| Technical Specifications | | Details |
|---|---|---|
| **Power Supply** | Input Voltage | 19Vdc – 30Vdc |
| | Power Rating | Typical 15VA, max 40VA<br>For 4 PQNs (15 feeders) |
| | Backup Power (Built-in) | Up to 5 sec |
| **Measurement Channels** | Input Voltage | 30 to 690Vac LN (AC/DC) |
| | Voltage Measurement Channels | Differential Input |
| | Overvoltage Withstand | Max 1000Vac continuous |
| | CAT rating (IEC 61010-1) | Rogowski coil (600A & 3000A/5000A) |
| | | 1A/5A |
| **Recording** | Sampling rate | 32, 64, 128, 256, 512 Sample/Cycle |
| | Storage | Up to 128GB |
| **Communication** | Ethernet Port1 | 10/100/1000 Mbps |
| | Ethernet Port 2 & 3 | 10/100/1000 Mbps<br>(Ethernet Daisy Chain) |
| | RS485 | Up to 115,200 bps |
| | Cellular (Optional) | Mini PCIE 4G/5G or IoT communication |
| | Wi-Fi (optional) | 802.11n (2.4Ghz-300Mbps) |
| | Others | DCC 2.0 (toPQN) |
| **Communication Protocols** | TCP | sFTP, SNTP |
| | Serial | RS485, Modbus_RTU* |
| **Device Time Synchronization** | RTC | SNTP, GPSI |
| **Web Interface** | uWeb 1.0 | HTTP |
| **Firmware** | | OTA Firmware Update |
| **Notification Alarm** | | PQ Notification Alarm |
| **Hardware** | Dimensions | 220mm(L) x 200mm(W) x 55mm(H) |
| | Weight | PQAi2: approx. 1150g, PQN: 170g |
| | IP Rating | IP65* |
| | Material | ABS/Nylon |
| **Operating Conditions** | Operating Temperature | -20 to +55°C (-4 to +131°F) |
| | Storage Temperature | -40°C to +80°C (-40F to +176°F) |
| | Relative Humidity | 0 to 95% non-condensing |
| | Operating Altitude | ≤2000m |
| **Expansions** | Power Quality Nodes (PQN) | Max.4PQN per PQAi2, each PQN can monitor 3 three-phase current or 15 single- phase current |
| | Analog Input/ Output Card | Max. 16AI and 16AO* |
| | Digital Input/ Output Card | Max. 64DI and 32DO* |
| | MiniUPS | Connect NiMH Miniups for up to extra 15mins backup power supply to the system |
| **Led Indicators** | | 1. Power Supply 4. Spare<br>2. Device Status 5. 4G/5G Status<br>3. GPS Status |


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PQAi

POWER QUALITY, REIMAGINED

- IEC 61000-4-30 CLASS A
- IEC 61000-6-5 EMC
- IEC 62586-2:2017

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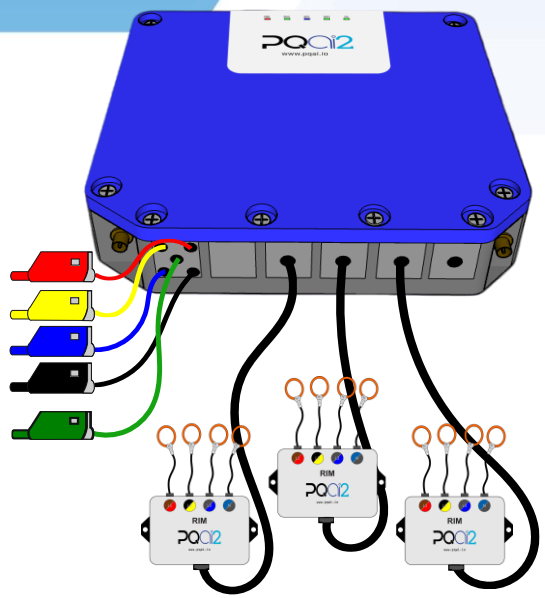
# PQAi2

POWER QUALITY ANALYZER INTELLIGENT II

EARLY BIRD OFFER


- Multi-channel power quality analyzer
- Expandable to 15 three-phased circuit monitoring
- Advance cyber security protection
- Open protocol for 3rd-party system integration
- Compact design for deployment in tight spaces
- Optional 4G/5G connectivity

# APPLICATIONS & USE CASE



## EV Charging Station

- Monitor quality of supply
- 2-in-1 Power Quality monitoring and revenue grade energy monitoring for EV charging billing application
- Power Quality event investigation
- Lower insurance premium for EV charging station operator
- E2G electric vehicle to Grid application

## Renewable Energy & Energy Storage System

- Generation stability and pre-fault Monitoring
- 2-in-1 Power Quality monitoring and revenue grade energy monitoring
- Energy storage charging control and Monitoring
- Corrective maintenance of inverter and energy storage system
- Harmonic monitoring and study

## Grid PQ Network Monitoring

- HV, MV and LV Grid network monitoring
- Affordable and scalable solution
- Smart Grid enabler
- Network disturbance SOE Monitoring
- Fast fault location detection and remote analysis of LV network
- Breaker and protection relay status monitoring
- Smart Grid cyber security protection
- Optional transient capturing

## Critical Facilities & Asset Management

- Affordable large scale Power Quality & energy monitoring for data center, oil & gas, semiconductor, banking and other critical facilities
- Preventive and corrective maintenance
- Quality of supply monitoring
- Harmonic monitoring and study
- Power Quality event sequence and waveform analysis

PQAi2 is a multi-circuit Power Quality Analyzer with built-in IoT. The onboarding process of PQAi2 is revolutionary and unprecedented.

Based on IEC 61000-4-30, Ed 3 Class A, PQAi2 allows expansion of up to 15 three-phase or 45 single-phase circuits, making it the most cost-effective Class A Power Quality Analyzer currently available in the market.

At only 5.5cm thick and 22cm wide, PQAi2 can fit easily into tight spaces such as overground box, feeder pillar, switchboards and substations.

PQAi2 is upgradable with 4G/5G network capabilities to allow communication between devices installed at remote locations and the central control. The GPS onboard PQAi2 allows time synchronization & pinpoint location of installed devices.

With built-in backup power and optional NiMH-based mini-UPS, PQAi2 has the safest backup power solution so that you will not lose any critical data during a PQ event.