

# TRIMOD HE UPS



**MODULAR**  
3-PHASE UPS  
from 10 to 80 kW

**NEW ENERGY  
TO POWER**







# POWER PARTNER

IN BUSINESS  
CONTINUITY

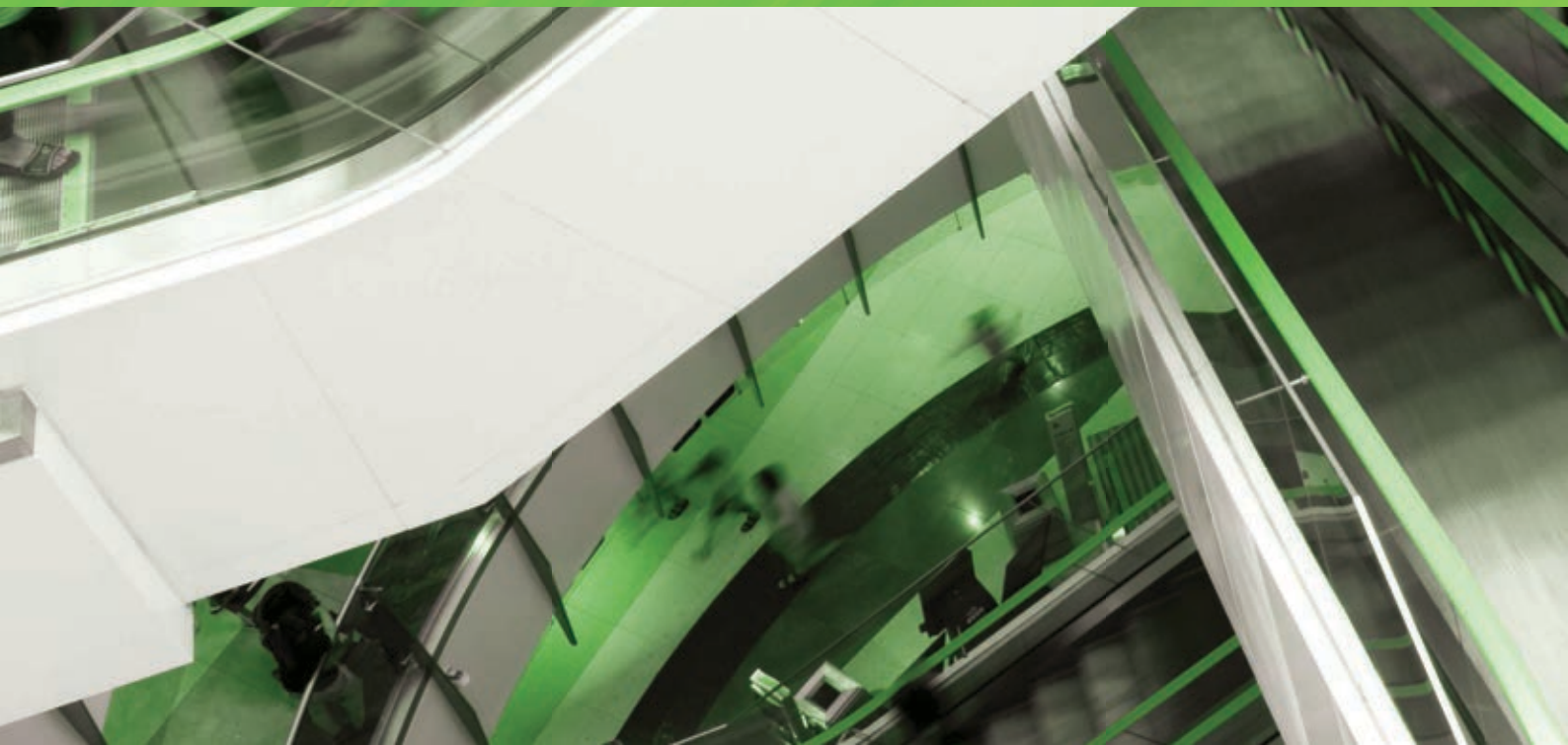
Over three decades of leadership

Among top 3 UPS companies in India

Active installation base of 1 million+ UPS systems\*

Largest pan-India service network

5 world-class manufacturing units







## WHO WE ARE

We are the trusted, reliable power partner for mission critical applications across segments like IT, Healthcare, Banking, Telecom, Industries, Government, Retail, Research and Education to name a few. We help businesses optimize their productivity by providing seamless and clean power solutions with controlled environmental footprints. We provide complete peace of mind with five world-class manufacturing units and the largest pan-India sales and service network.

Being part of the Legrand Group since 2012, has given us the advantage of a truly GLOCAL company - global technological

expertise and strong local market insights. We are the single largest source for a wide range of power conditioning solutions built with the latest technology, one that is being constantly upgraded with technological advances to meet current market needs. Keeping our UPS' humming and your mission critical applications running is the largest and widest pan-India service network of 255 direct service centres, five manufacturing units in Chennai and Sinnar that have been certified for meeting ISO 9001:2015, ISO 14001:2015 and SA 8000:2008 OHSAS 18001:2007 standards and over 900 factory trained service professionals on the field.

\*over one decade.



# TRIMOD HE

**HIGH** performance  
**HIGH** efficiency  
**LOW** environmental impact

## DEVELOPMENTS IN TECHNOLOGY

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.

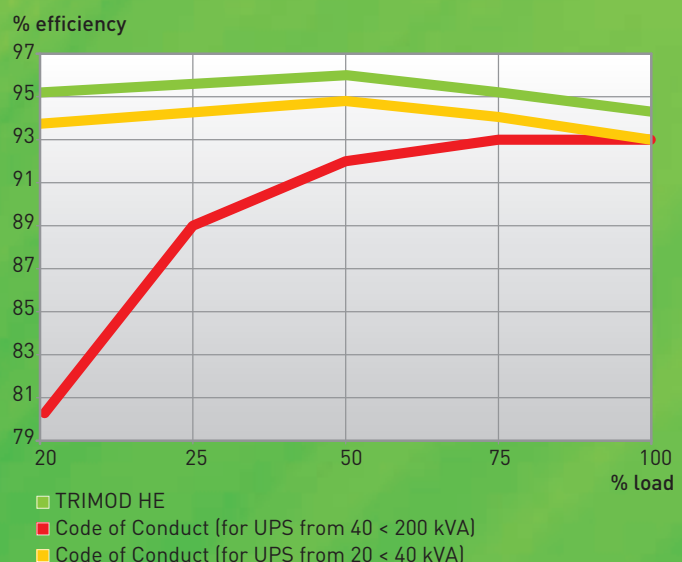
Combining high density with a structural design that optimises the space, the new TRIMOD HE systems is the ideal solution for advanced energy management and cost containment.

## CERTIFIED EFFICIENCY

One of the highest values in the market

# 96%

The European Code of Conduct requires a minimum value of 92%. TRIMOD HE is up to 4% more efficient, thus effectively dividing by 2 all UPS energy losses.



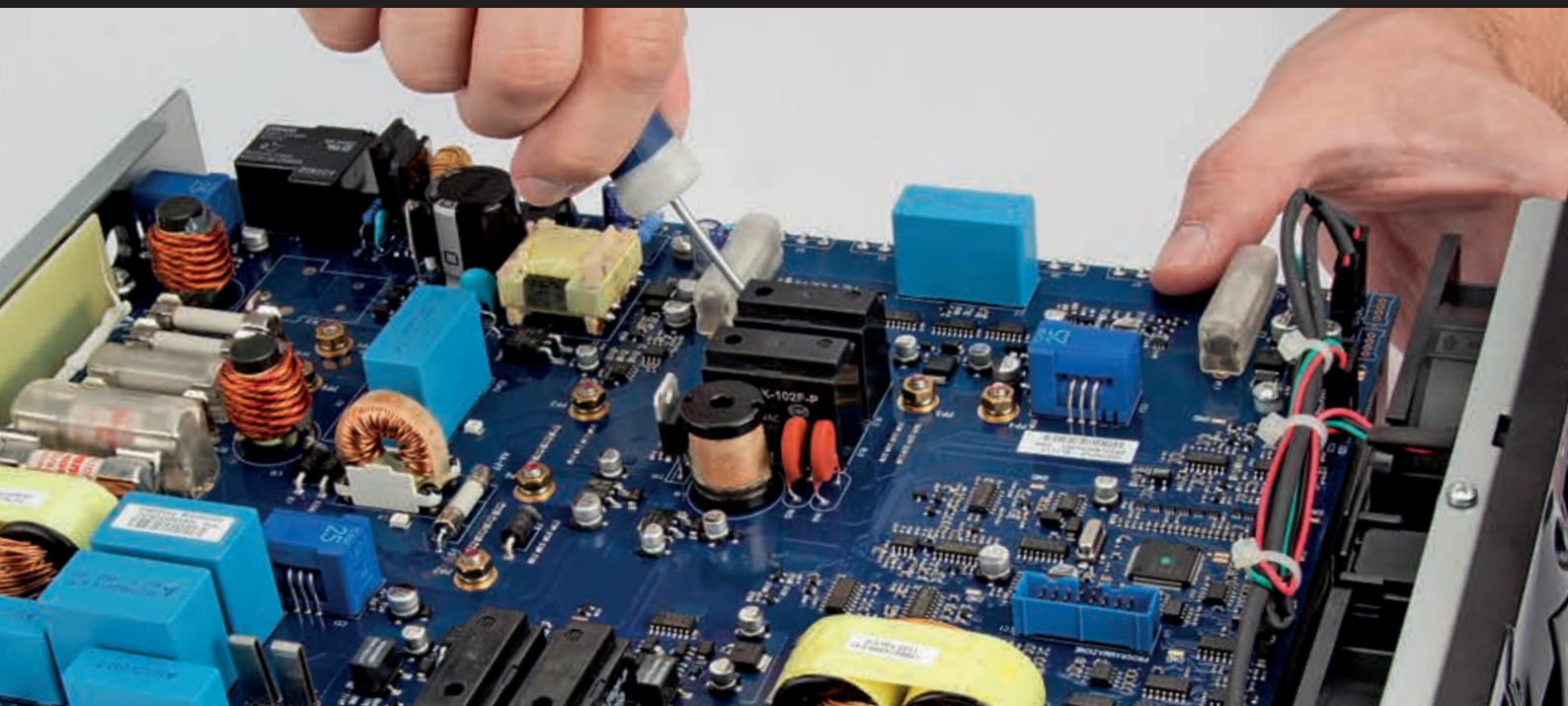




# kVA = kW POWER FACTOR 1

## INCREASED POWER

Thanks to unity power factor the new TRIMOD HE UPS guarantee maximum real power; 11% more than competitor products offering 0,9 power factor.





# TRIMOD HE

**EXPANDABLE  
SCALABLE  
MODULAR  
VERSATILE**

The innovative concept of 3-PHASE modularity, consisting of INDIVIDUAL 1-PHASE MODULES

which feature in the entire TRIMOD HE range, allows you to optimise power availability, increase system flexibility and reduce the total cost of ownership (TCO).

The standardised structure, consisting of smaller and lighter modules, makes it easier to transport and install the UPS systems.

All the components are self-configuring and integrate a Plug&Play connection system to make all diagnostics, maintenance and future expansion phases easier.

Because the TRIMOD HE system is versatile and programmable, it is also possible to:

- supply 3 independent single-phase lines, assigning a different priority to each one, in terms of operating time
- offer 3 different input/output configurations in a single cabinet: 3/3, 1/1, 3/1, 1/3
- increase the duration of the average battery life thanks to the Smart Charging System



Compact, lightweight single-phase power module (only 8.5 kg)

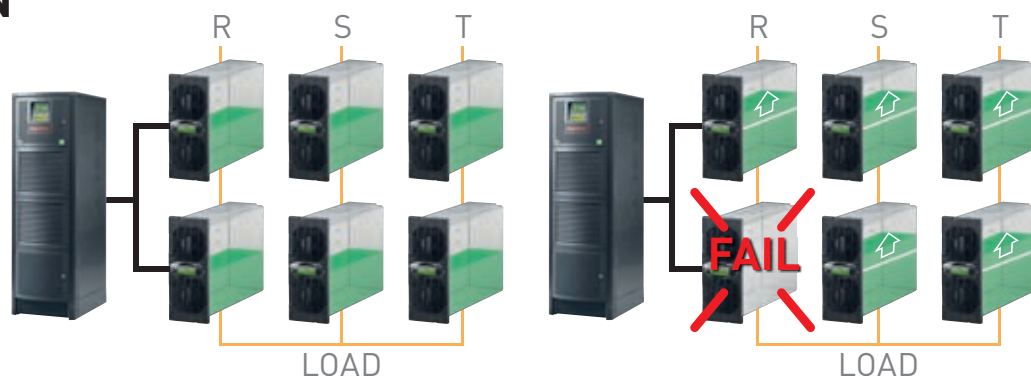


Easy to handle and install battery module (only 13 kg)



## REDUNDANCY ON SINGLE-PHASE LOAD

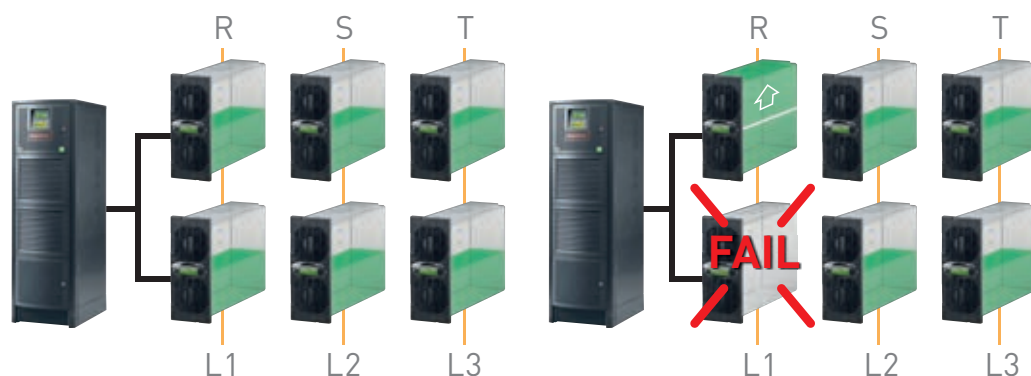
In a system with a 3-phase power supply and a 1-phase load there will be no power loss if one of the modules fails, as the power will be delivered by the other operational modules.



## REDUNDANCY ON THE PHASES

In a system with three independent outputs, it is possible to set the redundancy on the 1 phases.

If one of the power modules fails, the modules in the same phase take over for the defective module.



## HIGH LEVELS OF REDUNDANCY

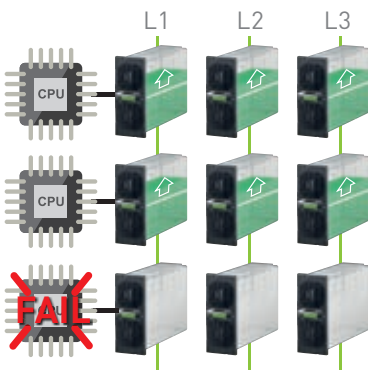
Thanks to the construction technology of the TRIMOD HE UPS systems, you can set various redundancy levels so that maximum continuity of service is always guaranteed.



# TRIMOD HE

## POWER CABINET WITH MULTI CONTROL BOARD

In order to increase service continuity and consequently decrease failures (limit the single point of failure) the new cabinet are provided with more control modules, from 1 to a maximum of 4, so as to ensure redundancy on control.



### Redundancy on the control

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

### HOT-SWAP

Thanks to the multi control board system you can replace the power modules without switching off the UPS.

### Separate batteries

The new multi control board cabinet, also allows you to associate each control a separate battery bank.





# POWER CABINET WITH **DUAL INPUT** FUNCTION

TRIMOD HE, offers cabinet with power up to 80 kW and DUAL INPUT function. The new cabinet can be fed with two different AC sources. The configuration can be selected at installation time and easily obtained by removing a bridge in the input terminals.

## POSSIBLE CONFIGURATIONS

SCALABLE SOLUTION  
FROM 40 kW UP TO 80 kW

SCALABLE SOLUTION  
FROM 60 kW UP TO 80 kW

REDUNDANCY SOLUTION  
60 kW N+1



# TRIMOD HE

## Double conversion VFI three-phase modular UPS



| Pack | Cat.Nos  | Dual input power cabinets (empty)        |                                    |                       |                 |             |                 |
|------|----------|------------------------------------------|------------------------------------|-----------------------|-----------------|-------------|-----------------|
|      |          | Type and No. of installable power module | No. of installable battery drawers | No. of phases         | Type of cabinet | Weight (kg) | No. CTRL boards |
| 1    | 3 104 65 | 3 x 3, 4 kW                              | 12                                 | 1-1 / 3-3 / 3-1 / 1-3 | A               | 86          | 1               |
| 1    | 3 104 66 | 3 x 5 o 6, 7 kW                          | 12                                 | 1-1 / 3-3 / 3-1 / 1-3 | A               | 89          | 1               |
| 1    | 3 104 68 | 6 X 3, 4 o 5 kW                          | -                                  | 1-1 / 3-3 / 3-1 / 1-3 | A               | 85          | 2               |
| 1    | 3 104 71 | 6 X 6, 7 kW                              | -                                  | 3-3                   | A               | 82          | 2               |
| 1    | 3 104 72 | 9 X 6, 7 kW                              | -                                  | 3-3                   | A               | 91          | 3               |
| 1    | 3 104 73 | 12 X 6, 7 kW                             | -                                  | 3-3                   | B               | 120         | 4               |

| Pack | Cat.Nos  | Accessories                            |  |
|------|----------|----------------------------------------|--|
|      |          | Description                            |  |
| 1    | 3 104 69 | 3.4 kW Power modules                   |  |
| 1    | 3 104 71 | 5 kW Power modules                     |  |
| 1    | 3 104 73 | 6.7 kW Power modules                   |  |
| 1    | 3 104 51 | Additional 15 A battery charger module |  |



# TRIMOD HE

## Double conversion VFI three-phase modular UPS

### Characteristics

| General specifications                           |                                                                                                                |    |     |      |                        |      |              |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----|-----|------|------------------------|------|--------------|
| Nominal power (kVA)                              | 10                                                                                                             | 15 | 20  | 30   | 40                     | 60   | 80           |
| Active power (kW)                                | 10                                                                                                             | 15 | 20  | 30   | 40                     | 60   | 80           |
| Module power (kW)                                | 3.4                                                                                                            | 5  | 6.7 | 5    | 6.7                    | 6.7  | 6.7          |
| Classification                                   | On-Line double conversion VFI-SS-111                                                                           |    |     |      |                        |      |              |
| System                                           | Modular, expandable and redundant UPS system                                                                   |    |     |      |                        |      |              |
| Input specifications                             |                                                                                                                |    |     |      |                        |      |              |
| Input voltage                                    | 380, 400, 415 3PH+N+PE<br>(or 220, 230, 240 1PH)                                                               |    |     |      | 380, 400, 415 3PH+N+PE |      |              |
| Input frequency                                  | 45-65 Hz (43,0 ÷ 68.4 Hz)                                                                                      |    |     |      |                        |      |              |
| Input voltage range                              | 400V +15%/-20% - 230V +15%/-20%                                                                                |    |     |      | 400V +15%/-20%         |      |              |
| THD input current                                | < 3% ( at full load)                                                                                           |    |     |      |                        |      |              |
| Input power factor                               | > 0.99                                                                                                         |    |     |      |                        |      |              |
| Output Specifications                            |                                                                                                                |    |     |      |                        |      |              |
| Output voltage                                   | 380, 400, 415 3F+N+PE<br>(o 220, 230, 240 1F)                                                                  |    |     |      | 380, 400, 415 3F+N+PE  |      |              |
| Efficiency                                       | Up to 96%                                                                                                      |    |     |      |                        |      |              |
| Efficiency in Eco mode                           | 99%                                                                                                            |    |     |      |                        |      |              |
| Nominal output frequency                         | 50/60 Hz selectable by the user ±2 % (standard), ±14 % (extended)                                              |    |     |      |                        |      |              |
| Crest factor                                     | 3:1                                                                                                            |    |     |      |                        |      |              |
| Waveform                                         | Sinusoidal                                                                                                     |    |     |      |                        |      |              |
| Output voltage tolerance                         | ±1%                                                                                                            |    |     |      |                        |      |              |
| THD output voltage                               | <1%                                                                                                            |    |     |      |                        |      |              |
| Overload capacity                                | 10 minutes at 115%, 60 seconds at 135%                                                                         |    |     |      |                        |      |              |
| Bypass                                           | Automatic bypass (static and electromechanical) and manual maintenance bypass                                  |    |     |      |                        |      |              |
| Batteries                                        |                                                                                                                |    |     |      |                        |      |              |
| Battery module                                   | Plug & play                                                                                                    |    |     |      |                        |      |              |
| Battery series type/voltage                      | VRLA - AGM / 240 Vdc                                                                                           |    |     |      |                        |      |              |
| Operating time                                   | Configurable                                                                                                   |    |     |      |                        |      |              |
| Battery charger                                  | Smart charge technology. 3-stage advanced cycle                                                                |    |     |      |                        |      |              |
| Batteries separate configuration                 | no                                                                                                             |    |     | yes  |                        |      | yes with kit |
| Communication and management                     |                                                                                                                |    |     |      |                        |      |              |
| Display and signals                              | 4 x 20-character lines, 4 menu navigation buttons, LED multi-colour status indicator, alarms and audio signals |    |     |      |                        |      |              |
| Communication ports                              | 2 RS232 serial ports, 1 logical gate, 5 ports with dry contacts, 1 slot for interfaces                         |    |     |      |                        |      |              |
| Backfeed protection                              | NC/NO auxiliary contact                                                                                        |    |     |      |                        |      |              |
| Emergency Power Off (EPO)                        | Yes                                                                                                            |    |     |      |                        |      |              |
| Remote management                                | Available                                                                                                      |    |     |      |                        |      |              |
| Physical Specifications                          |                                                                                                                |    |     |      |                        |      |              |
| Height                                           | 1370                                                                                                           |    |     | 1370 | 1370                   | 1370 | 1650         |
| Width                                            | 414                                                                                                            |    |     | 414  | 414                    | 414  | 414          |
| Depth                                            | 628                                                                                                            |    |     | 628  | 628                    | 628  | 628          |
| Installed power modules                          | 3                                                                                                              |    |     | 6    | 6                      | 9    | 12           |
| Installable battery drawers as option            | Up to 12                                                                                                       |    |     | -    | -                      | -    | -            |
| Net weight kg                                    | 120                                                                                                            |    |     | 146  | 146                    | 165  | 196          |
| Ambient Conditions                               |                                                                                                                |    |     |      |                        |      |              |
| Operating temperature/humidity                   | 0 - 40°C / 0 - 95% non condensing                                                                              |    |     |      |                        |      |              |
| Protection rating                                | IP21                                                                                                           |    |     |      |                        |      |              |
| Maximum audible noise at 1 m from the unit (dBA) | 58-62                                                                                                          |    |     |      |                        |      |              |
| Conformity                                       |                                                                                                                |    |     |      |                        |      |              |
| Reference product standards                      | EN 62040-1, EN 62040-2, EN 62040-3                                                                             |    |     |      |                        |      |              |
| Certification                                    | UE                                                                                                             |    |     |      |                        |      |              |



# Customer services

## Reliable

Directly present in 254 locations across India to ensure quick support, a team of 900 factory qualified engineers are available 24/7/365 to support your UPS system to ensure availability to the most critical loads.

## Excellent

Numeric competitive edge lies in its ability to provide high value-added UPS systems and service for customers. For Numeric, creating value means providing solutions with low energy consumption. The Legrand Group also provides all products required for electrical and digital building installations, particularly as an integrated system, with solution to fit customer needs.

## Tailor-made

We offer a complete range of specific solutions and services to meet customer requirements:

- Technical pre-sales support
- UPS sizing and solution
- Supervision of installation, testing and commissioning.
- Operator training
- Site audits
- Warranty extension offers
- Annual maintenance contract



# SERVICES

Today a business is always ON mode with zero-tolerance for downtime. Numeric offers a wide range of products that promise seamless quality power solutions for all kinds of consumers – industrial, commercial and residential. The range of power solutions covers 3P, 2P and LI across power needs.

## Support

### SITE INSPECTION, INSTALLATION SUPERVISION.

With Numeric UPS' safe and fault-free operations start at the time of installation. A team of technical experts from Numeric visit the UPS site to perform a comprehensive check of the environment. The site engineer or electrical contractor is informed of their recommendations. The installation is supervised by the Numeric technical team.



### SITE TEST, COMMISSIONING.

After the installations, the UPS is subjected to rigorous site tests. The UPS is configured according to user's requirements and completely set-up before going live. After successful testing, the UPS is handed over with the installation report.

## Training

### TRAINING

On-site training is made available to ensure the safe and efficient operation of the equipment. Hands-on training for the client's engineers and technical team can be arranged at Numeric's plants



## Maintenance

### PREVENTIVE MAINTENANCE

Optimal performance of the UPS requires regular preventive maintenance operations, with parts replaced when needed. Numeric offers Service Contracts with Preventive Maintenance that include cleaning, UPS measurements, functional tests, technical reports (optional), battery health check up and software upgrades.



### CORRECTIVE MAINTENANCE, EMERGENCY CALL

Engineers and spare parts stocks have been strategically located to handle emergencies. A powerful diagnostic software helps engineers identify the fault quickly and ensure short MTTR (Mean Time To Repair). The diagnosis further helps corrective actions such as part replacement, adjustments to be performed and return the UPS system back to normal.





## NOTES



SCAN TO FIND OUR  
NEAREST BRANCH

# NUMERIC®

A Group brand |  **legrand®**

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