

Keor HPE UPS



**THREE-PHASE
UPS**
from 60 to 300 kW

GLOBAL SPECIALIST IN ELECTRICAL AND DIGITAL
BUILDING INFRASTRUCTURES

 **legrand**[®]

LEGRAND UPS

SUPERIOR PERFORMANCES

SERVICE
continuity

ENERGY
efficiency

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

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



Keor HPE

THE UPS WITH POWER
UP TO

300KW



Keor HPE

THREE-PHASE UPS HIGH EFFICIENCY AND LOW TCO

Keor HPE is designed to reduce TCO. High efficiency double conversion and advanced energy saving modes ensure low operating costs. Transformer-free architecture and internal battery layout cut commissioning costs and footprint. The technology conversion control dramatically reduces maintenance costs, extending all critical components and battery's life.



Power factor 1

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

Backfeed detection

Plus series comes with backfeed energy detection circuit, for total upstream protection and operator safety.

Isolation transformer

For the entire Keor HPE family, isolation transformers are available as optional external accessories. In particular in the 60, 80 and 100 kW models it is possible to have the transformer built-in.

Internal battery

60 and 80 kW models can contain up to 180 batteries, allowing to obtain backup time up to 12 minutes.



**COMPACT SIZE
ROBUSTNESS AND
RELIABILITY**

Keor HPE

FRONT-ACCESS INSTALLATION AND MAINTENANCE

The UPS Keor HPE is designed to be installed and maintained completely from the front. All circuit breakers and communications ports are on UPS front side.

A practical interior door allows you to reach even the parts installed on the bottom of the UPS, in order to have maximum access to all components.





Communications port

The communications ports are put in the internal door, and are available all the most common protocols: relay contact, ModBus-RTU by RS485, ModBus TCP/IP o SNMP by Ethernet.

Internal front acces

All parts are accessible from the front, to speed up installation and maintenance.

Cooling system

The optimised cooling system, placed in the upper part of the UPS, enables to position the UPS against the wall without affecting performance.



Keor HPE

OPTIMIZED BATTERY MANAGEMENT

Protecting capital expenditure on batteries, whilst ensuring full availability of mission critical applications can only be achieved by keeping them in perfect condition. Keor HPE comes with advanced charging and battery managing features, providing best battery performance and extended lifetime.



Intermittent charging

with adjustable charging cycle (27-3 typical), to extend battery operating life and to achieve maximum energy savings.

Automatic setting of battery charging current

with feeding priority to output loads, ensuring low charging times for long autonomy applications.

Battery charging voltage temperature compensation

to prevent excess battery charging and overheating. Temperature sensor included in all units.

Automatic and manual battery test

to detect any battery performance deterioration.

Easy access to the batteries

Access to the battery is on the side, the drawers can be extracted and inclined to facilitate the connection and substitution.



Keor HPE



**INNOVATIVE
OPERATING
MODE**



Set the best mode of operation for any application according to mains quality, load immunity grade to mains disturbances and system features, to always deliver the best reliable quality power at the highest efficiency.

On-line double conversion

VFI (Voltage Frequency Independent) double conversion total protection with up to 96% efficiency thanks to our Green Conversion patented technology.

ECO mode

suitable for stable mains, in VFD (Voltage Frequency Dependent) mode of operation, achieving 98% efficiency.

KEOR HPE 60-80-100-125-160-200-250-300

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



KEOR HPE 100



KEOR HPE 300

Model UPS (with internal installable batteries)

Model	Nominal power (kVA)	Active power (kW)	Back-up time (mins)	Dimensions H x W x D (mm)	Net weight (kg)
Keor HPE 60	60	60	12	1800 x 560 x 940	250
Keor HPE 80	80	80	11	1800 x 560 x 940	300

UPS (without batteries)

Model	Nominal power (kVA)	Active power (kW)	Back-up time (mins)	Dimensions H x W x D (mm)	Net weight (kg)
Keor HPE 60	60	60	-	1800 x 560 x 940	250
Keor HPE 80	80	80	-	1800 x 560 x 940	300
Keor HPE 100	100	100	-	1800 x 560 x 940	320
Keor HPE 125	125	125	-	1800 x 560 x 940	360
Keor HPE 160	160	160	-	1800 x 560 x 940	380
Keor HPE 200	200	200	-	1975 x 850 x 953	720
Keor HPE 250	250	250	-	1975 x 850 x 953	850
Keor HPE 300	300	300	-	1975 x 850 x 953	900

Options

Description

Serial interface RS-485 ModBus

SNMP card

Parallel card interface KIT

(1) Synchronization kit on two UPS*

Synchronism kit on two UPS units in parallel*

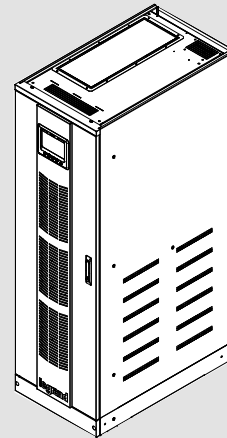
Isolation transformer

Display touch 7" (For Keor HPE 60-160)

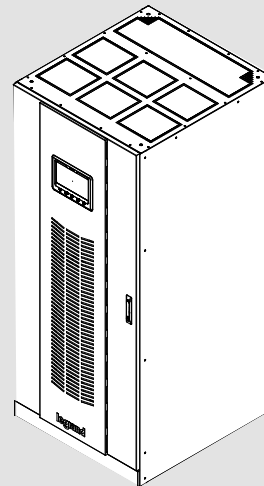
1 accessories to be defined at order time

* to realize two synchronous but independent power lines (typical in Tier III, IV systems)

Keor HPE 60-80-100-125-160



Keor HPE 200-250-300



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

KEOR HPE 60-80-100-125-160-200-250-300

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

Characteristics

General characteristics	60	80	100	125	160	200	250	300
Nominal power (kVA)	60	80	100	125	160	200	250	300
Active power (kW)	60	80	100	125	160	200	250	300
Technology	On-line double conversion VFI-SS-111							
Waveform	Sinusoidal							
Architecture	Conventional UPS, parallelable up to 6 unit							
Input characteristics								
Input voltage	380-400-415 V 3Ph+N							
Input frequency	50-60 Hz (45÷65Hz)							
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							
Efficiency	up to 96%							
Output frequency (nominal)	50 /60 Hz							
Crest factor	3:1							
THD of output voltage	<1% (with linear load), <5% (with non-linear load)							
Output voltage tolerance	± 1% (with balance 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	99%							
Bypass	Built-in Automatic and Maintenance Bypass							
Batteries								
Back-up time with internal battery (mins)	12	11	-	-	-	-	-	-
Back-up 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	LCD and LED Display to show status at a glance. Four menu-driven interface buttons. (Display touch 7" optional)					Display touch 10" to show status at a glance.		
Communication Ports	voltage free relay contacts, RS232, USB, Net Interface Slot (Opzionale: Mod-Bus RS484, SNMP-Ethernet)							
Audible Alarm	Acoustic alarms and warnings, configurable delays							
Emergency Power Off (EPO)	Yes							
Remote Management	Available							
Battery temperature probe	yes							
Mechanical characteristics								
Dimensions H x W x D (mm)	1800 x 560 x 940					1975 x 850 x 953	1975 x 850 x 953	1975 x 850 x 953
Net Weight (kg)	250	300	320	360	380	720	850	900
Ambient conditions								
Operating temperature (°C)	0÷40							
Relative humidity (%)	< 95% not condensing							
Protection index	IP20							
Noise at 1 m (dBA)	< 60					< 65		
Certifications								
Reference product standards	EN 62040-1, EN 62040-2, EN 62040-3							



CUSTOMER SERVICES

Reliable

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

Excellent

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

For Legrand, creating value means coming up with solutions for lower energy consumption, but also integrating product design into the overall development process.

With around 200 000 catalogue items, the Group also provides all products required for electrical and digital building installations, particularly as integrated systems, finding solutions to fit everyone's needs.

Tailor-made

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

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

SUPPORT



SITE INSPECTION, INSTALLATION SUPERVISION.

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

SITE TEST, COMMISSIONING.

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

TRAINING



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

MAINTENANCE



PREVENTIVE MAINTENANCE

Electronic equipment and power systems, such as UPS, contain life-limited components and parts that must be replaced according to the manufacturer's specifications. To ensure optimal performance and to protect your critical application from potential downtime, it is crucial to perform

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

CORRECTIVE MAINTENANCE, EMERGENCY CALL

In the event of an Emergency Call, our worldwide service network, with engineers and spare-parts stocks strategically located as close as possible to your site, guarantees a fast intervention time with 24/7/365 assistance. After connecting his laptop to your UPS, very powerful diagnostic software helps our engineer to identify the fault, thus ensuring short MTTR (Mean Time To Repair). Corrective actions are performed such as part replacement, adjustments and upgrades to return the UPS system back to normal operation.



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

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