

Responsive Power Optimisation™ (RPO™)

powerPerfector technologies have evolved with the introduction of the most advanced electronic voltage control technology available - The **powerPerfector IQ**.

The **pPiQ** is the fastest, most accurate and precise Electrical Supply control technology on the market and is designed specifically to address the Power Quality risks from your supply whilst also saving you money.

The security of supply benefits, coupled with the high ROI, make the **pPiQ** essential technology for future proofing the building.

A single installation on your incoming supply is all it takes to take control of your power supply for the first time. To find out how the **pPiQ** can benefit your site, please contact your distributor for further information or email:

enquiries@powerperfector.com

Why Responsive Power Optimisation™ (RPO™)

Recent reports have shown that Power Quality and Voltage Stability are deteriorating, resulting in supply risk with reduced performance and increased wear of equipment, requiring an advanced solution - **RPO™** from the **pPiQ** ensures that:

- Voltage instability and fluctuations are eliminated
- Site equipment benefits from a highly stable voltage
- Equipment efficiency is maximised due to active 3 phase balancing
- The site is protected against harmful voltage dips, sags, intervals and swells
- Precise output voltage control is provided across the whole site
- Cost and energy savings will be 25% higher than VPO technology
- Integrated Wi-Fi remote monitoring & intelligent control

powerPerfector IQ is the UK's only Responsive Power Optimisation™ (RPO™) Technology (patent pending) designed to maximise security and cost savings.

powerPerfector Technology has evolved after a four year research and development program in response to the deteriorating Power Quality and increasingly Unstable Voltage supply from the electrical networks.

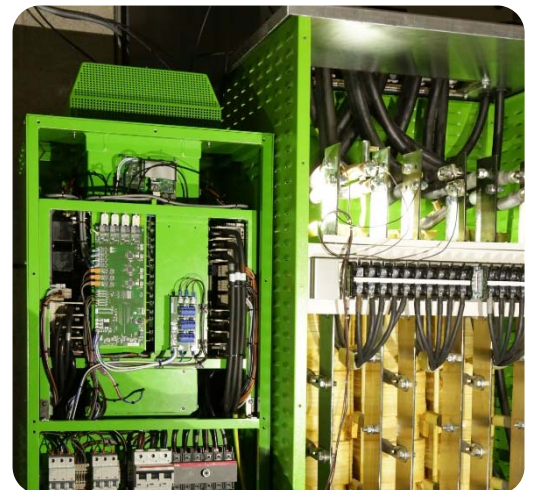
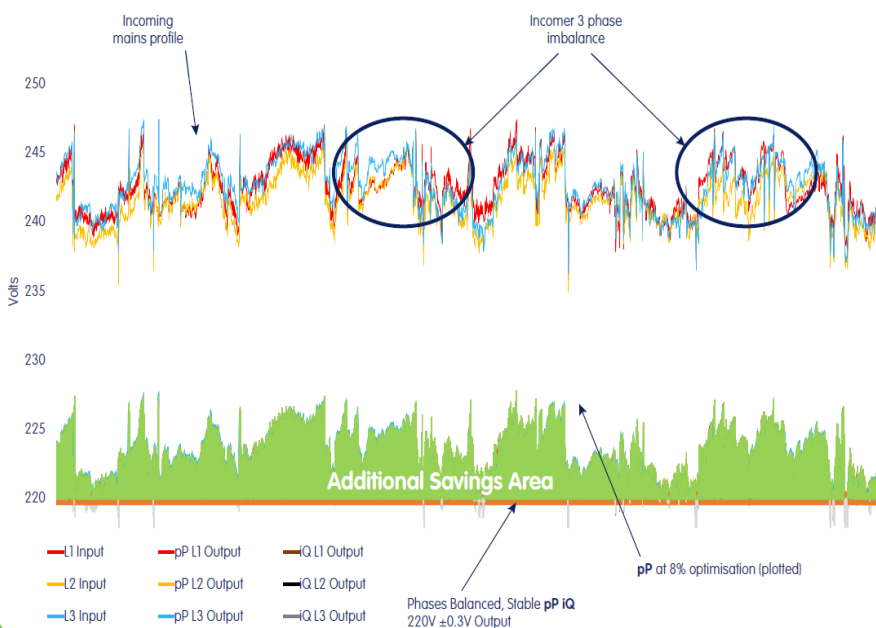
In the past centralised generation could control and supply clean power that had little to disturb it except for the occasional transient before its delivery at 400/415V to you. Now; with Wind and Solar farms, Micro generation and Hydro power feeding the networks, that control has been lost. Waves of power fed into the networks from these sustainable, but highly inconsistent generation technologies, switching in and out of supply, need homogenisation so that supply quality is improved, transient activity is suppressed and voltage balanced and stabilised.

The **pPiQ** has been designed to mitigate these risks to business operation and supply you with efficient, high quality and stable power so that all of your assets are protected and operating efficiently.

The **pPiQ** future proofs your building, gives you control of your power for the first time - and reduces your energy costs.

A risk mitigation technology that pays for itself multiple times from the generated savings.

Realtime 7 Day voltage profile pre and post IQ activation



Responsive Power Optimisation™

| Attributes | Benefits |
|--|--|
| Precise Voltage Stabilisation | Site equipment is protected with a highly stable voltage supply of $\pm 0.5V$ irrespective of up to 11% supply fluctuations above or below your optimum selected Voltage level (see graph). |
| Active 3 Phase Balancing | Improves equipment operational efficiency and life span by actively correcting phase voltage imbalance, of up to 5%, to within ± 0.5 volts of each other. |
| Super-fast Correction | Reduces exposure to voltage spikes protecting site equipment and maximising cost efficiencies with uniquely super-fast voltage correction. The iQ utilises the latest power electronic techniques and components to control output voltage - reacting to supply voltage changes in under 250ms. |
| Intelligent Voltage Control | The iQ is a 440 step electronic controller ensuring that the site operates at an optimal voltage. The target voltage can be pre-determined at 0.1V intervals - tuned to maximise your Power Factor. |
| Voltage Recovery | The site is protected against harmful voltage dips, sags, intervals and swells improving business continuity by its capability to boost the voltage if supply voltages reduce to $\sim 190V$. This ensures that equipment receives voltages within EN regulations, increasing site resilience. |
| Programmable for Demand Side Response services | Generate revenue, after a software upgrade, from selling Demand and Fast Frequency Response services to your National or Network provider. |
| Wi-Fi/LAN Remote Monitoring and Control | The pPiQ has a built in remote monitoring & intelligent control platform with multiple individual secure logins. Energy consumption and voltage data information is captured, stored and can easily be accessed and communicated when configured via MODBUS. |
| The powerPerfector optimiser | The pPiQ Optimiser suppresses harmonics, reduces Reactive Power (by up to 50%) protects from common transients and improves Power Factor (by up to 20%) from a single installation on your incoming supply. |



For more information on the powerPerfector iQ please contact our distributor network or email us at;

enquiries@powerperfector.com