Drhino

Non-Conductive Enclosures

Validation Overview

Real Time Projects

Network Rail – Trackside Level Crossing Trial (NDA)

- **Sector:** Rail infrastructure
- **Location:** United Kingdom (trackside trial site)
- **Application:** Equipment housing
- **Status:** Deployed within live rail environment

Description:
Non-conductive enclosure deployed at a Network Rail trackside trial site supporting the evaluation of new level crossing equipment. The cabinet forms part of the equipment housing within the wider trial environment and is not the primary subject of evaluation. Trial data is held by third parties; internal equipment details and cabinet specifications specific to the trial are not disclosed.

Unipart Rail – Rail Systems Trial Environment (NDA)

- **Sector:** Rail infrastructure
- **Location:** United Kingdom (controlled trial site)
- **Application:** Equipment housing
- **Status:** Deployed within live rail systems environment with Atkins Realis

Description:
Non-conductive enclosure deployed within a side-by-side controlled rail systems trial environment. The cabinet forms part of the equipment housing connected to live rail systems within a wider evaluation programme. Trial data is retained by third parties; internal equipment details and cabinet specifications specific to the trial are not disclosed.

Hypower Storage – Rail Energy Storage Enclosure

- **Sector:** Rail energy infrastructure
- **Location:** Canada rail exhibition programme
- **Application:** Lithium-ion battery energy storage housing
- **Status:** Designed and manufactured demonstration unit

Description:
Non-conductive enclosure designed and manufactured by Drhino for lithium-ion energy storage applications for Hypower Storage Ltd. A full to-scale enclosure has toured rail exhibitions across Canada, supporting demonstration of rail-based power and energy storage use cases.

Rail Station Modular Hubs – Public-Realm Deployment

- **Sector:** Rail / public infrastructure
- **Location:** Harrogate railway station and Bristol Temple Meads station
- **Application:** Modular non-conductive hub structures
- **Status:** Designed and manufactured for 12-month deployment

Description:
Non-conductive modular hub structures designed and manufactured by Drhino for railside deployment within public areas of UK rail stations. Units were installed for approximately 12 months at Harrogate railway station and Bristol Temple Meads, a Class 1 station, demonstrating suitability for public-realm rail environments subject to enhanced safety and security requirements.

UK Funeral Services – Long-Term Mortuary Deployment

- **Sector:** Funeral services / critical infrastructure
- **Location:** United Kingdom
- **Application:** Electrical and control systems housing
- **Status:** Deployed and operational (5+ years)

Description:
Non-conductive enclosure supplied by Drhino for a large-scale UK funeral director mortuary, housing critical electrical and environmental control systems supporting over 40 refrigeration storage units. Deployed continuously for over five years, the enclosure demonstrates long-term durability in a mission-critical environment.

Residential Battery Storage Enclosures - Initial Stage Project

- **Status:** Current order for 10 enclosures; delivery scheduled for January
- **Application:** Housing for residential external solar battery storage systems
- **Client:** Hypower Storage Ltd for UK Local Authority (London-based)

Description:
Non-conductive enclosure designed and manufactured by Drhino ready for integration with battery systems in January; operational images and performance data to be established post-installation.

Testing, Certification & Technical Evidence

The table below summarises available testing, certification, and technical evidence for the Drhino enclosure system and key construction components. Supporting manufacturer data is provided separately. Enclosure-level testing and approvals are configuration and application-specific.

Scope / Item	Evidence Available	Reference / Standard	Notes
Enclosure (System-Level)			
Complete enclosure assembly	In-situ operational deployments	N/A (deployment evidence)	Performance demonstrated through live operational use
Overall environmental protection (enclosure ingress protection)	Ingress protection test certificate – IP66 (Category 1)	BS EN 60529:1992 +A2:2013 – IP66 (Category 1)	IP66 verified for a defined enclosure configuration; performance is configuration-dependent.
Construction & Component Categories			
External panel material (HPL-FR)	Manufacturer technical data sheets	ETA 20/1265 of 22/07/2021	Material-level data only; enclosure-level performance is configuration-dependent.
External bonding and sealing systems	Manufacturer technical data sheets	EAD 090010-00-0404:2018, ETA-06/0090_V3 of 16/07/2025	Component-level data only; performance is application- and configuration-dependent.
Internal bonding systems	Manufacturer technical data sheets	EN45545-2 HL3 Certification	Component-level data only; application-specific.
Proprietary panel fixing and clip mechanism	Internal design validation and in-service operational use	N/A (proprietary design)	Proprietary fixing system; performance evidenced through system-level use.
Door hinge mechanism	Manufacturer technical data sheets	ISO 9001: 2015	Component-level evidence only; configuration-dependent.
Access and locking systems	Manufacturer technical data sheets	BRE LPS 1175 SR2	Application-specific locking solutions; component-level certification only.

Project / Supplier References

Network Rail / Unipart Rail Group – Trackside Level Crossing Trial (NDA)
References from Tier-1 rail involvement unavailable due to NDA.

Hypower Storage Ltd
Customer reference: Hypower Storage Ltd.
Email: jay@hypowersystem.com

PE Marines Ltd
Supplier reference (internal hinge systems): Paul Edmondson, PE Marines Systems Ltd.
Email: design@pedesign.eu.com

Unipart Rail Group / Atkins Realis – Rail Systems Trial Environment (NDA)
References from Tier-1 rail involvement unavailable due to NDA.

Rail Station Modular Hubs – Public-Realm Deployment
Customer / consultant reference: Neil Buyers, Nota Bene Consulting.
Email: neal@notabeneconsulting.co.uk

Camlock Systems Ltd
Supplier reference: Camlock Systems Ltd, Website Case study (publicly documented)

UK Funeral Services – Long-Term Mortuary Deployment
Written client reference (attached): John Pinder, E.W. Pinder & Sons

"A Drhino electrical cabinet was supplied to house an RCD box. The enslosure has remained completely dry internally and has maintained its external condition over years of continuous service"
- John Pinder 18/05/2023