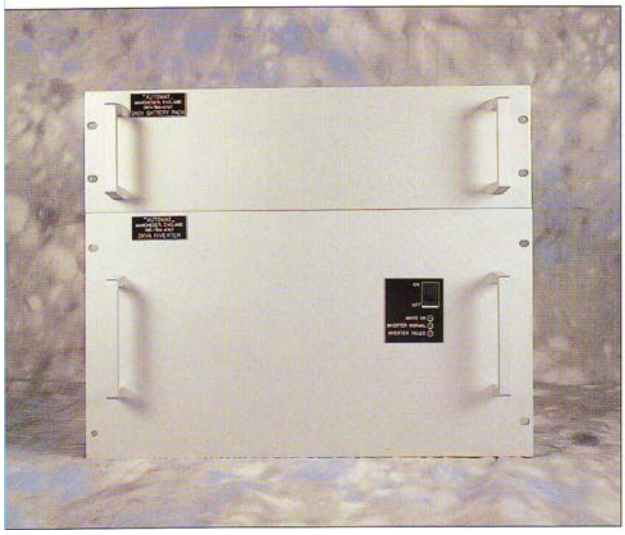
A POWERFUL INTERNATIONAL FORCE

Electro Automat has been manufacturing high quality Backup Power Systems for over 40 years.

As part of the Marthill Group, we also design and manufacture a range of highly regarded transformers, instrument transformers and a unique battery impedance monitor.

Our systems are employed by all UK Regional Electricity companies and are used extensively throughout the world.

The Automat name has become synonymous with quality and reliability in stand by equipment. Automat's systems are available in a standard physical size and/or an electrical size, and custom made systems are supplied for specialised requirements.



19 INCH RACK MOUNTED UPS AND BATTERY PACK

UPS in an industry standard rack format, for use with SCADA and control panels. Input and output connections, plus alarm contacts are situated on the rear of the unit, and necessary local alarm indications are positioned on the front panel. A separate bypass module can be supplied to allow the UPS to be removed completely for maintenance while providing power to the load.

INDUSTRIAL SELF CONTAINED UPS

Chassis mounted UPS in a floor standing cubicle with integral battery compartment in the lower level of the unit. The unit shown has metering for voltage, current and frequency, plus battery charge and discharge currents.

IP54 SELF CONTAINED UPS

Designed for use in an environment where risk of exposure to moisture is high, this model comprises a 5KVA single phase UPS housed within an IP54 cubicle, with a 4 hour autonomy battery located in the lower, IP21 rated section.

AUTOMAT

ELECTRO AUTOMAT (UK) LTD

Electro Automat UPS systems are specifically produced for industrial use and are designed to the customers exact technical requirements whilst meeting commercial needs.

GENERAL CONSTRUCTION

Most Automat systems are supplied in protective 2mm sheet steel cabinets, conforming to IP21 standard of IEC 529 (1989). Dependent on application, systems can be protected to IP54, for use in damp, humid or extreme temperature environments.

A variety of enclosure sizes are available for housing either the UPS only, a UPS and battery, or a complete suite including UPS, battery and distribution panel.

Additionally, UPS units including battery and distribution can be supplied in 19" rack mounting modules.

PRINCIPAL COMPONENTS

Mains Filter - Optional Prevents the passing of symmetrical and asymmetrical interference back to the mains, and also protects against mains overvoltage.

Battery Charger Matched to the battery system and inverter units, provides a steady state controlled DC supply.

The battery charger is designed to supply the full load whilst simultaneously charging the system batteries. The charging current to the battery is limited in accordance with the battery manufacturers recommendation to ensure a full working life and minimise failure.

Battery Systems are supplied using Sealed or Vented Lead Acid or Nickel Cadmium batteries, dependent on the application and environmental requirements.

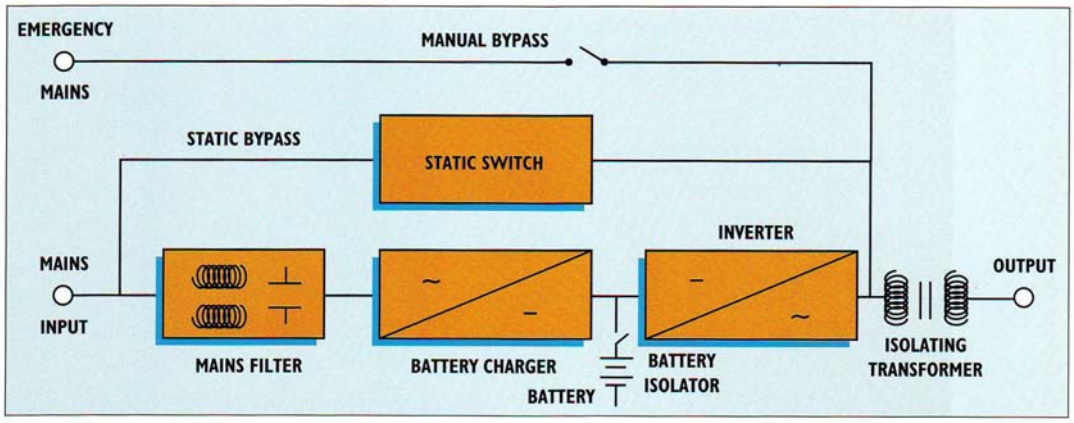
Battery Isolator Prevents excessive current from the battery and allows for maintenance of the battery.

Inverter Converts the DC voltage from the battery charger or the battery to a sine wave AC output.

Isolating Transformer - Optional Adapts the AC output voltage from the inverter to that required, and at the same time provides electrical isolation of the load from the UPS.

Static Bypass Permits the unit to absorb high, short term overloads, without the need to oversize the main UPS.

Manual Bypass Allows the isolation of the UPS system whilst supplying the load. The manual bypass is powered by the same supply as the UPS, or can be connected to an alternative or emergency mains.



The following table covers the most common options available in an Automat bespoke UPS.

OPTION	METHOD	CAN BE APPLIED TO
Galvanic Isolation	Isolation Transformer	Input and / or output
Protection	Fuses or MCB's	Input of System, Rectifier Input, Rectifier Output, Inverter Output, Battery, Bypass.
Metering	Digital or Analogue	Voltage, Current, Power, Frequency & Phase (where applicable) on: Rectifier Input/Output Inverter Input/Output Battery
Alarms	LED Lamp Audible or Volt free contact	Out of tolerance on any metered function. Failure of mains, Rectifier, Inverter, Static or Manual Bypass. Battery earth fault (+ve or -ve) Over temperature on Rectifier, Inverter, Battery, Static Switch or Transformers. Battery high impedance. Battery electrolyte level. MCB trip or fuse fail.
Monitoring	LED Lamp	Mains available. Bypass supply available. Bypass active. Static switch active.

POWER RATINGS

The following options cover the most common system type requested.

INPUT			OUTPUT			POWER
Phases	Voltage	Frequency	Phases	Voltage	Frequency	
Single	48,110,220 230,240,380 400,415	50 or 60 HZ	Single	48,110,220 230,240,380 400,415	50 or 60 HZ	250VA to 25KVA
Three	380,400,415	50 or 60 HZ	Single	48,110,220 230,240,380 400,415	50 or 60 HZ	3KVA to 25KVA
Three	380,400,415	50 or 60 HZ	Three	380,400,415	50 or 60 HZ	3KVA to 200KVA+
Autonomy can be from 10 mins to over 24 hours. Combinations of input and output voltage ie. 240 Vac in, 110 Vac out, can be supplied.						

ENVIRONMENT

Whilst environmental considerations are often important, careful design ensures that the effects of ambient temperature variations do not affect the performance of the system. As a result of this and other design factors, a standard UPS will work over the temperature range of 0 degrees C to +35 degrees C without de-rating and to 55 degrees C with de-rating.

Where critical application or environments are involved, heat exchangers or additional thermal control systems can be employed to ensure total performance.

Special components can be incorporated where units are required to be used and stored in temperatures below 0°C.

ELECTRO AUTOMAT UPS ARE OPERATING WITHIN THE FOLLOWING AREAS:

PETROCHEM

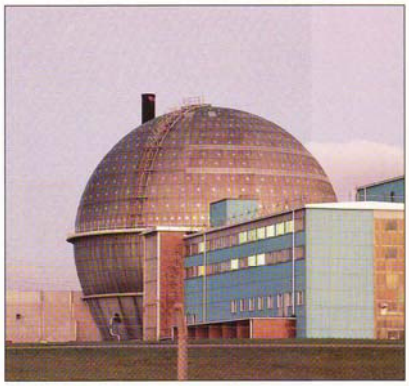
Operating offshore, our systems provide 24 hour backup to essential services on de-manned planned platforms.

Requirements on these sites often include IP54 rated enclosures, 24 hour + back up and shock protection, all of which can be incorporated by Automat.

NUCLEAR

Sited within the Power Stations, Automat self contained UPS are used to protect against power failures within critical systems.

Siesmic qualification for both UPS assemblies and cubicles are often an integral requirement of the specification for units within this environment.



WATER TREATMENT

19" rack mounted UPS support control systems and monitoring panels for water treatment plant control, with self contained, higher Ingress Protection rated systems within the main plant areas.

INSTALLATION, COMMISSIONING AND MAINTENANCE

Automat's dedicated service force is available to ensure that the highest level of operational integrity is provided for you UPS.

INSTALLATION

Starting with a full site survey where necessary our service team can ensure the equipment is professionally sited, battery build completed and cabling and distribution arranged.

COMMISSIONING

Carrying out full witness testing on site, Automat engineers will ensure that all of the aspects of your UPS are performing to your satisfaction prior to handing over the system.

MAINTENANCE

Routine maintenance is essential if we are to guarantee the integrity of your UPS and ensure the highest level of protection to your supported systems.

A standby system must be periodically reviewed and assessed to ensure that it meets the growing demands placed on it. Automat's staff can offer full advice on the best maintenance regime for your system.