



Over the last 10 years the benefits of cabinet level monitoring have become well established. In the meantime technology and techniques have advanced to the point where individual outlet monitoring is now a practical and economic possibility.

The benefits of this increased resolution include better data on the power draw of individual pieces of equipment, allowing more accurate predictions when planning moves and changes. The ability can also be used to detect when the current drawn by a piece of equipment fall to zero – indicating a power outage not normally detectable even with cabinet level monitoring.

Maintaining visibility

The IntelliData Systems software design uses a drill-down philosophy. At the top level users can get summaries of entire data centre sites. By drilling down a layer, the user can see individual rooms, then individual modules within the room, then individual cabinets, and now, individual devices.

This structure ensures that the user is not overwhelmed by too much detail, whilst the underlying database structure makes it easy to work across the structure – to compare similar devices in different operating environments for example.

How it works

Each Outlet Monitoring (OM) IntelliStrip includes the same high accuracy overall power monitoring circuitry as the standard IntelliStrip. (This qualifies the product for the Carbon Trust's ECA scheme in the UK). A second circuit board then samples the current draw of each outlet and sends this data to the IntelliServer in addition to the overall measurements.

The advantage of this system is that IntelliServer is able to provide immediate and accurate overall power readings for the strip every time the IntelliServer requests data, whereas the individual socket monitoring may lag slightly while all the sockets are being scanned.

Functionality

Each IntelliStrip PDU has on-board intelligence that monitors the strip's power and environmental status and passes this data to centralised monitoring software (IntelliServer) via a local controller (IntelliPoller). The strips can capture and store instantaneous events such as current surges, or rapid door opening and closures independently of the monitoring software being connected.

Options

OM capability can be combined with any other IntelliStrip option, such as socket power cycling or socket outlet switching. Temperature and Humidity and door switch sensor capabilities are included as standard. The OM IntelliStrip is available in IEC and UK 13A versions with 4 to 24 outlets. Power entry may be from the top or bottom (data and sensor connectors are located at the opposite end).

Monitoring

- ▶ Measures Current, Voltage, Power Factor, kW, kVA and kWhours
- ▶ Power present sensor
- ▶ Temperature and humidity measurement
- ▶ Door open sensor
- ▶ Designed to work as single strips, or in pairs for dual supply
- ▶ Retrofittable to existing cabinets from any manufacturer
- ▶ Left and right handed socket orientation for easy cable management
- ▶ Control and monitoring via control bus that minimises network impact
- ▶ Expansion connector for additional sensor types and further control
- ▶ 32A capability per strip

Specification

Size (24 way strip): 65 x 65 x 1931mm between fixing centres
(Fits in a 47U cabinet)

Weight: Approx 6kg

Power connection: Options - 2m terminated in 32A Commando as standard

Power Capacity: 32A at 230 – 250 VAC

Measurement accuracy: Power – better than 2%, typically better than 1%
Temperature ± 0.5 °C
Humidity - ± 5%