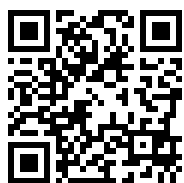


# ARCHIMOD HE 240/480

HIGH POWER  
MODULAR  
UPS

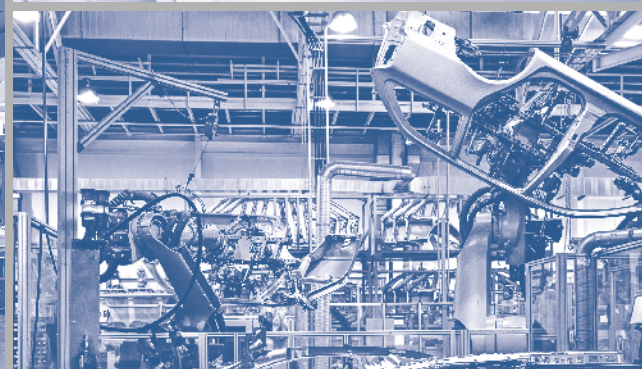


THE GLOBAL SPECIALIST  
IN ELECTRICAL AND DIGITAL BUILDING INFRASTRUCTURE

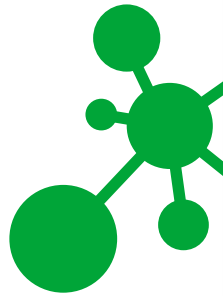


# UPS

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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# ARCHIMOD HE 240/480

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# 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.



# ARCHIMOD HE 240/480



## THE **G**RANULAR **P**ARALLEL **A**RCHITECTURE



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



# ARCHIMOD HE 240/480



## BENEFITS OF THE **GRANULAR** SYSTEM



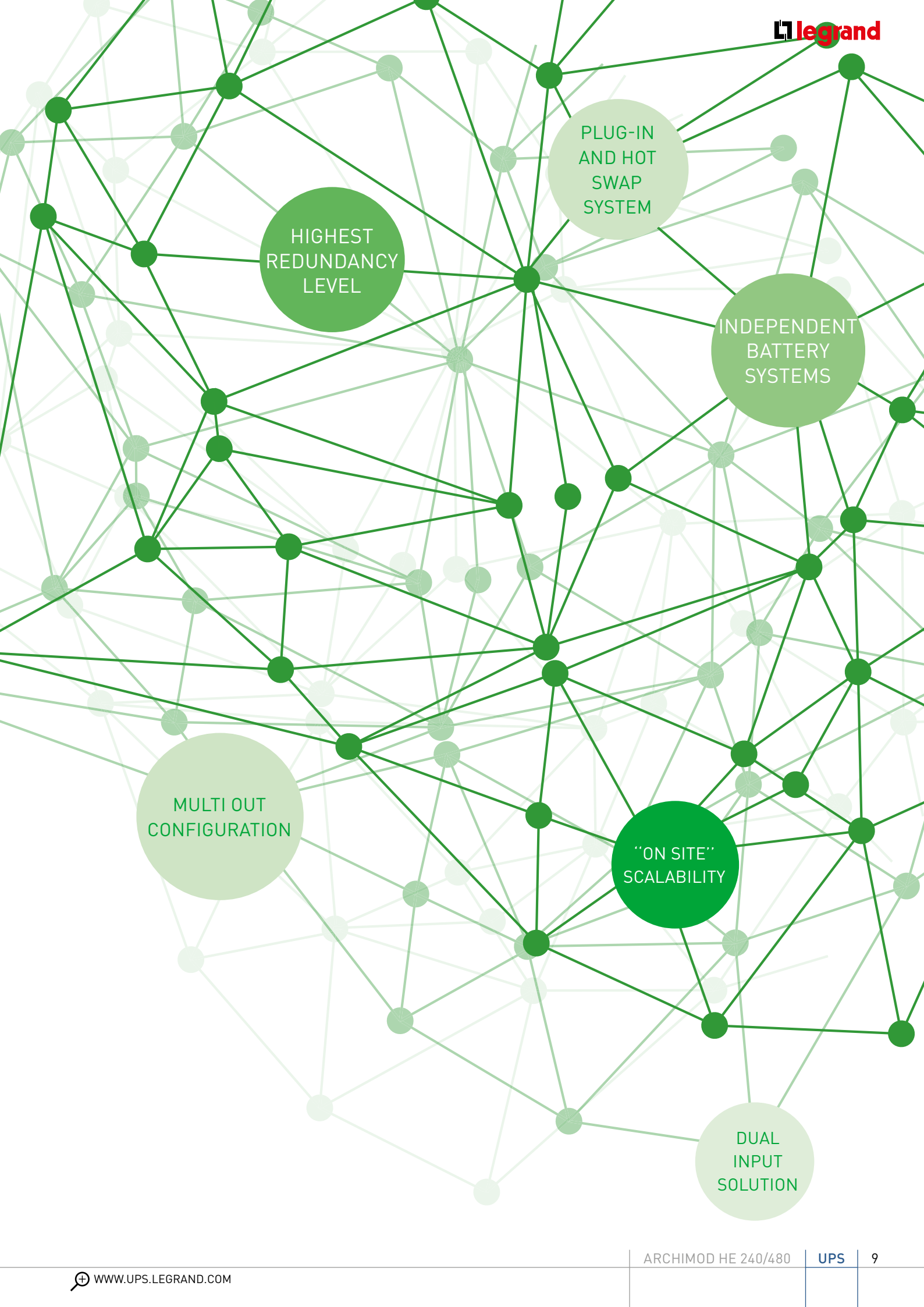
SIMPLIFIED  
INSTALLATION

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 be obtained, especially for critical applications.





HIGHEST  
REDUNDANCY  
LEVEL

PLUG-IN  
AND HOT  
SWAP  
SYSTEM

INDEPENDENT  
BATTERY  
SYSTEMS

MULTI OUT  
CONFIGURATION

"ON SITE"  
SCALABILITY

DUAL  
INPUT  
SOLUTION

# ARCHIMOD HE 240/480



## 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**

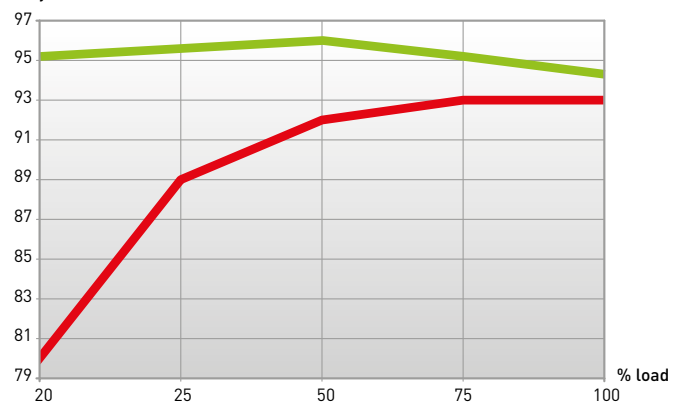
Combining high density with a structural design that optimises the space, the new ARCHIMOD HE system is the ideal solution for advanced energy management and reduced total cost of ownership (TCO).

### CERTIFIED EFFICIENCY One of the highest values on the market




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.

% efficiency



■ ARCHIMOD HE 240/480  
■ Code of Conduct (for UPS >200 kVA)



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.



# ARCHIMOD HE 240/480



## 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.



# ARCHIMOD HE 240/480

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## FRONT-ACCESS INSTALLATION

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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.

# ARCHIMOD HE 240/480



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.

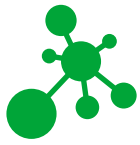
The technician just needs to have front access to the ARCHIMOD HE 240/480 in order to be able to work on the control boards.

This ensures safety for the operator and optimum maintenance results for the user.



# ARCHIMOD HE 240/480

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**FLEXIBLE**  
SOLUTIONS

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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

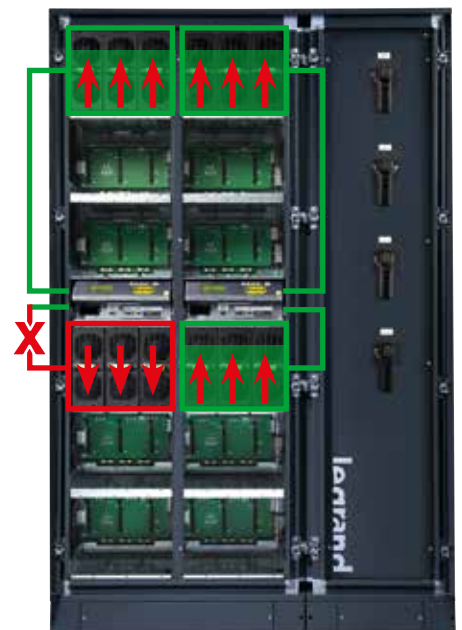
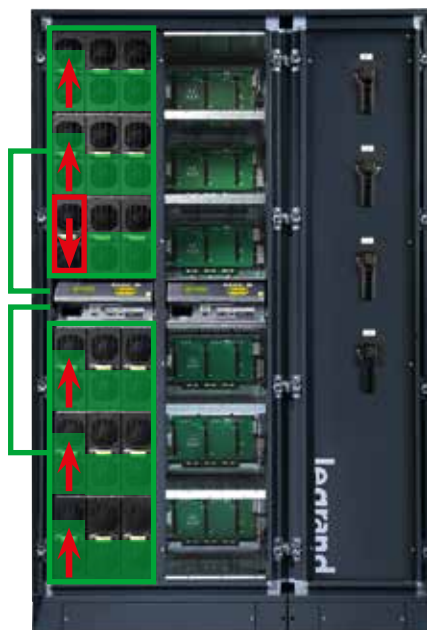
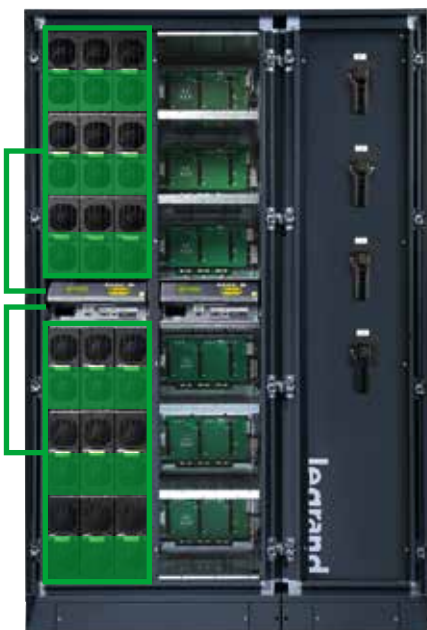
We can achieve redundancy thanks to load sharing; the overall load is equally shared between the power modules and in the event of failure the operational modules will back up the faulty one.

### 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
<b>3 104 75</b>	240	36	3-3
<b>310476 + 310477*</b>	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), $\cos\phi$ 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, $\pm$ 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	$\pm$ 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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