475 x 570)	3 103 75
	2,500 VA	22'	1x (270 x 475 x 570)	3 103 76
	2,500 VA	30'	2x (270 x 475 x 570)	3 103 77
	2,500 VA	52'	2x (270 x 475 x 570)	3 103 52 + 3 107 78
	2,500 VA	63'	2x (270 x 475 x 570)	3 103 52 + 3 107 79
	3,750 VA	18'	1x (270 x 475 x 570)	3 103 78
	3,750 VA	29'	2x (270 x 475 x 570)	3 103 54 + 3 107 77
	3,750 VA	44'	2x (270 x 475 x 570)	3 103 54 + 3 107 79
	3,750 VA	67'	2x (270 x 475 x 570)	3 103 54 + 3 107 82
	5,000 VA	22'	2x (270 x 475 x 570)	3 103 56 + 3 107 76
	5,000 VA	30'	2x (270 x 475 x 570)	3 103 56 + 3 107 78
	5,000 VA	46'	2x (270 x 475 x 570)	3 103 56 + 3 107 81
	5,000 VA	63'	2x (270 x 475 x 570)	3 103 56 + 3 107 84
Double Cabinet				
	5,000 VA	22'	2x (270 x 475 x 570)	3 103 60 + 3 107 80
	5,000 VA	30'	2x (270 x 475 x 570)	3 103 60 + 3 107 82
	5,000 VA	46'	3x (270 x 475 x 570)*	3 103 60 + 3 107 84 + 3 107 75
	5,000 VA	63'	3x (270 x 475 x 570)*	3 103 60 + 3 107 84 + 3 107 78
	6,250 VA	20'	2x (270 x 475 x 570)	3 103 63 + 3 107 81
	6,250 VA	30'	2x (270 x 475 x 570)	3 103 63 + 3 107 84
	6,250 VA	47'	3x (270 x 475 x 570)*	3 103 63 + 3 107 84 + 3 107 78
	6,250 VA	60'	3x (270 x 475 x 570)*	3 103 63 + 3 107 84 + 3 107 81
	7,500 VA	18'	2x (270 x 475 x 570)	3 103 66 + 3 107 82
	7,500 VA	30'	3x (270 x 475 x 570)*	3 103 66 + 3 107 84 + 3 107 76
	7,500 VA	48'	3x (270 x 475 x 570)*	3 103 66 + 3 107 84 + 3 107 81
	7,500 VA	59'	3x (270 x 475 x 570)*	3 103 66 + 3 107 84 (x2)
	8,750 VA	20'	2x (270 x 475 x 570)	3 103 69 + 3 107 84
	8,750 VA	30'	3x (270 x 475 x 570)*	3 103 69 + 3 107 84 + 3 107 78
	8,750 VA	45'	3x (270 x 475 x 570)*	3 103 69 + 3 107 84 + 3 107 83
	8,750 VA	61'	4x (270 x 475 x 570)*	3 103 69 + 3 107 84 (x2) + 3 107 78
	10,000 VA	22'	3x (270 x 475 x 570)*	3 103 72 + 3 107 84 + 3 107 76
	10,000 VA	30'	3x (270 x 475 x 570)*	3 103 72 + 3 107 84 + 3 107 80
	10,000 VA	46'	4x (270 x 475 x 570)*	3 103 72 + 3 107 84 (x2) + 3 107 76
	10,000 VA	60'	4x (270 x 475 x 570)*	3 103 72 + 3 107 84 (x2) + 3 107 81

* The configuration requires the use of a Y 3 108 60 connection cable (the number of cables required is equal to the no. of cabinets -2)

Long backup time table for rack versions

Model	Power	Back-up time	no. cabinets and dimensions HxWxD (mm)	Codes
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 backup 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



Characteristics:

- Single-phase UPS
- Power from 1 to 3 kVA
- VFI-SS-111 on-line double conversion
- RS232 communication port
- LAN / SNMP connectivity
- Uptime can be extended with additional battery cabinets
- Compact design and low footprint

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

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

Accessories

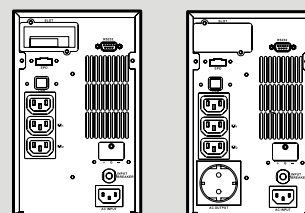
Description

3 105 98*	Additional battery cabinet for 3 101 54 - 3 101 55
3 105 99*	Additional battery cabinet for 3 101 56 - 3 101 57
3 106 00*	Additional battery cabinet for 3 101 58 - 3 101 59
3 109 58	Additional battery charger for battery cabinet 3 105 98
3 109 60	Additional battery charger for battery cabinet 3 105 99
3 100 85	Additional battery charger for battery cabinet 3 106 00
3 109 53	Bypass
3 110 78	10 A british standard cable for 3 101 54 - 3 101 55 - 3 101 56 - 3 101 57
3 110 79	16 A british standard cable for 3 101 58 - 3 101 59

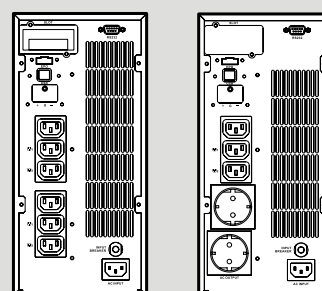
*Battery included

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

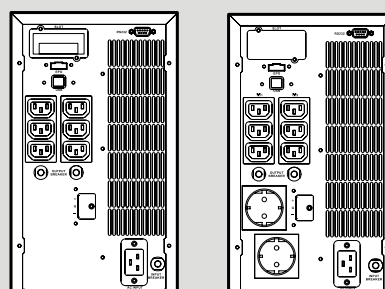
Keor LP 1000



Keor LP 2000



Keor LP 3000



Keor LP

Conventional UPS - Single phase On-line double conversion VFI

Characteristics

General characteristics	3 101 54 3 101 55	3 101 56 3 101 57	3 101 58 3 101 59
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÷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÷150% for 10 sec., 106÷120% for 30 sec., >151% instant transfer to bypass		
Bypass	Automatic, internal, synchronised, electromechanical (for overloads and operating problems)		
Batteries			
Backup time extension	Si		
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. CS141)		
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 (°C)	0 - 40		
Relative humidity (%)	20 - 80 non condensing		
Noise at 1 m (dBA)	< 50		
Certifications			
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3		

Daker DK Plus

Dual conversion online UPS (rack/tower) - single phase VFI



3 101 76



3 101 77



3 101 76 rack version

Characteristics:

- Conventional single-phase UPS
- Power from 1 to 10 kVA
- 0.9 power factor for 1000-3000, 1 for 5000-10000
- On-Line double conversion VFI-111
- User-friendly display
- Additional battery compartment to extend backup time
- Intelligent battery management
- Operator-friendly replaceable battery
- Display of battery status, system parameters, battery charge level and faults.

- Dedicated slot to connect one of the following two optional accessories: network interface (WEB/SNMP) or relay interface capable of providing isolated contacts for applications on industrial panels or remote alarm panels.
- Automatic bypass (and manual, optional) to guarantee uninterruptible power supply to critical loads, in the event of electronic failure, overload, overheating or scheduled maintenance.
- Maintenance bypass switch box (MTBS).

Item	Convertible UPS with batteries			
	Nominal power (VA)	Active power (W)	Backup time (min)	Weight (kg)
3 101 70	1000	900	9	16
3 101 71	2000	1800	10	29.5
3 101 72	3000	2700	7	30
3 101 73	5000	5000	6	60
3 101 74	6000	6000	5	60

	Convertible UPS without batteries			
	Nominal power (VA)	Active power (W)	Phase configuration	Weight (kg)
3 101 75	5000	5000	1/1	25
3 101 76	6000	6000	1/1	25
3 101 77	10000	10000	1/1	26
3 101 78*	10000	9000	3/1	28

* three-phase input - single-phase output version

	Battery cabinet with batteries
3 106 60	Battery cabinet for 3 101 70
3 106 61	Battery cabinet for 3 101 71
3 106 62	Battery cabinet for 3 101 72
3 106 63	Battery cabinet for 3 101 73 - 3 101 74 - 3 101 75 - 3 101 77
3 106 64	Battery cabinet for 3 101 77 - 101 78

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



Item	Empty battery cabinet
3 106 65	Battery cabinet for 3 101 70
3 106 66	Battery cabinet for 3 101 71
3 106 67	Battery cabinet for 3 101 72
3 106 68	Battery cabinet for 3 101 73 - 3 101 74 - 3 101 75 - 3 101 76
3 106 69	Battery cabinet for 3 101 77 - 101 78

	Accessories
3 109 52	Rack support bracket kit
3 109 53	External manual bypass for 3 101 70 - 3 101 71 - 3 101 72
3 109 63	External manual bypass for 3 101 73 - 3 101 74 - 3 101 75 - 3 101 76 - 3 101 77
3 109 69	Dry contact card
3 109 59	Additional charger for 3 101 70
3 109 61	Additional charger for 3 101 71 - 3 101 72
3 109 54	Additional charger for 3 101 73 - 3 101 74 - 3 101 75 - 3 101 76 - 3 101 77 - 3 101 78
3 110 78	10 A british standard cable for 3 101 70 - 3 101 71
3 110 79	16 A british standard cable for 3 101 72

Daker DK Plus

UPS - double conversion online VFI

Characteristics

General characteristics	3 101 70	3 101 71	3 101 72	3 101 73	3 101 75	3 101 74	3 101 76	3 101 77	3 101 78
Nominal power (VA)	1000	2000	3000	5000		6000		10000	10000
Active power (W)	900	1800	2700	5000		6000		10000	9000
Technology	On-Line Double Conversion VFI-SS-111								
Waveform	Sinusoidal								
UPS Architecture	convertible tower and rack 19								
Input									
Input voltage	230 V								380V 3F+N
Input frequency	50-60 Hz ±5% Autosensing								
Input voltage range	180 - 300 Va.c. at full load			170 - 280 Va.c. at full load					305 - 485 Va.c. at full load
THD Input current	< 3%								
Input power factor	> 0.99								> 0.9
Output									
Output voltage	230V ± 1%								
Nominal output frequency	50/60 Hz (LCD screen settings) +/- 0,1%								
Efficiency	Up to 90%	Up to 91%	Up to 92%	Up to 94%					Up to 90%
Crest factor	3:1								
THD Output Voltage	< 3% with linear load								
Output Voltage Tolerance	±1%								
Internal automatic bypass	Included								
External maintenance bypass	optional	optional	optional	-	-	-	-	-	-
Batteries									
Backup time extension	Yes								
Communication and Management									
Screen and signalling	LCD display with three buttons and five LEDs to monitor UPS status and main operating parameters in real time								
Communication ports	RS232, USB								RS232
Remote control	Available								
Network interface slot	Yes								
Backfeed protection	Yes								
Remote emergency power Off (EPO)	Yes								
Mechanical Characteristics									
Dimensions HxWxD (mm)	440 x 88 (2U) x 405	440 x 88 (2U) x 600		440x196 (4U)x680	440x88 (2U)x680	440x196 (4U)x680	440x88 (2U)x680	440x132 (3U) x680	
Net weight (kg)	16	29.5	30	60	25	60	25	26	28
Battery cabinet dimensions HxWxD (mm)	440x196 (4U)x425	440 x 88 (2U) x 600		-	440 x 88 (2U) x 680	-	440 x 88 (2U) x 680	440 x 132 (3U) x 680	
Ambient Conditions									
Operating temperature (°C)	0 – 40								
Protection rating	IP20								
Relative humidity (%)	< 95% (non condensing)								
Noise at 1 m from the unit (dBA)	< 50								
Heat Dissipation (BTU/h)	490	654	818	982		1300		1636	
Estimated content of circular economy derived materials	37%								
Recyclability rate calculated using the method described in technical report IEC/TR 62635*	74%								
Conformity									
Certifications	EN 62040-1, EN 62040-2, EN 62040-3								
Warranty									
Standard warranty	EXCHANGE 2 year formula								

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

*This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life of this product.

Daker DK Plus

UPS - On-line double conversion VFI, 120V



3 101 40

Convertible 120V UPS with batteries (UL)

Item	Nominal power (VA)	Active power (W)	Backup time (min)	Weight (kg)
3 101 40	1000	900	up to 15	11
3 101 41	1500	1350	up to 15	14,5
3 101 42	2000	1800	up to 15	20
3 101 43	3000	2700	up to 15	27

Battery cabinet with batteries (UL)

Description

3 101 44	Battery cabinet for 3 101 40 (UL)
3 101 45	Battery cabinet for 3 101 41 (UL)
3 101 46	Battery cabinet for 3 101 42 (UL)
3 101 47	Battery cabinet for 3 101 43 (UL)

Accessories

Description

3 109 52	Rack support bracket kit
3 109 69	Dry contact card

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

Characteristics

General characteristics	3 101 40	3 101 41	3 101 42	3 101 43
Nominal power (VA)	1000	1500	2000	3000
Active power (W)	900	1350	1800	2700
Technology	On-line double conversion VFI-SS-111			
Waveform	Sinusoidal			
Architecture	Convertible tower and 19" rack			
Input characteristics				
Input voltage	120 V			
Input frequency	50-60 Hz ± 5% autosensing			
Input voltage range	90V - 150V at full load			
THD of input current	< 3%			
Input power factor	> 0,99			
Input connection	NEMA 5-15P	NEMA 5-20P	NEMA L5-30P	
Output characteristics				
Output voltage	120 V ±1%, adjustable to 100/110/115/120			
Output frequency (nominal)	50/60 Hz (configurable via LCD panel) +/- 0.1%			
Efficiency	up to 92%			
Peak factor	3:1			
THD of output voltage	< 3% with linear load			
Output voltage tolerance	± 1%			
Output Connection	6*NEMA 5-15R	6*NEMA 5-20P	6*NEMA 5-20P 1*NEMA L5-30P	
Internal automatic bypass	included			
Batteries				
Backup time extension	Yes			
Battery nominal voltage (Vdc)	24	36	48	72
Communication and management				
Screen and signalling	Four buttons and five LEDs for real-time control			
Communication ports	RS232 and USB 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)	440 x 88 (2U) x 405		440 x 88 (2U) x 485	440 x 88 (2U) x 600
Net weight (kg)	11	14.5	20	27
Dimensions of battery cabinet H x W x D (mm)	40 x 88 (2U) x 600			
Ambient conditions				
Operating temperature (°C)	0 - 40°C			
Protection index	IP 20			
Relative humidity (%)	0-90% (without condensation)			
Noise at 1 m (dBA)	< 50			
Certifications				
Reference product standards	UL1778 V4 (cTUVus), FCC Part 15 Class A			

Daker DK Plus

Long backup times table

Model	Power	Back-up time	No. cabinets and dimensions HxWxD (mm)	Codes
Daker DK Plus	1000 VA	9'	440 x 88 x 405	3 101 70
		1h 27'	440 x 88 x 405 + 440 x 196 x 425	3 101 70 + 3 106 60
		3h	440 x 88 x 405 + 440 x 196 x 425 (x2)	3 101 70 + 3 106 60 (x2)
	2000 VA	10'	440 x 88 x 600	3 101 71
		45'	440 x 88 x 600 (x2)	3 101 71 + 3 106 61
		1h 28'	440 x 88 x 600 (x3)	3 101 71 + 3 106 61 (x2)
	3000 VA	7'	440 x 88 x 600	3 101 72
		31'	440 x 88 x 600 (x2)	3 101 72 + 3 106 62
		58'	440 x 88 x 600 (x3)	3 101 72 + 3 106 62 (x2)
		1h 29'	440 x 88 x 600 (x4)	3 101 72 + 3 106 62 (x3)
	5000 VA	6'	440 x 88 x 680 + 440 x 88 x 680	3 101 75 + 3 106 63
		19'	440 x 88 x 680 + 440 x 88 x 680 (x2)	3 101 75 + 3 106 63 (x2)
		32'	440 x 88 x 680 + 440 x 88 x 680 (x3)	3 101 75 + 3 106 63 (x3)
		50'	440 x 88 x 680 + 440 x 88 x 680 (x4)	3 101 75 + 3 106 63 (x4)
	6000 VA	5'	440 x 88 x 680 + 440 x 88 x 680	3 101 76 + 3 106 63
		15'	440 x 88 x 680 + 440 x 88 x 680 (x2)	3 101 76 + 3 106 63 (x2)
		30'	440 x 88 x 680 + 440 x 88 x 680 (x3)	3 101 76 + 3 106 63 (x3)
	10000 VA	45'	440 x 88 x 680 + 440 x 88 x 680 (x4)	3 101 76 + 3 106 63 (x4)
		6'	440 x 132 x 680 + 440 x 132 x 680	3 101 77 + 3 106 64
		17'	440 x 132 x 680 + 440 x 132 x 680 (x2)	3 101 77 + 3 106 64 (x2)
		28'	440 x 132 x 680 + 440 x 132 x 680 (x3)	3 101 77 + 3 106 64 (x3)
Daker DK plus 3 - 1	10000 VA	41'	440 x 132 x 680 + 440 x 132 x 680 (x4)	3 101 77 + 3 106 64 (x4)
		54'	440 x 132 x 680 + 440 x 132 x 680 (x5)	3 101 77 + 3 106 64 (x5)
		7'	440 x 132 x 680 + 440 x 132 x 680	3 101 78 + 3 106 64
		19'	440 x 132 x 680 + 440 x 132 x 680 (x2)	3 101 78 + 3 106 64 (x2)
		31'	440 x 132 x 680 + 440 x 132 x 680 (x3)	3 101 78 + 3 106 64 (x3)
		45'	440 x 132 x 680 + 440 x 132 x 680 (x4)	3 101 78 + 3 106 64 (x4)
		59'	440 x 132 x 680 + 440 x 132 x 680 (x5)	3 101 78 + 3 106 64 (x5)

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

Configuration

	1000 VA 2 cabinet L 2U + 4U	2000 VA 2 cabinet L 2U + 2U	3000 VA 3 cabinet L 2U + 2U + 2U	6000 VA 2 cabinet L 2U + 2U	10000 VA 2 cabinet L 3U + 3U
TOWER version					
	1000 VA 2 cabinet H 2U + 4U (294mm)	2000 VA 2 cabinet H 2U + 2U (196mm)	3000 VA 3 cabinet H 2U + 2U + 2U (294mm)	6000 VA 2 cabinet H 2U + 2U (196 mm)	10000 VA 2 cabinet H 3U + 3U (294mm)
RACK version					

Keor S

Conventional UPS - Single-phase On-line double conversion



3 101 21

3 107 41

Characteristics:

- 3kVA to 10 KVA Capacity Range
- 1 Phase Input / 1 Phase Output
- IGBT Inverter - IGBT Rectifier
- High Efficiency
- Digital Signal Processor (DSP)
- High Input Power Factor (PFC)
- High Output Power Factor
- Low Input and Output Total Harmonic Distortion (THD)
- Generator Compatible Operation
- Standard IP31 Protection for Industrial Applications
- On Site Modular Paralleling Capability up to 4 Units (except 3kVA)
- Additional External Chargers for Long Back-Up Time Solutions (6-10kVA only)
- Availability of Different Communication Types
- User friendly diagnostic
- Advanced management and communication
- Integrated By-pass for maintenance
- LCD display with interactive menu

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

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

Battery cabinet

Description

3 107 40	Empty battery cabinet
3 107 41	Battery cabinet (for KEOR S 3000)
3 107 42	Battery cabinet (for KEOR S 3000)
3 107 43	Battery cabinet (for KEOR S 3000)
3 107 44	Battery cabinet (for KEOR S 6000-10000)
3 107 45	Battery cabinet (for KEOR S 6000-10000)

Accessories

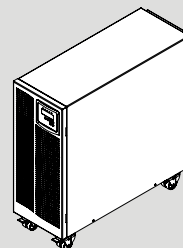
Description

3 109 61	Battery charger for additional battery cabinet (for 3 107 41 - 3 107 42 - 3 107 43)
3 109 54	Battery charger for additional battery cabinet (for 3 107 44 - 3 107 45)

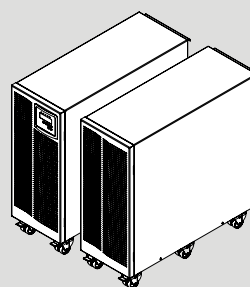
NOTE: The stated Backup times in minutes are estimated and may vary according to the load characteristics, operating conditions and environment.

For the choice of communication accessories, see the dedicated section of this catalogue.

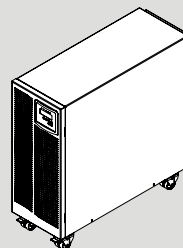
- UPS with internal batteries Backup time up to 50 min for 3 kVA



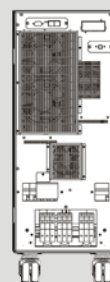
- UPS for long Backup time with additional battery cabinet



- UPS with isolation transformer built in



- Rear pannel



- Long Backup time table

Power	UPS	Battery cabinet	Backup 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

Keor S

Conventional UPS - Single-phase On-line double conversion

Characteristics

General characteristics	3 kVA	6 kVA	10 kVA
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		
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		
Mechanical 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 (%)	<95% (non condensing)		
Protection index	IP31		
Noise at 1 m (dBA)	< 50		
Compliance			
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3		

MODULAR THREE-PHASE UPS

Its continuous research combined with modern production methods has allowed **Legrand to launch state-of-the-art modular UPS units on the market**, with top ranking performances: efficiency certified up to 96,5% and unit power factor.

Thanks to the high-performance components and space-efficient structures, these products are the ideal solution for advanced energy management and cost containment.

The Legrand modular UPS units are high frequency PWM uninterruptible power supplies, On Line type with Double Conversion, modular architecture, and redundant N+X configuration option.

They can be sized to meet the customer's needs, without precluding any future implementations.

The products that are part of this version are:

Trimod HE - Trimod MCS - Keor MOD

HIGH performances
HIGH efficiency
RESPECT of the environment



Trimod HE
from 10 to 80 kVA

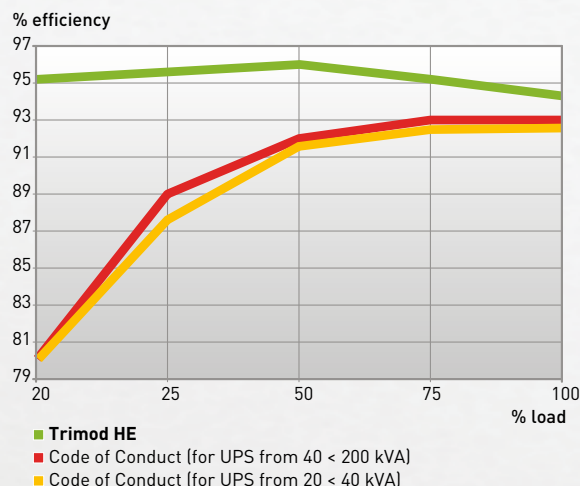


Keor MOD
from 25 to 250 kVA

CERTIFIED EFFICIENCY

The Legrand modular UPS guarantee exceptionally high efficiency values, up to 4% higher than the minimum values required by the European Code of Conduct (92%).

96.5%



Increase in stand-by time and power

The different models are composed by STANDARD modules that can be added to existing UPS units to extend both power and backup time and guarantee maximum levels of redundancy.

Scalability of backup times

The expansion can be performed quickly and easily by adding battery drawers to the same cabinet, depending on the power of the UPS and the backup time requirements.



Single drawer with 5 9Ah batteries for Trimod HE and Trimod MCS.



Battery drawer for Keor MOD, designed to contain up to 24 9 or 11 Ah batteries.

Power and redundancy modules

The power modules are available in both single-phase and three-phase versions, depending on the power of the UPS. Both models guarantee low weight and overall dimensions along with top ranking performance. Thanks to the construction technology the various redundancy levels can be set to always guarantee maximum service continuity.



Single phase power module for Trimod HE and Trimod MCS. Compact and lightweight (only 8.5 kg)



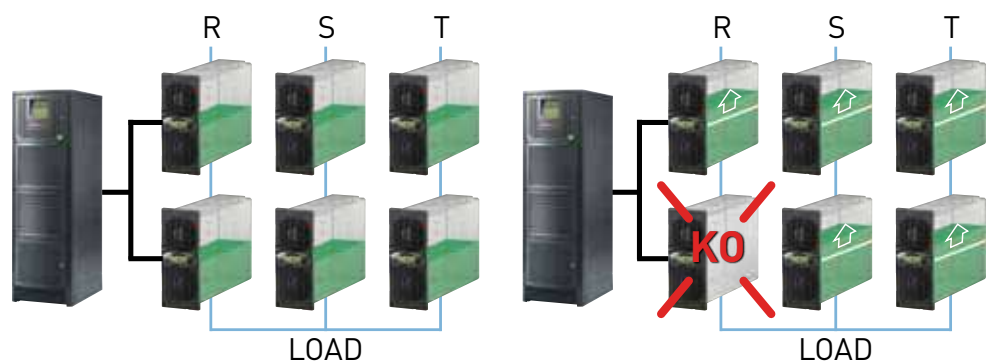
Three-phase power module for Keor MOD. Reaches a power output of 25 kW with just 2 rack units required

MODULAR THREE-PHASE UPS

High redundancy levels

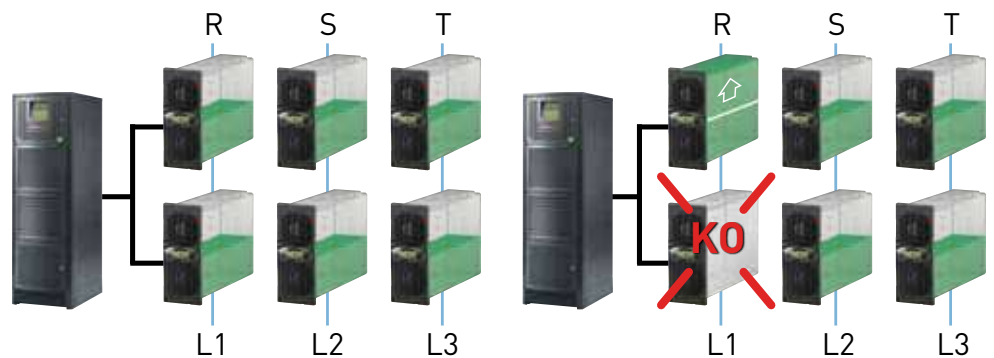
Redundancy on single phase load

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.



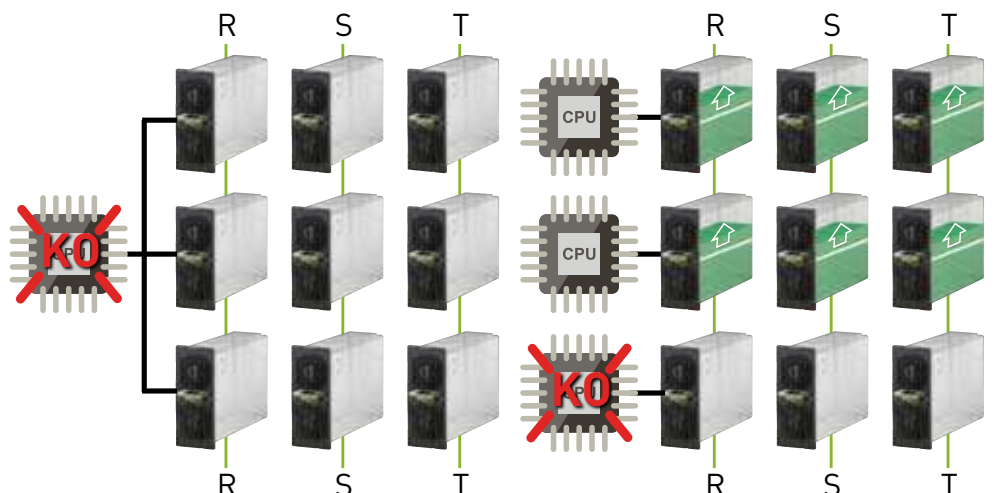
Phase redundancy

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.



Control module redundancy

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.



EXCLUSIVE ROTATING TOUCH SCREEN DISPLAY

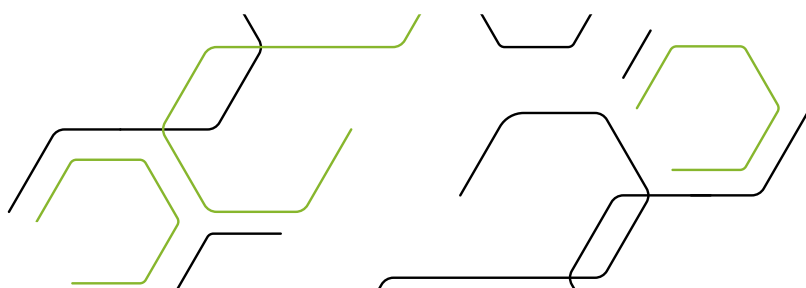
The Keor MOD has a 10" touch screen display provides a simplified control panel packed with information, alerts and settings and is also equipped with interactive icons to make navigation and selection of the functions to be controlled quick and simple. The possibility of being able to rotate the Display inwards by 180° simplifies and speeds up the configuration and maintenance phases.

The display is positioned vertically so you have both the operating block diagram and the UPS layout with all the available information all on the same screen.



Decentralised bypass system

The decentralised bypass architecture reduces repair and maintenance time and costs. Each power module contains an independent bypass that, in the event of a failure, allows the remaining modules to simply to bypass mode, ensuring full functionality. The complete independence of the modules makes it possible to perform all maintenance and expansion phases in an extremely swift and simple way.



Attention to design

The elegance of the design and the skilful choice of materials give the Legrand UPS units a sleek and cutting-edge look.



MODULAR THREE-PHASE UPS



Keor MOD

It is an uninterruptible power supply based on three phase power modules, extremely compact and easy to handle. It delivers a nominal power from 25 to 250 kVA, it can be connected in parallel with other units up to 600 kVA.

Models up to 125 kVA have internal batteries for 5 minute backup time at 100% load.

Keor MOD integrates perfectly with the most critical applications such as Data Centers.

Trimod HE

It consists of individual redundant and self-configuring single phase modules and has a nominal power rating of 10 to 80 kVA. Thanks to the construction technology the various redundancy levels can be set to always guarantee maximum service continuity.



Trimod MCS

The Trimod MCS CPS (Central Power Supply) is a single phase and three-phase centralised power supply system designed according to EN 50171 standards and represents the ideal solution for installation in buildings subject to fire safety standards and, specifically, to power emergency lighting systems. It can also be used to power emergency systems such as automatic fire extinguishing systems, emergency detection and alarm systems, smoke exhaust and carbon dioxide detection devices and specific safety systems in sensitive areas.



Trimod HE

Modular three-phase double conversion UPS VFI



3 104 42



3 108 71



3 111 13

Characteristics:

- Modular three-phase UPS
- Power from 1 to 80 kVA
- On-Line double conversion VFI-SS-111
- High efficiency up to 96%
- Output factor 1
- Adaptable, redundant and scalable solutions (IN/OUT 3-1 phase configuration)
- Quick and simple maintenance
- Low environmental impact
- Diagnostics, monitoring, historical data and parameters that can be set on the screen
- Reduced foot print and dimensions
- Taller cabinet to extend backup time and standard configurations
- Multi control board function
- Dual Input Function
- Hot Swap system
- Menu available in 7 languages
- Frequency converter in 40-70Hz out 50/60Hz (selectable)
- Operations with genset
- Three independent phase outputs
- Bypass line input
- Eco Mode
- Output voltage adjustable in 1 volt steps (190÷245V)
- Bypass speed regulation
- Event log complete with date and time
- Global and historic data of each power module

Item	UPS	Power (kVA)	Back-up time (min.)	No. and Type Cabinet	Weight (kg)
3 104 42		10	11	1A	167
3 104 43		10	21	1A	223
3 104 44		10	35	1A	279
3 104 02		10	49	1B	350
3 104 45		15	13	1A	220
3 104 46		15	21	1A	279
3 104 07		15	29	1B	350
3 104 47		20	9	1A	220
3 104 48		20	14	1A	279
3 104 13		20	20	1B	350
3 104 17		30	8	1B	325
3 104 19 + 3 107 63		40	8	2A	564
3 104 20 + 2 x 3 107 63		60	10	3A	830
3 110 08+3 104 78		80	9	2B	992

Cabinet A h=1370, Cabinet B h=1650

Item	Accessories
3 108 69	Power module 3.4 kVA
3 108 71	Power module 5 kVA
3 108 73	Power module 6.7 kVA
3 108 51	Additional battery charger module 15 A
3 108 66	Kit of 3 power module covers
3 111 12	Seismic kit

Item	Battery accessories
3 108 54	Kit of 4 empty battery drawers
3 111 13	Kit of 4 battery drawers 9 Ah
3 111 14	Kit of 4 battery drawers 9 Ah long life
3 109 29	Kit for separate batteries (only for 60-80 kVA)

Item	Additional empty battery cabinet
3 108 05	16-drawer modular battery cabinet
3 108 06	20-drawer modular battery cabinet

Item	Additional battery cabinet with 9Ah
3 107 60	4-drawer modular battery cabinet
3 107 61	8-drawer modular battery cabinet
3 107 62	12-drawer modular battery cabinet
3 107 63	16-drawer modular battery cabinet
3 107 64	20-drawer modular battery cabinet

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

Item	Power cabinet	Power (kVA)	No. of installable battery drawers	No. of phases	Type Cabinet	Weight (kg)
3 103 96		10	12	1-1 / 3-3 / 3-1 / 1-3	A	120
3 103 97		10	16	1-1 / 3-3 / 3-1 / 1-3	B	155
3 104 08		15	12	1-1 / 3-3 / 3-1 / 1-3	A	120
3 104 03		15	16	1-1 / 3-3 / 3-1 / 1-3	B	155
3 104 14		20	12	1-1 / 3-3 / 3-1 / 1-3	A	120
3 104 09		20	16	3-3	B	155
3 104 18		30	-	3-3	A	146
3 104 15		30	12	3-3	B	181
3 104 19		40	-	3-3	A	146
3 104 20		60	-	3-3	A	165
3 110 08		80	-	3-3	B	220

Item	Power cabinets (empty)	No. of installable power modules	No. of installable battery drawers	No. of phases	Type Cabinet	Weight (kg)
3 104 22		3 x 3.4 kVA	12	1-1 / 3-3 / 3-1 / 1-3	A	85
3 104 31		3 x 3.4 kVA	16	1-1 / 3-3 / 3-1 / 1-3	B	98
3 104 23		3 x 5 o 6.7 kVA	12	1-1 / 3-3 / 3-1 / 1-3	A	90
3 104 32		6 x 3.4 kVA	12	1-1 / 3-3 / 3-1 / 1-3	B	102
3 104 33		3 x 5 o 6.7 kVA	16	1-1 / 3-3 / 3-1 / 1-3	B	102
3 104 24		6 x 5 kVA	-	3-3	A	80
3 104 25		6 x 5 kVA	-	1-1/3-3/3-1/1-3	A	84
3 104 34		6 x 5 kVA	12	3-3	B	104
3 104 26		6 x 6.7 kVA	-	3-3	A	80
3 104 27		9 x 6.7 kVA	-	3-3	A	90

Item	Power cabinets with MULTI CONTROL BOARD (empty)	No. of installable power modules	No. of installable battery drawers	No. of phases	Type Cabinet	Weight (kg)	No. of controls
3 104 68		6 x 3.4 - 5 - 6.7 kW	-	1-1 / 3-3 / 3-1 / 1-3	A	85	2
3 104 69		6 x 5 kVA	12	3-3	B	106	2
3 104 71		6 x 6.7 kVA	-	3-3	A	82	2
3 104 72		9 x 6.7 kVA	-	3-3	A	91	3
3 104 73		12 x 6.7 kVA	-	3-3	B	120	4



For the choice of communication accessories, see the dedicated section of this catalogue.

Trimod HE

Modular three-phase double conversion UPS VFI

Characteristics

General Characteristics		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 69	3 104 19 3 104 71	3 104 20 3 104 72	3 104 73 3 110 08
Nominal power (kVA)		10	15	20	30	40	60	80
Active power (kW)		10	15	20	30	40	60	80
Module power (kVA)		3.4	5	6.7	5	6.7	6.7	6.7
Technology		On-Line Double Conversion VFI-SS-111						
System		Modular, expandable and redundant UPS system						
Input specifications								
Input voltage		380, 400, 415 3F+N+PE (or 220, 230, 240 1F)			380, 400, 415 3F+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 genset		Yes						
Input Power Factor		> 0.99						
Output Specifications								
Output voltage		380, 400, 415 3F+N+PE (or 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 ± 0,1% (standard), ±14 % (extended)						
Peak 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 Vd.c.						
Back-up time		Configurable						
Battery charger		Smart Charge Technology. 3-stage advanced cycle						
Independent battery configuration		No			Yes			Yes with KIT
Communication and management								
Screen and signalling		4 20-character rows, 4 menu navigation buttons, multi-colour LED status indicator, alarms and acoustic signals						
Communication ports		2 RS232 ports, 1 logic level port, 5 floating contact ports, 1 interface slot						
Back feed protection		NC/NO auxiliary contact						
Emergency Power Off (EPO)		Yes						
Remote control		Available						
Mechanical characteristics								
Height A-B (mm)		1370 - 1650						
Width (mm)		414			414	414	414	414
Depth (mm)		628			628	628	628	628
Number of Installed Power Modules		3			6	6	9	12
Installable battery drawers (A-B)		Up to 12 - Up to 16			Up to 0 - 12	-	-	-
Net weight A-B (kg)		Refer to the previous page, where there are the weights of the various configurations						
Ambient Conditions								
Operating temperature/humidity		0 - 40°C / 0 - 95% non condensing						
Protection rating		IP20						
Noise at 1 m from the unit (dBA)		58-62						
Estimated content of circular economy derived materials					37%			
Recyclability rate calculated using the method described in technical report IEC/TR 62635**					84%			
Certifications								
Standards		EN 62040-1, EN 62040-2, EN 62040-3, EN 62040-4						
Services								
Installation		User executable, modular architecture with “Plug & Play” power modules and batteries						
Maintenance		User executable, availability of optional services provided by the manufacturer						
Ease of management		Advanced diagnostic functions via the touch screen display						

* Standard configurations with 3-3 distribution (multi IN/OUT settings available upon request)

** This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life of this product.

Trimod HE

Long backup times table



Modular battery cabinet
with up to 20
battery drawers installable
Total - 100 Batteries



Non modular
battery cabinet
up to 20 battery
drawers installable*

Trimod HE	Battery cabinet type	Nominal power (kVA)	Back-up time	Dimensions HxWxD (mm)	Weight (kg)
3 104 44 + 3 107 61	modular	10	78	2 x 1370 x 414 x 628	472
3 104 46 + 3 107 60	modular	15	33	2 x 1370 x 414 x 628	413
3 104 08 + 3 104 78	non modular	15	110 *	1370 x 414 x 628 + 1635 x 600 x 800	902
3 104 46 + 3 107 63	modular	15	57	2 x 1370 x 414 x 628	550
3 104 48 + 3 107 62	modular	20	35	2 x 1370 x 414 x 628	572
3 104 14 + 3 104 78	non modular	20	82 *	1370 x 414 x 628 + 1635 x 600 x 800	865
3 104 18 + 3 107 63	modular	30	12	2 x 1370 x 414 x 628	434
3 104 18 + 3 104 78	non modular	30	50 *	1370 x 414 x 628 + 1635 x 600 x 800	890
3 104 18 + 2 x 3 104 78	non modular	30	110 *	1370 x 414 x 628 + 2 x 1635 x 600 x 800	1645
3 104 19 + 2 x 3 107 63	modular	40	20	3 x 1370 x 414 x 628	801
3 104 19 + 3 108 10	non modular	40	33 *	1370 x 414 x 628 + 1635 x 600 x 800	925
3 104 19 + 2 x 3 104 78	non modular	40	82 *	1370 x 414 x 628 + 2 x 1635 x 600 x 800	1700
3 104 19 + 3 x 3 104 78	non modular	40	120 *	1370 x 414 x 628 + 3 x 1635 x 600 x 800	2430
3 104 19 + 3 x 3 107 64	modular	40	40	1370 x 414 x 628 + 3 x 1650 x 414 x 628	439
3 104 19 + 4 x 3 107 64	modular	40	60	1370 x 414 x 628 + 4 x 1650 x 414 x 628	1663
3 104 20 + 2 x 3 107 64	modular	60	15	1370 x 414 x 628 + 2 x 1650 x 414 x 628	942
3 104 20 + 4 x 3 107 63	modular	60	27	5 x 1370 x 414 x 628	1579
3 104 20 + 3 104 78	non modular	60	17 *	1370 x 414 x 628 + 1635 x 600 x 800	952
3 104 20 + 2 x 3 104 78	non modular	60	50 *	1370 x 414 x 628 + 2 x 1635 x 600 x 800	1715
3 104 20 + 3 x 3 104 78	non modular	60	80 *	1370 x 414 x 628 + 3 x 1635 x 600 x 800	2474
3 104 20 + 4 x 3 104 78	non modular	60	110 *	1370 x 414 x 628 + 4 x 1635 x 600 x 800	3234
3 110 08 + 2 x 3 104 70	non modular	80	20	1650X414X628+2X1635X600X800	1622
3 110 08 + 2 x 3 104 78	non modular	80	30	1650X414X628+2X1635X600X800	1782
3 110 08 + 3 x 3 104 78	non modular	80	47	1650X414X628+3X1635X600X800	2572
3 110 08 + 4 x 3 104 78	non modular	80	67	1650X414X628+4X1635X600X800	1782

* Configurations with long life battery cabinets.

310470 LONG LIFE BATTERY CABINET MODEL A - 710 kg - 600x800x1635 mm

310478 LONG LIFE BATTERY CABINET MODEL b - 790 kg - 600x800x1635 mm

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

Trimod MCS

CPS Modular three-phase double conversion VFI

EN STANDARD
50171



3 109 90



3 110 02



3 108 71



3 108 75

Characteristics:

- Modular single-phase and three-phase CPS
- Power from 3 to 80 kVA
- Conforms to EN-50171 Standards
- On-Line double conversion VFI-SS-111
- High efficiency up to 96%
- Output factor 1
- Adaptable, redundant and scalable solutions (IN/OUT 3-1 phase configuration)
- Quick and simple maintenance
- Low environmental impact
- Diagnostics, monitoring, historical data and parameters that can be set on the screen
- Reduced foot print and dimensions
- Taller cabinet to extend backup time and standard configurations
- Pre-configured solutions with 1h backup time
- Dual input function (Bypass line input)
- Hot Swap system
- Continuous operations at up to 120% of the load
- Protection against battery pole inversion
- Output configurable from the display as PERMANENT or NON PERMANENT
- Menu available in 7 languages
- Frequency converter in 40-70Hz out 50/60Hz (selectable)
- Operations with genset
- Three independent phase outputs
- Eco Mode
- Bypass speed regulation
- Event log complete with date and time
- Global and historic data of each power module

Item	Trimod MCS			
	Model	Autonomy according to EN50171	No. and Type Cabinet	IN-OUT factory settings
3 109 90	3	1h	1A	1-1
3 109 91	5	1h	1A	1-1
3 109 92	7	1h	1B	1-1
3 109 93 + 3 106 18	10	1h	1B	3-3
3 109 94 + 3 106 19	15	1h	1B	3-3
3 109 95 + 3 104 78	20	1h	1A	3-3
3 109 96 + 2 x 3 104 70	30	1h	1A	3-3
3 109 97 + 2 x 3 104 78	40	1h	1A	3-3
3 109 98 + 3 x 3 104 78	60	1h	1A	3-3
3 109 99 + 4 x 3 104 78	80	1h	1B	3-3

Cabinet A h=1370, Cabinet B h=1650

Accessories

Item	
3 108 69	Output module 3.4 kVA
3 108 71	Output module 5 kVA
3 108 73	Output module 6.7 kVA
3 108 66	Kit of 3 power module covers

Battery accessories

3 111 14	Kit 4 drawers battery 9 Ah long life
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Additional empty battery cabinet

3 110 07	16-drawer modular battery cabinet
3 106 16	20-drawer modular battery cabinet

Additional battery cabinet with batteries Long Life

3 106 18	Modular battery cabinet with 3KB for CPS 10 KVA
3 106 19	Modular battery cabinet with 5 KB for CPS 15 KVA
3 104 70	Battery cabinet for CPS type A
3 104 78	Battery cabinet for CPS type B

TRIMOD MCS (Empty CPS Cabinets)

Item	N° of installable power modules	N° of installable battery drawers	No. of phases	Type Cabinet	Weight (kg)
3 110 00	up to 3 to 3.4 kVA	12	1-1 / 3-3 / 3-1 / 1-3	A	86
3 110 01	up to 3 to 6.7 kVA	12	1-1 / 3-3 / 3-1 / 1-3	A	89
3 110 02	up to 3 to 6.7 kVA	16	1-1 / 3-3 / 3-1 / 1-3	B	103
3 110 03	up to 6 to 5 kVA	-	1-1 / 3-3 / 3-1 / 1-3	A	85
3 110 04	up to 6 to 6.7 kVA	-	3-3	A	82
3 110 05	up to 9 to 6.7 kVA	-	3-3	A	91
3 110 06	up to 12 to 6.7 kVA	-	3-3	B	120

NOTE: the stated backup times are estimated and may vary according to the load characteristics, operating conditions and environment.
For the choice of communication accessories, see the dedicated section of this catalogue.

Trimod MCS

CPS Modular three-phase double conversion VFI

Characteristics

General Characteristics	3 109 90	3 109 91	3 109 92	3 109 93+ 3 106 18	3 109 94+ 3 106 19	3 109 95+ 3 104 78	3 109 96+ 2x 3 104 70	3 109 97+ 2x 3 104 78	3 109 98+ 3x 3 104 78	3 109 99+ 4x 3 104 78
Nominal power (kVA)	3	5	6.7	10	15	20	30	40	60	80
Active power (kW)	3	5	6.7	10	15	20	30	40	60	80
Active power according to EN50171 (kW)	2.88	4.16	5.58	8	12.5	16.7	25	33.3	50	66.7
Technology	On-Line Double Conversion VFI-SS-111									
System	Modular, expandable and redundant UPS system									

Input specifications

Input voltage	220,230,240 1F+N+PE	380, 400, 415 3F+N+PE * (o 220, 230, 240 1F)	380, 400, 415 3F+N+PE
Input frequency	45-65 Hz (43,0 ÷ 68,4 Hz)		
Input voltage range	230V +15%/-20%	400V +15%/-20% - 230V +15%/-20%	400V +15%/-20%
THD Input current	< 3% (at full load)		
Compatibility with power supply units	Yes		
Input power factor	> 0.99		

Output Specifications

Output voltage	220,230,240 1F+N+PE	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)		
Peak factor	3:1		
Waveform	Sinusoidal		
Output voltage tolerance	±1%		
THD output voltage	< 1%		
Overload capacity	120% continuous, 10 minutes at 135%, 60 seconds at 150%		
Bypass	Automatic bypass (static and electromechanical) and manual maintenance bypass		

Batteries

Battery module	Plug & Play
Type	Long Life
Back-up time	1h (settable as needed)
Battery charger	80% autonomy in 12h - Smart Charge technology. 3-stage advanced cycle

Communication and management

Screen and signalling	4 20-character rows, 4 menu navigation buttons, multi-colour LED status indicator, alarms and acoustic signals
Communication Ports	2 RS232 serial ports, 1 logic level port, 5 floating contact ports, 1 interface slot
Back feed protection	NC/NO auxiliary contact
Emergency Power Off (EPO)	Yes
Remote management	Available

Mechanical characteristics

Dimensions HxWxD (mm)	1370 x 414 x 628	1650 x 414 x 628	1370 x 414 x 628	1650 x 414 x 628	1370 x 414 x 628	1650 x 414 x 628
Net weight kg	202.5	265.5	327.5	273.5	344.5	115 136 134 158.5 222
Battery cabinet dimensions HxWxD (mm)	-	-	-	1370x 414x 628	1650x 414x 628	600x 800x1635
Battery cabinet net weight (kg)	-	-	-	257	375	790 710 790
Installable battery drawers	8	12	16	-	-	- - -

Ambient Conditions

Operating temperature/humidity	0 - 40°C / 0 - 95% non condensing
Protection rating	IP20
Noise at 1 m from the unit (dBA)	58-62

Conformity

Certifications	EN 62040-1, EN 62040-2, EN 62040-3, EN 50171
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Services

Installation	User executable, modular architecture with "Plug & Play" power modules and batteries
Maintenance	Availability of optional services provided by the manufacturer
Ease of management	Advanced diagnostic functions via the touch screen display

* Standard configurations with 3-3 distribution (multi IN/OUT settings available upon request)

Keor MOD

UPS Modular three-phase double conversion VFI



3 104 80



General features:

- Just two cabinet configurations (up to 125 kW and up to 250 kW)
- Internal Backup time up to 125 KW
- UPS system capacity up to 600 kW
- Rotating 10" touch screen display
- Reduced battery charging times
- Double conversion efficiency up to 96.8% (power module efficiency)
- Efficiency in ECO mode up to 99%.
- Output power factor = 1
- Modular redundancy in N+1 configuration
- Controlled noise level
- Multicoloured status bar LED
- Parallelable system up to 24 power modules
- Hot-swappable modules
- Decentralised by-pass.
- Intelligence distributed between modules

Item	UPS - empty power cabinets				
	Power (kW)	Installable battery drawers	Distribution	Weight (kg)	
3 104 80	25 - 125	from 2 to 10 battery drawers	3-3	256	
3 104 81	25 - 250	-	3-3	233	

UPS – power cabinet with seismic kit*				Weight (kg)
3 111 19	Keor MOD 125 kW with seismic kit			306
3 111 20	Keor MOD 250 kW with seismic kit			283

UPS – power cabinet with additional distribution				Weight (kg)
3 111 17	Keor MOD 125 kW with additional distribution			329
3 111 18	Keor MOD 250 kW with additional distribution			346

Accessories	
3 106 75	25 kW power module
3 106 76	Empty battery blocks kit for 6 batteries (to be used in sets of 4 per drawer)
3 106 77	Kit of 2 EMPTY battery drawers
3 106 78	Kit of 4 battery blocks (6 x 9 Ah batteries)
3 106 79	Kit of 4 battery blocks (6 x 11 Ah batteries)
3 109 62	Kit of 4 battery blocks (6 x 9Ah Long Life batteries)
3 109 75	Parallel cable kit (1 kit every 2 cabinets - length 6m)
3 111 11	Top entry cable column
3 104 84	Empty modular battery cabinet up to 16 drawers
3 102 59	Sync kit for UPS (cable length 26 m)**
3 104 82	Battery temperature probe
3 109 65	Empty battery cabinet 70-93 Ah
3 109 67	Empty battery cabinet 105 Ah

* partially assembled at the factory

** to create 2 synchronous but independent power lines (typical in Tier III, IV sustems and STS)

Examples of Keor MOD with accessories

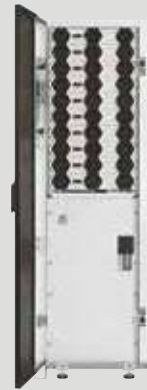
Keor MOD 125 with seismic kit

Designed to maintain the structural integrity of units during and after seismic events. Compliant to ASCE 7-16 and 2018 IBC with external laboratory certification.



Keor MOD 250 with seismic kit

Designed to maintain the structural integrity of units during and after seismic events. Compliant to ASCE 7-16 and 2018 IBC with external laboratory certification.



Keor MOD 125 with additional distribution

with integrated UPS switching devices.



Keor MOD 250 with additional distribution

with integrated UPS switching devices.



Keor MOD with top cable entry column

Designed to support top cabling to Keor MOD 125 and 250 kW in sites where the cabling is distributed through overhead cable trays.



Empty modular battery cabinet. Capacity up to 16 drawers

Designed to increase UPS backup time through hot swap battery drawers.



Keor MOD

UPS Modular three-phase double conversion VFI

Characteristics

General specifications

Nominal power (kVA)	25	50	75	100	125	150	175	200	225	250
Active power (kW)	25	50	75	100	125	150	175	200	225	250
Module power (kW)	25									
Classification	On-Line double conversion VFI-SS-111									
No. Power modules	1	2	3	4	5	6	7	8	9	10
System	Modular, expandable and redundant UPS system									

Input specifications

Input voltage	400V 3F+N+PE									
Input frequency	45-65 Hz (43.0 ÷ 68.4 Hz)									
Input voltage range	400V +15%/-20% - 230V +15%/-20%									
THD input current	< 3% (at full load)									
Compatibility with power supply units	Yes									
Input power factor	> 0.99									

Output Specifications

Output voltage	380, 400, 415V									
Efficiency (power module)	Up to 96.8%									
System efficiency	Up to 96.5%									
Efficiency in Eco mode	99%									
Nominal output frequency	50/60 Hz selectable by the user ±1 % (standard), ±14 % (extended)									
Crest factor	3:1									
Waveform	Sinusoidal									
Output voltage tolerance	±1%									
THD output voltage	<0.9% with linear load									
Overload capacity	10 minutes at 125%, 60 seconds at 150%									
Bypass	Automatic bypass (static and electromechanical) and manual maintenance bypass									

Batteries

Battery module	Plug & play									
Battery series type/voltage	VRLA - AGM 12 V, 9 Ah - 11 Ah									
Autonomy	Configurable									
Battery charger	Smart charge technology. 3-stage advanced cycle									
Independent battery configuration	Yes, maximum 5 sets of independent batteries (configurable as common or separate units)									

Communication and management

Display	10-inch rotating colour touch screen									
Communication ports	2 x RS485 ports (one for external accessories), 10 input floating contacts, 8 output floating contacts, 1 interface slot, USB host port									
Back feed protection	NC/NO auxiliary contact									
Emergency Power Off (EPO)	Yes									
Cold start push-button	Yes									
Remote management	Available									

Mechanical characteristics

Height (mm)	1990									
Width (mm)	600 (900 for solutions with additional column)									
Depth (mm)	1000									
Installable power modules	Up to 5					Up to 10				
Installable battery drawers	Up to 10					—				
Net weight kg	256					233				

Ambient Conditions

Operating temperature/humidity	0 - 40°C / 0 - 95% non condensing									
Protection rating	IP20									
Maximum audible noise at 1 m from the unit (dBA)	50-65									

Estimated content of circular economy derived materials

43%

Recyclability rate calculated using the method described in technical report IEC/TR 62635*

74%

Conformity

Certifications	EN 62040-1, EN 62040-2, EN 62040-3, EN 62040-4									
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Services

Installation	Modular architecture with "plug & play" power modules and batteries									
Maintenance	Availability of optional services provided by the manufacturer									
Ease of management	Advanced diagnostic functions via the touch screen display									

CONVENTIONAL THREE-PHASE UPS

The **Legrand conventional three-phase UPS** units range in power from 10 kVA to 4.8 MVA and feature double conversion on-line technology, latest generation micro processors for accurate and constant control of all measurements, and a power factor correction (PFC) circuit.

Transformer-free technology electronics for high quality energy output with up to 96.4% efficiency.

These uninterruptible power supplies are the result of an accurate combination of technology and design and deliver high performance, reliability and ease of use and maintenance.

The high efficiency and low environmental impact make them the ideal solution in various application fields, often characterised by critical conditions such as hospitals, industries, transport and the various tertiary sectors.

The products that are part of this version are:

Keor Compact - Keor T Evo - Keor HP - Keor HPE - Keor XPE.



Keor XPE
from 600 kVA to 2.1 MVA



Keor Compact
from 10 to 20 kVA



Keor T Evo
from 10 to 60 kVA



Keor HP
from 60 to 800 kVA



Keor HPE
from 60 to 600 kVA

THE PERFECT BALANCE BETWEEN **DIMENSIONS** AND **POWER**

The supplied internal batteries, with a capacity of up to 80 kVA, avoid additional costs for the purchase of external battery cabinets, help reduce the space occupied and simplify installation.



Range from 10 kVA to 4.8 MVA

High efficiency - up to 97.2%

Power factor =1



0.32 m²
(30 kVA, 20')



0.54 m²
(60 kVA, 14')



INTERNAL BATTERY FIXTURES

Excellent battery management

The advanced battery charge and management functions improve performance and operating life over time.

Front internal access

Legrand conventional UPS are designed to be installed and maintained from the front. All the manoeuvre switches and communication ports are installed on the front of the UPS. Ease of access to all parts subject to maintenance significantly reduces machine repair times.

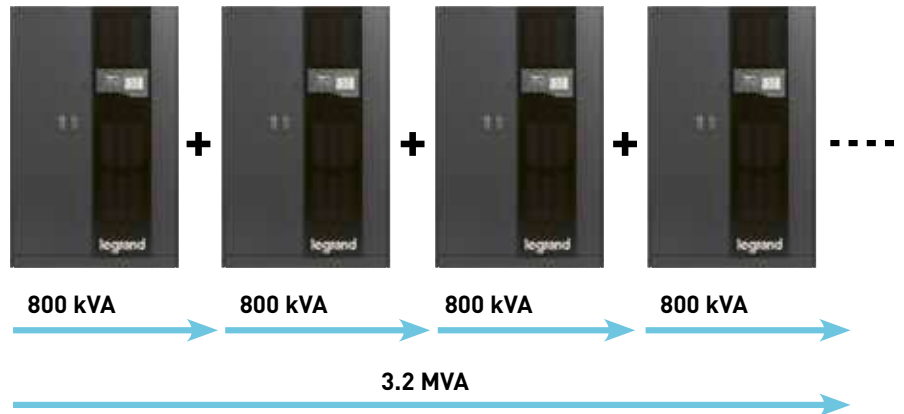
CONVENTIONAL THREE-PHASE UPS

Parallelable system

It is possible to connect up to 6 identical power units in parallel depending on the power requirements. This achieves delivery of power levels of up to 4.8 MVA.

Scalability

The parallel connections of up to 6 UPS makes it possible to achieve different degrees of redundancy and maximum levels of continuity of service and safety of the system itself.



Keor HP

It is a sturdy UPS unit, equipped with an internal isolation transformer making it suitable for use in high electrical disturbance environments. Its nominal powers of from 60 to 800 kVA makes it ideal for high power applications in tertiary, hospital, industry and transportation sectors.



Keor XPE

It is a complete scalable UPS system based on 250 or 300 kVA power units that can be combined with others to achieve the required power level (up to 2.1 MVA) or create redundant configurations.

Keor XPE It is the ideal solution for Data Center and high power applications.



SPECIAL CARE FOR **DESIGN**

The elegance of the design and the skilful choice of materials complete the performance and reliability features of this series of UPS units.

The new user-friendly and intuitive touch-screen displays and the hexagonal pattern, also seen in the ventilation grids, enhance the product, combining technology and design.

Keor HPE



Keor T Evo

Its nominal powers of from 10 to 60 kVA provide a simple and compact solution for classic applications in tertiary, trade and industry sectors. Keor T Evo is scalable, parallelable and equipped with a display and multicoloured led bars that allow for swift UPS status checks.

Keor HPE



Keor HPE is the perfect solution for critical medium and large power applications and is available from 60 to 600 kVA versions. Boasting attention to design and a smart display, it includes advanced battery charging and management features that guarantee top battery performance and maximum operating life.



Keor Compact

With a rated power of 10-15-20 kVA, this is an easy-to-install UPS with wheels and colour touchscreen with user-friendly graphics and navigation windows. Thanks to its small dimensions, Keor Compact is ideal for installation even in small technical rooms. Parallel connections for redundant configurations make this UPS the perfect solution also for critical applications.

Keor Compact

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



3 111 00

Characteristics:

- PFC power-factor correction (input PF>0.99)
- 4.3" user friendly touch screen display
- Wide range of input voltages and frequencies
- Dual Input
- Cold Start
- Embedded backfeed protection
- Smart communication ports and SNMP management capability
- Parallelable system with up to 6 units
- Built-in battery for standard autonomy
- Extended backup time with battery cabinets
- Overload and short-circuit protection
- Powerful built-in loader
- RS232, dry contacts
- Compatibility with gensets
- Compact dimensions, lightweight and low noise
- Reduced footprint: 0.22 m²
- Wheels for ease of handling

Item	UPS			
	Nominal power (kVA)	Power active (kW)	Dimensions W x D x H (mm)	Weight (kg)
3 111 00	10	9	260 x 850 x 890	74
3 111 01	10	9	260 x 850 x 890	149
3 111 02	15	13.5	260 x 850 x 890	76
3 111 03	15	13.5	260 x 850 x 890	166
3 111 04	20	18	260 x 850 x 890	76
3 111 05	20	18	260 x 850 x 890	176

Accessories

	Description	Dimensions W x D x H (mm)
3 110 94	Empty Keor Compact battery cabinet	260 x 850 x 890
3 110 95	Keor Compact battery cabinet 10 kVA	260 x 850 x 890
3 110 96	Keor Compact battery cabinet 15 kVA	260 x 850 x 890
3 110 97	Keor Compact battery cabinet 20 kVA	260 x 850 x 890
3 110 98	Parallel system kit	
3 110 99	RS-485 MODBUS card	
3 111 06	Dry contact card	
3 110 86	Battery temperature probe	

Backup times table

	Power (kVA)	Back-up time (min)	No. of battery cabinets*
311101	10	11	0
311101 + 1 x 311095	10	50	1
311101 + 2 x 311095	10	87	2
311101 + 3 x 311095	10	126	3
311103	15	7	0
311103 + 1 x 311096	15	40	1
311103 + 2 x 311096	15	67	2
311103 + 3 x 311096	15	99	3
311105	20	6	0
311105 + 1 x 311097	20	28	1
311105 + 2 x 311097	20	57	2
311105 + 3 x 311097	20	81	3

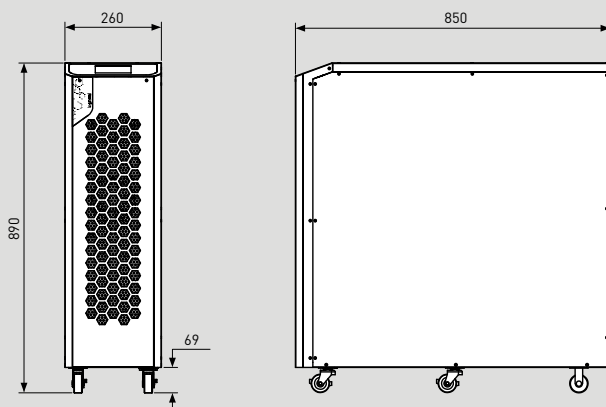
* 0 = UPS with internal batteries only.

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

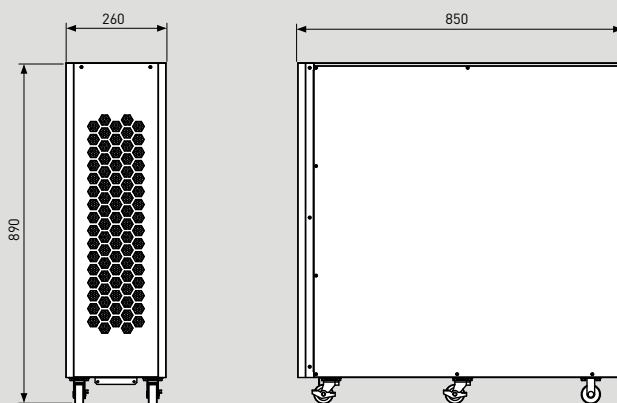
For the choice of communication accessories, see the dedicated section of this catalogue.

Dimensions (mm)

Keor Compact 10 - 15 - 20 kVA



Battery cabinet



Keor Compact

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

Characteristics			
General Characteristics	Keor Compact 10	Keor Compact 15	Keor Compact 20
Nominal power (kVA)	10	15	20
Active power (kW)	9	13.5	18
Technology	On-Line Double Conversion VFI-SS-111		
Waveform	Sinusoidal		
Architecture	Stand Alone or Distributed with parallelable system with up to 6 units		
Efficiency	up to 95%		
Efficiency in ECO mode	up to 98.5%		
Input			
Nominal input voltage	400V (3Ph+N+PE)		
Nominal voltage (Ph-Ph)	±20% @100% load, -40/+20% @50% load		
Input frequency	40-70 Hz		
THD Input current	<3% at full load		
Dual Input	yes		
Compatibility with Power Supply Units	yes		
Input Power Factor	>0.99		
Output			
Output voltage	380, 400, 415V (3Ph+N+PE)		
Output voltage tolerance	± 1% static load		
Nominal output frequency	50 /60 Hz (Adjustable from the front panel)		
Output frequency tolerance	± 1 Hz / ± 3 Hz adjustable synch Mains for Bypass; ± 0.01% Free Run		
Peak factor	3:1		
THD Output voltage	<2% (with linear load), <5% (with non-linear load)		
Output power factor	0.9		
Overload capacity	60 min at 110%, 10 min at 125%; 1 min at 150%		
Bypass	Automatic and maintenance bypass		
Batteries			
Cold Start	yes		
Battery Type	VRLA		
Internal batteries	yes		
Communication and management			
Display	4.3" colour touch-screen display.		
Communication ports	RS232, 4 programmable relay contacts, RS485 (optional), network interface slot		
Backfeed protection	Integrated		
Alarms and signals	Alarms and audible warnings		
Emergency Power Off (EPO)	yes		
Remote control	available		
Mechanical characteristics			
Ventilation	Forced with fan from the front to the rear		
Maximum heat dissipation (100% of the W load, battery recharging)	600	900	1300
Colour	RAL9017 (black-cabinet) RAL9003 (white - control panel)		
Dimensions W x D x H (mm)	260 x 850 x 890		
Weight (without battery) (kg)	74	76	76
Weight (with batteries) (kg)	149	166	176
Ambient Conditions			
Operating temperature (°C)	0 - 40°C (recommended temperature for longer useful battery life: 20-25°C)		
Relative humidity	20-95% (not condensing)		
Protection rating	IP20		
Noise at 1 m from the unit (dBA)	< 52		
Estimated content of circular economy derived materials	≈ 39%		
Recyclability rate calculated using the method described in technical report IEC/TR 62635*	≈ 71%		
Conformity			
Certifications	IEC/EN 62040-1, IEC/EN 62040-2, IEC/EN 62040-3, IEC/EN 62040-4		

*This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life of this product.

Keor T Evo

UPS - On-line three-phase double conversion VFI



Keor T Evo 10-30



Keor T Evo 10-30



Keor T Evo 40-60

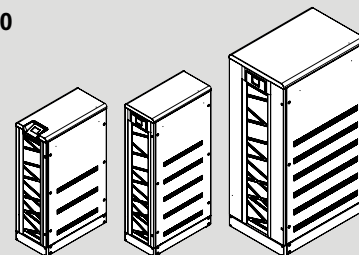
Characteristics:

- Output from 10 to 60 kVA
- New Keor T Evo up to 20 kVA and power factor 1
- Three-phase UPS
- 3 level Switching technology
- IGBT Rectifier and inverter
- High efficiency
- Digital signal processor (DSP)
- High Input Power Factor Correction
- 3.5" TFT touch screen panel
- High output Power Factor
- Low input and output total harmonic distortion values (THD)
- Compatibility with gensets
- Parallelable system with up to 4 units
- Communication ports

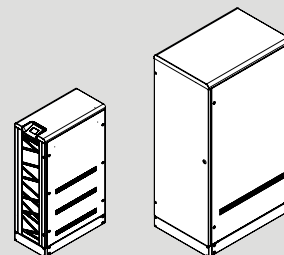
Item	UPS			
	Nominal power (kVA)	Back-up time (min.)	Dimensions (mm)	Weight (kg)
3 110 20	10	0	1345 x 400 x 800	122
3 110 21	10	24	1345 x 400 x 800	261
3 110 22	10	37	1345 x 400 x 800	283
3 110 23	10	57	1650 x 400 x 800	426
3 110 24	15	0	1345 x 400 x 800	127
3 110 25	15	14	1345 x 400 x 800	268
3 110 26	15	22	1345 x 400 x 800	288
3 110 27	15	33	1650 x 400 x 800	431
3 110 28	20	0	1345 x 400 x 800	134
3 110 29	20	10	1345 x 400 x 800	275
3 110 30	20	15	1345 x 400 x 800	296
3 110 31	20	37	1650 x 400 x 800	477
3 110 32	30	0	1345 x 400 x 800	141
3 110 33	30	10	1345 x 400 x 800	302
3 110 34	30	13	1650 x 400 x 800	441
3 110 35	30	22	1650 x 400 x 800	484
3 110 36	40	0	1650 x 600 x 900	238
3 110 37	40	10	1650 x 600 x 900	538
3 110 38	40	15	1650 x 600 x 900	573
3 110 39	40	25	1650 x 600 x 900	740
3 110 40	60	0	1650 x 600 x 900	258
3 110 41	60	10	1650 x 600 x 900	590
3 110 42	60	15	1650 x 600 x 900	755

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

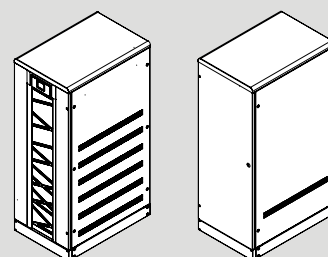
Keor T Evo 10-15-20-30 with internal batteries



Keor T Evo 10-15-20-30 with external battery cabinet



Keor T Evo 40-60 with external battery cabinet



Item	Keor T EVO 208 V			
	Nominal power (kVA)	Active Power (kW)	Dimensions H x W x D (mm)	Net weight (kg)
3 101 32	5	4,5	1345 x 400 x 800	118
3 101 33	7,5	6,75	1345 x 400 x 800	132
3 101 34	10	9	1345 x 400 x 800	134
3 102 78	15	13,5	1345 x 400 x 800	140
3 102 79	20	18	1650 x 600 x 900	255
3 102 96	30	27	1650 x 600 x 900	277

Accessories

3 109 18	Battery cabinet empty (up to 60 blocks 55 Ah)
3 109 21	Internal cables kit for battery cabinet empty (for 60 blocks 55 Ah)
3 109 11	Battery drawers kit for Keor T Evo 10-30 kVA (up to 60 blocks 7-9 Ah)
3 109 12	Battery drawers kit for Keor T Evo 40-60 kVA (up to 60 blocks 7-9 Ah)
3 109 13	Internal battery cables kit for battery drawers Keor T Evo 10-30 kVA
3 109 14	Internal battery cables kit for battery drawers Keor T Evo 40-60 kVA
3 109 15	Parallel kit/UPS (PCB + 5 m cable)
3 109 87	Keor T Evo Battery Cabinet A
3 109 88	Keor T Evo Battery Cabinet B*

Keor T Evo

UPS - On-line three-phase double conversion VFI

Characteristics

Model 3Ph 400V (380-400-415V) 3Ph	Keor T Evo 10	Keor T Evo 15	Keor T Evo 20	Keor T Evo 30	Keor T Evo 40	Keor T Evo 60
Nominal power (kVA)	10	15	20	30	40	60
Active power (kW)	10	15	20	30	40	60
3Ph version 208V (200-208-220V)	Keor T Evo 208V 5	Keor T Evo 208V 7,5	Keor T Evo 208V 10	Keor T Evo 208V 15	Keor T Evo 208V 20	Keor T Evo 208V 30
Nominal power (kVA)	5	7,5	10	15	20	30
Active power (kW)	4,5	6,75	9	13,5	18	27

General characteristics

Technology	On-line double conversion VFI-SS-111
Waveform	Sinusoidal
Architecture	Stand alone or distributed parallel up to 6 units

Input Characteristics

Input voltage	400V (3Ph+N+PE)* / 200-208-220V (3Ph+N+PE)**
Input frequency	45-65 Hz
Input voltage range (Ph-Ph)	±20%* / ±15%**
THD of input current	<5% at full load
Compatibility with diesel generators	Yes
Input power factor	>0.99

Output characteristics

Output voltage	380, 400, 415V (3Ph+N+PE)* / 200-208-220V (3Ph+N+PE)** (Adjustable from front panel)
Efficiency	up to 96% *
Efficiency in ECO mode	up to 98,5%
Output frequency (nominal)	50 /60 Hz (Adjustable from front panel)
Output frequency tolerance	±0,1%Synch with Mains; ±0,01% Free Run
Crest factor	up to 3:1
THD of output voltage	< 2% at full linear load
Output power factor	1* / 0,9**
Output voltage tolerance	± 1%
Overload capability	10 min at 125%; 60 sec at 150%
By-pass	Built-in automatic and maintenance bypass

Batteries

Battery type	VRLA – AGM Maintenance free
Internal batteries	Yes
Battery test	Yes 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, RS485, 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* 1345 x 400 x 800**	1650 x 600 x 900
Dimensions battery cabinet H x W x D (mm)	1650 x 800 x 900	

Ambient conditions

Ambient conditions		
Operating temperature (°C)	0-40	
Relative humidity (%)	20-95% not condensing	
Protection index	IP20	
Noise at 1 m (dBA)	< 58	< 60

Estimated content of circular economy derived materials **39%**

Recyclability rate calculated using the method described in technical report IEC/TR 62635*** **71%**

Compliance

Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3
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* for 3Ph 400V Version

** for 3Ph 208V Version

*** This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life of this product.

Keor HP

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



Keor HP 100



Keor HP 400

Characteristics:

- 60-800kVA Capacity
- 3 Phase Input / 3 Phase Output
- IGBT-Based Rectifier and Inverter
- High Efficiency
- Digital Signal Processor (DSP)
- High Input Power Factor (PFC)
- High Output Power Factor
- Batteries recharging compensation with temperature
- Inverter Isolation Transformer
- Low Input and Output Total Harmonic Distortion (THD)
- Genset operation compliant
- On Site Modular Paralleling Capability up to 6 Units
- Availability of Different Communication types
- Optimized cooling system

Model	UPS (without batteries)			
	Nominal power (kVA)	Active power (kW)	Dimensions H x W x D (mm)	Net weight (kg)
Keor HP 60	60	54	1670 x 815 x 825	570
Keor HP 80	80	72	1670 x 815 x 825	600
Keor HP 100	100	90	1670 x 815 x 825	625
Keor HP 125	125	112,5	1670 x 815 x 825	660
Keor HP 160	160	144	1670 x 815 x 825	715
Keor HP 200	200	180	1905 x 1220 x 870	970
Keor HP 250	250	225	1905 x 1220 x 870	1090
Keor HP 300	300	270	1905 x 1220 x 870	1170
Keor HP 400	400	360	1920 x 1990 x 965	1820
Keor HP 500	500	450	2020 x 2440 x 950	2220
Keor HP 600	600	540	2020 x 2440 x 950	2400
Keor HP 800	800	720	1920 x 3640 x 950	3600

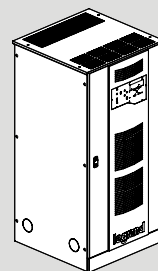
Options

Description

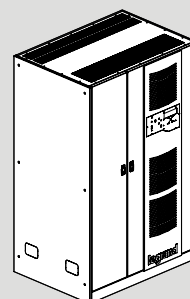
- Empty battery cabinet with cables and protection
- Batteries 5 years / 10 years life time in cabinets or racks
- Battery switch box with protection: fuses
- Battery monitoring system
- BY PASS insulation transformer
- External maintenance by-pass
- Top entry cable cabinet
- Remote control panel



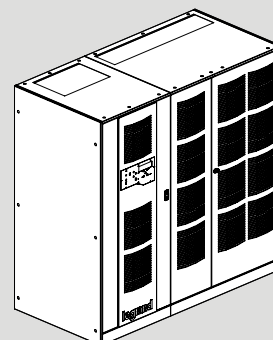
Keor HP 60-80-100-125-160



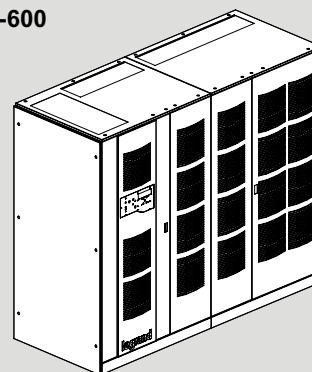
Keor HP 200-250-300



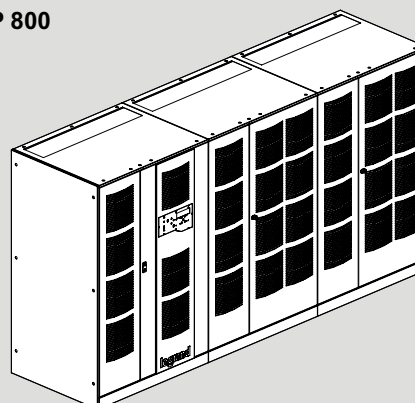
Keor HP 400



Keor HP 500-600



Keor HP 800



Keor HP

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

Characteristics													
General characteristics		60	80	100	125	160	200	250	300	400	500	600	800
Nominal power (kVA)		60	80	100	125	160	200	250	300	400	500	600	800
Active power (kW)		54	72	90	112.5	144	180	225	270	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 ± 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 ± 0,001%											
Crest factor		3:1											
THD of output voltage		<5% (with non-linear load)											
Output voltage tolerance		± 1% (with balance load)											
Overload capacity		10 minutes at 125%, 60 seconds at 150%, 10 seconds at 200%											
Efficiency in Eco mode		98%>98%											
Bypass		Built-in Automatic and Maintenance By-pass								Built-in Automatic (optional Maintenance Bypass)			
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 (Optional RS485)											
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			1920 x 1990 x 965	2020 x 2440 x 950	2020 x 2440 x 950	1920 x 3640 x 950
Net Weight (kg)		570	600	625	660	715	970	1090	1170	1820	2220	2400	3600
Dimensions battery cabinet H x W x D (mm)		1900x1400x830 (50 batteries) 1900x2800x830 (100 batteries)					1900x1400x860 (50 batteries) 1900x2800x860 (100 batteries)			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)		< 60					<62						
Estimated content of circular economy derived materials		11%											
Recyclability rate calculated using the method described in technical report IEC/TR 62635*		69%											
Certifications													
Reference product standards		EN 62040-1, EN 62040-2, EN 62040-3, EN 62040-4											

Keor HPE

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



Characteristics:

- Power from 60 to 600 kVA
- Three-phase UPS
- IGBT Rectifier
- High efficiency
- Digital signal processor (DSP)
- High Input Power Factor Correction (PFC)
- Output Power Factor 1
- Battery recharge, dynamic, intermittent with temperature compensation
- Low input and output total harmonic distortion values (THD)
- Compatibility with gensets
- Parallel operations with up to 6 units
- Communication ports
- Optimised cooling system

Model	UPS				
	Nominal power (kVA)	Active power (kW)	Back-up time (min)	Dimensions H x W x D (mm)	Net weight (kg)
3 110 87	60	60	0	1500 x 560 x 940	225
3 110 88	60	60	5	1500 x 560 x 940	525
3 110 89	60	60	10	1500 x 560 x 940	675
3 110 90	80	80	0	1500 x 560 x 940	250
3 110 91	80	80	5	1500 x 560 x 940	700
9 605 69	100	100	-	1800 x 560 x 940	320
9 605 70	125	125	-	1800 x 560 x 940	360
9 605 71	160	160	-	1800 x 560 x 940	380
9 605 72	200	200	-	1978 x 880 x 970	530
9 535 00	250	250	-	1978 x 880 x 970	745
9 535 01	300	300	-	1978 x 880 x 970	675
9 535 02	400	400	-	1978 x 1430 x 970	1080
9 535 03	500	500	-	1978 x 1430 x 970	1250
3 111 30	600	600	-	1978 x 1630 x 970	1400

Accessories

- 9 535 16** Parallel interface *
- 9 535 17** Interface for MODBUS RS485
- Empty battery cabinets

Options

- Synchronism kit on two UPS**
- Synchronism kit on two parallel UPS**
- Isolation transformer
- 7" touch display (for Keor HPE 60-160)
- IP 21 Kit
- Common battery kits



* For parallel configurations involving 4 or more units, please contact your Service representative for configuration guidance.

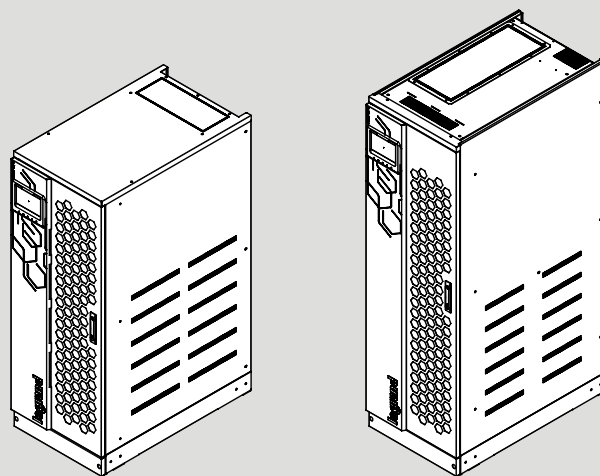
** to create two independent synchronous electrical lines (typical in Tier III, IV systems)

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

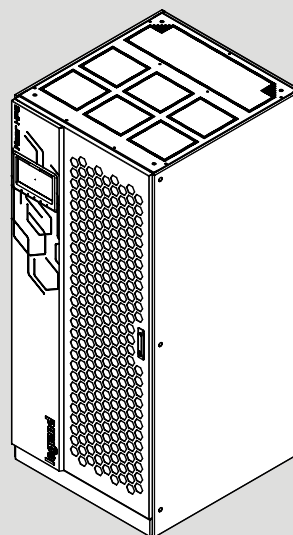
For the choice of communication accessories, see the dedicated section of this catalogue.

Keor HPE 60-80 kVA

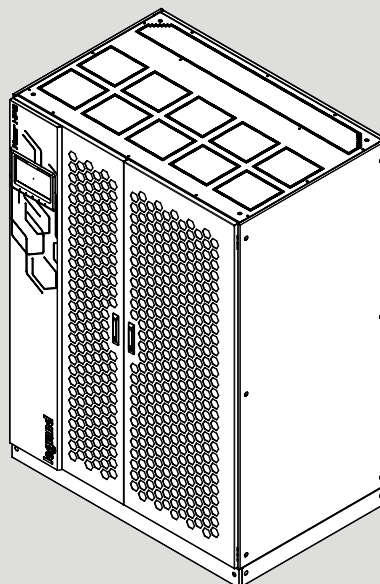
Keor HPE 100-125-160 kVA



Keor HPE 200-250-300 kVA



Keor HPE 400-500-600 kVA



Keor HPE

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

Characteristics

General Characteristics	60	80	100	125	160	200	250	300	400	500	600
Nominal power (kVA)	60	80	100	125	160	200	250	300	400	500	600
Active power (kW)	60	80	100	125	160	200	250	300	400	500	600
Technology	On-Line Double Conversion VFI-SS-111										
Waveform	Sinusoidal										
UPS Architecture	Conventional UPS parallel operations with up to 6 units										

Input											
Input voltage	380-400-415 V 3Ph+N										
Input frequency	50-60 Hz (45÷65Hz)										
Input voltage range	400 V -20% / + 15%										
THD Input current	< 3%										
Compatibility with genset	Configurable to achieve synchronisation between the input frequencies and output frequencies, also for wider frequency ranges										
Input power factor	> 0.99										

Output			
Output voltage	380, 400, 415 V 3Ph+N		
Efficiency	Up to 95%	Up to 96%	Up to 96.4%
Nominal output frequency	50 /60 Hz		
Peak factor	3:1		
THD of Output voltage	<1% (with linear load) <5% (with non-linear load)		
Output voltage tolerance	± 1% (with balanced load)		
Overload capacity	10 minutes at 125%, 30 seconds at 150% 0,1 seconds >150%	10 minutes at 110%, 5 minutes at 125%, 30 seconds at 150% 0.1 seconds >150%	
Efficiency in Eco Mode	> 98%		
Bypass	Automatic and maintenance bypass		

Batteries											
Internal batteries	yes	yes	-	-	-	-	-	-	-	-	-
Backup time extension	Yes with additional battery cabinets										
Battery series type	VRLA- AGM Lead Acid, sealed, maintenance-free										
Battery test	Automatic or manual										
Battery charger	IU (DIN41773)										

Communication and management		
LCD Display	LCD and LED display to monitor UPS status in real-time 4 menu navigation buttons (optional 7" touch screen)	10" touch screen display to monitor UPS status in real-time
Communication ports	relay contact card, RS232, USB, RS485 (optional), network interface slot	
Alarms and signals	Configurable audible alarms and warnings	
Emergency Power Off (EPO)	yes	
Remote control	available	
Battery temperature sensor	yes	

Mechanical characteristics											
Dimensions (HxWxD) (mm)	1500 x 560 x 940			1800 x 560 x 940			1978 x 880 x 970			1978 x 1430 x 970	1978 x 1630 x 970
Net weight (kg)	225	250	320	360	380	530	745	675	1080	1250	1400

Ambient conditions				
Operating temperature (°C)	0 – 40			
Relative humidity (%)	< 95% non condensing			
Protection rating	IP20			
Noise at 1 m from the unit (dBA)	< 60	< 65	< 72dB	< 80
Estimated content of circular economy derived materials	33%			
Recyclability rate calculated using the method described in technical report IEC/TR 62635*	90.1%			

Conformity											
Certifications	EN 62040-1, EN 62040-2, EN 62040-3, EN 62040-4										

*This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life of this product.

Keor XPE

Scalable UPS - Online three-phase double conversion VFI



In/Out-Bypass
Module



Power unit
Up to 7 units



Distribution cabinet
(optional)

Characteristics

- On-Line Double Conversion VFI SS 111
- 3-level IGBT technology - Transformer Free
- Output power factor = 1 without downgrading up to 40°C in continuous operation mode (VFI)
- Configurable internal redundancy (N + 1 or N + X).
- Hot maintainable modules
- Hot scalability (optional)
- Up to 96,4% efficiency VFI even at low power
- ECO mode up to 99% of efficiency.
- Built-in backfeed protection
- Automatic battery test feature.
- Genset compatibility with Adaptive Ramp-in
- Compact design.
- Low audible noise.
- Synch 2N

Components	UPS		
	Nominal power (kVA)	Active power (kW)	Dimensions HxWxD (mm)
POWER UNIT	250	250	880x979x2100
POWER UNIT	300	300	880x979x2100
IOBM 600	600	600	1002x979x2100
IOBM 750	750	750	1450x979x2100
IOBM 900-1000	1000	1000	1500x979x2100
IOBM 1200-1500	1500	1500	1850x1000x2100
IOBM 1800-2100	2100	2100	2300x1200x2100
DISTRIBUTION CABINET*	2 x 300 kW lines		350x979x2100
DISTRIBUTION CABINET*	3 x 300 kW lines		350x979x2100
DISTRIBUTION CABINET*	4 x 300 kW lines		350x979x2100
DISTRIBUTION CABINET*	5 x 300 kW lines		350x979x2100

* for hot-swapping

Options

Description

Future Scalability

Hot Scalability

Input Line: Dual/Single

Connection Entrance: Bottom/Top

Connection Type: Cable/Busbar

Grounding System: TNC/TNS

lcw limitation kit

Battery set: Centralized/Distributed

Central or side IOBM

Special distribution kits for customised cabinet layouts

IP21 Kit

Accessories

Description

Battery cabinets

Battery switch fuse box

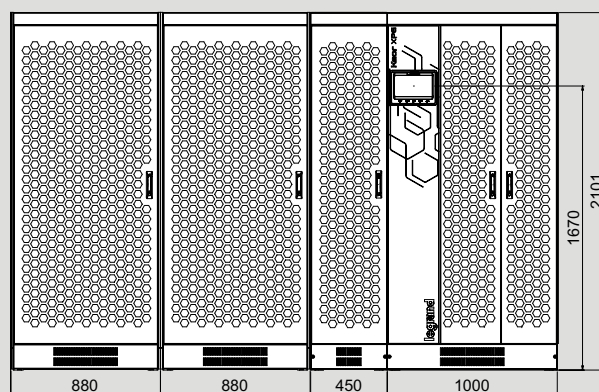
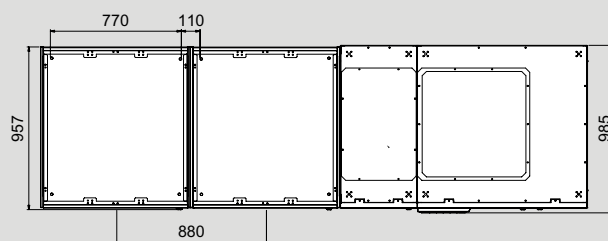
Synchronisation box

MODBUS RS485 card

Ethernet card with network interface

Please contact Legrand for further details on the configurations and accessories.

Dimensions



Keor XPE

Scalable UPS - Online three-phase double conversion VFI

Characteristics

General Characteristics	IOBM 600	IOBM 750	IOBM 900	IOBM 1000	IOBM 1200	IOBM 1250	IOBM 1500	IOBM 1800	IOBM 2100
Nominal power (kVA)	600	750	900	1000	1200	1250	1500	1800	2100
Power Unit power (kVA)	300	250	300	250	300	250	300	300	300
Number of power units (+1 redundant)	2+1	3+1	3+1	4+1	4+1	5+1	5+1	6+1	7
Technology	On-Line Double Conversion VFI-SS-111								
Architecture	Decentralised logic, centralised static bypass, scalable, redundant, hot-swap service (optional hot plug)								
Input									
Input voltage	400 Vac three-phase (rectifier), 380/400/415 Vac three-phase (Bypass)								
Input frequency	50/60 Hz; range 45-65 Hz								
Input Voltage Range (Ph-Ph)	-20%, +15% (rectifier); ±10% (bypass)								
THD Input current	< 3%								
Compatibility with genset	Yes								
Input power factor	> 0.99								
Output									
Output voltage	380, 400, 415V (3Ph+N+PE)								
Online Efficiency	up to 96.4%								
Efficiency in GREEN Mode	up to 99%								
Nominal output frequency	50 /60 Hz (Adjustable from the front panel)								
Peak factor	up to 3:1								
THD of Output voltage	< 1% with linear load								
Output Power Factor	0.7 which reaches 0.5 in delay without downgrading								
Output voltage adjustment VFI	Static ± 1%; Dynamic Class 1 IEC/EN 62040-3								
Overload capacity	Inverter: 125% for 5 min, 150% for 30 sec;								
Bypass									
Type	Automatic static without interruption, manual bypass optional								
Input voltage	380-400-415V ± 20%; (3Ph+N+PE)								
Input frequency	50-60Hz ± 10%								
Rated current (A)	870	1090	1304	1450	1739	1810	2175	2609	3044
Max. LCW	50 kA IEC 62040-1 standard (100 kA optional)								
Batteries									
Battery type	VRLA, NiCd, Li-Ion								
Connecting the battery	Distributed or centralised								
Communication and management									
LCD Display	10" Touch screen, 1024x600 pixels								
Communication ports	RS232, USB, RS485, network interface slot								
Input and auxiliary contact signal ports.	Remote Emergency Power Off (REPO), diesel mode, temperature probe, battery circuit breaker. External automatic switch auxiliary contact: battery, external maintenance bypass, remote output transfer in bypass mode								
Output signal ports	5 dry contacts, external BackFeed								
Mechanical characteristics									
Connection lines	Wired TNC or TNS 3PH output, rectifier and bypass (single input optional)								
Input and connection type	Bottom (top as optional), cable (busbar as optional)								
Colour	RAL 9003 (white) on the front panel of the IOBM; RAL 9005 (black) body and side panels of all cabinets								
UPS dimensions WxDxH (mm)*	2770x970x2100	4090x970x2100	4970x980x2100	5370x980x2100	6250x980x2100	7580x1200x2100	8460x1200x2100		
UPS weight (kg)*	2250	3150	3300	4000	4250	4900	5200	6400	7300
Ambient conditions									
Operating temperature (°C)	0 - 40 °C (recommended temperature for longer useful battery life: 20-25°C)								
Relative humidity (%)	20-95% (non condensing)								
Protection rating	IP20 (IP21 Optional)								
Noise at 1 m from the unit (dBA)	< 65								
Estimated content of circular economy derived materials	≈ 20%								
Recyclability rate calculated using the method described in technical report IEC/TR 62635*	≈ 60%								
Conformity									
Certifications	IEC/EN 62040-1, IEC/EN 62040-2, IEC/EN 62040-3								

* Weights and dimensions depend on the configuration chosen and refer to the complete basic system (no redundancy, no hot swapping).

**This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life of this product.

UPSaver

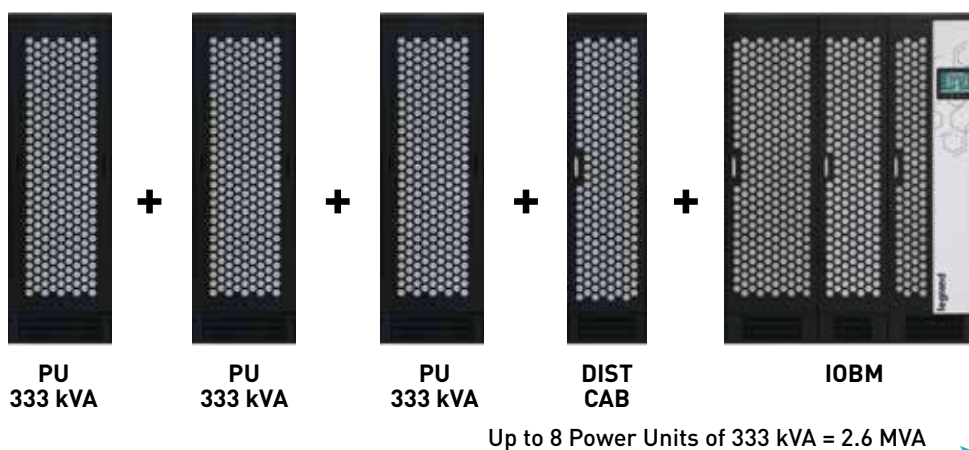
UPSaver is a high power UPS based on hot scalable 333 kVA modules. It can reach up to 2.67 MVA in a single unit. The single units can be paralleled up 21 MVA.

UPSaver is the ideal solution for data center and IT business critical applications, providing the highest reliability and availability. The flexibility of the system is designed to adapt itself to the critical and changing data center demands. With state-of-the-art components, **UPSaver** is one of the most compact, efficient and fully adaptable power protection system.



Reduced TCO

- Pay as you grow through hot scalability.
- Tailored to the room layout with total flexibility in design and installation.
- Quick upgrade and maintenance thanks to hot scalability, serviceability and minimal spare parts.
- Enhanced efficiency thanks to automatic output power control.
- Always delivering maximum performance with high efficiency operating modes.
- Less consumption to reduce carbon footprint.



UPSaver modular design allows easy system resizing by addition of power units. Maintenance operations can be done without powering down the system and without switching to bypass line.

UPSaver

Scalable High-Power UPS up to 2.67 MVA



Power Units
(PU)

Distribution Cabinet
(Optional)

In/Out-Bypass
Module (IOBM)

Characteristics

- Hot swappable 333 kVA power units on VFI mode
- Hot scalable 333 kVA power units to 2.67 MVA
- 97.2% efficiency
- Flexibility in system design and installation
- Power parallel scalable up to 21 MVA
- Low audible noise level <65 dB
- Top busbar entry
- Low input capacitive power for genset flexibility
- Peak shaving capable
- Lithium battery compatible

Model	UPSaver Components			
	Nominal power (kVA)	Active power (kW)	Max dimensions full option W x D x H (mm)	Max weight full option (kg)
POWER UNIT (PU)	333	333	650x970x2150	570
IOBM 670	670	670	2500x970x2150	1000
IOBM 1000	1000	1000	2500x970x2150	1000
IOBM 1340	1340	1340	3950x970x2150	1925
IOBM 1670	1670	1670	3950x970x2150	1925
IOBM 2000	2000	2000	3750x1200x2150	2350
IOBM 2340	2340	2340	4250x1200x2150	2640
IOBM 2670	2670	2670	*	*

* contact our sales team

Optionals

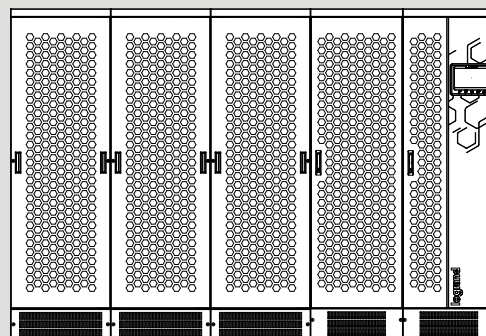
Description
Hot Scalability
Input Line: Dual/Single
Connection Entrance: Bottom/Top
Connection Type: Cable/Busbar
Grounding System: TNC/TNS
Icw limitation kit
Battery set: Centralized/Distributed

Accessories

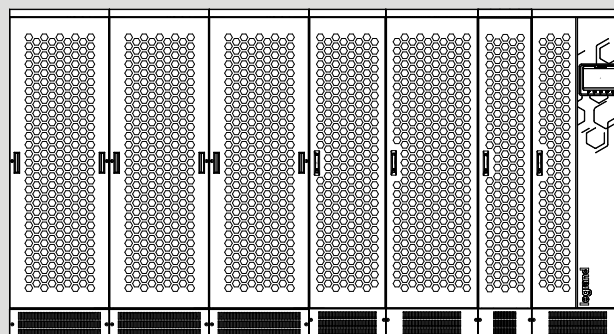
Description
Battery Cabinets
Battery fuse switch box
Synch Box
Net Interface Ethernet Cards

For configuration details and accessories, please contact Legrand.

UPSaver 1000 kVA Basic



UPSaver 1000 kVA Full



Characteristics

General specifications	IOBM 670	IOBM 1000	IOBM 1340	IOBM 1670	IOBM 2000	IOBM 2340	IOBM 2670
Nominal Power = Active Power (kW)	670	1000	1340	1670	2000	2340	2100
Power Unit power (kW)	333	333	333	333	333	333	333
Number of Power Units (+1 if Redundant)	2+1	3+1	4+1	5+1	6+1	7+1	8
Technology	On-line double conversion VFI-SS-111						
Architecture	Centralized Static Bypass, Scalable, Redundant, Hot Service (Hot Swap Optional)						
Input							
Input Voltage	400 Vac 3-phase (rectifier), 380/400/415 Vac 3-phase (Bypass)						
Input Frequency	50/60 Hz; range 45-65 Hz						
Input Voltage Range (Ph-Ph)	-20%, +15% (rectifier); ±10% (bypass)						
THD of input current	< 3%						
Compatibility with Diesel Generators	Yes						
Input power factor	> 0.99						
Output							
Output Voltage	380-400-415 Vac 3-phase with neutral						
Efficiency Online	up to 97.2%						
Efficiency in UHE mode	up to 99%						
Output frequency (nominal)	50 /60 Hz (Adjustable from front panel)						
Output frequency tolerance	±0,1%Synch with Mains; ±0,01% Free Run						
Crest Factor	up to 3:1						
THD of output voltage	< 1% at full linear load						
Output power factor	up to 1, without power derating						
Output voltage Regulation VFI	Static ± 1%; Dynamic: IEC/EN 62040-3, Class 1						
Overload Capability	Inverter: 105% continuous at 30°C, 125% for 10 min; 150% for 1 min; bypass: 110% continuous; 150% for 1 min; 700% for 100 ms; 1000% for 10 ms						
Bypass							
Type	Static Automatic no break, Manual Bypass optional						
Input Voltage	380-400-415V ± 20%; (3Ph+N+PE)						
Input Frequency	50/60Hz ± 10%						
Nominal Current (A)	971	1449	1942	2420	2899	3391	3870
Max Icw	50 kA as per IEC 62040-1 (100 kA Optional)						
Batteries							
Battery/Storage Compatibility	VRLA, NiCd, Li-Ion						
Battery Connection	Distributed or Centralized						
Communication and management							
Control Panel Display	10" Touch screen, 1024x600 pixels						
Communication ports	Serial RS232 and USB; ModBus-RTU (RS485). Net Card Slot (SNMP & ModBus-TCP/IP) (Optional)						
Input signal ports and aux.contact.	Remote emergency power off (REPO), diesel mode, Temperature Probe, battery circuit breaker. Auxiliary contact of external circuit breakers: battery, external maintenance bypass, output remote transfer to bypass mode						
Output signal ports	5 dry contacts, external BackFeed						
Physical characteristics							
Connection Lines	Hardwired 3PH TNC or TNS Output, rectifier and bypass (single input as optional)						
Connection Entrance and Type	Bottom (top as optional), cable (busbars as optional)						
Color	RAL9005 (Black) RAL9003 (White)						
UPS dimensions WxDxH (mm)*	3800 x 970 x 2150	4450 x 970 x 2150	6550 x 970 x 2150	7200 x 970 x 2150	7650 x 1200 x 2150	8800 x 1200 x 2150	(***)
UPS weight (kg)*	2140	2710	4205	4775	5770	6630	(***)
Environmental conditions							
Operating Temperature (°C)	0 - 40 °C (Recommended temperature for longer Battery Life: 20-25°C)						
Relative Humidity Range	20-95% (Non-Condensing)						
Protection degree	IP20 (IP21 Optional)						
Acoustic Noise at 1m (dBA)	< 65						
Estimated content of circular economy derived materials (%)	32%						
Recyclability rate calculated using the method described in technical report IEC/TR 62635 (%)**	90.2%						
Compliance							
Reference product standards	IEC/EN 62040-1, IEC/EN 62040-2, IEC/EN 62040-3, IEC/EN 62040-4						

(*) Full option version including top busbar entry module, main switches, hot swap distribution modules. (**) Conditions apply. (***) Contact our sales team.

(****) This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life of this product.



BATTERY CABINET

For all three-phase UPS.



Battery cabinet

For all three-phase UPS



3 106 57 up to 20 batteries 105 Ah



3 109 82 up to 62 batteries 105 Ah

Universal battery cabinets for all three-phase Legrand UPS from 10kVA up to 800kVA power range. The Battery cabinet is designed to house standard VRLA Batteries of capacity range from 24Ah to 105Ah (C10). The battery cabinets are available in 5 different mechanical dimensions, are able to contain various combination of Batteries, up to maximum 63 blocks, connected in series and parallel, with positive, negative and middle point poles and with max DC voltage of 800Vdc.

Item	EMPTY BATTERY CABINET*					UPS Compatibility
	Cabinet Dimensions (mm)	TOT Weight (kg)	Indicative Battery Capacity (Ah)	Standard No. Of Blocks		
3 106 26	800x900x1420	213	24	60		Keor T
3 106 27	800x900x1420	214	24	40		Trimod HE
3 106 55	800x900x1420	213	55	20		Trimod HE
3 106 56	800x900x1420	215	70-93	20		Trimod HE
3 106 57	800x900x1420	215	105	20		Trimod HE
3 106 59	800x900x1900	253	24	60-62		Keor HPE
3 106 73	800x900x1900	253	41	60-62		Keor HPE / Keor T
3 109 41	800x900x1900	254	55	42		Trimod HE
3 109 44	1200x900x1900	333	55	60-62		Keor HPE / Keor T
3 109 65	1200x900x1900	335	70-93	50-52		Keor MOD / Keor HP
3 109 66	1200x900x1900	336	70-93	40-42		Trimod HE
3 109 67	1200x900x1900	335	105	50-52		Keor MOD / Keor HP
3 109 68	1200x900x1900	336	105	42		Trimod HE
3 109 80	1400x900x1900	385	70-93	60-62		Keor HPE / Keor T
3 109 81	1400x900x1900	385	70-93	60		Trimod HE
3 109 82	1400x900x1900	385	105	60-62		Keor HPE / Keor T
3 109 83	1400x900x1900	385	105	60		Trimod HE

* in the cabinet are included Fuse Holder Switch and Fuses.
Batteries not included

Characteristics

General characteristics	
Nominal Voltage	800 Vdc
Battery segregation	Internal panel in Polycarbonate
Switches and protection access	Internal bottom front side
Disconnection and protection devices *	Fuse Holders Switch with NH fast fuses (sized accordingly with Battery Power)
Fuse holder Open/Close signal*	Auxiliary Micro Switch
Cable Entrance	bottom sides (both left and right)
Cable connections	On Fuse holder terminals
Max Cable side entrance	3x 150mm ²
Cabinet Access	Front door with key lock and removable sides and rear panels
Shelter Bent Metal Sheet Thickness	20/10
Shelves Bent Metal Sheet Thickness	30/10
Protection Degrees	IP20 (Optional IP21)
Colour	RAL 7016
Standard	IEC-EN 62040-1

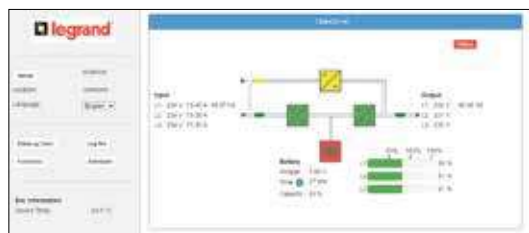


COMMUNICATION ACCESSORIES AND SOFTWARE



Accessories

Management software



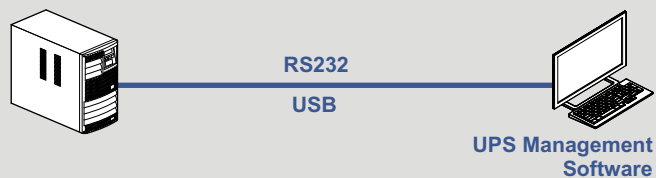
Pack	Cat. Nos.	Software
		Description
1	free download*	UPS Management Software Set of applications for real-time control of the operation of the UPS and to ensure the integrity of the systems on the computers supplied by this UPS. Free download from the Legrand UPS website.
1	free download	RCCMD Software 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. The software can be downloaded free from Internet.
	free download*	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. License for 25 UPS.
1	3 108 92	UNMS UNMS licence for 50 UPS
1	3 108 93	UNMS UNMS licence for 150 UPS

*Licence for 25 UPS

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

■ Local protection

Protects one station only (PC or server) and must be installed at a distance of less than 12 metres (RS232) or 5 metres (USB)



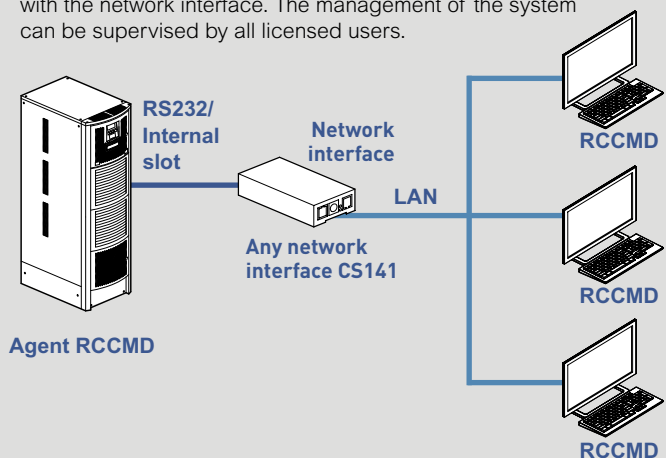
■ Extended local protection

Protects multiple stations (PC or server) but all must be dependent on the COMPUTER that controls the UPS.



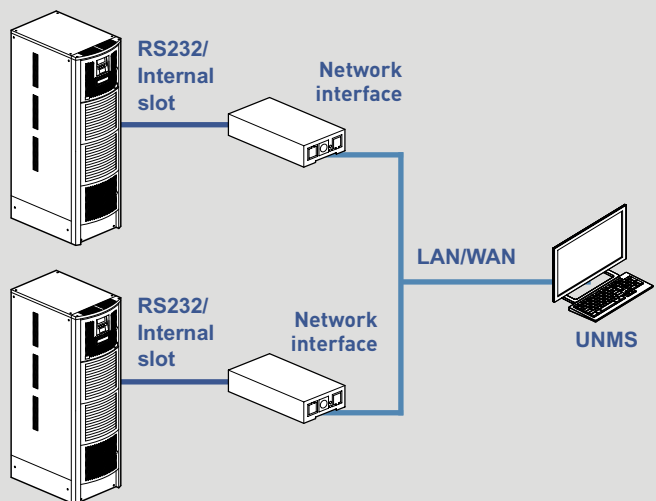
■ Protection via TCP/IP network

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 via any network interface that supports SNMP v2 (standard RFC1628).



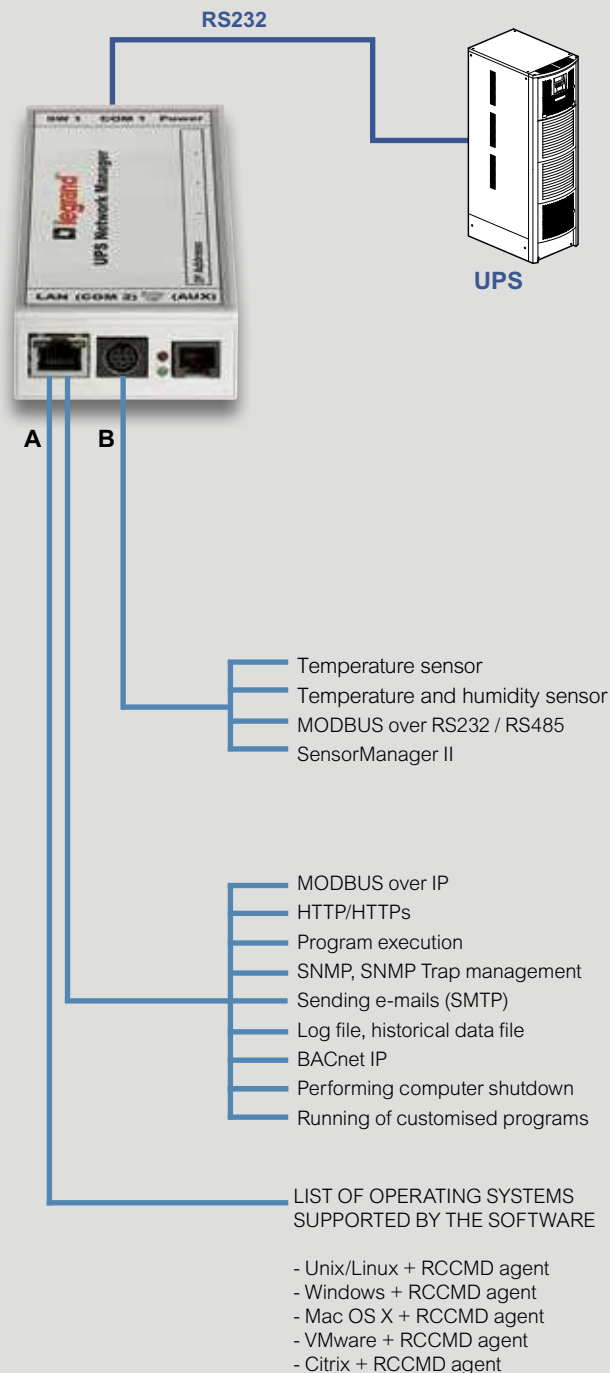
Accessories

Network interfaces CS141



Pack	Cat. Nos.	Network interface CS141
		Network interfaces for UPS management do not require external software; in fact, they are equipped with their own proprietary operating system which is able to continuously control the UPS operations and handle multiple events (power failure, overload, bypass, anomaly, etc.) and consequently to carry out a series of actions, such as, for instance: - Saving of event logs complete with date and time - Saving of main operating data trends complete with date and time - Sending of emails - Performance of scheduled actions - Display of pop-up messages, shutdown operations and custom commands on remote computers (it is necessary that the RCCMD software agent is installed on these computers) - Switching ON and OFF the UPS - Sending of "Wake on LAN (WOL) " signals - SNMP protocol support - Sending of SNMP trap messages - Data display and configuration via internet browser - Firmware downloadable free of charge from the Internet - 1Gbit with self-recognition function - DHCP function - No. 1 RCCMD license included Available in both internal and external versions, the internal version is housed in a dedicated UPS slot. The professional versions have an additional RS232 communication port. The industrial versions have an additional RS485 communication port.
1	3 109 30	CS141 SK Professional network interface, internal version (slot)
1	3 109 31	CS141B SK Standard network interface, internal version (slot)
1	3 109 32	CS141 Professional network interface, external version
1	3 109 34	CS141M Industrial network interface, external version
1	3 109 35	CS141M SK Industrial network interface, internal version (slot)

CS141 Characteristics



Model	A	B
CS141B SK	X	
CS141	X	X*
CS141 SK	X	X*
CS141M	X	X**
CS141M SK	X	X**

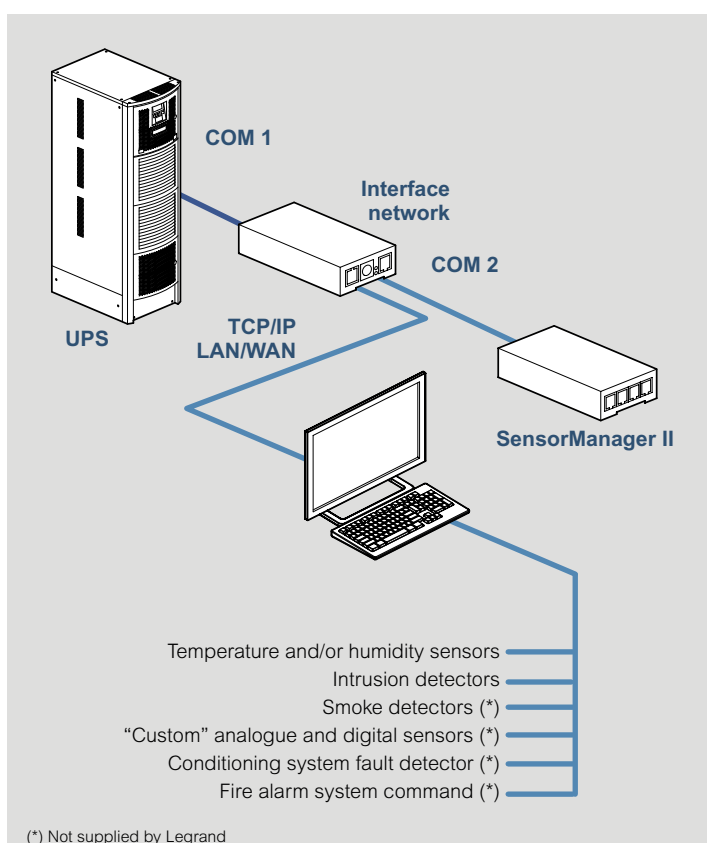
* Only Modbus over RS232
** Only Modbus over RS485

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 CS141 and CS141 SK interfaces. Cannot be used with SensorManager II.
1	3 108 98*	SM_T_H_COM Combined temperature and humidity sensor for direct connection to the COM2 port on the CS141 and CS141 SK interfaces. Cannot be used with SensorManager II.
1	3 108 99	SensorManager II Manager for sensors: connects to the COM2 port on the CS141 and CS141 SK interfaces and manages up to 8 analogue inputs, 4 digital inputs and 4 digital outputs. The configuration is managed directly by the CS141 interfaces (PROFESSIONAL version), described previously. The "Scale Divisor" and "Off set" configuration functions enable SensorManager to be used with any analogue sensor (see characteristics). It includes 1 "SM_T" temperature sensor
1	3 109 00**	SM_T Temperature sensor that can only be used with SensorManager II. 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 compatible with SensorManager II.
1	3 109 02	Door sensor This consists of a reed switch and a magnet. Only compatible with SensorManager II.
1	3 109 03	SM_flash Flashing illuminated signal. Only compatible with SensorManager II.



■ SensorManager II technical characteristics

Supply voltage (VDC)	9 — 24
Temperature (°C)	0 — 65
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 130 x 30

■ Sensor technical characteristics

	3 108 97	3 108 98	3 109 00	3 109 01
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

Network interfaces

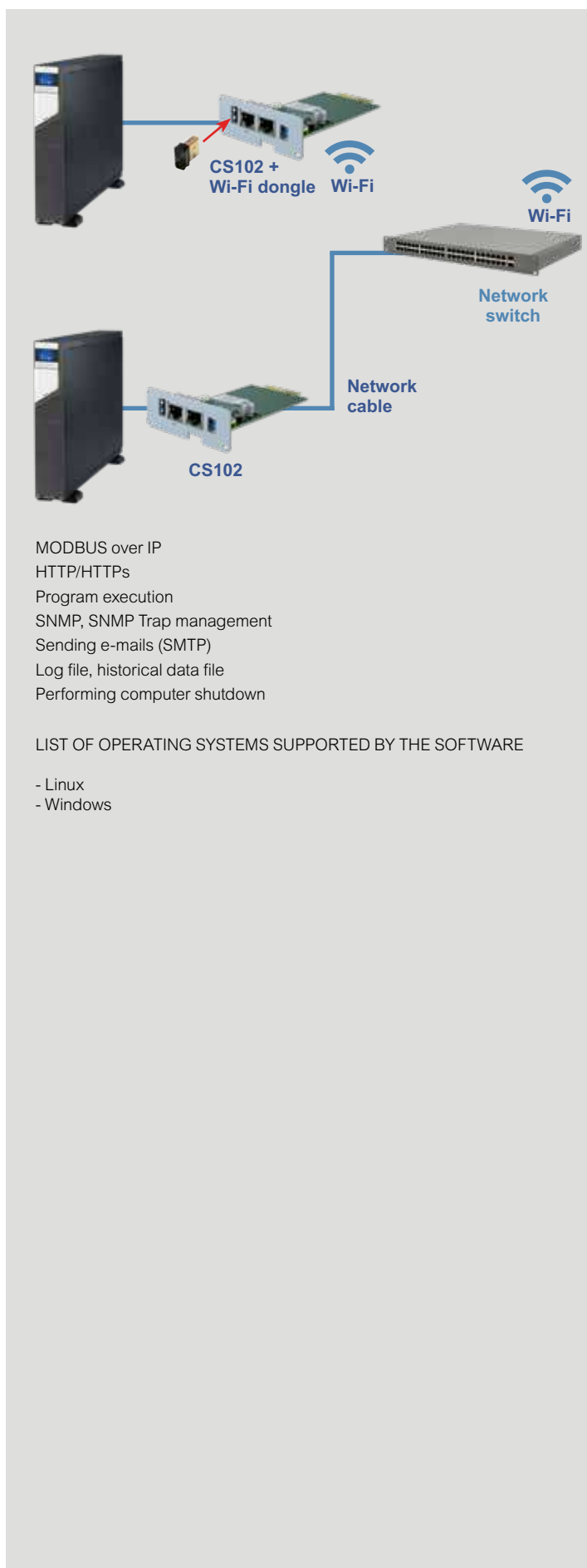


3 110 58



3 110 59

Pack	Cat. Nos.	Network interface CS102
		Network interfaces for UPS management via LAN or Wi-Fi connection. The Wi-Fi dongle allows the UPS to be connected to the data network without additional cables. The network interfaces CS102 is able to continuously control the UPS operations and handle multiple events (power failure, overload, bypass, anomaly, etc.) and consequently to carry out a series of actions, such as, for instance: - Saving of event logs complete with date and time - Saving of main operating data trends complete with date and time - Sending of emails - Display of pop-up messages, shutdown operations and custom commands on remote computers (it is necessary that the CS102 shadow client software agent is installed on these computers) - Switching ON and OFF the UPS - Sending of "Wake on LAN (WOL)" signals - SNMP protocol support - Sending of SNMP trap messages - Data display and configuration via internet browser - Firmware downloadable free of charge from the Internet - 10/100Mbit Base-T Ethernet connection (half-duplex and full-duplex) with self-recognition function - DHCP function The card is housed in a dedicated UPS slot. Compatible with Daker DK Plus, Keor SPE, Keor S, Keor LP, Keor Line RT, Keor T, Keor T Evo, Keor Compact
1	3 110 58	CS102 Network interface
1	3 110 59	CS102 SK + Wi-Fi dongle Network interface with USB dongle to enable Wi-Fi connection.



MODBUS over IP
 HTTP/HTTPS
 Program execution
 SNMP, SNMP Trap management
 Sending e-mails (SMTP)
 Log file, historical data file
 Performing computer shutdown

LIST OF OPERATING SYSTEMS SUPPORTED BY THE SOFTWARE

- Linux
 - Windows

COMMUNICATION ACCESSORIES COMPATIBILITY TABLE

	UPS Management Software	CS141 SK	CS141B SK	CS141	CS141M	CS141M SK	CS102	CS102 SK
	Free	3 109 30	3 109 31	3 109 32	3 109 34	3 109 35	3 110 58	3 110 59
Keor PDU	✓							
Keor SP	✓							
Keor SPX	✓							
Niky S	✓			✓	✓			
Keor LINE RT	✓	✓	✓			✓	✓	✓
Keor SPE	✓						✓	✓
Keor LP	✓	✓	✓			✓	✓	✓
Daker DK Plus	✓	✓	✓			✓	✓	✓
Keor S 3000	✓	✓	✓			✓	✓	✓
Keor S 6000 - 10000	✓	✓	✓			✓	✓	✓
Megaline / Megaline Rack	✓			✓	✓			
Keor Compact	✓	✓	✓			✓	✓	✓
Keor T	✓	✓	✓			✓	✓	✓
Keor HP	✓	✓	✓			✓		
Keor HPE	✓	✓	✓			✓		
Trimod HE	✓	✓	✓			✓		
Keor MOD		✓	✓			✓		

■ Other accessories

	SM_T_COM	SM_T_H_COM	Sensor Manager	SM_T	SM_T_H	Sensore porta	SM_Flash
	3 108 97	3 108 98	3 108 99	3 109 00	3 109 01	3 109 02	3 109 03
3 109 30 - CS141 SK	✓*	✓*	✓*				
3 109 32 - CS141	✓*	✓*	✓*				
3 108 99 – Sensor Manager				✓	✓	✓	✓

* Not for simultaneous use

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 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

CUSTOMER SERVICES

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.



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