# NAPIT *Electrical Certificate* Installation/Modification

**Requirements for Electrical Installations – BS 7671 [IEE Wiring Regulations 17th Edition]**

HEI196470156

Can be used for new installations, additions or alterations. Please complete all the unshaded areas.



## 1 Details of the installation

| | |
|---|---|
| Owner/Occupier Mr Francis Irving | Installation *(if different from owner/occupier)* |
| Address 91 Belgrave Road<br>Aigburth<br>Liverpool<br>Merseyside | Address |
| Postcode L17 7AQ | Postcode |

## 2 Extent and limitations of the installation (note 5)

Installation is New ☐ Addition ☐ Alteration ✔ Records available Yes ✔ No ☐ Date of original installation 01/11/1991

Extent of electrical installation covered by this report

Fitted new fuse board to existing wiring.

Comments New bathroom light fitted. Installed extra twin socket in bedroom

This inspection has been carried out in accordance with BS 7671: 2008 (IEE Wiring Regulations), amended to 2011 (date)

Details of departures from BS:7671 (Regulations 120.3, 120.4) *See page(s)* None

Comments on the existing installation (in the case of alteration or addition) *See page(s)* 3

(For additions or alterations) cables concealed within trunking and conduits, or cables or conduits concealed under floors, in roof spaces and generally within the fabric of the building or underground may not have been inspected.

## 3 Next inspection (note 7)

We recommend that this installation is further inspected and tested after an interval of not more than 10 ~~months~~/years, or on change of occupancy.

**DECLARATION:** For the Design, Construction & the Inspection and Testing of the Installation as described above

| | |
|---|---|
| Company name PSD Electrical | Signature *Philip Draycott* electronically created |
| Inspector name Philip Draycott | |
| Company address 23 Elsmere Avenue<br>N/A<br>Aigburth<br>Liverpool<br>Merseyside | Position Sole trader electrician |
| Postcode L17 4LB | Date 25/11/2013 |
| | NAPIT Membership No. 19647 |

## 4 Supply characteristics and earthing arrangements

**Supply systems** TN-S ✔ TN-C-S ☐ TT ☐ **Number & type of live conductors** No. of phases 1 No. of wires 2

**Nature of Supply Parameters** *(by enquiry or by measurement)*

Nominal voltage, $U/U_o$ 230 v Nominal frequency, f 50 Hz Phase sequence ✔

Prospective fault current, $I_{pf}$ (note 6) 1.01 kA External loop impedance, $Z_e$ 0.25 Ω

**Supply Protective Device Characteristics** BS 1361 Type Type 2 Nominal Current Rating 100 A **Max Demand** 100 ~~kVA~~/Amps

**Means of Earthing** Distributor's facility ✔ Installation earth electrode ☐

**Details of Installation Earth Electrode** *(where applicable)* Type (e.g. rod(s), tape etc)

Location N/A Electrode resistance to earth N/A Ω

| **Main Protective Conductors** | Material | Csa (mm2) | Verified | Water Csa($mm^2$) | Gas Csa($mm^2$) | Oil Csa($mm^2$) |
|---|---|---|---|---|---|---|
| Earthing Conductor | Copper | 16 | ✔ | 10 | 10 | N/A |
| Protective Bonding Conductor | Copper | 6 | ✔ | Other N/A | Csa($mm^2$) | N/A |

| **Main Switch or Circuit Breaker** | | Material | Csa($mm^2$) | Verified |
|---|---|---|---|---|
| BS 60947-3 | Type | Supply conductor Copper | 25 | ✔ |

Location Hall cupboard No. of Poles 2 Current rating 100 Voltage rating 230

Fuse or Trip Setting N/A A Voltage rating 230

Rated residual operating current $I_{\Delta n}$ = N/A mA measured operating time of N/A ms (at $I_{\Delta n}$)

*(applicable only where an RCD is suitable and is used as a main circuit-breaker)*

# NAPIT ***Electrical Certificate*** Installation/Modification

**Requirements for Electrical Installations – BS 7671 [IEE Wiring Regulations]**

NOTES:

1. This Electrical Certificate form shall only be used for the reporting on the condition of an new electrical installation, new work associated with an existing installation or an alteration to an existing installation. Where the work has been done by a Competent Person on a self certification scheme approved by the Secretary of State, a Building Control Officer may have undertaken a 'Visual Check' of the installed equipment and cables, prior to them being concealed within the fabric of the dwelling (first fix stage).
2. The final Inspection, Test, Verification and Completion of this certificate must be undertaken by a person on the NAPIT Competent Persons Registrations scheme.
3. For Domestic Installations, the work may be subject to Local Authority Building Control certification.
4. The Certificate, normally comprising at least three Pages and shall include an Inspection Schedule and a Schedule of Test Results.
5. The 'Extent and Limitations' box shall fully identify the elements of the installation that are covered by the report and those that are not, this aspect having been agreed with the client, or Building Control, or other interested parties before the final inspection, testing and verification is carried out.
6. The maximum prospective fault current recorded should be the greater of either the short circuit current or the earth fault current.
7. The time interval recommended for the next periodic inspection and testing shall be given. The IEE Guidance Note 3 provides guidance on the maximum interval between inspections for various types of buildings.
8. This Electrical Certificate is based upon the format of the Electrical Installation Certificate for an Electrical Installation, issued by the Institute of Electrical Engineers and published in BS 7671.
9. Details of departures from BS 7671 must be noted with a full description and explanation. The resulting degree of safety of the installation shall not be less than that obtained by compliance with the Regulations.

**NAPIT Electrical Certificate**
**Information for recipients (to be appended to the report).**

This Electrical Certificate form shall only be used for the reporting on the condition of an new electrical installation, new work associated with an existing installation or an alteration to an existing installation , where the work has been done by a NAPIT Competent Person who may be on a self certification scheme approved by the Secretary of State (see note 1 above), or where the work may be subject to Local Authority Building Control certification. You should have received an original Certificate and the contractor should have retained a duplicate. If you were the person ordering this Certificate, but not the owner of the installation, you should pass this Certificate, or a copy of it, immediately to the owner. The original Certificate is to be retained in a safe place and be shown to any person inspecting or undertaking work on the electrical installation in the future. If you later vacate the property, this Certificate will provide the new owner with details of the condition of the new electrical installation that it refers to. The 'Extent' box should fully identify the extent of the installation covered by this Certificate and any limitations on the inspection and tests. The Client or Building Control Officer should have agreed these aspects with you before the inspection was carried out. For safety reasons, the electrical installation will need to be re-inspected at appropriate intervals by a competent person. The IEE Guidance Note 3 provides guidance on the maximum interval between inspections for various types of buildings.

The Certificate is only valid if an Inspection Schedule And Schedule of Test Results are appended. If this work is Domestic, the work should be carried out by a person on a Competent Persons Register approved by the Secretary of State, you should also receive a 'Compliance with Building Regulations Declaration' within 30 days of the electrical installation being completed, if not then this work may be subject to Local Authority Building Regulation certification.

## 5 Inspector to record their observations in the 1st column below during the 'first fix' visual check and any ommisions or corrected non-conformances, recorded by the Electrical Inspector in the 2nd column below, during the final inspection.

= Optional 1st Fix

| 1st Fix | | 2nd Fix | | Schedule of Inspections |
|---|---|---|---|---|
| Inspected | Rectified | Inspected | Rectified | |
| ✔ | ✔ | ✔ | ✔ | Installation Design Specification is available for the Installer and the Inspector |
| | | ✔ | | Earthing Conductor is present, securely connected and a warning label fitted |
| ✔ | ✔ | ✔ | ✔ | Earthing Conductor of the correct size |
| ✔ | ✔ | ✔ | ✔ | Protective Bonding Conductors correctly sized |
| ✔ | ✔ | ✔ | ✔ | Protective Bonding Conductors securely connected and a warning label fitted |
| | | ✔ | | Consumer Unit position accessible and where specified on the design |
| ✔ | ✔ | ✔ | ✔ | Correct Circuit Protection Devices fitted and identified for each circuit |
| | | ✔ | | Correct Cable type and size used, allowing for external influences and volt drop |
| N/C | N/C | N/C | N/C | Cable run in 'safe' zones and adequately protected |
| N/C | N/C | N/C | N/C | Cables securely fastened or in appropriate wiring systems |
| N/C | N/C | N/C | N/C | All Cable cores correctly identified at joints and in accessories |
| | | N/C | N/C | All cable joints correctly terminated, secure and accessible |
| | | N/C | N/C | Modifications to the Building Fabric appropriate and safe (Structure) |
| N/C | N/C | N/C | N/C | Modifications to the Building Fabric appropriate and safe (Fire) |
| ✔ | ✔ | ✔ | ✔ | All Accessories correctly placed as appropriate |
| ✔ | ✔ | ✔ | ✔ | Appropriate Supplementary Bonding present and adequately sized |
| ✔ | ✔ | ✔ | ✔ | Supplementary Bonding securely connected and a warning label fitted if required |
| | | ✔ | ✔ | Additional protection provided by RCD where required |
| | | ✔ | ✔ | All Accessories have environmental protection appropriate for external influences |
| | | ✔ | ✔ | All covers replaced, Accessories secure and neatly aligned |
| | | ✔ | ✔ | The number of points and their location agree with the original design |
| ✔ | ✔ | ✔ | ✔ | Circuit details correct on the installation schedule |
| | | ✔ | ✔ | Periodic Label, RCD label and other Safety Labels fitted |

### Schedule of Test

| | | | |
|---|---|---|---|
| ✔ | External earth loop impedance, Ze | ✔ | Insulation Resistance between Live conductors |
| N/A | Installation earth electrode | ✔ | Insulation Resistance between Live conductors & earth |
| ✔ | Prospective fault current $I_{pf}$ | ✔ | Polarity (prior to energisation) |
| ✔ | Continuity of Earth Conductors | ✔ | Polarity (after energisation) including phase sequence |
| ✔ | Continuity of Circuit Protective Conductors | ✔ | Earth fault loop impedance |
| ✔ | Continuity of Protective Bonding Conductors | ✔ | RCDs / RCBOs including discrimination |
| ✔ | Volt drop verified | ✔ | Functional testing of devices |

The sections above are – Satisfactory (✓), Not Satisfactory (X), Not Checked (N/C) or Not Applicable (N/A)

**Observations** (if any, if none please put 'none' below)

Inspector's Name – First Fix : Philip Draycott

Signature *Philip Draycott* electronically created *For additional report see page(s)*

Inspector's Name – Second Fix: Philip Draycott

Signature *Philip Draycott* electronically created *For additional report see page(s)*

### SCHEDULE(S)

The attached Schedule(s) are part of this document and this Report is valid only when they are attached to it.

✔ Schedule of Test Results are attached.

# NAPIT *Electrical Test* Sheet

Requirements for Electrical Installations – BS 7671 [IEE Wiring Regulations 17th Edition]
Can be used for new installations, additions or alterations
Please complete all the unshaded areas.

This sheet forms part of Inspection Report Number*/Certificate Number*

HEI196470156



Owner/Occupier Mr Francis Irving | Address N/A 91 Belgrave Road Aigburth Liverpool Merseyside | Postcode L17 7AQ

**Complete in every case**

| | |
|---|---|
| Location of distribution board | Hall cupboard |
| Distribution board designation | 1 |
| Number of ways | 6 |

**Complete only if the distribution board is not connected directly to the origin of the installation**

| | | | | | |
|---|---|---|---|---|---|
| Supply to distribution board is from | N/A | No. of phases | N/A | Nominal Voltage | N/A V |
| Overcurrent protective device for the distribution circuit: | | Associated RCD (if any): BS (EN) | N/A | | |
| Type BS(EN) | N/A | Rating | N/A A | RCD No of Poles | N/A |
| $I_{\Delta n}$ | N/A mA | | | | |

**Characteristics at this distribution board**

| | | | | | |
|---|---|---|---|---|---|
| $Z_e$ | N/A Ω | Operating times of | At $I_{\Delta n}$ | N/A ms | |
| $I_{pf}$ | N/A kA | associated RCD(if any) | at 5 $I_{\Delta n}$ | N/A ms | |

**Test instrument serial number**

| | | | |
|---|---|---|---|
| Earth fault loop imped. | 101090582 | RCD | 101090582 |
| Insulation resistance | 101090582 | Other | |
| Continuity | 101090582 | Other | |

## CIRCUIT DETAILS / TEST RESULTS

| Circuit No. and phase | Circuit designation | Type of wiring | Ref. method | No. of points served | Circuit conductors csa: Live (mm²) | Circuit conductors csa: CPC (mm²) | Maximum disconnection time (BS:7671) (S) | Overcurrent protective devices: BS EN Number | Type No. | Rating (A) | Short circuit capacity (kA) | RCD operating current $I_{\Delta n}$ (mA) | BS7671 Max. permitted value $Z_s$ Other 80 Ω | Circuit impedence Ω: Ring final circuits only (measured end to end) $r_1$ | $r_n$ | $r_2$ | Figure 8 check (✓) | All circuits to be completed using R1 R2, or R2, not both $R_1+R_2$ | $R_2$ | Insulation resistance (Record lower reading): Date of test (Dead) | Live / Live (MΩ) | Live / Earth (MΩ) | Polarity (✓) | Maximum measured $Z_s$ (Ω) | Date of test (Live) | RCD testing: at $I_{\Delta n}$ ms | at 5 $I_{\Delta n}$ ms |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Main Switch | | | | | | 0.4 | N/A | N/A | | | | | | | | × | | | 25/11 | | | × | | 25/11 | | |
| | RCD | | | | | | 0.4 | N/A | N/A | | | | | | | | × | | | 25/11 | | | × | | 25/11 | | |
| 1 | Sockets | 1 | A | 17 | 2.5 | 1.5 | 0.4 | 60898 | B | 32 | 6 | 30 | 1.15 | 0.39 | 0.39 | 0.70 | ✔ | 0.54 | | 25/11 | >100 | >100 | ✔ | 0.68 | 25/11 | 29.1 | 28.8 |
| 2 | Spare | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | NA | | NA | N/A | N/A | N/A | N/A | × | N/A | N/A | N/A | N/A | N/A | × | N/A | N/A | N/A | N/A |
| 3 | Spare | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | NA | | NA | N/A | N/A | N/A | N/A | × | N/A | N/A | N/A | N/A | N/A | × | N/A | N/A | N/A | N/A |
| | RCD | | | | | | 0.4 | N/A | N/A | | | | | | | | × | | | 25/11 | | | × | | 25/11 | | |
| 4 | Spare | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | NA | | NA | N/A | N/A | N/A | N/A | × | N/A | N/A | N/A | N/A | N/A | × | N/A | N/A | N/A | N/A |
| 5 | Socket right side of kitchen | 1 | A | 7 | 2.5 | 1.5 | 0.4 | 60898 | B | 16 | 6 | 30 | 2.29 | | | | N/A | 0.80 | | 25/11 | >100 | >100 | ✔ | 1.05 | 25/11 | 37.1 | 22.8 |
| 6 | Lights | 1 | A | 25 | 1.5 | 1.0 | 0.4 | 60898 | B | 6 | 6 | 30 | 6.13 | | | | N/A | 1.07 | | 25/11 | >100 | >100 | ✔ | 1.33 | 25/11 | 39.9 | 23.8 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Wiring Types: **1** PVC/PVC **2** Single insulated in conduit or trunking **3** Mineral Insulated **4** Xlpe/Swa **5** BS:7629-1 (FP200) **6** Other



Comments on installation

See attached sheets page(s) 3 of 4

Tested by: Name (capital letters) Philip Draycott | Signature *Philip Draycott* | Position Sole trader electrician | Date(s) 25 / 11 / 2013

This form is based on the requirements of Appendix 6 of BS 7671

NAPIT Administration Centre, 4th Floor, Mill 3, Pleasley Vale Business Park, Mansfield, Nottinghamshire NG19 8RL

# NAPIT *Electrical Report* sheet

**Requirements for Electrical Installations – BS 7671 [IEE Wiring Regulations 17th Edition]. Can be used for appending to Electrical Certificate for reporting existing work or for Continuation sheet for a Periodic Inspection Report**

This sheet forms part of
Inspection Report Number*
Certificate Number*
HEI196470156



| | |
|---|---|
| Site | Mr Francis Irving N/A 91 Belgrave Road Aigburth Liverpool Merseyside |
| Inspector | Philip Draycott |
| Date | 01/11/1991 |

**Observations and recommendations for actions to be taken**

Referring to the attached schedule of inspection and test results, and subject to the limitations at 4.

☐ No remedial work required OR ☐ The following observations and recommendations are made

**Explanation of codes**

1. Requires urgent attention
2. Requires improvement
3. Requires further investigation
4. Does not comply with BS 7671 (as amended)
5. Comments

| Item No. | Defect details | Code |
|---|---|---|
| 1 | Only one socket circuit serves whole house | 5 |
| 2 | Old and new cable colours | 5 |
| 3 | Shower circuit disconnected as shower unit faulty | 5 |
| 4 | Upgraded the meter tails to 25mm | 5 |
| 5 | Yellow extension lead in top bedroom feeds loft socket | 5 |

*Note: For additional report pages use the continuation report form with the relevant serial number and page numbers detailed on each page.*

**Urgent remedial work recommended for items**

**Corrective action(s) recommended for items**