IPCS
Integrated Protection & Control Systems

Product Range:
As an addition to providing electrical switchgear and controlgear, B&F is also able to provide partial or complete IPCS systems to enhance the overall functionality of the technical solution.

Applications:
IPCS provides real time live data and system status information. IPCS comprises integration of power protection and metering of switchgear and motor control gear equipment, with process control systems such as DCS or SCADA systems.

The network utilises dual Central Control Units (CCU) via serial communication. Dual redundancy is a pre-requisite for IPCS.

A typical IPCS system consists of Intelligent Electronic Devices (IED’s) at Level 1, CCU’s at Level 2, and DCS/SCADA at Level 3, as illustrated overleaf.

Key Benefits:
Incorporating IPCS into the overall technical solution can significantly improve process plant & maintenance management by centralising monitoring, control and data archiving of the process and equipment data.

Although offered as an addition to B&F’s switchgear and controlgear solutions, B&F IPCS can be extended by the Customer to control and monitor the complete process system.

Alternatively, where an IPCS already exists on site, B&F products within the technical solution can incorporate the various network elements to allow integration into the overall DCS/SCADA system as required.
IPCS Integrated Protection & Control System

**Level 3: Overall Control System (DCS) Level**

**Level 2: IPCS Sub-Station Level**

**Level 1: Switchgear/MCC Level**

**Key Features:**

* IPS engineering work stations (EWS) use standard PC's. Application software determined by customers' needs - most industrial standards are available, including Wonderware 'InTouch', etc.

* Data Communications & Networking utilises industry standard data communications. Includes Modbus, Profibus, Ethernet, etc., using TCP/IP protocols for straightforward integration of additional equipment.

**Benefits:**

* Dual systems eliminates single points of failure (i.e. Dual Redundancy)

* Local and remote control, plus remote current, voltage and power metering

* Reporting, alarm functions and annunciation

* Monitoring of breaker status and remote equipment facilitated

* Requires less protection and control equipment maintenance

* Requires less time spent trouble-shooting substation events

* Helps in promoting predictive maintenance, and provides historical data trending, and real time data

* Lower wiring costs, straightforward commissioning, built-in continuous self-testing facility.