

Info Sheet

Power & Load Management Systems

Smart control for peak demand, stability, and energy savings.

1. Overview

IPU SA's **Power & Load Management Systems** are engineered to monitor, optimize, and automate electrical loads in complex power environments. Designed to support peak shaving, load shedding, and energy balancing, these systems enable clients to maintain uninterrupted operations while reducing operating costs and preventing overload conditions.

Built on a foundation of **high-speed logic and robust PLC/SCADA integration**, our load management solutions are tailored to meet the needs of critical infrastructure, energy-intensive industries, and multi-source generation systems.

2. Key Features

- High-speed load shedding based on frequency, priority, and voltage
 - Peak shaving and demand-side energy optimization
 - Intelligent load sequencing and scheduling
 - Blackout and contingency management logic
 - Real-time load monitoring and control
 - Seamless integration with SCADA, ATS, and generator controls
 - Support for redundant architectures and critical loads
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3. Applications

- Multi-generator facilities
 - Data centers and server rooms
 - Hospitals and life-safety systems
 - Airports and transportation hubs
 - Industrial processing and packaging plants
 - Hybrid power systems and renewable integration
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4. Integration Capabilities

- Interfaces with PLCs, SCADA, MCCs, and synchronization systems
 - Protocols: Modbus, BACnet, Ethernet/IP, Profibus, and analog/digital I/O
 - Generator compatibility (ECU/governor support)
 - Load management adaptable to utility, backup, or hybrid power scenarios
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5. Certifications & Standards

- Designed in compliance with IEC standards
- Configured to meet site-specific redundancy and regulatory requirements
- Tested and validated for safety-critical and high-availability environments