

Electricity Specification 332

Issue 3 August 2021

100A House Service Cut-outs



Amendment Summary

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Contents

1	Introduction	5
2	Scope	5
3	Definitions	5
4	General Requirements for Approvals and Testing	6
	4.1 Product not to be Changed	6
	4.2 Electricity North West Technical Approval	6
	4.3 Quality Assurance	6
	4.4 Formulation	7
	4.5 Identification Markings	7
	4.6 Minimum Life Expectancy	7
	4.7 Product Conformity	7
	4.8 Confirmation of Conformance	7
5	Requirements for Type and Routine Testing	7
	5.1 Requirement for Type Tests at Suppliers Premises	8
	5.2 Requirement for Routine Tests at the Supplier's Premises	8
6	Technical Particulars	8
	6.1 General	8
	6.2 A1 Cut-out (New XLPE/PVC Installations)	8
	6.3 A2 Cut-out (New XLPE/PVC Installations)	8
	6.4 Existing Cut-out Replacement (PILC Installations)	8
	6.5 Fuse Carrier	8
	6.6 Terminals	9
	6.7 Main Assembly	9
	6.8 Cable Cover	9
	6.9 Sealing	9
7	Documents Referenced	9
8	Keywords	10
	Appendix A – Conformance Declaration	11

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used by, or its contents divulged to, any other person whatsoever without the prior written permission of Electricity North West Limited.

1 Introduction

This document is largely based on BS 7657: 2010. Additional requirements over and above the provisions of BS 7657 are detailed below.

All cut-outs to this Specification shall comply with the latest version of the Meter Operation Code Of Practice Agreement (commonly referred to as MOCOPA). New cut-outs shall comply with Electricity North West Limited document, ES212.

2 Scope

This specification covers Electricity North West Limited requirements for 100A SP&N cut-outs, type A1 or A2, and TP&N cut-outs, both with cable covers. Compound filling of sealing chambers is not required. TP&N cut-outs are to be made up of one SP&N cut-out and two SP, type B, cut-outs.

The cut-out shall be moulded from Glass Reinforced Polyester or similar approved material. The access to Phase, Neutral and Earth incoming and outgoing terminals shall be prevented by an insulated interlocking cover. The cover shall not be removable unless the fuse carrier is fully removed. The access to certain outgoing Earth terminals shall be provided by means of a knockout.

3 Definitions

Approval	Sanction by the Electricity North West Underground Circuits Manager that specified criteria have been satisfied
Contract	The agreement between Electricity North West and the Contractor for the execution of the Works including therein all documents to which reference may properly be made in order to ascertain the rights and obligations of the parties under the said agreement.
Contractor	The person or person's firm or company, including personal representatives, successors and permitted assigns, who's Tender has been accepted by Electricity North West.
Specification	The Specifications and schedules (if any) agreed by the parties for the purpose of the Contract.
Supplier	Any person or person's firm or company who supplies goods to Electricity North West or to its Contractor.
Tender	An offer in writing to execute work or supply goods at a fixed price.
Tenderer	The person or person's firm or company, including personal representatives, successors and permitted

assigns, invited by Electricity North West to submit a Tender.

4 General Requirements for Approvals and Testing

4.1 Product not to be Changed

No change in the product, packaging or labelling shall be made after Approval has been granted without prior notice to the Electricity North West Underground Circuits Manager, and receipt of a written agreement to the proposed change from the Electricity North West Underground Circuits Manager.

4.2 Electricity North West Technical Approval

The Tenderer shall submit, with this Tender, proposals for testing which will demonstrate, to the satisfaction of the Electricity North West Underground Circuits Manager, compliance with this Specification. Such tests shall be carried out without expense to Electricity North West.

Alternatively, technical reports and other data may be submitted that the Tenderer considers will demonstrate, to the satisfaction of the Electricity North West Underground Circuits Manager, compliance with this Specification. Acceptance of this evidence shall be at the discretion of the Electricity North West Underground Circuits Manager but will not be unreasonably withheld.

Approval shall be 'factory specific' and is not transferable to another factory without the written Approval of the Electricity North West Underground Circuits Manager.

The Supplier and product shall comply with all the relevant requirements of Electricity North West documents EPD311 and CP311.

4.3 Quality Assurance

The Tenderer shall confirm whether or not Approval is held in accordance with a quality assurance scheme accredited under ISO 9000. If not, the Tenderer shall submit a statement of the quality assurance procedures employed to control the quality of the product, including the performance of Suppliers and Sub-Contractors.

The right is reserved for the repeat of such tests, from time to time, that the Electricity North West Underground Circuits Manager may deem to be reasonably necessary to demonstrate continued compliance with the Specification.

The Tenderer shall submit, with the Tender, a list of tests and inspections which are carried out on the product prior to despatch which shall demonstrate, to the satisfaction of the Electricity North West Underground Circuits Manager, fitness for installation and service.

The Tenderer shall provide free of charge to Electricity North West such samples as may, in the opinion of the Electricity North West Underground Circuits Manager, be reasonably required for inspection and/or retention as quality control samples. The Electricity North West Underground Circuits Manager will confirm the requirement for samples at the time of Tendering.

The right is reserved for inspections to be made of Tenderer's facilities, from time to time, as deemed reasonably necessary by the Electricity North West Underground Circuits Manager to ensure compliance with this Specification and any Contract of which it forms a part.

The Tenderer shall submit, with the Tender, such details of product packaging disposal, as will enable Electricity North West to comply with the requirements of BS EN ISO 14001 - Environmental Management Systems.

4.4 Formulation

The Tenderer shall submit, with the Tender, such details of the formulation and use of the product and associated substances as will enable Electricity North West to comply with the obligations of the Health and Safety at Work Act 1974 and the Control of Substances Hazardous to Health Regulations 2002, in the use, storage and disposal of the product. The Tenderer may stipulate, prior to submission of such information, that it is to remain confidential, and the Electricity North West Underground Circuits Manager will, if requested, confirm agreement to this prior to receipt of the information.

4.5 Identification Markings

The Tenderer shall submit, with the Tender, details of markings which it is proposed to apply to the product or packaging to identify manufacturing batches or items. The forms and content of such markings shall be subject to the Approval of the Electricity North West Underground Circuits Manager and shall in all cases include the Electricity North West approved description and commodity code number.

The Tenderer shall submit, with the Tender, such details of marking gross weight on components, assemblies and packages, as will enable Electricity North West to comply with the Health and Safety Manual Handling Operation Regulations 1992, for components, assemblies and packages supplied with a gross weight over 1kg. The forms and content of such markings shall be subject to the Approval of the Electricity North West Underground Circuits Manager.

4.6 Minimum Life Expectancy

The minimum life expectancy of all products covered by this Specification is 60 years.

4.7 Product Conformity

Preference will be given to those Suppliers who can provide suitable product conformity certification to a recognised or specified standard, or an equivalent certification.

4.8 Confirmation of Conformance

The Tenderer shall complete the conformance declaration sheets in [Appendix A](#). Failure to complete these declaration sheets may result in an unacceptable bid.

5 Requirements for Type and Routine Testing

The Electricity North West Underground Circuits Manager shall set out the requirement of the following tests to be carried out by the Supplier at the Supplier's cost.

5.1 Requirement for Type Tests at Suppliers Premises

These are a series of one-off type tests, which are carried out to ensure the satisfactory performance of the product design, under extremes of operating stresses, and of endurance, as may be appropriate, to be determined by the Electricity North West Underground Circuits Manager.

These may or may not be destructive tests.

5.2 Requirement for Routine Tests at the Supplier's Premises

These tests may be required to be carried out on every individual unit or component, as specified, or at some regular frequency to be determined by the Electricity North West Underground Circuits Manager.

The results of these tests may be required to be supplied to Electricity North West with each unit purchased or retained for inspection, at a period to be determined by the Electricity North West Underground Circuits Manager.

6 Technical Particulars

6.1 General

All existing requirements of BS 7657 shall be complied with for A1 & A2 cut-outs.

6.2 A1 Cut-out (New XLPE/PVC Installations)

The A1 cut-outs are to be a single phase fuse unit comprising of separate neutral and Earth terminals, complete with fuse carrier and cable termination cover. The fuse link shall not be provided. Outgoing Earth terminals shall be accessible via knockouts in accordance with BS 7657.

6.3 A2 Cut-out (New XLPE/PVC Installations)

The A2 cut-outs are to be a single phase fuse unit comprising of a combined neutral and Earth terminals, complete with fuse carrier and cable termination cover. The fuse link shall not be provided. Outgoing Earth terminals shall be accessible via knockouts in accordance with BS 7657.

6.4 Existing Cut-out Replacement (PILC Installations)

Existing cut-outs connected by paper insulated cables are to be replaced using specified purpose designed cut-outs. These cut-outs must have bottom and side cable entry ports. The size of the ports must be large enough for the termination of a 0.06 sq inch paper insulated cable. The crutch cover shall have captive screws. The fuse link shall not be provided. The unit shall be generally constructed to BS 7657. Facility to switch position of Phase and Neutral Terminals shall be provided.

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6.5 Fuse Carrier

No fuse link shall be provided. The fuse carrier shall have a continuous rating of 100 Amps and shall accept BS 1361/BS 88-3 fuse links.

6.6 Terminals

Two incoming and outgoing terminals for both phase & neutral shall be provided. The terminals shall have a capacity for cable cores of up to and including 35mm.

Tamper proof blanking plugs shall be provided to protect unused cable positions.

6.7 Main Assembly

In the event of heat damage to the insulation, the fixing screws shall not be located directly between phase and neutral and shall be positioned such to that will prevent a flashover. Suitable fixing screws shall be provided to allow fixing the complete cut-out to a wood chip mounting board.

6.8 Cable Cover

The cable cover shall be designed to provide mechanical and electrical protection for incoming cables. The cover shall be interlocking with the fuse base so that it cannot be removed unless the fuse carrier is fully withdrawn. The cable cover shall have a minimum of two bottom entry ports for which grommets shall be supplied. A provision of a 3 phase cable cover shall be made available.

6.9 Sealing

In addition to the requirements of Section 7 of BS 7657 the following shall be complied with:

- The material surrounding the sealing holes shall be a minimum of 2mm thickness. The thickness of the sealing lugs shall be a minimum of 5mm.
- For types A1 and A2, the cable cover shall be interlocked with the fuse such that the cable cover cannot be removed without first removing the fuse.

7 Documents Referenced

DOCUMENTS REFERENCED	
Health and Safety at Work Etc Act 1974.	
Control of Substances Hazardous to Health Regulations 2002.	
Manual Handling Operations Regulation 1992.	
Meter Operation Code Of Practice Agreement.	

BS EN ISO 9000	Quality management systems.
BS EN ISO 14001: 2004	Environmental Management Systems.
BS 88-3	Low-voltage fuses.
BS 1361: 1971	Specification for cartridge fuses for a.c. circuits in domestic and similar premises.
BS 7657: 2010	Specification for cut-out assemblies up to 100 A rating, for power supply to buildings.
EPD311	Approval of Equipment.
CP311	Equipment Approval Process.
ES212	New Whole-Current-Metered Connections up to 60kVA.

8 Keywords

Cut-out; service.

Appendix A – Conformance Declaration

SECTION-BY-SECTION CONFORMANCE WITH SPECIFICATION

The Tenderer shall declare conformance or otherwise for each product/service or range of products/services, section-by-section, using the following Conformance Declaration Codes.

Conformance Declaration Codes:

N/A =	Clause is not applicable/appropriate to the product/service.
C1 =	The product/service conforms fully with the requirements of this clause.
C2 =	The product/service conforms partially with the requirements of this clause.
C3 =	The product/service does not conform to the requirements of this clause.
C4 =	The product/service does not currently conform to the requirements of this clause, but the manufacturer proposes to modify and test the product in order to conform.

Manufacturer:

Product/Service Description:

Product/Service Reference:

Name:

Company:

Signature:

SECTION-BY-SECTION CONFORMANCE

Section	Section Topic	Conformance Declaration Code	Remarks * (must be completed if code is not C1)
1	Introduction		
2	Scope		
4.1	Product not to be Changed		
4.2	Electricity North West Technical Approval		
4.3	Quality Assurance		
4.4	Formulation		
4.5	Identification Markings		
4.6	Minimum Life Expectancy		
4.7	Product Conformity		
4.8	Confirmation of Conformance		
5.1	Requirements for Type Tests at the Supplier's Premises		
5.2	Requirement for Routine Tests at the Supplier's Premises		
6.1	General		
6.2	A1 Cut-out (New XLPE/PVC Installations)		

6.3	A2 Cut-out (New XLPE/PVC Installations)		
6.4	Existing Cut-out Replacement		
6.5	Fuse Carrier		
6.6	Terminals		
6.7	Main assembly		
6.8	Cable Cover		
6.9	Sealing		

* Applicable specifications shall be stated in the Remarks column where alternatives are quoted within a section. The Remarks column shall also be used to indicate cases where the products or services exceed the quoted specifications.

Additional Notes: