

# Power protection solutions for every application

Chloride knows that different applications call for different levels of power protection. And that's why we offer a number of different UPS and power conditioner solutions including power conditioned and non-power conditioned UPS featuring off-line, line interactive, and on-line double conversion topologies. The equipment, the environment and the individual application are key factors in choosing the right level of protection.

#### SPIKES LOAD SAGS Power problems can cause: • Programme crashes System crashes Data corruption Data processing errors Data transmission errors SHORT INTERRUPTIONS SAFE • Printing errors CLEAN POWER • Hardware damage FREQUENCY TRANSIENTS • Keyboard, mouse or monitor lock-up VARIATION

Desk Power	<b>Off-Line Technology</b> - only during power disturbances is the inverter activated and draws power from the battery. During this time there is a short transfer time in supply to the load.
Desk Power Plus	Line Interactive offers enhanced power protection over basic off-line designs because the UPS provides automatic voltage regulation.
Power Lan Plus 750 VA to 7 kVA	<b>Digital On-Line</b> combines many of the premium features of on-line double conversion UPS such as no-break transfer to battery power, superior voltage regulation and static bypass with the higher efficiency of line interactive UPS.

On-Line Double Conversion provides the highest level of voltage and frequency Active family, regulation and may be the only practical alternative in environments where the quality of the Linear family mains electricity is low. Ideal for applications requiring very stable voltage and frequency.

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Small Office Home Office (SOHO)	•	•			
Digital leisure devices	•	•			
Small computer networks		•	•		
Business computer equipment		•	•	•	•
Local area networks	•	•	•	•	•
Work stations	•	•	•		
Servers		•	•	•	•
E-business server farms ISP/ASP/POP		•	•	•	•
Data centres			•	•	•
Enterprise networks			•	•	•
Telecommunication devices	•	•	•	•	•
Electronic point of sale (EPOS) systems	•			•	•
Electro medical devices		•	•	•	•
Industrial PLC's	•	•	•	•	•
Industrial processes	•	•	•	•	•
Emergency devices lights/alarms	•	•	•	•	•
Facilities infrastructure	•	•	•	•	•

Low impedance isolation transformer based power conditioning is recommended in the following circumstances:

- Equipment to be protected is of high value and you want to extend its life expectancy
- The electrical environment is not controlled and is electrically hostile
- Application is mission critical

#### How does power conditioning work? **Customer benefits** Provides protection against the destruction of components in the event of very large electrical transients, and against disruption to the load caused by electrical transients. Reduces risk of attached Increased product life equipment wearing out and prevents electronic components being degraded. Even low levels of electrical "noise" on the ground wire (common mode noise) can get into the logic circuits of a system and disrupt how it operates. An isolation transformer is unique as it creates a clean and test accuracy earth reference point to prevent this from happening. The isolation transformer based design provides the very highest levels of protection and reduces the edge speed and amplitude of electrical transients to levels that do not disrupt or degrade electronic systems. Enables attached equipment to operate as it was designed in any electrical environment. The bi-directional filtering provided by this technology is at the point of application, therefore its quality will not be degraded. Provides stability to electronic based systems and increases efficiency, uptime and availability of attached loads.

This product has no moving parts or batteries to degrade it. Designed to be more reliable than the equipment it protects. This reliability is backed by a class-leading 5-year equipment warranty.

The effect of this technology on the attached system is increased effectiveness and efficiency that can be seen by the typical 30-50% reduction in service calls.

reliability, regardless of electrical conditions

excellent Return on Investment (ROI)

wer Conditioned UPS

wer Conditioner

ne interactive (UPS)

ff-line (UPS)

n-line (UPS)



# Single-Phase UPS

Chloride manufactures a range of single-phase UPS solutions for applications such as personal computers and industrial PLC's through to more demanding applications such as medical diagnostics and blade servers. The solutions feature off-line, line interactive, digital on-line and on-line double conversion technologies.









#### Desk Power From 300 to 650 VA

The Desk Power range provides a compact solution offering basic battery back up and surge protection with flexible mounting options providing a cost effective space saving solution.

# Technology: Off-line; surge protection with battery back up

Communications and Monitoring: Combined serial and USB communications interface; Includes MopUPS® Express Software

Features: Increased flexibility due to universal mounting capability and small form factor. Replaceable battery Options: UL 120 volt models available on request

#### Desk Power Plus 1000 and 1400 VA

The Desk Power Plus range provides voltage regulation, battery back up and surge protection to provide protection to business equipment such as work stations. The compact design and management software ensure easy integration into the office environment.

Technology: Line interactive technology. Surge protection with automatic voltage regulation and battery back up

#### Communications and Monitoring: Serial communications interface; Includes MopUPS® Express Software Features: Automatic voltage regulation

#### Power Lan Plus From 750 to 3000 VA

The Power Lan Plus range provides voltage regulation, zero break transfer to battery back up, surge protection and a pure sine wave output to provide secure power. A high efficiency design ensures on-going costs are minimised.

Technology: Digital On-line technology. Surge protection. +/- 5% voltage regulation. Zero break transfer to battery. Pure sine wave output

#### Communications and Monitoring: Serial communications interface and

optional SNMP interface. Includes MopUPS<sup>®</sup> Software

Options: Scalable battery. Output isolation transformer. Rack mount version

#### Active Series From 700 to 3000 VA

The Active range provides very stable voltage and frequency providing a high level of protection. It has scalable autonomy for applications requiring long runtimes such as server and communications equipment.

Technology: On-line double conversion technology. Voltage and frequency regulation. Zero break transfer to battery. Pure sine wave output

Communications and Monitoring: Combined serial and USB communications interface, optional SNMP interface. Includes MopUPS® Software

Features: 1000-3000 VA models feature scalable runtime. Generator compatible Options: 230 V, 50/60 Hz auto sensing

#### Power Lan 5 & 7 From 5 to 7 kVA

Power Lan combines the advantages of on-line double conversion technology with the efficiency of line interactive technology, making this unit robust with a cost of ownership lower than comparable units. An environmentally friendly solution to power protection requirements.

Technology: Digital on-line technology. Surge protection. +/- 5% voltage regulation. Zero break transfer to battery. Pure sine wave output Communications and Monitoring:

Serial communications and Monitoring optional SNMP interface.

Includes MopUPS software Features:

High efficiency design **Options:** Minor factory modifications available on request

# Linear Plus

6 and 10 kVA Tower and Rack Mount

#### (single or three-phase input for 10 kVA)

Incorporating modern on-line double conversion technology, attractive design and multiple system integration capabilities, the Linear Plus family offers the most efficient all-round protection

against all types of disturbances and problems in the mains supply system. **Technology:** On-line double convers

Technology: On-line double conversion technology with automatic static bypass Flexibility: Parallelable up to three units and an optional extended battery charger (for tower version only)

**Reliability:** User replaceable batteries allow simple swap-out without any interruption to the secured system

Communications and Monitoring: LCD display, fully LIFE.net compatible, ManageUPS NET (with SNMP capability and IP network interface), MopUPS shutdown and monitoring software

# Sinergy SII Series UPS 2 and 3 kVA

Sinergy is a single-phase, on-line UPS series from Chloride. Universal rack/tower design available as 2 or 3 kVA models with hotswappable internal batteries. The extended runtime capability allows back up power protection for up to 4 hours. Automatic transfer switches allow two or more units to be paralleled for redundancy and added reliability.

Technology: On-line double conversion Flexibility: Universal rack/tower design

### Communications and Monitoring:

USB port and RS232 communication port, MopUPS Professional and ManageUPS NET





MEDICAL APPROVA

# Power Conditioned UPS

Our power conditioned UPS design incorporates a low impedance isolation transformer that limits not only peak voltage (amplitude), but also the edge-speed (frequency) of electrical transients. The ONEAC range of power conditioned UPS also feature the patented Virtual Kelvin Ground® - a unique grounding methodology that creates a noise-free power environment, providing the highest levels of protection.





#### ONe Plus Series® From 250 to 1000 VA

The ONe Plus range provides a high performance solution normally only found in much larger UPS systems. It has a built-in isolation transformer to eliminate electrical noise, ensuring attached equipment is unaffected by the electrical environment and does not degrade over time.

Technology: Low impedance isolation transformer based line interactive technology, with automatic voltage regulation. Pure sine wave output and battery back up

Communications and Monitoring:

Combined serial and USB communications interface. Includes MopUPS® Express Software Features: User replaceable hot swap battery. Ground skew protection

Options: 60Hz 120 Volts UL models

#### ON Series<sup>®</sup> From 700 to 2000 VA

The ON Series range provides a high performance solution with universal mounting capability and scalable runtime. It has a built-in isolation transformer to eliminate electrical noise, ensuring attached equipment is unaffected by the electrical environment and does not degrade over time.

Technology: Low impedance isolation transformer based line interactive technology, with automatic voltage regulation. Pure sine wave output and battery back up

Communications and Monitoring:

Advanced and basic serial communications interface with optional SNMP interface. Includes  $MopUPS^{\otimes}$  Software

Features: User replaceable hot swap battery. Universal mounting, with mounting hardware provided. Scalable runtime

Options: 60Hz 120 Volts UL models. 400 VA & 900 VA 50/60Hz 120 Volts UL and CE models

#### ON Series® m 300 and 600 VA

The ONm range provides a high performance solution for the medical environment. It has a built-in isolation transformer to eliminate electrical noise and limit earth leakage current, ensuring patient safety and attached equipment is unaffected by the electrical environment and does not degrade over time.

Technology: Low impedance isolation transformer based line interactive technology with automatic voltage regulation and battery back up Communications and Monitoring: Isolated communications interface

Features: User replaceable hot swap battery Scalable runtime at 600 VA. Approved to IEC60601-1, EN60601-1, UL60601-1 Options: 50/60Hz 120 Volts UL and CE models

#### Sinergy SEII Series UPS From 4 to 10 kVA

Incorporating modern on-line double conversion technology, each UPS comes

standard with power conditioning, built-in maintenance bypass, front access easy replaceable internal batteries and matching external battery cabinets for extended runtimes up to 8 hours or more.

Technology: On-line double conversion technology with isolation transformer to provide power conditioning

Flexibility: Parallelable up to three units

**Reliability:** User replaceable batteries allow simple swap-out without any interruption to the secured system

Communications and Monitoring: LCD display, fully LIFE.net compatible, ManageUPS NET (with SNMP capability and IP network interface), MopUPS shutdown and monitoring software

# Power Management & Controlled Shutdown

Chloride is leading the market with stateof-the-art connectivity solutions. We have the tools you need to initiate a safe and sequential shutdown of a single server or an entire network. You can also remotely monitor your UPS status via SNMP, telnet or the Web ensuring

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P Pin Map

that the selfdiagnostics and redundancy elements match those designed into the IT system itself.



# Power Conditioners

Our power conditioner design incorporates a low impedance isolation transformer that limits not only peak voltage (amplitude), but also the edge-speed (frequency) of electrical transients. The ONEAC range of power conditioners also feature the patented Virtual Kelvin Ground® - a unique grounding methodology that creates a noise-free power environment, providing the highest levels of protection.

### Single-Phase Power Conditioners

MEDICAL APPROVA



#### PCM Series From 75 VA to 3 kVA

VA to 3 kVA

The PCM range provides a high performance solution without battery back up for the medical environment. It has a built-in isolation transformer to eliminate electrical noise and limit earth leakage current, ensuring patient safety and attached equipment is unaffected by the electrical environment and does not degrade over time.

Technology: Low impedance isolation transformer based power conditioner

Features: Flexible design that can be wall mounted or floor standing. Approved to IEC60601-1, EN60601-1, UL60601-1

Options: 50/60Hz 120 Volts UL and CE models available. Voltage conversion available above 1000 VA



#### ConditionOne® Series From 75 VA to 1000 VA

The ConditionOne range provides a high performance solution without battery back up. It has a built-in isolation transformer to eliminate electrical noise, ensuring attached equipment is unaffected by the electrical environment and does not degrade over time.

Technology: Low impedance isolation transformer based power conditioner

Features: Flexible design that can be wall mounted or floor standing

Options: 50/60Hz 120 Volts UL and CE models available. Optional OneGround® technology protects against ground skew problems

### Three-Phase Power Conditioners

#### From 10 to 100 kVA

Incorporating a low impedance isolation transformer that limits not only peak voltage (amplitude), but also the edge-speed (frequency) of electrical transients, thus providing the highest level of protection against mains borne electrical noise.

Please contact Chloride for more details.

### High Performance Power Filters

Sensitive electronic equipment requires protection from the disruptive effects of ongoing power line noise. The ONEAC range of filterbased solutions provide cost-effective protection from electrical noise and interference. ONEAC high performance filter-based products are far superior to traditional surge suppressor - or basic filter-based products.

Please contact Chloride for more details.

Voltage conversion and larger VA sizes are also available, please contact Chloride for more details.

#### **MopUPS Professional**

MopUPS Professional is software for safe system shutdown and useful power management. With advanced features such as network shutdown, scheduled shutdown and restart, event messaging, event logging, data logging, real-time viewing, UPS diagnostics and remote access, MopUPS Professional has everything you need to preserve data and maximise system uptime.

#### ManageUPS

ManageUPS provides an open approach to management of network power. ManageUPS delivers a complete set of manageability options including WEB, Telnet, and Out-Of-Band accessibility in addition to the full featured embedded SNMP agent. Event messages are offered as e-mail as well as SNMP Traps - a truly versatile tool for managing UPS systems in a network environment.

#### ManageUPS CIO

Chloride has developed new software to simplify the essential tasks associated with central monitoring of UPS and related critical infrastructure deployed across enterprise facilities. ManageUPS CIO is simple to use, simple to install and configure. Client-Server architecture allows easy sharing across the network for access by multiple people from both Facilities and ICT backgrounds.

# Communication Line Protection (CLP)

The benefits of the ONEAC range of Communication Line Protection (CLP) go beyond lightning protection. ONEAC CLPs minimise, if not eliminate, dropped calls, dropped data connections, and other random voice and data line problems. ONEAC CLP are available for analogue, digital and high-speed data services, including ADSL, HDSL and for analogue, digital and off-premise extensions.

#### **OnLine® Series CLP**

Available in a number of different packages including:

- I Series protectors suitable for Porta connection types
- **5S Series** protectors suitable for 5-pin bases
- 6 Series protectors suitable for M-150 66 block connection types 10 Series protectors suitable for Krone LSA Plus 237A (or compatible)
- J Series protectors suitable for RJ and LJ-type modular or hardwire connections.

#### Convergent Series<sup>™</sup> CLP

The perfect solution for rack mount and VoIP environments. The Convergent Series features ONEAC's patented protection technology which provides the highest level of protection available.



# CHLORIDE POWER PROTECTION

# Customised Total Protection Solutions

Using our array of products and technologies, combined with our design engineering expertise, we can demonstrate our capability to develop customised and special power protection systems in accordance with your precise requirements for larger projects. These systems frequently combine a UPS controller (including N + 1) together with line conditioners, rectifiers and transfer switches designed and configured as a single system solution with extended runtime options. As a fully customised solution, these systems can be effectively and efficiently packaged for indoor or outdoor applications as required.



in partnership with Chloride Power Protection

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