

CHLORIDE
POWER PROTECTION

Life-long power
protection

for mission critical rail applications





World-class UPS solutions

You can rely on Chloride Power Protection's design experience in rail applications to help select the right UPS system for your performance requirements and your budget.

Chloride Power Protection rail-specific UPS solutions for DC and AC supply outages extend across 110V single-phase, 230V single-phase, 650V single-phase and 400V three-phase. Whether the application demands a small 500VA UPS providing 24-hour battery support or a 150kVA single-phase UPS operating from a 25kV overhead traction supply, we have the capability and experience to provide both technical advice and proven solutions.

Chloride Power Protection rail solutions include:

AC UPS systems

Series connected systems (SER)

Series connected UPS systems suitable for most 650V single-phase and 400V three-phase mains and mains/generator applications.

Dual Rectifier Traction System (DRTS)

DRTS provides reliable back-up power using the overhead catenary as a second source of supply, thus eliminating the need for a back up diesel generator.

Integrated UPS systems (INT)

Integrated UPS systems provide a smooth transition to generator back up. Chloride Power Protection's unique inverter technology synchronises with the generator to ensure smooth handover.

DC power supply systems

Our range includes solutions for a variety of DC rail applications including a parallel redundant power supply system for axle counting applications.

As well as rail signalling applications, Chloride Power Protection supplies battery-backed solutions for a variety of associated rail applications including, emergency lighting in underground stations, ticketing applications, level crossings, PA systems and IT/communication centres.

UPS solutions for all applications

Chloride Power Protection solution	Typical rail application
Low power UPS to 10kVA	Telecom and IT networks
Medium power UPS to 120kVA	Signalling
Large power UPS to 500kVA	Signal control centres
25kV traction supply UPS	Signalling
Rack-mounted modular inverters	Emergency lighting
AC/DC modular PSU	Signalling
Software	Monitoring, diagnostics and control
DC systems	Axle counters, level crossings, telecoms



Chloride Power Protection

Chloride Power Protection is a world leader in the development of battery-backed systems for ensuring a continuous, quality power supply to mission critical applications.

We have a comprehensive knowledge of the rail industry gained from many years of experience in designing, delivering and supporting effective power protection solutions for above ground and underground locations in the UK and world-wide. In addition, Chloride Power Protection also produces solutions for mass transit tram and people-mover systems as well as for other associated rail applications such as emergency lighting, PA systems, radio communication and IT and telecommunications networks.

Chloride Power Protection's wide range of uninterruptible power supply (UPS) systems are an established part of the UK rail network, ensuring the reliability, stability and continuity of power for rail signalling systems. This protection effectively eliminates 'SPADs' - signal passed at danger incidents - and downtime caused by AC power supply problems.

Even a minor disturbance to the power supply can cause major disruption to the rail network. Installing the correct UPS system will have a positive impact by limiting incidents of downtime and the consequential delays and danger this causes. Minimising downtime occurrences can influence a reduction in incidences of monetary fines related to continuity of power problems.

Three key functions underpin the Chloride Power Protection offering:

Design

We are not tied to a single solution or a 'one size fits all' approach. We work with you, your specifiers and installers to determine optimum solutions to meet the overall concept of each project and can individually tailor our technologies to meet your operational needs and your budget.

Deliver

We manage the project right through manufacture and delivery to hand-over and commissioning, dealing with all the details of transport, installation and site co-ordination.

Support

The reliability and availability of the installed system is essential. We provide life-long service and technical support including remote monitoring and diagnostics, for your complete peace of mind.

Ensuring the continuity and quality of your power supply is essential to maintaining performance, safety and high levels of customer service. In this context, leading thinkers in today's customer-focused rail culture understand the importance of a life-long power protection strategy.

Standards & approvals

Chloride Power Protection solutions are designed to comply with relevant national and international rail standards and approvals.

Chloride Power Protection's UPS solutions for above ground and underground rail applications meet the following standards and approvals:

- Network Rail specification RT/E/PS/00007 - uninterruptible power supply units for operational infrastructure
- Network Rail approvals
 - PA05/687 - Excor integrated & dual rectifier traction
 - PA05/1217 - Synthesis Twin, 4kVA single-phase & 20-60kVA three-phase
 - PA05/1212 - EDP90, 90-NET, 60-800kVA three-phase
 - Trackside battery chargers, 30-1500W
 - PA06/1602 - Axle Counter DC UPS systems
- Corporate Supplier to London Underground Ltd.
- Our underground solutions meet specifications for 'section 12' operation and European EMC regulation for rail systems.

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Comprehensive project management

Chloride Power Protection offer a complete project management service for delivery, installation and commissioning of your UPS system.



Chloride Power Protection's dedicated rail service team ensures your UPS system is up and running when and where you need it. We work with you to achieve your project time, cost and performance goals. All parties are co-ordinated throughout implementation to achieve final commissioning deadlines. This is why, when you work with Chloride Power Protection, you can be confident in the success of the project right up to final acceptance.

Our dedicated rail service team understand the intricacies and obstacles involved with working in this industry. They work closely with the construction team to ensure the smooth running of a project. We are used to working within the narrow windows of time allowed for possession of the track to undertake installation and maintenance. Chloride Power Protection's focus on customer service means that we work closely with suppliers and keep everyone involved. By anticipating potential hazards and checking every detail of the route, access and final location, the project team ensures that delivery of the system is safe, on-time and problem-free.

Our project managers produce detailed plans of operation, including quality schedules, risk assessments and method statements, as well as co-ordination of operations, delivery and other specialist site services. Adherence to the plan is monitored and documented throughout with regular reporting to you, the customer.

With the UPS system in place, the battery and interconnecting cabling are installed before commissioning and final testing. The Chloride Power Protection service engineer carries out a safe, systematic start up and full functional verification of the UPS system. Finally, the system is taken through the agreed customer witness test procedure and handed over, along with the test documentation and operating manuals.



