



# The WESCO Runner



First Quarter, 2004

## Power Protection Against Blackouts

The massive August 14th blackout shut down more than 100 power plants in the United States and Canada and knocked out power to 50 million people over a 15,000 square kilometer area.



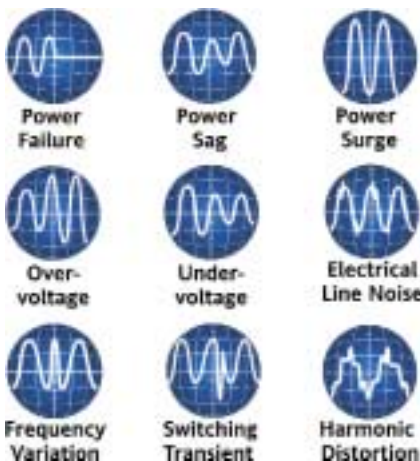
With even a matter of seconds, downtime can carry a staggering price tag. Potential consequences include revenue loss, costly damage to sensitive electronic equipment, data corruption and lost productivity and even damage to a company's reputation when it fails to fulfill customer needs and expectations.

Studies show that a business can lose US\$10,000 to several million dollars per minute when the networks go down, a steep price to pay when premium power protection is available at a fraction of the cost companies spend on their hardware solutions.

Now is the time to ensure that you won't become a victim of power disturbances. Powerware offers a complete line of technologically advanced UPSs. Powerware has simplified the confusing array of UPS models and technologies by rating all UPS systems with a simple to understand "level of protection" rating called 3, 5, 9. The rating system is based on the 9 common power problems that can harm sensitive electronic equipment by damaging hardware and destroying data. Each different type of UPS is rated on its ability to protect equipment such as computers and industrial automation controllers from the 9 power problems.

Be prepared for the next blackout. Learn more about Powerware power protection solutions by contacting your local WESCO representative.

### 9 Power Problems



### One Perfect Solution



### Energy Management Back on the Agenda!

Reliable Electrical Power, as critical as it is, is only the start of what industry needs. Power must also be adequately free of disturbances. Power rates need to be stable and predictable over time. Users must have the tools they need to manage their utility bills and use energy more productively in their operations.

This issue is all about products and solutions to help you reduce consumption, manage your utility bill and get the most from the Power you use.

In the aftermath of the August 14th blackout we have our work to do. This issue contains a few ideas to help you.

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## Reduce Utility Peaks with ABB Power Factor Correction Capacitors



electrical network, you increase the Power Factor by supplying your own source of KVAR (reactive power), instead of drawing this from the utility. This will reduce or completely eliminate the Power Factor penalty, lower your peak demand, and result in savings each month. Most industrial and commercial applications can benefit. From automotive, stamping, printing, and plastics plants to saw mills, office buildings, malls and hospitals.

### What is Power Factor?

Power Factor is a measure of how efficiently you use electrical power. The higher your Power Factor, the more effectively you'll consume electrical power.

### The Problem.

One of the most prevalent electrical issues today is the epidemic of a low Power Factor. A low Power Factor directly results in higher than necessary peak power usage. This summer's massive power blackout showed us all the problems that can occur with excessive peak usage, and why it is a continued concern. Utilities currently charge a "hidden" penalty each month to customers who have a low Power Factor, and they are expected to increase these penalties further.

### How can ABB Capacitors solve this problem?

By adding ABB Power Factor Correction Capacitors to your

### Why ABB?

ABB's advanced design utilizes completely dry elements for environmental protection. These elements incorporate self-healing properties to ensure long life. Patented Internally Protected Elements provide increased protection to facilities and personnel, not available through other capacitor designs. With these advancements, plus the RVT, (the industry's most advanced controller) and the decades of ABB manufacturing experience, Power Factor correction becomes simple.

### Who should I contact?

Please consult your local Wesco Sales representative for more details on ABB Power Factor Correction Capacitors.



## Energy Efficient Emergency Lighting

### Significant Cost Benefits Achieved Through Energy Saving

Emergency lighting is important to ensure paths of egress will be well lit in case of general power outages or during emergencies. When normal AC power is extinguished, emergency lighting coupled with exit signage will aid the evacuation of a building and can also simultaneously guide rescue workers within the structure.



Incandescent bulbs have been a traditional choice for exit signs. They're bright, relatively inexpensive and provide a broad colour spectrum. But they're also hot, power-hungry, and need to be replaced at inconvenient times. The federal government and various utilities have identified them as prime candidates for increasing National Energy efficiency.

LED technology has now advanced to the point where they are a much more attractive alternative to incandescent lamps. LED exit signs save money. LEDs use very little power - under 5 watts in contrast to 30 watts, or even as much as 50 watts, for incandescent bulbs in exit signs. Switching to LEDs produces a dramatic drop in power consumption of up to 90 percent.



It also results in major savings in labour and replacement costs because of substantially longer lamp life.

A 25-watt reduction in lamp power requirement over a year's time saves approximately 300 kilowatt-hours of power use. At the average cost of 8¢ per kilowatt-hour, this equates to almost \$25 a year per fixture.

Utilities such as B.C. Hydro and Manitoba Hydro have implemented the Power Smart energy conservation strategy designed to assist customers in using energy more efficiently. Exit Signs that meet CSA Standard C860 are eligible for this incentive.

Thomas & Betts offers a full range of LED source emergency lighting solutions to meet requirements ranging from hazardous locations to self powered units.

## Reduce electricity costs by \$25 per year for every incandescent exit sign you convert to LED.

All Thomas & Betts LED exit signs meet the rigorous standards set forth by CSA C860 and are also carry the ENERGY STAR certification.. A full range of T&B ENERGY STAR compliant LED exit signs are available from WESCO. Contact your local branch for further details.



## Replace Yellow Light with Crisp, Bright, White Light with just a Simple Twist!



The problem with most current HPS lighting systems, with their "yellowish" light, is that they don't give you true colours.



The All-New Philips MasterColor® HPS-Retro White™ Ceramic Arc Tube Metal Halide lamp will deliver crisp, white light with just a simple twist, because it is a direct replacement for standard HPS lamps. You do not have to change your fixtures or change ballasts as Philips Retro White™ will operate on existing standard HPS ballasts in existing fixtures.

Better lighting translates into numerous, long-term benefits. Philips HPS-Retro White's crisp white light allows your employees to see details better and this positive worker perception leads to improved accuracy and safety, and this leads to increased productivity and profits. For example, HPS-Retro White™ lighted areas will "blend" with adjacent areas of white light that use fluorescent or Metal Halide. There is no visual adjustment and entire work areas will benefit from white light working conditions.

You still benefit from the energy saving advantages of HPS lighting when you use HPS-Retro White™.

Available in 250 watts and 400 watts, HPS-Retro White™ offers the same energy efficiency as standard HPS. You will discover that other white light alternatives can be replaced with HPS-Retro White™ lamped fixtures with additional energy savings gained through fixture reduction.

The All-New HPS-Retro White™ lamp has an arc tube that is more robust than the quartz arc tube used in conventional Metal Halide lamps. By incorporating a "coil design", Retro-White provides protection in open fixtures and superior lumen maintenance at 85+%. The HPS-Retro White™ also uses ALTO® Lamp Technology, which means this lamp is better for the environment because of its reduced mercury content.



HPS-Retro White™ is the ideal choice for all your industrial applications.





## The IQ7000 Power Quality Meter

In a deregulated electricity marketplace. Knowledge is Power. To shop intelligently for the right energy offering you need the details of your yearly profile of electricity consumption throughout the seasons, days and hours.

If you are looking for the right tool that makes Metering Verification, Energy Profiling, Power Quality Monitoring or Waveform Capture a snap, then Cutler-Hammer's IQ 7000 series is the right one for you. These devices exceed the ANSI C12.20 accuracy class (0.05%) and are Revenue Approved at Measurements Canada.

Cutler-Hammer's IQ 7000 is the premier power quality meter offering the most advanced functionality on the market today. This sophisticated revenue meter is designed to support any application where high-end metering, power quality analysis and system knowledge is critical.

The IQ 7000 provides immediate access to critical power data allowing the user to make reliable power related decisions quickly and effectively and to be confident of data integrity because the IQ 7000 is the most precise metering product available on the market today.

This meter features the most advanced power quality analysis tools and is suited for applications that require precise energy measurements, detailed load information, time of use capability, waveform capture, harmonics measurements, fault recordings, and historical trends.

The IQ 7000 has built-in Modbus communications with four standard RS-485 ports and an optional Ethernet interface that can also act



as a Gateway. Unlike previous meters it offers higher, specification-driven sampling speeds that provide better than 0.05% energy measuring accuracy. Greater storage capability allows for longer waveform capture and additional trend data. The IQ 7000 comes with the choice of a touch-screen graphics display or a multifunction LED display.

If you need the knowledge to arm yourself for electricity deregulation then talk to the WESCO Cutler-Hammer team about your metering needs. With the IQ 7000 leading the team, Cutler-Hammer has a broadest range of power management products available to meet your specific application requirements.

**EATON** | **Electrical**

## Local Branches

Abbotsford, BC	(604) 859-3111
Burnaby, BC	(604) 299-5566
Castlegar, BC	(250) 365-0545
Kamloops, BC	(250) 374-2112
Kelowna, BC	(250) 862-8200
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Prince George, BC	(250) 562-4832
Richmond, BC	(604) 270-7873
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