

# Lectro CPR® Series Broadband

## Lectro CPR Cabinet



**UPS—Cable Power Reliability.** Maintaining reliable power throughout your broadband network is vital to network performance. With the Lectro CPR Series reliable power is constantly available throughout your network ensuring critical uptime.

Cable TV has been replaced by interactive television, high speed data, cable telephony and digital video. This new power of broadband requires a new generation of power protection - the type of innovative thinking only a world leader in UPS solutions can provide. To develop it we began with an integrated approach, marrying our proven line interactive UPS technology with reliable ferro technology; incorporating capabilities that go beyond any CATV powering system available today; and adding batteries, digital monitoring, outdoor enclosures and warranties totally new to the industry. The result is Lectro CPR® - a total integrated system solution for power and bottom line protection.

The CPR Broadband Powering System has been designed to optimize the life of each of the following major system components:

- Lectro CPR UPS - highly reliable, digitally controlled UPS unit
- Lectro CPR Enclosure - Heavy-duty weatherproof, technician-friendly enclosure to house all of the system components
- Lectro CPR Communicator - Embedded status monitoring connectivity provided in either digital RS-232 format or direct RF signal output

### Features

- Line Interactive Ferro Topology (LIFT™) for better performance and improved efficiency
- Wider input operating window allows utility to drop to lower levels before going into standby mode
- Higher efficiency lowers utility costs and improves thermal performance
- Advanced Battery Management (ABM™) ensures batteries are charged to optimum levels
- Proactive battery maintenance via weak battery indicator
- Quick connect bypass module in all CPR enclosures
- Optional slide-out battery trays accommodate the 4-battery strings of CPR Batteries
- CPR Communicator provides three levels of status monitoring for advanced communications and control of all system components

The powering architecture used in the Lectro CPR Broadband UPS is a revolution in power protection for cable networks. The technology combines the best of the well-known line interactive power platform with the reliable workhorse, the ferroresonant transformer. We have termed this combined powering design Line Interactive Ferro Topology (LIFT™). It is so revolutionary, we have a patent on it. While new to the broadband marketplace, line interactive UPS topologies have proven extremely reliable and robust in other mission critical applications such as voice and data telecommunications,

client-server applications, military installations and factory floor environments. Coupled with the ferroresonant transformer, the CPR UPS is a powerful combination for the emergence of the new broadband market.

The Lectro CPR UPS power unit has all of the traditional advantages of ferroresonant transformers including power isolation for the HFC network components, advanced surge suppression for protection against utility spikes and short circuit protection for network faults. The line interactive design and advanced microprocessor provide for a lighter, smaller and more efficient unit than ever before. More importantly, the high efficiency results in much improved thermal performance of the system which, in turn, leads to cooler operation and lower utility bills. Advanced Battery Management (ABM™), a proprietary subsystem, is built into every CPR UPS unit to ensure that the batteries are charged to optimum levels and maintained in peak performance condition. All batteries are maintained at a similar "state of charge" condition which lengthens the life of each battery. Another ABM exclusive, the charging algorithm utilizes available input current (if the power supply is deployed at less than full load for example) to recharge the batteries faster. Another ABM benefit; the system performs a self-test every 21 days and alerts the MSO (Multiple System Operator) of any impending battery problem proactively. Optional thermal compensation through a high quality temperature probe is also accommodated by the ABM subsystem.

### Lectro CPR Enclosure

Both the CPR Broadband UPS and CPR Batteries are protected by an enclosure designed exclusively to optimize field performance and service life while still providing the technician-friendly features that Lectro is known for in the market. The cabinet, available in both pole mount and ground mount versions, provides a slide-out battery tray below the UPS power supply to accommodate the **4 & 8** battery string of CPR Batteries. An additional battery string can be added as an option if operators require longer runtimes. Several new features are now standard including a high-magnetic breaker for utility input service and quick connect bypass module to provide MSOs with a method for rapid changeout of the UPS power module in case of catastrophic failure. The appropriate safety agency certifications, aircraft-grade aluminum and powder coat finish will continue to be part of the design. The Lectro standard one-piece door design reveals a separate UPS power unit compartment and battery compartment. Heavy-duty locking mechanisms are also standard equipment on all CPR enclosures.