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ARCHIMOD HE

HIGH EFFICIENCY MODULAR UPS

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

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legrand®

ARCHIMOD HE

HIGH performance
HIGH efficiency
LOW ENVIRONMENTAL impact

THE TECHNOLOGY EVOLUTION

Legrand's modular UPS know-how goes back more than 20 years, when the first ever modular UPS were introduced in 1993.
Since then, continuous firmware development and research on control and hardware components have led to no stop improvements in system reliability, quality and technical performance.

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

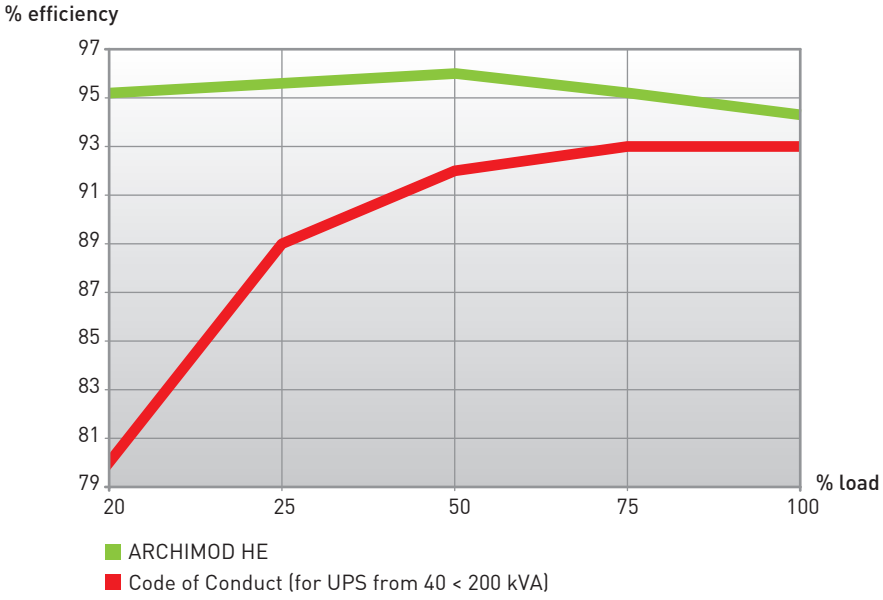
Combining high density with a structural design that optimises the space, the new ARCHIMOD HE systems is the ideal solution for advanced energy management and cost containment.

INCREASED POWER

Thanks to their unity power factor the new ARCHIMOD HE 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.

kVA = kW

POWER FACTOR 1



GREATER EFFICIENCY

ARCHIMOD HE'S 96% efficiency, one of the highest in the market, is 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 dividing by 2 all UPS energy losses.

SIQ

96%

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MODULAR ARCHITECTURE UPS

ARCHIMOD HE: expandable, modular architecture UPS, power from 20 to 120 kVA, in a 19 rack cabinet.

The system comprises a set of standard, pre-assembled components which simplify and optimise the design and building of critical power infrastructures.

The innovative modular design of these UPS means that the availability of the power can be optimised, the flexibility of the system increased and the total cost of ownership (TCO) reduced.

1 Control module

Equipped with a microprocessor, it manages 3 power modules. If it is used with a power expansion module, it can manage up to 6 power modules, thus increasing the power from 20 to 40 kVA.
It has a screen and a multifunction keypad for monitoring the operating parameters of the UPS and for configuring numerous functions.
It can be connected in parallel to other control modules and used with power expansion modules.
The front panel has a backlit status indicator for immediate checking of the operating status of the system and an RS 232 port for connecting a PC for maintenance.

2 Power modules

The power modules (nominal power 6.7 kVA) are extremely compact and easy to handle. They have a plug-in hot swap system, making them quick to install and maintain. They work in parallel with all modules that are present to ensure optimum system performance.

3 Power expansion module

This must be used with a control module.
It increases the power from 20 to 40 kVA and can be used to establish individual redundancy on each phase.

4 Battery modules

Each module contains batteries that can be connected in series, forming separate strings each with a very low safe DC voltage. The compactness and functionality of the single (plug-in) module make it easy to handle, and expansion operations are possible without any modification of the structure of the installed system.

5 Distribution module

This is used to configure the distribution type of the UPS (three-phase/three-phase, three-phase/single phase, single phase/single phase or single phase/three-phase). It has I/O connection blocks, handling and protection devices, and the connection for additional battery cabinets. The power supply can be configured on two separate input sources (main and backup).

6 Cable entry

Special sleeves enable entry and exit of the input and output cables, via the top and via the bottom.

ARCHIMOD HE

EXPANDABLE
SCALABLE
VERSATILE

The power can be increased very quickly and easily inside the cabinet itself, without the need to reconfigure the installation or the UPS.

ARCHIMOD HE 20 | ARCHIMOD HE 40 | ARCHIMOD HE 60 | ARCHIMOD HE 80 | ARCHIMOD HE 100 | ARCHIMOD HE 120

Extending the backup time

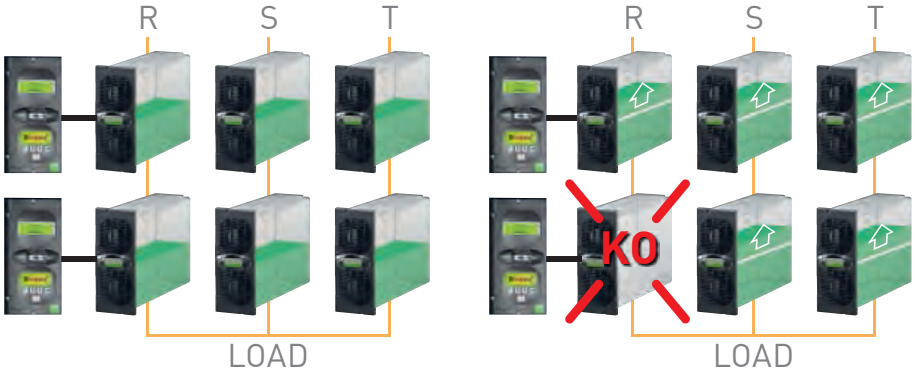
The backup time can be extended either by adding battery trays in the same cabinet or by adding another battery cabinet, depending on the power of the UPS and the backup time required. Non-modular compact battery cabinets are also available for extending the backup time to several hours.

HIGH LEVELS of REDUNDANCY

Thanks to the construction technology of the ARCHIMOD HE UPS systems, you can set various redundancy levels so that maximum service continuity is always guaranteed.

Redundancy on the 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.

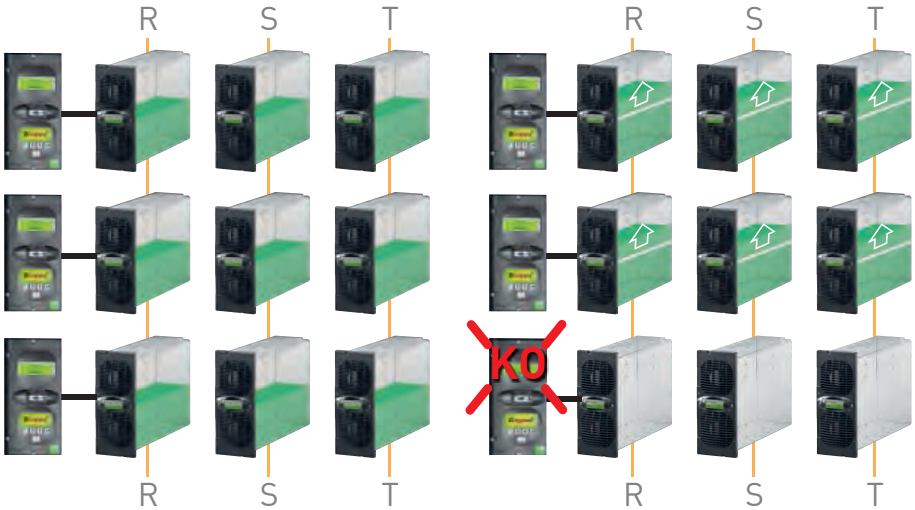


Redundancy on the phases

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 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.



ARCHIMOD HE

Double conversion VFI three-phase modular UPS

3 103 61

3 108 55

3 104 73

Pack	Cat. Nos.	CONFIGURABLE CABINETS The cabinets are supplied empty and are preset for the power and capacity indicated in the table				
		NOMINAL POWER (kVA)	NUMBER OF BATTERY MODULES	NUMBER OF CONTROL MODULES	NO. OF POWER EXPANSION MODULES	NUMBER OF PHASES
	3104 59	20	30	1	-	1-1/3-3/3-1/1-3
	3 104 60	40	24	2	-	1-1/3-3/3-1/1-3
	3 104 61	60	18	3	-	3-3
	3 104 62	80	-	4	-	3-3
	3 104 63	100	-	3	2	3-3
	3 104 64	120	-	3	3	3-3

	ADDITIONAL CABINETS FOR BATTERIES	
		DESCRIPTION
	3 108 18	Empty modular battery cabinet
	3 108 21	Battery cabinet for 20 kVA UPS with 21 x 94 Ah long life batteries
	3 108 22	Battery cabinet for 200-60 kVA UPS with 21 x 94 Ah long life batteries
	3 108 23	Battery cabinet for 80 kVA UPS with 21 x 94 Ah long life batteries
	3 108 24	Battery cabinet for 100-120 kVA UPS with 21 x 94 Ah long life batteries
	3 108 65	Cover for empty battery slot
	3 108 66	Cover for empty power module slot

	ACCESSORIES	
		DESCRIPTION
	3 108 73	6.7 kVA power module
	3 108 76	kit of 3 x long life battery trays
	3 108 64	Front/rear door
	3 108 55	Kit of 3 x 9 Ah battery trays
	3 108 56	Kit of 3 empty battery trays
	3 108 51	Additional charger module

CONFIGURATIONS

20
Power: 20 kVA
Backup time: 65 min
1 Cabinet
1 Control module
3 Power modules
30 Battery modules
1 Distribution module

40
Power: 40 kVA
Backup time: 21 min
1 Cabinet
2 Control modules
6 Power modules
24 Battery modules
1 Distribution module

60
Power: 60 kVA
Backup time: 8 min
1 Cabinet
3 Control modules
9 Power modules
18 Battery modules
1 Distribution module

80
Power: 80 kVA
Backup time: 14 min
2 Cabinets
4 Control modules
12 Power modules
36 Battery modules
1 Distribution module

100
Power: 100 kVA
Backup time: 10 min
2 Cabinets
3 Control modules
2 Power expansion modules
15 Power modules
36 Battery modules
1 Distribution module

120
Power: 120 kVA
Backup time: 8 min
2 Cabinets
3 Control modules
3 Power expansion modules
18 Power modules
36 Battery modules
1 Distribution module

NOTE: The backup times, expressed in minutes, are measured under optimum operating conditions.

New product codes in red, **codes for products that are normally available in stock in bold**

ARCHIMOD HE

Double conversion VFI three-phase modular UPS

Cat. Nos.	3 104 59	3 104 60	3 104 61	3 104 62	3 104 63	3 104 64
General characteristics						
Nominal power (kVA)	20	40	60	80	100	120
Active power (kW)	20	40	60	80	100	120
Module power (kVA)	6.7 per power module (20 kVA with 3 modules), cosφ 1					
Technology	On-line double conversion VFI-SS-111					
System	Modular, expandable and redundant system in a single cabinet, 19" rack					
Hot Swap capacity	The power and/or battery modules can be replaced without switching off the UPS					
Input characteristics						
Input voltage	380, 400, 415 3PH+N+PE (o 220, 230, 240 1PH)		380, 400, 415 3PH+N+PE			
Input frequency	45-65 Hz ± 2% autosensing					
Input voltage range	230 V + 15%/-20% 1P 400 V + 15 %/-20% 3P		400 V +15%/-20% 3P			
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 characteristics						
Output voltage	380, 400, 415 3PH+N+PE (o 220, 230, 240 1PH)		380, 400, 415 3PH+N+PE			
Efficiency	Up to 96%					
Nominal output frequency	50/60 Hz ± 0.1					
Peak factor	3.5:1					
Tolerance on output voltage	±1%					
Permitted overload	10 minutes at 113% and 60 seconds at 135%					
Efficiency in Eco mode	99%					
Bypass	Automatic and maintenance bypass					
Batteries						
Battery modules	The battery modules are designed for easy insertion in the cabinet. No special operation is required to connect them					
Battery range type/voltage	VRLA - AGM/252 VDC					
Backup time	Configurable and extendable, both internally and with additional battery cabinets					
Battery charging	Smart Charge technology 3-step advanced cycle					
Communication and management						
Screen and signalling	4 x 20-character lines, 4 menu navigation buttons, multi-coloured LED status indicator					
Communication ports	For each control module: 2 x RS232 serial ports, 1 logic level port, 5 volt-free contact ports, 2 slots for SNMP interfaces (optional)					
Back-feed protection	N/C + N/O auxiliary contact					
Emergency stop	Yes					
Remote control	Available					
Physical characteristics						
Dimensions (H x W x D) (mm)	2080 x 570 x 912 (42 U)					
Installable power modules	3	6	9	12	15	18
Installable battery modules	Up to 30	Up to 24	Up to 18	-	-	-
Net weight (kg)	205	240	276	272	318	364
Ambient conditions						
Operating temperature/humidity	0 - 40 °C / 0 - 95% non condensing					
Protection index	IP 21					
Maximum noise audible at 1 m (dBA)	50 to 65					
Conformity						
Certifications	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 ARCHIMOD HE 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

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 ARCHIMOD HE, 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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