HPi 33 EVO

Three Phase UPS
10 - 40 kW

GLOBAL SPECIALIST IN ELECTRICAL
AND DIGITAL BUILDING INFRASTRUCTURES

legrand®

SUSTAINABILITY

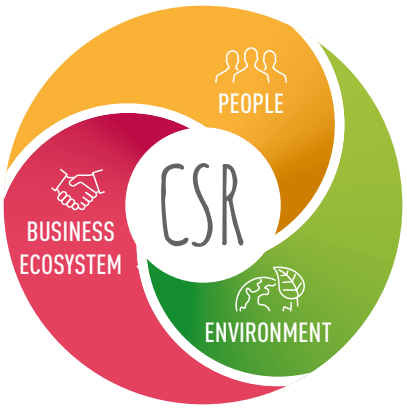
Corporate Social Responsibility

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.

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.



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.

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 CO_2 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.

L'EPD/PEP

For each product family 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.

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THE EVOLUTION IS HERE

At Legrand, we have always been driven by need-based innovations and smart solutions that addresses the changing needs of our customers. Our all new HPi 33 EVO is the result of this constant drive to offer you the best solutions with respect to maximum power availability, reliability and high efficiency.

HPi 33 EVO is a true online double conversion UPS with APFC PWM IGBT based design that delivers unity output power factor. It supplies a rated output power of 10-40 kW with kVA = kW. With up to 95% efficiency, HPi 33 EVO helps users have lowest total cost of ownership. HPi 33 EVO offers a seamless power protection solution and is ideally suited for mission critical applications in IT, ITeS, infrastructure, education, manufacturing, healthcare, small and medium data centers.

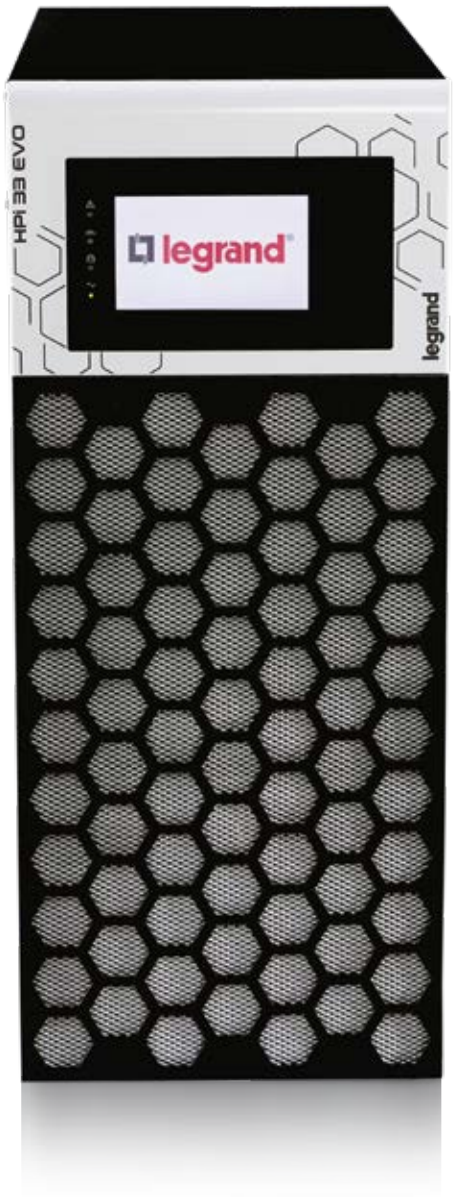
Evolution In PERFORMANCE

HPi 33 EVO is designed to provide a true evolution in high performance. It comes with an IGBT rectifier and inverter which delivers quality and efficient power output, making it an ideal choice for your mission critical applications. The power architecture is designed to offer maximum active power, up to 95% efficiency and a low THDi. The intelligent fan operation ensures optimal cooling by automatically regulating the temperature resulting in reduced operational costs and high efficiency levels.

Unity Power Factor

Low Harmonics

Up to 95% Efficiency



Optimal Cooling

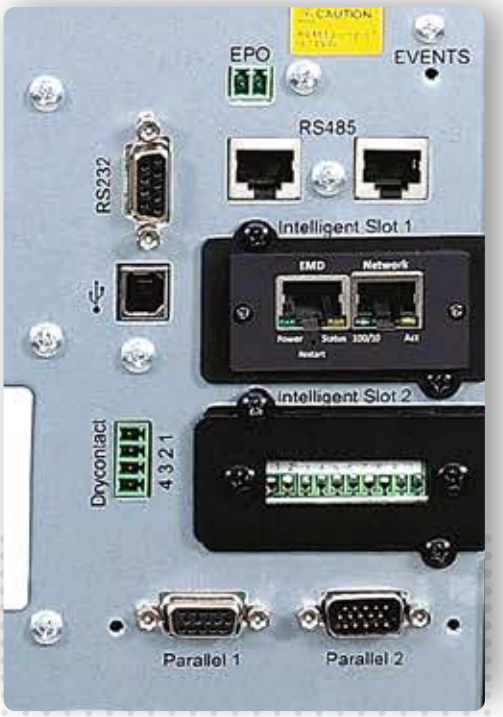
IGBT Rectifier

Evolution In
EASE OF USE

The 5” intuitive display is extremely user-friendly and helps in monitoring various system parameters like I/O voltage, battery parameters, output power/load PF, mimic power flow diagram, and history logs with ease. Designed to use up to 30% less space, the HPi 33 EVO has a compact footprint, results in significant reduction in real estate costs. It is also equipped with a wide range of external monitoring options like Simple Network Management Protocol (SNMP), Modbus, RS 232 and USB etc., which enables a user to remotely manage the UPS. These aspects of HPi 33 EVO represent an evolution in ease of use and contribute to its overall functionality.

Compact Footprint

Network Management Options



Evolution In **FLEXIBILITY**

HPi 33 EVO allows N+X redundancy up to 4 UPSs in parallel operation, effectively reducing the risk of downtime. Additionally, it can be scaled up to 2 units in parallel with a common battery configuration to achieve increased reliability, efficient load sharing and highest power availability. Evolution in flexibility is also achieved by an advanced battery management function which enables users to optimize the performance and lifespan of the battery system. A flexible DC Bus provides a wide battery operating window and enables scalability of the system.

N+X Redundancy

Common Battery Configuration

Advanced Battery Management

Temperature Compensated Battery Charger

Selectable & Adjustable Battery Charging Current

Flexible DC Bus

Evolution In PROTECTION

When it comes to evolution in protection, the HPi 33 EVO scores on several fronts. The UPS is equipped with a dust filter which helps in protecting the UPS from dust particles.
A wide input voltage window enables it to operate within a broad range of input voltages, ensuring reliable performance and protection of connected equipment. The conformal coated PCBs provide protection against environmental factors, preventing corrosion and electrical failures, thereby increasing the reliability and longevity of the UPS. A built in phase reversal protection and correction system along with built in input, output and MBS switches ensure added protection to the equipment.

Phase Reversal Correction

Wide Input Voltage Window

Dust Filter

Built-in Input, Output And MBS Switches

Conformal Coated Boards

HPi 33 EVO 10 - 40 kW

Three Phase UPS

PID No.	LGR 311400	LGR 311401	LGR 311402	LGR 311403
Rating	10 kVA	20 kVA	30 kVA	40 kVA
General Characteristics				
Nominal power (kVA)	10 kVA	20 kVA	30 kVA	40 kVA
Active power (kW)*	10 kW	20 kW	30 kW	40 kW
Technology	Online double conversion VFI-SS-111			
Waveform	Pure sinewave			
Architecture	Monolithic UPS parallelable upto 4 units			
Input Characteristics				
Input voltage	380/400/415 VAC - 3PH + N + Earth			
Input frequency	45 - 55 Hz			
Input voltage range	320 VAC - 476 VAC			
Input THDi	< 4% @ Rated linear load	< 3% @ Rated linear load		
Input PF	> 0.99 @ Rated linear load			
Output Characteristics				
Output voltage	400 VAC +/- 1% 3-Ph + N + E (Settable to 380/400/415 VAC)			
Efficiency in double conversion mode	Upto 93%	Upto 94%		Upto 95%
Output frequency (nominal)	50 Hz/60 Hz			
Crest factor	3:1			
Overload capacity at online mode	Upto 110% for 1 hour, 125% for 10 min & 150% for 1 min			
Overload capacity at bypass mode	Upto 110% continuous & > 150% for 10 ms			
Efficiency in ECO mode	> 98%			

Battery Characteristics		
Battery type	VRLA, LiB	
Internal/External batteries	External	
Battery nominal VDC	240 VDC	480 VDC
Common battery configuration	Yes upto 2 UPS's	
Communication and Management		
Display	5'' Touch screen LCD display to monitor UPS status in real time	
Communication port	RS232, RS485, Relay contact	
Network interface	Optional with SNMP	
REPO	Yes	
Alarms & Signals	All the required alarms & signals	
Physical Characteristics		
Unit dimensions (W x H X D)	250 x 660 x 590 in mm	
Unit net weight	50 Kgs	
Environmental Characteristics		
Operating temperature	0-40°C	
Degree of protection	IP20	
Relative humidity(%)	0-95% (non condensing)	
Noise level at 1m (dbA)	Max 65 dbA at 100% load	
Standards & Certifications		
Safety	IEC 62040-1	
EMC	IEC 62040-2	
Performance & testing	IEC 62040-3	
Other	CE, RoHS & PEP**	

*at 35 degree celsius. **application under process.
General tolerance +/- 2mm
Note: Product specifications are subject to change due to continous development. Please ask for confirmation given in the publication.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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

SERVICE

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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