

Certificate of Acceptance

PA05/05241

Manufacturer:
Riello

Issue : 2
Valid From : 13/04/17

Riello Sentinel Dual UPS

Product Description

- Sentinel Dual SDH 2200-ER
Rated output power: 2200 VA
- Sentinel Dual SDH 3000-ER
Rated output power: 3000 VA
- Sentinel Dual SDL 5000
Rated output power: 5000 VA

Product Image



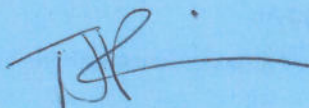
Scope of Acceptance- Full Acceptance

May be used as uninterruptible power supplies (UPS) within locations which meet with its' EMC compliance. See "Specific Conditions" section of the certificate of acceptance. Not to be used within 3 m from the centre of the nearest track.

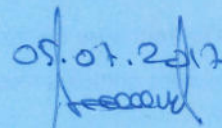
Issue 2: Updated to include model SDL 5000 and associated constraints have being included in "Specific Conditions" section of the certificate of acceptance. Also include the notes regarding disposal in accordance with the WEEE directives.

Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use on railway infrastructure for which Network Rail is the Infrastructure Manager under the ROGS regulations.
Reviewed by:

Authorised by:



Tom Riley
Product Acceptance Coordinator



Dan Mandoc
Professional Head, Telecoms

Please contact technologyintroduction@networkrail.co.uk

Network Rail Infrastructure Ltd Registered Office 1 Eversholt St London NW1 2DN Registered in England and Wales No. 2904587 www.networkrail.co.uk
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Manufacturer:
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Valid From : 13/04/17**Specific Conditions**

The following Conditions are specific to the approved product/s contained within this Certificate. These conditions must be adhered to in addition to the Network Rail General Conditions contained within the "General Terms and Conditions" section. Failure to adhere to these conditions may result in the withdrawal or suspension of Acceptance of some, or all of the items contained within the accepted configuration.

Manufacturer

- 1) Contact Network Rail Technology Introduction group via technologyintroduction@networkrail.co.uk regarding any firmware and hardware changes. The emails shall include the certificate of acceptance number, the product involved and the changes

User

- 1) Install in accordance with supplier's instructions by competent installers.
- 2) It is project's responsibility to make sure the equipment can support the intended functions at the intended EMC environment. If the equipment is deployed in EMC environment outside of its' compliant, an EMC expert shall be consulted to understand the possible impacts to the equipment and services being supported and mitigation measures shall be implemented. These measures shall not affect maintenance activities nor require special maintenance procedure.
- 3) The Sentinel Dual SDH 2200-ER and SDH 3000-ER:
 - i) **May not** be used within 3 m from the centre of the nearest track.
- 4) The Sentinel Dual SDL 5000:
 - i) **May not** be used within 3 m from the centre of the nearest track.
 - ii) **May not** be used near intended radio/ wireless receiver.
 - iii) The electrical power cables forming the AC mains circuits connected to the SDL 5000's power output shall be kept as short as possible and installed away from signalling/ telecom cables.
- 5) Actual batteries are not specified in the certificate of acceptance as battery models tend to have short supply lifespans. When purchasing batteries, project shall make sure:
 - i) The battery is designed to operate in UPS (in standby applications).
 - ii) If the UPS is intended to be regularly discharged then cyclic batteries are recommended.
 - iii) The capacity must be sufficient to meet the required autonomy (same or greater than those being replaced).
 - iv) The dimensions of the battery must fit the fixtures at the intended the location.
 - v) The operational voltages (assuming a 6 cell 12Vdc block) need to be approximately:
 - a) cut off (end of discharge) at 9.6V/ battery
 - b) float charge at 13.6V/ battery
 - c) boost charge at 14V/ battery
 - vi) The recharge current must be at least 10% of the rated Ah.
- 6) The equipment contains material which needs to be disposed of in accordance with the WEEE directives.

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Product Configuration

Hardware (Maintenance Spares and Line Replaceable Units)

Part No.	Description	Catalogue No.
SDH 2200ER	Sentinel Dual ER 2.2KVA	087/026876
SDH 3000ER	Sentinel Dual ER 3KVA	087/026877
SDL 5000	Sentinel Dual SDL 5000	087/026874
Multipass 16	Wall/ Rack mounted by pass module	087/026878
Multicom 382	Relay contacts card to provide UPS alarm and status indication.	087/026879

Assessed Documentation

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
OMNBYM10A2LUA	Manual bypass user manual	---	---	T1
OMNU030NPB	Emergency switch device contact port adapter card. Installation and user manual.	---	---	T1
OMNSDH1KONPENUB	Uninterruptible power supply 1-3 KVA installation and user manual	---	---	T1
SoC PA05/ 05241	Statement of compliance NR/PS/ELP/00007	---	06/12/11	T1
CE075C	Multicom CE declaration of conformity	---	15/01/08	T1
RCE0033B	Multipass CE declaration of conformity	---	30/11/09	T1
RCE0058A	Sentinel Dual CE declaration of conformity	---	22/12/10	T1
SPTSDHA1Y11BRUEN	Sentinel Dual Technical Specification	---	---	T1
---	1-Riello Sentinel Dual UPS .msg Request for info from supplier.	---	13/09/2016	1
---	2-Riello Sentinel Dual UPS .msg Supplier response	---	21/09/2016	1
---	3- RE Product Acceptance Progress - Reillio UPS.msg Email from Raul Marquez to confirm performance	---	12/09/2016	1
---	4- RE Product approval for backup systems (Riello).msg Battery requirements	---	27/09/2016	1
---	5- Riello Sentinel Dual UPS .msg Training	---	24/10/2016	1
---	6- riello UPS (2)	---	16/01/17	1
---	PA05/ 05241: Justification for Recommendation to Full PA Cert	1	16/01/17	1
---	Justification For Acceptance For PA05.docx Detailed why the SDL 5000 should be accepted and how this was supported.	1	13/04/17	2

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Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
---	FW Certificate of Acceptance - PA0505241 - Riello Sentinel Dual UPS. Email from Raul Marquez to confirm the similarities between SDL 5000 and SDH 2200ER, and SDH 3000ER	---	23/02/17	2
---	RE EN 62040-2 for UPS cat C3.msg Email from Peter Brown responding to the query of the higher permitted levels for conducted emission and radiated emission.	---	30/03/17	2
CAS number 1317-36-8	REACH Regulation (EC) No 1907/2006	---	---	2

Certificate History

Issue	Date	Issue History
T1	14/12/2011	First accepted for trial use
T2	30/04/2012	Trial certificate updated to include York IECC Concentrator Renewal.
1	16/01/2017	First full acceptance.
2	13/04/2017	Updated to include Sentinel Dual SDL 5000 and associated deployment constraints. Also included the reminder that equipment needs to be disposed of in accordance with WEEE directives.

Contact Details

Manufacturer

Jason Yates
j.yates@riello-ups.co.uk

Sponsor

Raul Marquez
Raul.Marquez@networkrail.co.uk

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General Terms & Conditions

1) General

- 1) This certificate can only be amended by Network Rail Technology Introduction Group. Any alterations made by a different person will invalidate the entire certificate.
- 2) Failure to abide by the requirements in this Certificate of Acceptance may invalidate the certificate, thereby restricting the right to operate the product and / or limiting the future supply and deployment of the product on the infrastructure.
- 3) Upon the review date this certificate and the product it relates to is invalid and not accepted for use. Manufacturers are to make an application for a review prior to the review date.

2) Manufacturer

The Manufacturer shall:

- 1) Ensure that all products supplied comply with the standards defined in the Acceptance Requirements or otherwise documented as part of the assessment, including meeting the reliability requirements included in the Acceptance Requirements and in any deed of warranty for the relevant certificate number.
- 2) Notify Network Rail Technology Introduction Group:
 - a. Within 48 hours, of any deficiencies affecting the quality, functionality or safety integrity of the product (including corrective action undertaken or proposed).
 - b. Of any intended change to the accepted product; changes include:
 - i. a change to the product configuration (to the actual product or its application);
 - ii. a variation to or addition of manufacturing locations or processes;
 - iii. a change in the name or ownership of the manufacturing company;
 - iv. any changes to the ability or intention to support with technical services, spares or repairs.
- 3) The Manufacturer shall provide Network Rail Technology Introduction Group at least 12 (twelve) months notice of its intention to discontinue supply or to provide such notice as is reasonable if such discontinuance is outside its control and will offer the opportunity of a Last Time Buy to Network Rail together with date for last order placement and supply of the parts affected. The introduction of proposed alternative products shall be communicated to the Network Rail Technology Introduction Group.
- 4) Provide further copies of operating and maintenance manuals to purchasers / users of the product as necessary (including certificates of conformance, calibration etc).
- 5) Provide further copies of training manuals and an appropriate level of training to purchasers or users of the product as necessary.
- 6) Where applicable, specialist technical support, repairs and servicing of the product shall be carried out by the Original Equipment Manufacturer (OEM) or authorised agent only.
- 7) Network Rail may request information from the manufacturer to prove product compliance with clauses 1 and 2 above and reserve the right to suspend and/or withdraw any application where information is not forthcoming within a reasonable timeframe.
- 8) In accordance with Network Rail's Quality Assurance Policy Statement 2011, where the specification and/or Product Acceptance Certificates specify quality assurance classifications (QA1 to QA5) for the products, the manufacturer shall comply with the specified level of quality assurance for each product and allow Network Rail access to carry out its quality assurance checks.
- 9) The manufacturer shall give Network Rail's representatives access at all reasonable times to its premises and allow them to inspect its quality systems and production methods and, if requested, to inspect, examine and test the products both during and after their manufacture and the materials being used in their manufacture.

3) Conditions of Use

Specifiers, installers, operators, maintainers, etc. using the product shall:

- 1) Comply with the certificate conditions. If a condition is not understood guidance must be sought from Network Rail Technology Introduction Group.
- 2) Check that the application of use complies with the relevant certificate's scope of acceptance.
- 3) Report any defect if it is a design or manufacturing fault likely to affect performance and/or the safe operation of the railway in writing to Network Rail Technology Introduction Group.
- 4) Inform Network Rail Technology Introduction Group in writing of a change to the product configuration (or to the actual product or its application).
- 5) Operate, maintain and service the product in accordance with Network Rail standards and Operation and Maintenance manuals as appropriate.
- 6) Be appropriately trained and authorised for the installation, maintenance and use of the product.
- 7) Only send products for repair or reconditioning to the Original Equipment Manufacturer (OEM) or authorised agent.
- 8) Users are to be aware that Product Acceptance is not a substitute for design approval.

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4) Compliance

Railways and Other Guided Systems (ROGS) Regulations

- 1) Where the product is to be used in areas where Network Rail is not the Infrastructure Manager (e.g. leased stations), the sponsor shall additionally obtain formal consent from the Infrastructure Manager for the locality where the equipment is to be installed. This may include a requirement for additional safety verification. The decision of that Infrastructure Manager is binding, and cannot be overridden by Network Rail except by the escalation processes established in the ROGS regulations
- 2) As required in Railway Group Standard GE/RT8270, at each use of this product the project or group responsible for installation and commissioning shall be required to demonstrate compatibility with:
 - a. All rail vehicle types that have access rights over the area affected by the change
 - b. Infrastructure managed by others
 - c. Neighbours.

Railway Interoperability Regulations

- 3) For interoperable constituents of systems the project or group responsible for installation and commissioning shall be required to demonstrate compliance with the relevant Technical Specifications for Interoperability (TSI) where appropriate.
- 4) An authorisation from the national safety authority (i.e. the Railway Safety Directorate of the Office of Rail Regulation) is required before the equipment is to be used in revenue earning service.

5) Supply Chain Arrangements

- 1) Certificates of acceptance do not imply any particular quantity of supply nor any exclusivity of supply.
- 2) Products may be purchased by Network Rail or its agents, suppliers or contractors.
- 3) Manufacturers should note that it is not necessary to enter into any exclusive supply arrangements with resellers or other suppliers