1. GENERAL SPECIFICATIONS

The Legrand ARCHIMOHE model 40, is an UPS on line double conversion with PWM Hi-Frequency technology. It has passing trough neutral and Modular Architecture with the possibility to have N+X redundancy. The nominal power is 40 kVA – 40 kW.

1.1 Modularity

The UPS ARCHIMOHE 40 has modular architecture, it is composed by identical modules which work in parallel. Modules are:
- Power Modules 6,7 kVA;
- Battery Drawers of seven batteries (9Ah).

These modules are installed inside the UPS and have identical functions.

Power Modules are composed by the following circuits:
- Rectifier/PFC
- Inverter
- Battery Charger
- Command Logic circuit
- Automatic By-pass

Battery drawers contain 7 batteries, and are easy to be move and replace.

1.2 Adaptability

The UPS can be easily configured on site, by the user, to work as three-phase or single phase either in input than output.

1.3 Scalability

The modularity of ARCHIMOHE UPS allows to execute Power and Autonomy upgrade. Thanks to the intelligent Plug N' Play connection, no HW and SW settings are needed to increase or decrease the power or the autonomy.

1.4 Redundancy

The modularity of the UPS allows the N+X redundant configurations. The Redundancy is achieved using more modules than needed, modules will run in “load sharing”.

1.5 Architecture

The UPS ARCHIMOHE 40 is three-phase input and output, the architecture is distributed parallel architecture in each phase (there are more modules in the same phase).

In case of redundant configuration, whenever one module fails, the other modules in the same phase will guarantee the Energy supply and protection to the load.

The available power in each phase will be always the sum of the power of the modules installed in that phase.

1.6 Hot-plug

The UPS ARCHIMOHE 40 The power modules are independently controlled by 2 Command Tunnel. Each Command Tunnel controls, three power modules. It is possible to turn off only one command tunnel and install or replace modules inside of it, when the other tunnel is still running.

This allows the service on a part of the UPS without turn off the complete system, losing only the power of the tunnel in maintenance. In case of redundancy or scalability, the load is protected by the UPS also during the replace or upgrade of power modules.

1.7 By-pass

In each Power Module there is a static By-pass system which, in case of overload or other anomaly, automatically transfer the load to the mains.

The UPS has embedded the manual bypass for service and maintenance and it is possible to connect a dedicated bypass input line.

A dedicated software of remote monitoring and management, installed on a PC connected to the UPS, allows to check and set all working parameters of ARCHIMOHE (the same functions available on the UPS control panel) and, furthermore, to schedule and program computer remote shutdown.

Optional software (UPS SuperviSor) or Net Interface card (CS141SK) allow the multi server shutdown and UPS remote control on the LAN.

ARCHIMOHE is controlled by a main microprocessor which works together with microprocessors in each power modules; By display is possible to check all measurements, working parameters and status of the system.

Here follow the measurements and working parameters available on the display:

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current:</td>
<td>Current:</td>
</tr>
<tr>
<td>RMS value</td>
<td>RMS value</td>
</tr>
<tr>
<td>Peak value</td>
<td>Peak value</td>
</tr>
<tr>
<td>Crest Factor</td>
<td>Crest Factor</td>
</tr>
<tr>
<td>Voltage:</td>
<td>Voltage:</td>
</tr>
<tr>
<td>Ph-N RMS value</td>
<td>Ph-N RMS value</td>
</tr>
<tr>
<td>Ph-Ph RMS value</td>
<td>Ph-Ph RMS value</td>
</tr>
<tr>
<td>Bypass Line Voltage</td>
<td>Power:</td>
</tr>
<tr>
<td>Nominal (VA)</td>
<td>Nominal (VA)</td>
</tr>
<tr>
<td>Active (W)</td>
<td>Active (W)</td>
</tr>
<tr>
<td>Power Factor</td>
<td>Power Factor</td>
</tr>
<tr>
<td>Frequency</td>
<td>Frequency</td>
</tr>
</tbody>
</table>

Technical sheet: UPS-LGR-0071/GB

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1. GENERAL SPECIFICATIONS

Batteries
- Voltage
- Capacity
- Current
- History data
- Residual Capacity
- Charging status

Misc.
- Internal Temperature
- Fan Speed
- HV DC BUS Voltage

The UPS allows also the following settings by display.

Output
- Voltage
- Frequency
- Phases configuration

Input
- Enable freq. synchronizing (PLL)
- Extended synchronizing range (Extended PLL)

The UPS ARCHIMOD HE has the CE Mark accordingly with the EU Directives 2006/95, 2004/108 and it comply with following standards:
- EN 62040-1 "General rules for electric safety"
- EN 62040-2 "Electromagnetic compatibility and immunity (EMC)"
- EN 62040-3 "Performances and testing rules"

2. TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>General Specifications</th>
<th>Output with mains (AC-AC)</th>
<th>Output in battery Run (DC-AC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPS Topology</td>
<td>Nominal voltage</td>
<td>Nominal voltage</td>
</tr>
<tr>
<td></td>
<td>390, 400, 415 3ph+N+PE (220, 230, 240 1ph)</td>
<td>390, 400, 415 3ph+N+PE (220, 230, 240 1ph)</td>
</tr>
<tr>
<td>Architecture of the UPS</td>
<td>Nominal power</td>
<td>Nominal power</td>
</tr>
<tr>
<td>Modular, scalable, redundant based on 6.7kVA Power Modules</td>
<td>40.000 VA</td>
<td>40.000 VA</td>
</tr>
<tr>
<td>In/Out phase Configuration</td>
<td>Active power</td>
<td>Active power</td>
</tr>
<tr>
<td>Three-phase/Three phase (also configurable single-phase)</td>
<td>40.000 W</td>
<td>40.000 W</td>
</tr>
<tr>
<td>Neutral</td>
<td>Efficiency (VFI)</td>
<td>Voltage variation (static)</td>
</tr>
<tr>
<td>Neutral Passing through</td>
<td>96%</td>
<td>±1%</td>
</tr>
<tr>
<td>Output wave form on mains run</td>
<td>Voltage variation (dynamic 0-100%; 100-0%)</td>
<td>Voltage variation (dynamic 0-100%; 100-0%)</td>
</tr>
<tr>
<td>Sinusoidal</td>
<td>THDv on nominal power (linear load)</td>
<td>THDv on nominal power (linear load)</td>
</tr>
<tr>
<td></td>
<td>&lt; 0.5 %</td>
<td>THDv on nominal power (not linear load P=1)</td>
</tr>
<tr>
<td>Bypass type</td>
<td>THDv on nominal power (not linear load P=1)</td>
<td>THDv on nominal power (not linear load P=1)</td>
</tr>
<tr>
<td>Sinusoidal</td>
<td>&lt; 1 %</td>
<td>&lt; 1 %</td>
</tr>
<tr>
<td>Transfer time</td>
<td>Frequency</td>
<td>Frequency tolerance</td>
</tr>
<tr>
<td>Zero</td>
<td>Synchronized with input frequency</td>
<td>±1% if free run</td>
</tr>
<tr>
<td></td>
<td>Current Crest Factor</td>
<td>Overload capability</td>
</tr>
<tr>
<td></td>
<td>3:1 accordingly with IEC 62040-3</td>
<td>&gt; 10 min</td>
</tr>
<tr>
<td></td>
<td>115% load rate with no bypass intervention</td>
<td>&gt; 10 min</td>
</tr>
<tr>
<td></td>
<td>135% load rate with no bypass intervention</td>
<td>&gt; 135%</td>
</tr>
</tbody>
</table>

Battery
- Type: Lead Acid, sealed, free maintenance VRLA
- Unit Capacity: 9 Ah (12V)
- Nominal UPS Battery Voltage: 252 Volt DC
- Battery charger type: PWM Hi efficiency, one in each power module
- Charging Cycle: Smart Change technology 3-step advanced cycle
- Max Charging Current: 2.5 A each power module

Environmental specs
- Noise level @ 1m: 52 dBA
- Working temperature range: from 0°C to +40°C
- Stock temperature range: from -20°C to +50°C (excluded batteries)
- Humidity range: 0-95% not condensing
- Protection degree: IP21

Mechanical an Miscellaneous
- Net Weight without batteries: 240 kg
- Dimensions (WxHxD): 1 x (570 x 2080 x 912) (mm)
- Colour: RAL 7016
- Technology rectifier/booster/inverter: MOSFET/IGBT
- Communication Interface: Communication Interface (for each command tunnel) 2 serial port RS232, 1 logic level port, 5 Dry contacts port, 1 slot for SNMP optional interfaces
- Input/Output connections: 3Ph + N + PE
- Number of Command Tunnels: 2
- Number of Installable Power Modules: 6 of 6700 VA
- Standards: EN 62040-1, EN 62040-2, EN 62040-3

1 The weigh depends by the number of the installed batteries accordingly with the required autonomy.
2 The battery cabinet dimension can change depending battery set accordingly with the required autonomy.