

Electro-Technical Council of Ireland Limited

ETCI's TC-2 technical committee

Amendment No. 2: 2016 (Incorporating amendments Nos. 2.1, 2.2 and 2.3)



ELECTRO-TECHNICAL COUNCIL OF IRELAND LIMITED

2016

This page is for duplex printing

Amendment No. 2:ET101:2008/A2:2016 (Incorporating amendments numbers 2.1, 2.2 and 2.3) to the National Rules for Electrical Installations ET 101:2008 4th Edition incorporating Amendment No.1:ET101:2008/A1:2011.

This page is for duplex printing

17 February 2015

ETCI announces the following Amendment No. 2.1 to the National Rules for Electrical Installations ET 101:2008 incorporating Amendment No.1:2011

SWA sleeving

ETCI announces the following Amendment No. 2.1 to the National Rules for Electrical Installations ET 101:2008 incorporating Amendment No.1:2011, with retrospective effect from 1st September 2014.

Amendment No. 2.1

Clause 514.3.6 (b) is hereby amended as follows:

Addition: Notwithstanding this requirement, in SWA cables not having a protective conductor identified by the bi-colour green/yellow throughout its length, a conductor identified by the colour blue may be used as a protective conductor provided that its terminations have supplementary colour marking of green/yellow applied in accordance with 514.3.10.

Ends.



**ELECTRO-TECHNICAL COUNCIL OF IRELAND LIMITED
2015**

This page is for Duplex Printing

27th August 2015

ETCI announces the following Amendment No. 2.2 to the National Rules for Electrical Installations ET 101:2008 incorporating Amendment No.1:2011

ETCI announces the following Amendment No. 2.2 to the National Rules for Electrical Installations ET101; the implementation date for amendment No. 2.2 is 5th September 2017.

Amendment No. 2.2

Clause 543.1.1 Selection of cross-sectional area of a protective conductor is hereby amended as follows:

Table 54C Minimum Cross-Sectional Area of Protective Conductor in Relation to the Cross-Sectional Area of the Associated Phase/Line Conductor – Delete the existing Note 2 and substitute the existing Note 2 with Note 3: the existing Note 3 becomes Note 2. (Refer to page 122 clause 543 of the National Rules for Electrical Installations – ET101:2008 incorporating Amendment No. 1 2011 and subsequent additions).

Table A52H is extended by the addition of the following cables; (Refer to pages 289/290 Table A52H of the National Rules for Electrical Installations – ET101:2008 incorporating Amendment No. 1 2011 and subsequent additions).

Addition to Table A52H

Code	Standard	U.K. German code	Rating V	mm ²	Construction
N05VVH4-U	I.S. 201	-	300/500	1 – 2.5	Twin & Earth Cu Flat Cable with Insulated Earth
N05VVH4-R	I.S. 201	-	300/500	1 – 16	Twin & Earth Cu Flat Cable with Insulated Earth
N05VVH4-K	I.S. 201	-	300/500	6 – 16	Twin & Earth Cu Flat Cable with Flexible Conductors
N05VVH-U	I.S. 201	-	300/500	1 – 2.5	Flat Single with Insulated Earth
N05VVH-R	I.S. 201	-	300/500	1 – 2.5	Flat Single with Insulated Earth
N05VVV-U	I.S. 201 VDE 250	NYM-O NYM-J	300/500	1.5 - 6	Light PVC Sheathed Cable
N05VVV-R	I.S. 201 VDE 250	NYM-O NYM-J	300/500	1.5 - 35	Light PVC Sheathed Cable
N05ZZH4-U	I.S. 201	-	300/500	1 – 2.5	Halogen Free Twin & Earth Flat Cu Conductor
N05ZZH4-R	I.S. 201	-	300/500	1 – 16	Halogen Free Twin & Earth Flat Cu Conductor
N05ZZH2-U	I.S. 201	-	300/500	1 – 2.5	Halogen Free Twin Flat Cu Conductor
N05ZZH2-R	I.S. 201	-	300/500	1 – 16	Halogen Free Twin Flat Cu Conductor
N05ZZ-U	I.S. 201	-	300/500	1 – 2.5	Halogen Free Single Core Cu Conductor
N05ZZ-R	I.S. 201	-	300/500	1 – 35	Halogen Free Single Core Cu Conductor

Ends.



**ELECTRO-TECHNICAL COUNCIL OF IRELAND LIMITED
2015**

25th February 2016

ETCI announces the following Amendment No. 2.3 to the National Rules for Electrical Installations ET 101:2008 incorporating Amendment No.1:2011

ETCI announces the following Amendment No. 2.3 to the National Rules for Electrical Installations ET101; the implementation date for amendment No. 2.3 is 4th March 2016.

Amendment No. 2.3:

Chapter 63: Certification.

Addition of clause 63.4.4 – Procedures for Completion Certificate for Existing Installations (Certificate 3).

Annex 63B:

Classification of new work:

Addition: Paragraph A – Alteration to an existing installation, requiring a *Completion Certificate for Existing Installations (Certificate 3)*.

Certification

For existing installations, a *Completion Certificate for Existing Installations (Certificate 3)*, controlled works type 2, 3, 4 and 5, and for test (only) of existing installations, minor works and sub-systems in accordance with Annex 63B.

Addition: *Completion Certificate for Existing Installations (Certificate 3)* to Annex 63B.

Details are given in this document and should be read in conjunction with the following:

- The National Rules for Electrical Installations ET101; 2008 incorporating Amendment No. 1 of 2011
- Amendment No. 2.1 – 17th February 2015
- Amendment No. 2.2 – 27th August 2015

This information can be accessed on the ETCI's TC-2 technical committee web-site; please refer to the following web-link for further information: <http://www.etcie.ie/technical/tc2.html>.

Ends.



**ELECTRO-TECHNICAL COUNCIL OF IRELAND LIMITED
2016**

This page is for Duplex Printing

63.4 CERTIFICATION PROCEDURES FOR ELECTRICAL INSTALLATIONS

Addition: Cert. No. 3: for Existing Installations for new work including alterations and /or extension.

Addition: Controlled works are **Major Electrical Installation Works** that include the installation, inspection, testing and commissioning of a new electrical installation requiring connection to the electricity network, and alterations to existing installations including additions and extensions within the scope of these Rules.

63.4.4 PROCEDURES FOR COMPLETION CERTIFICATE FOR EXISTING ELECTRICAL INSTALLATIONS (CERTIFICATE 3)

SCOPE

Cert No. 3 covers alterations (including additions and extensions) to existing installations and cannot be used to obtain a connection or a re-connection of the electrical supply from the DSO. Cert. No. 3 is to be used in accordance with CER requirements which includes specific controlled works 2, 3, 4 or 5, new work to existing installation, alteration, replacement of accessories, Minor Works and Sub-systems. (**Note:** Controlled Works No. 1 is **not included** in Cert. No. 3).

Such works include the following:

2. the modification, installation or replacement of a Distribution Board including customer tails on either side of the Main Protective Device, or new installation in special locations as defined in Part 7 of the **National Wiring Rules* ET101 and ET105;
3. the installation or replacement of one or more extra circuits in an existing installation, including the installation of one or more additional protective devices for such circuits on a distribution board;
4. Subsystems installed in Commercial, Industrial and Domestic installations where they fall within the remit of the **National Wiring Rules*;
5. the inspection, testing and certification of existing electrical installations (in accordance with Chapters 62 of the **Wiring Rules* (ET 101 – Fourth Edition 2008 and to conform Regulations 89 of S. I. No 732 of 2007).

**Note: Reference to the National Wiring Rules or to the Wiring Rules in this amendment means the National Rules for Electrical Installations – ET101.*

Registered Electrical Contractors (RECs) are required to certify the alterations, installation or replacement of electrical installations, using this Completion Certificate for Existing Installations (Certificate 3).

The Completion Certificate for Existing Installations (Certificate 3) can be used for the following purposes; Specific controlled works 2, 3, 4 or 5, new work to existing installation, alteration, replacement of accessories, Minor Works and Sub-systems.

Note: This certificate cannot be used to obtain a connection or a re-connection of the electrical supply from the DSO.

63.4.4.1 CERTIFICATION PROCEDURE FOR ELECTRICAL INSTALLATIONS (CERTIFICATE 3).

All the boxes must be filled in either with a tick or a value or marked not applicable (N/A) as instructed on the certificate. Completed Test Record Sheets are required for all installation work.

1 Description of the premises

This describes the type of premises involved.

2 Details of what the certificate covers

Specify Controlled Works Number either 2, 3, 4 or 5. New work to existing installations, alteration, replacement of accessories, Minor Works and Sub-systems.

3 Tests and Test Record Sheets

Tests must be made with suitable testing equipment. Methods of measurement are provided in Chapter 61 of the National Rules for Electrical Installations ET101. The test results must be inserted in the appropriate Test Record Sheets (TRS) and a copy of the results on the TRS to be submitted with the Certificate for Existing Installations (Certificate 3) to the ESSB.

4 Comments or Details

This space allows the registered electrical contractor to provide additional information and to comment on the installation, extent of the work etc.

The Comment Box should also indicate in detail the type of work involved where the "Alteration" (e.g. alteration to existing installations) or "Other" boxes are ticked. It shall be verified that an extension, addition or alteration to an existing installation complies with these Rules, and that it does not impair the safety of the installation, and that the safety of the new installation is not impaired by the existing installation.

The comment box shall be used only for the purpose of providing additional information. On no account should statements disclaiming responsibility for part(s) of the installation be made; nor any statement that attempts to render the certificate invalid.

5 Registration Number

The Registered Electrical Contractor must insert his/her name, address, telephone number and Registration Number in the box provided.

6 Certification

The Registered Electrical Contractor must sign the top copy of the Certificate on completion of Pre-connection and Post-connection tests.

7 Qualified Certifier; see Electrical Safety Supervisory Criteria Document (Version 3.0 - CER/16/001)

The Qualified Certifier must insert his/her qualified certifier's number in the space provided on the completion certificate.

DISTRIBUTION OF CERTIFICATES

The top copy of the certificate is deemed to be the "Completion Certificate". This original copy (Top Copy) should be given to the person ordering the work after all required tests have been completed and results entered on the certificate and the certificate signed to that effect. The middle copy of the certificate should be forwarded to the Regulatory body, and the bottom copy must be retained by the Registered Electrical contractor concerned. The certificate should be completed in full after pre and post-connection tests have been completed. It and the associated test record sheets must be available for inspection."

ANNEXES FOR CHAPTER 63:

Addition

ANNEX 63B:

SPECIMEN OF THE COMPLETION CERTIFICATES FOR EXISTING INSTALLATIONS IN ACCORDANCE WITH CHAPTER 63.

ANNEX 63B:

GUIDELINES FOR CERTIFICATION FOR ALTERATIONS TO EXISTING INSTALLATIONS.

**ANNEX 63B
(Normative)**

**GUIDELINES FOR CERTIFICATION FOR ALTERATIONS
TO EXISTING INSTALLATIONS**

**2. CLASSIFICATION OF NEW WORK
REPLACEMENT**

For the purposes of this Annex, new work comprising alterations to an existing installation is classified as follows:

A. Major alteration to an existing installation, requiring a completion certificate to be provided by the installer and given to the client.

A major alteration includes the following:

An extension: The provision of one or more additional circuits.

Replacement of a distribution board. Replacement of the wiring for a circuit. Replacement of a protective device.

Relocation of a distribution board.

Addition: Alterations to an existing installation, requiring a Completion Certificate for an Existing Installation (Certificate 3), to be provided by the registered electrical contractor and given to the client, with a copy to the Electrical Safety Supervisory Body (ESSB).

This certificate may be used when alterations are required to an installation which is already connected to the electrical supply. This completion certificate must not be used to obtain a connection or a re-connection of an electrical supply from a DSO. The type of work associated with this completion certificate includes the following:

Controlled works of type 2, 3 4 and 5.

Minor works.

Test (only) of the existing Installation.

**3. CERTIFICATION
REPLACEMENT**

Documentation shall be prepared by the installer for all new work as follows:

Controlled Works Number either 2, 3, 4 or 5. New work to existing installation, alteration, replacement of accessories, Minor Works and Sub-systems of existing installations in accordance with Annex 63B.

All entries on the Completion Certificate for Existing Installations (Certificate 3) must be completed by the registered electrical contractor.

MPRN is the Meter Point Reference Number of the installation.

The tests are those relating to the new work and the parts of the existing installation that are relevant to the new work.

A copy of the Completion Certificate for Existing Installations (Certificate 3) should be provided to the client as an assurance that the new work complies with the current edition of the National Rules for Electrical Installations ET101.

A Completion Certificate for Existing Installations (Certificate 3) may not be used to obtain a connection or a re-connection of the electrical supply from the DSO.

4. TEST RECORD SHEETS

Test record sheets shall be completed by the installer, a copy of the test record sheets must be submitted to the ESSB and a copy of the test record sheets must be retained by the installer for his or her own records.

This page is for Duplex Printing



National Rules for Electrical Installations Completion Certificate for Existing Installations



THIS CERTIFICATE **CANNOT** BE USED TO OBTAIN A CONNECTION / RE-CONNECTION FROM THE DSO.

This certificate must be returned to your ESSB and accompanied by a completed Test Record Sheet

MPRN No:

Serial Number:

CUSTOMER NAME (Block Capitals):

ADDRESS OF INSTALLATION (Block Capitals):

Installation Type: Controlled Works Minor Works Test (only) of the existing installation
Please tick (✓) as appropriate, see Chapter 63 & Annex 63B

Premises Description (e.g. Commercial, Domestic, Agricultural, etc.)

Details of what this cert covers:
Specify Controlled Works Number either 2, 3, 4 or 5. New work to existing installation, alteration, replacement of accessories, Minor Works and Sub-systems.
Date of Installation

Number of : Lighting Points Socket Outlets Fixed Appliance Outlets

TEST RESULTS POLARITY AND EARTHING OF ALL OUTLETS MAIN EQUIPOTENTIAL *Tick all 3 boxes* YES N/A
OUTLETS VERIFIED (a tick indicates yes) BONDING VERIFIED FOR:

	GAS		
	WATER		
	OTHER (Specify)		

Record the value obtained in either 1 or 2	1 - MAXIMUM RESISTANCE OF PHASE AND PROTECTIVE CONDUCTOR (Rp + Re)	<input type="text"/>	Ω
	2 - MAXIMUM RESISTANCE OF PROTECTIVE CONDUCTOR Re	<input type="text"/>	Ω

MINIMUM INSULATION RESISTANCE MΩ

MAX FAULT LOOP IMPEDANCE Ω → RATING & TYPE OF THE ASSOCIATED PROTECTIVE DEVICE

OPERATION OF ALL RCDS VERIFIED (tick) Insert the I_{Δn} value of the RCD (mA) mA Max Trip Time of RCD 1 x I_{Δn} mS Max Trip Time of RCD 5 x I_{Δn} mS RCD Circuit Description

DETAILS OF TESTS ARE GIVEN IN TEST RECORD SHEET No :

COMMENTS (include any defects to existing installation observed)
.....
.....
.....

CERTIFICATION
I certify that the installation work detailed at the above address has been constructed, and/or pre-energisation and post -energisation tests have been carried out, in accordance with the National Rules for Electrical Installations (current issue at date of contract) published by the Electro-Technical Council of Ireland, and has been found to be satisfactory. Additional circuits do not impair the safety of the existing installation, the certificate and the test record sheets associated with it shall be submitted to the ESSB.

PRE & POST-ENERGISATION TESTS
Signed Constructor Tester
Qualification Qualified Certifier's No.
Date

REGISTERED ELECTRICAL CONTRACTOR (Block Capitals)
Name
Address
Tel /
Registration Number

NOTE: This certificate is issued and signed by the person responsible for the new/additional/modification of electrical work or a person duly authorised.
This Document is a certificate for the purpose of the Energy (Miscellaneous Provision) Act 2006.
CER, the Electro-Technical Council of Ireland or the Regulatory Body are not responsible for the electrical installation or for the accuracy of the information given on this certificate. Electrical installations should be inspected periodically.
© ETCI 2016 This document must not be re-produced in any form or manner without the express permission of the Electro-Technical Council of Ireland.

This page is for Duplex Printing