

## HISTORY OF POWERTRON

- 1984. 01 Established POWERTRON ENGINEERING Company in Seoul.
- 1997. 12 Certificated for Superior Manufacturings and exportings.
- 1998. 05 Approved as a venture company.  
(Small and Medium Business Administration of Korea)
- 1999. 02 Developed a Q class power supply for the nuclear power plant and acquired a Certificate of authentication.
- 1999. 12 Registered on research institute. (Korea Industrial Technology Association)
- 2000. 04 Extended to a second factory building (in Chun-an foreigner's industrial complex)  
with Nakamura Machinery Trading Co.,LTD. in Japan.
- 2000. 09 Attained the KT mark in charging technology for cycle charger.
- 2000. 10 Developed battery aging diagnostic algorithm with KT
- 2001. 03 Acquired the CE certificate of conformity in PAB series automatic cycle chargers.
- 2004. 09 Acquired the K.T Mark in a new computing algorithm of battery impedance



WORLDWIDE HEADQUARTERS

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driving innovation in power control,  
quality, and next-generation technologies.

The company has grown to become a global  
leader in emergency power/battery diagnostic &  
power line quality monitoring technologies.

INDUSTRY MANUFACTURERS, SERVICE PROVIDERS, and CUSTOMERS select Powertron's power control, quality, and next-generation technologies. With two decades of experience, and thousands of installed systems currently in operation around the world, Powertron has an enormous Asia/Pacific network and an ever-expanding global agent.

産業用製造業社、サービス供給業社、そしてお客様たちはPowertronの電力制御、品質及び発展に関する技術を選択します。20余年間のField経験とあちこちに設置された1000余台システムを通じて国際的なNetwork網を持った代理店を持ちます。

## Experienced sales professionals

Powertron's world-class production and testing facilities, along with an ISO-certified quality system, provide a basis for supplying the best products the market has to offer. Industry-leading manufactures and world-best service resellers have partnered with Powertron to help satisfy our customers in any commercial, industrial, or utility environment.

### プロ化された長年の経験。

ISO認証品質保証システムによって生産されるPowertronの生產品は顧客が望む最高の品質を充分にご提供致します。Powertronは産業を導いていく企業及びサービス提供社たちとの緊密な協力を通じて、すべての顧客により多くの助けをご提供しようといつも努力します。



## Innovative technology Leader

Powertron's products provide the highest quality, the most appropriate pricing structures, and the most effective services by collaborative R&D efforts with leading universities and world famous research institutes. Powertron is continually developing new markets through innovative technology R&D.

### 革新的な技術発展

Powertronは権威のある大学及び世界的な研究機関との協力的な研究開発を通じて最上の品質、適切な価格、そして効果的なサービスを提供しています。顧客の要求に応じる革新的な技術開発を通じてPowertronは新しい市場を創造して発展させています。

## Customer side Services

Our Technical Services engineers make it easy for you to fully exploit our system capabilities, saving you time and money. They can implement the most appropriate solutions for your needs, revise system configurations, and troubleshoot questions over dial-up modem or the internet. Long-term support packages ensure that feature enhancements are always available through software and firmware upgrades.

### 顧客中心のサービス

技術支援エンジニアたちによって提供される最上の品質監視システムが顧客の不必要な時間と金銭的な無駄使いを最小化します。エンジニアたちは一番相応しいソリューションをご提供できるし、モデムやインターネットを通じてシステム構成及び故障質問に対する早い解決策をご提示致します。長期間維持補修パッケージは周期的なソフトウェアとファームウェアアップグレードを通じて性能の強化を保障致します。

# Power system's electricity is

generated, delivered, and consumed in real time. Therefore, it must be managed in real time.

Data centers, telecommunication centers, and power utilities can prepare a clean, safe and reliable power source by using emergency power monitoring/management systems that provide the key data features of around-the-clock quality and maintenance.



**IBEX** (Intelligent Battery Quality Tester) can measure cell voltage and operating temperature, internal resistance of the batteries under floating charge and diagnose the aging status of them in the most convenient way.

**IPQMS** & **IBEX** series are effective solutions providing safe, reliable quality,

and low-cost maintenance of battery-backup emergency power systems.

## Optimizing Acquisition Function

Powertron's **IPQMS** precisely acquires and records realtime voltage and current of emergency power supply and batteries. For quality monitoring of the power source, it also measures and analyzes data for phase or line voltage and current of the power supply output. The acquired data are transmitted to remote supervising system through diverse methods, including industrial communication protocol and internet, and important information is directly provided to the managers simultaneously.

## Increasing Reliability

The system automatically detects power quality problems, such as voltage sag or swell, or black-out failures, and inform the events to the supervisor through remote communication network. At the time of an accident, it also stores the relevant data and immediately transmits them to the remote supervising system, thus minimizing consequential damage due to power accidental failures.

## Realizing the Highest Economy

With a flexible port expanding system, **IPQMS** can supervise an emergency power supply and up to 448 cells of battery strings in realtime with one monitoring/control unit. This reformative expansion capacity allows the user to arrange and install the whole system with ease, thus saving a great amount of installation expenses.



# iPQMS & IBEX is

creating an innovative vision for emergency power/battery quality technologies.

## Innovative Technology Leader

Most of failures of emergency power supply can be attributed to the aging of batteries, which mostly arises from unscientific or incorrect maintenance of batteries. Powertron's **iPQMS** and **IBEX**, which employ the latest algorithm technology for the measurement of battery inner resistance, precisely supervise and measure the healthiness of batteries in the process of floating charge. Through continuous management of records, it also provides solutions for efficient operation of emergency power supply. (Patent applied for)

## Precise Measuring Everywhere

**iPQMS** can directly transmit the data that are measured by intelligent instruments and communication software through ethernet, modem or wireless as well as internet. With **IBEX** that can be carried in one hand, a battery diagnosis solution realized first in the world, you can curtail enormous amount of labor charge.

## All-In-One Solution

**iPQMS** and **IBEX** series makes diverse combinations of emergency power monitoring/management systems to provide the best measuring, monitoring, analysis and record management. With this remarkable capacity for expansion, **iPQMS** and **IBEX** make it easy to install, wire and maintain the system, thus improving reliability and economy. (Patent has been applied for on this series)

## High Precision and Reliability

Adopting the world's first ripple-removing algorithm, the system precisely measures realtime properties, such as phase or line voltage and current of emergency power supply, charging and discharging voltage and current, inner impedance, cell voltage and temperature of batteries. It measures the inner impedance of batteries in floating charge with the precision of  $\pm 2.0\%$ . Reliability of the system has been verified by diverse international certifications, such as ISO quality certification system, and reliability verification tests of end-users, such as Korea Telecommunication.



**iPQMS** (Intelligent Power Quality Monitoring Systems) provides easy solutions for monitoring line voltage and current of emergency power supply system and maintaining the batteries. Employing the algorithm for automatic measuring of batteries in string.

## Meeting Customers' Needs

We are always ready to listen to customers' needs so that we can arrange the series of **iPQMS** and **IBEX** to meet the needs. Our engineers always provide ready service so that customers can be saved from spending of the unnecessary time and money.



Innovative Quality Proven Everywhere