ARCHIMOD
HE 240/480

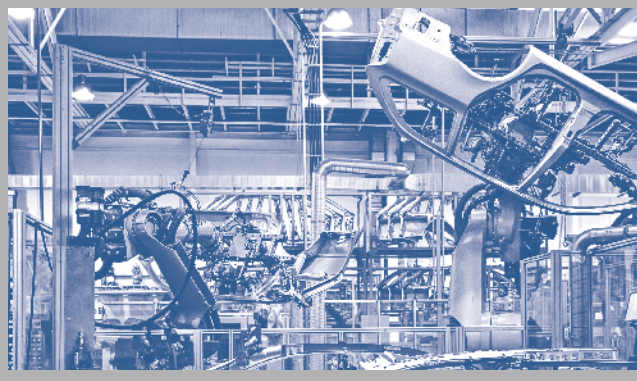
HIGH POWER MODULAR UPS

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

legrand

UPS

superior performance
continuity of service
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 in order to address a constantly changing market, Legrand is now offering its new range of UPS systems and additional functions to ensure maximum continuity of service for all installations.

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HE 240/480

FULLY INTEGRATED
HIGH POWER SOLUTIONS

Advanced technology

The connections between the UPS and the distribution enclosure can be integrated in the same solution, making installation easier and tidy.

Visual & technical coordination

The new ARCHIMOD HE 240/480 is available in 2 colours (RAL7016-RAL7035), with the same aesthetics as the front panel of LEGRAND distribution enclosures.

Turnkey solutions

Legrand offers a fully coordinated UPS and power distribution switchboard range; one single supplier for any secure power need.

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THE GRANULAR PARALLEL ARCHITECTURE

ARCHIMOD HE is made up of many individual redundant and «self-configuring» single-phase modules

Thanks to load sharing, the overall load is equally shared between the power modules and in the event of failure, the system still works

Different numbers of power modules can create a huge range of configurations and redundancy levels

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BENEFITS OF THE **GRANULAR** SYSTEM

SIMPLIFIED INSTALLATION

INCREASED FLEXIBILITY

INCREASED CONTINUITY OF SERVICE

The ARCHIMOD HE240/480 granular architecture simplifies all phases including assembly, maintenance and future expansion. This innovative design allows maximum continuity of service to obtained, especially for critical applications.


PLUG-IN AND HOT SWAP SYSTEM
HIGHEST REDUNDANCY LEVEL
INDEPENDENT BATTERY SYSTEMS
MULTI OUT CONFIGURATION
"ON SITE" SCALABILITY
DUAL INPUT SOLUTION

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THE **GRANULAR** UPS SYSTEM UP TO 480 KW

high performance
POWER FACTOR **1**

Thanks to their unity power factor the new ARCHIMOD HE UPS systems guarantee maximum real power; 11% more than rival products offering 0.9 power factor, and at least 25% more than those with 0.8 power factor.

high efficiency
96%

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

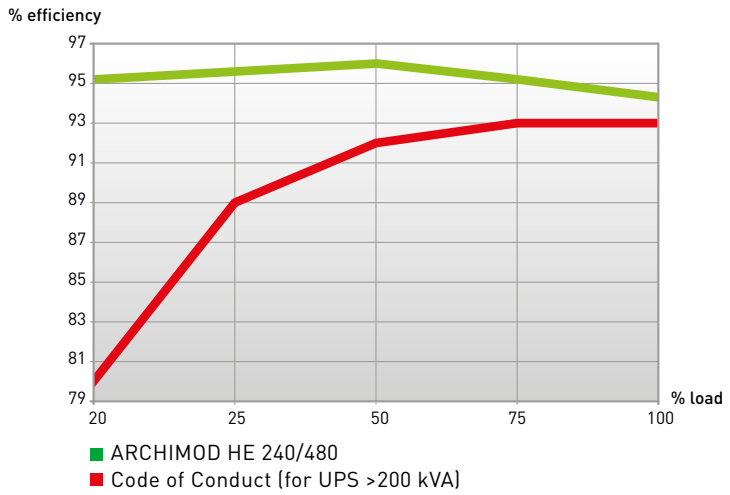
low environmental impact
↘TCO

Combining high density with a structural design that optimises the space, the new ARCHIMOD HE system is the ideal solution for advanced energy management and reduced total cost of ownership (TCO).

CERTIFIED EFFICIENCY
One of the highest values on the market

SIQ

ARCHIMOD HE'S 96% efficiency, one of the highest on the market, has been externally certified by the SIQ.The European Code of Conduct requires a minimum value of 92%. So ARCHIMOD HE is up to 4% more efficient, thus effectively halving all UPS energy losses.



LEGRAND'S MODULAR UPS KNOW-HOW GOES BACK MORE THAN 20 YEARS, TO WHEN THE VERY FIRST MODULAR UPS WERE INTRODUCED IN 1993. SINCE THEN, CONTINUOUS FIRMWARE DEVELOPMENT AND RESEARCH INTO CONTROL AND HARDWARE COMPONENTS HAVE LED TO CONTINUOUS IMPROVEMENTS IN SYSTEM RELIABILITY, QUALITY AND TECHNICAL PERFORMANCE.

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THE **MODULAR** ARCHITECTURE

Power modules

Each power module is a single UPS with nominal power of 6.7 kW, extremely compact and easy to handle (weighing only 8.5 kg). They have a plug-in hot swap system and work in parallel with all the modules present to ensure optimum system performance. The power module is the same for all ranges from 20 to 480 kW.

Control drawer

Each control drawer manages up to 18 power modules (for the 480 kW); it contains the control boards and has a drawer stop to prevent it being pulled out too far. The front panel has a diagnostic multicoloured LED for instant visual communication that of the UPS status and of all communication ports: SNMP slot, logic level and RS232 communication port and 5 volt-free contacts.

Switches

The UPS is provided with two input switches. These two switches are bridged by default but the connection can easily be removed to obtain two independent input lines. On the front of the UPS there is also a switch for the manual bypass and one for the output.

Space for handling

The UPS is easily handled by a standard manual forklift through dedicated openings in all four sides.

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FRONT-ACCESS
INSTALLATION

AS A LEADING MANUFACTURER OF POWER DISTRIBUTION ENCLOSURES, LEGRAND IS FULLY AWARE OF THE INSTALLATION REQUIREMENTS OF THESE SYSTEMS. THE ARCHIMOD HE240/480 RANGE HAS BEEN DEVELOPED TO SIMPLIFY ALL PHASES OF INSTALLATION, POSITIONING AND CONNECTION. THE UPS IS DESIGNED WITH A LARGE AMOUNT OF AVAILABLE SPACE FOR CABLE ENTRY AND BENDING.

Dedicated connection solutions

The connection cabinet has been designed to fit several cables with a large cross-section. The switches are fitted with special terminals to simplify connection of the cables.

User-friendly interface

The display position makes it easy to read and navigate the menu. All communication ports are fitted on the front panel below the display, allowing faster control and testing. A cable management system is available for the communication cables. An acoustic signal and high-visibility flashing on the backlit front panel ensure that any alarm signal is noticed immediately. The signals can be split into various categories according to their severity.

Designed to fit any location

Compact and lightweight components simplify and optimise the installation in any location.
The structure without the power modules weighs only 300 kg, making it easy to position the UPS in the equipment room or in its final destination.

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EASY
FRONT
MAINTENANCE

One power module throughout the range

Archimod HE 240/480 uses the same Power Modules as Trimod HE and Archimod HE, offering to significant advantages in terms of maintenance.
First of all, there is just one spare part, the Power Module itself, that can be replaced by a single technician in less than 5 minutes, ensuring the maximum MTTR (Mean Time To Repair).
Secondly, if several UPS systems are installed on the same site, there is a possibility of sharing the stock of spare parts, minimising its cost and any stock control issues. And thirdly, being replaceable from the front, the Power Modules do not require any side access to the UPS, ensuring safe maintenance even in very small rooms.

Visual and mechanical safety

The status of the switches is always visible via the position of the handle.
When the switches are closed the handle prevents the wiring cabinet from opening, ensuring complete safety of operation.

Front access to the control boards

Like the Power Modules, the Control Boards can also be replaced from the front.
The technician just needs to have front access to the ARCHIMOD HE 240/480 in order to be able to work on the control boards.
This ensures safety for the operator and optimum maintenance results for the user.

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HE 240/480

FLEXIBLE
SOLUTIONS

Many possible configurations

Scalable solution
from 20 kW up to 240 kW

Scalable solution
from 20 kW up to 480 kW

USING THE ARCHIMOD HE 240/480 GRANULAR PARALLEL ARCHITECTURE YOU CAN PROGRAM SEVERAL TYPES OF CONFIGURATION AND SET VARIOUS REDUNDANCY LEVELS TO ENSURE MAXIMUM CONTINUITY OF SERVICE FOR ALL INSTALLATIONS.

High levels of redundancy

Standard operation

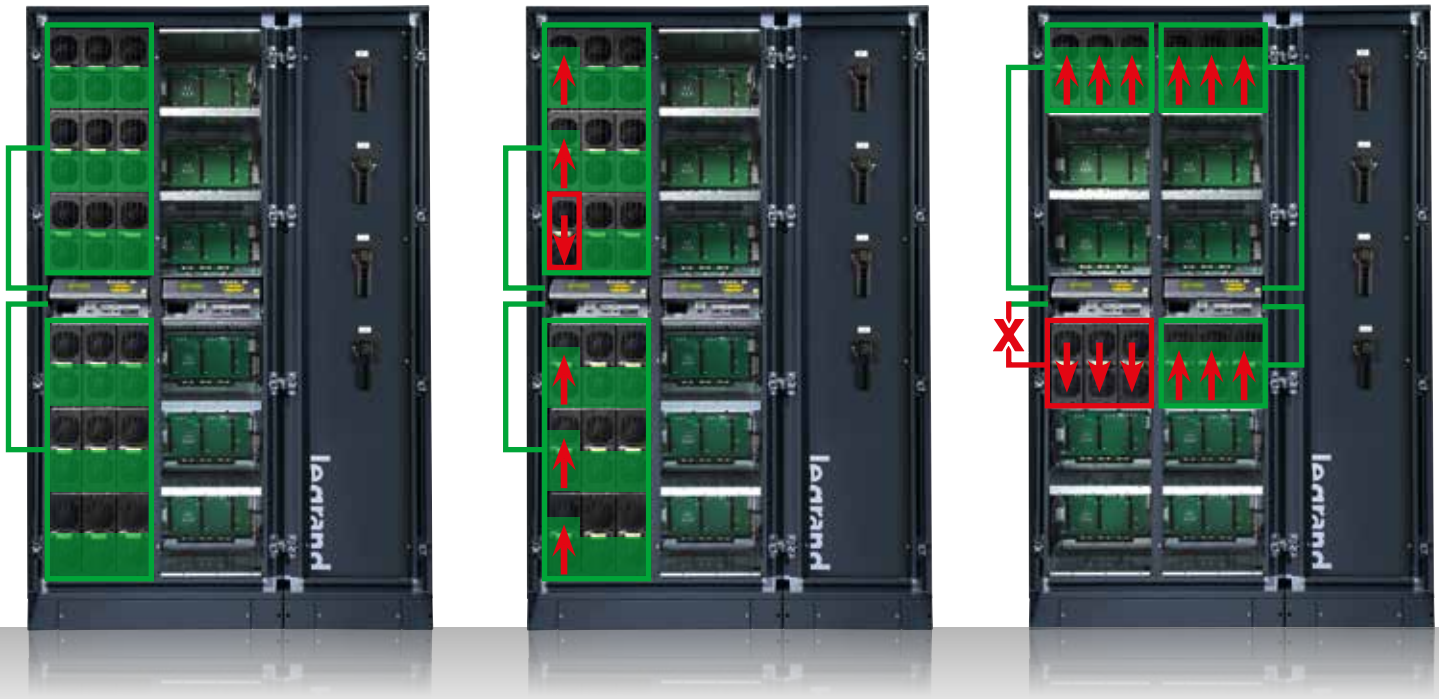
We can achieve redundancy thanks to load sharing; the overall load is equally shared between the power modules and in the event of failure the operational modules will back up the faulty one.

Redundancy on the phases

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

Redundancy on the control

In UPS systems incorporating several control modules, failure of one of the control boards results in the modules it controls being switched off. However, continuity of service is assured by automatic distribution of the lost power over the other modules.



ARCHIMOD HE 240/480

Double conversion VFI three-phase modular UPS

3 104 75

3 108 73

Cat. Nos.	Empty preconfigured cabinets		
	The cabinets are supplied empty and are preconfigured for the power and capacity indicated in the table		
	Nominal power kW	Number of Installable power modules	Number of phases
3 104 75	240	36	3-3
310476 + 310477*	480	72	3-3

* ordered both

	Communication accessories
	Description
3 108 81	PROFESSIONAL network interface, internal version (card)
3 108 82	STANDARD network interface, internal version (card)
3 109 07	INDUSTRIAL network interface, internal version (card)

	Accessories
	Description
3 108 73	6.7 kW power module
3 108 51	Additional charger module
0 205 82	Set of 4 lifting rings
3 108 66*	3 covers for empty power module slot

* Always be used when there are empty slots.

Examples of configuration

ARCHIMOD HE160
Power: 160 kW scalable up to 240
1 Distribution cabinet
24 Power modules
4 covers for empty
power module slot

ARCHIMOD HE240
Power: 240 kW
1 Distribution cabinet
36 Power modules

ARCHIMOD HE320
Power: 320 kW
scalable up to 480
1 Distribution cabinet
48 Power modules
6 covers for empty
power module slot

ARCHIMOD HE480
Power: 480 kW
1 Cabinet
72 Power modules
1 Distribution cabinet

ARCHIMOD HE 240/480

Double conversion VFI three-phase modular UPS

Characteristics

General characteristics	3 104 75	310476 + 310477
Nominal power (kW)	240	480
Module power (kW)	6.7 per power module (20 kW with 3 modules), cosφ 1	
Technology	On-line double conversion VFI-SS-111	
System	Modular, expandable and redundant system in a single cabinet	
Input characteristics		
Input voltage	380, 400, 415 3PH+N+PE	
Input frequency	45-65 Hz (autosensing)	
Input voltage range	+ 15%/- 20%	
THD of input current	‹ 3%	
Compatibility with gensets	Configurable for synchronisation between the input and output frequencies, even for the highest frequency ranges, ± 14%	
Input power factor	› 0.99	
Output Specifications		
Output voltage	380, 400, 415 3PH+N+PE	
Efficiency	Up to 96%	
Nominal output frequency	50/60 Hz	
Peak factor	3.5:1	
Tolerance on output voltage	±1%	
Permitted overload	10 minutes at 115% and 60 seconds at 135%	
Efficiency in Eco mode	99%	
Bypass	Static, electromechanical and maintenance bypass	
Batteries		
Battery range type/voltage	VRLA - AGM/252 VDC	
Backup time	Configurable and extendable, with additional battery cabinets	
Battery charging	Smart Charge technology 3-step advanced cycle	
Communication and management		
Screen and signalling	For each control drawer, 1 display with 4 x 20-character lines, 4 menu navigation buttons, multi-coloured LED status indicator	
Communication ports	2x RS232 communications port, 2x 5 volt-free contacts 2x logic level port, N.2 SNMP slot	
Back-feed protection	N/C + N/O auxiliary contact	
Emergency stop	Yes	
Physical characteristics		
Dimensions (W x H x D) (mm)	1350 x 2050 x 750	820 x 2050 x 750 + 1650 x 2050 x 750
Installable power modules	up to 36	up to 72
Installable battery modules	-	-
Net weight (kg) *	440	256 + 610
Ambient conditions		
Operating temperature/humidity	0 - 40°C / 0 - 95% non condensing	
Protection index	IP 21	
Maximum noise audible at 1 m (dBA)	<80	
Conformity		
Certifications	EN 62040-1, EN 62040-2, EN 62040-3	

* empty without power module

CUSTOMER SERVICES

Reliable

Present in more than 70 countries and able to service Legrand products in more than 150 countries worldwide, a team of qualified engineers is available 24/7/365 to support your UPS system, ensuring power quality and availability for 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 the products required for electrical and digital building installations, particularly in the form of integrated systems, finding solutions to fit everyone's needs.

Tailor-made

Legrand offers a complete range of special 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 response to emergency calls

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 the manufacturer's recommendations to the site engineer or electrical contractors, and supervise the UPS installation before powering up the load.

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 trouble-free 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 works safely and efficiently.
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 need to be replaced according to the manufacturer's specifications.
To ensure optimum 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.
Taking out a Preventive Maintenance Plan is an extremely cost-effective action 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 part stocks strategically located as close as possible to your site, guarantees a fast response 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 to normal operation.

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