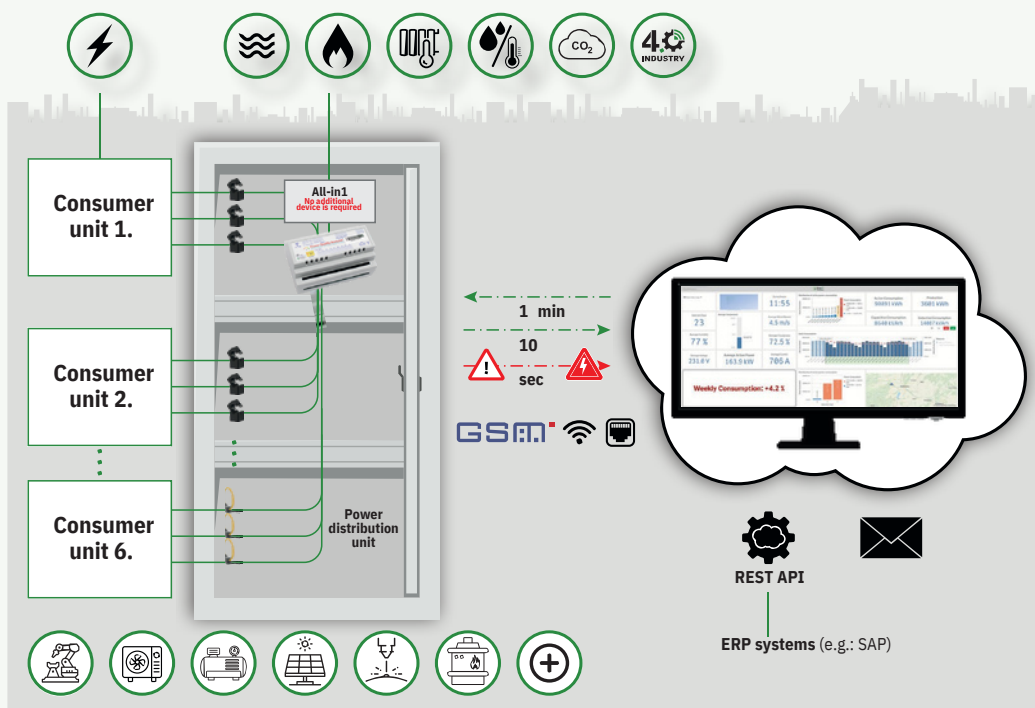


METROMATICS IOT SMART ENERGY MANAGEMENT SYSTEM

Metromatics IoT Smart Energy Management System
Real-Time energy management and performance monitoring system
Measuring comfort factors even without wires
Fast return on investment (2-3 months)
Specific energy consumption and loss time measurement
Early recognition of technical errors
Alarms related to voltage anomalies

Metromatics IoT Smart Energy is an **internationally competitive complex** energy management system that includes our unique IoT measurement, monitoring and control devices, the Metromatics IoT Platform – including data visualisation – and the various associated Metromatics IoT sensors (e.g. temperature, humidity). The system enables **real-time monitoring** of a company’s energy systems – mainly electricity, or even natural gas, water, heat consumption – and various comfort characteristics, even at the facility/activity level.

Our devices are able to transmit data directly over **multiple communication systems** (GSM, Ethernet, WiFi, 4G, NB-IOT, LoRa, PLC, etc.) without additional data concentrators, **collect data in real time** and **process** it in real time through the energy management platform and send alerts based on the data and **intervene** if necessary.



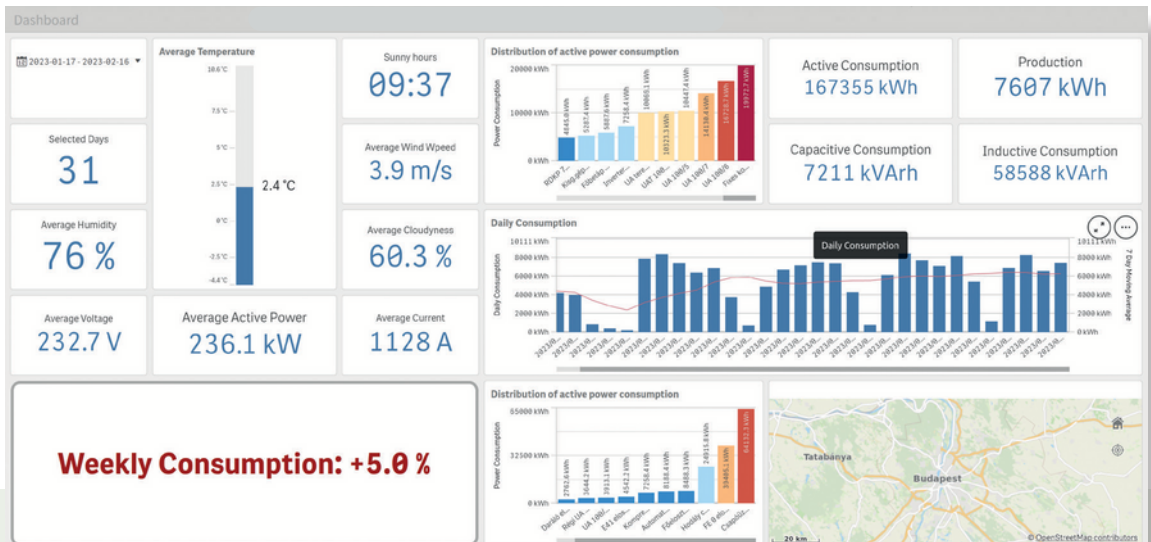
OUR DEVICES

- REAL-TIME data forwarding (GSM, Ethernet, WiFi etc.)
- 3 phase measurement: 9 or 21 metering channels in a single device
- Sampling rate: 100 sample / period / channel (5.000 Hz)
- Full range of input current: 5A-30,000A
- Measured quantities (per metering channel) – Taken from Network / Returned to Network:
 - » 1 min. average: Voltage / Current / Effective power (consumption or generated) / reactive power (capacitive/inductive) / mains frequency / Cosfi
 - » Periodic peaks (min/max) within 1 min: Voltage / Current / Effective power (consumption or generated) / reactive power (capacitive/inductive) / mains frequency)iv)
- Rolling values (per branch) at 1min resolution: effective power, recycled power, reactive power: inductive or capacitive
- Accuracy class: <1%
- Alarms based on the line voltage characteristics (per phase: 1 min VRMS <90%, >110%, 1 min 2 VRMS >110%, differ. 20%, Period VRMS <90%, <10%, Power outage,...)



PLATFORM

- REAL-TIME system
- HIGH AVAILABILITY
- Registration of inverter, pulse equivalent and consumer equipment/units
- Storage of data as converted physical quantities based on current transformer and pulse equivalent registers
- Basic level visualisation
- Data export (CSV file format)
- Data export via REST API
- E-MAIL ALERTS based on line voltage characteristics
- Monitoring functions
- Control and Monitoring functions



HIGHER LEVEL VISUALISATION

- 1 min charts going back 21 days
- 15 min charts going back years
- Dashboard overview – Last month summary
- Dashboard overview – Last month line voltage anomalies summary
- Meteorological and sensor data
- Effective power (consumption or generated)
- Reactive power (capacitive / inductive)
- Correlation charts (e.g.: Temperature-Power)
- Line voltage anomalies
- Sankey, Box and distribution diagrams
- Power comparison diagram
- Individual visualisation development



ABOUT US

Metromatics Pty Ltd was established in 1989 and is a privately owned Australian Company.

Our continuous goal has been to represent quality suppliers of defence and industrial products and sub systems and to on-sell these products to our own customer base in Australia and New Zealand and we have been successful in achieving this since the very beginning.

Our focus is to establish an in depth working relationship with our customers that will allow us to ascertain their requirements and provide the best solution available whilst providing through life support for the product provided

We manufacture a range of systems and sub systems for the Defence & Industry which compliments the line of products we represent.

CONTACT

Metromatics Pty Ltd

sales@metromatics.com.au | www.metromatics.com.au

Brisbane: +61 7 3868 4255 | Melbourne: +61 3 9872 4592

Sydney: +61 2 9460 4355 | Adelaide: +61 8 8343 8516