ELECSA

**This safety certificate is an important and valuable document which should be retained for future reference**

**This certificate is not valid if the serial number has been defaced or altered** DCE1/ 0062211

# DOMESTIC ELECTRICAL INSTALLATION CERTIFICATE

Issued in accordance with *British Standard 7671 – Requirements for Electrical Installations* by an ELECSA Registered Domestic Installer, Certsure LLP, Mansfield Business Centre, Ashfield Avenue, MANSFIELD NG18 2AE.

Original (To the person ordering the work)

IRN/ 1605091 Installer's Reference Number

## DETAILS OF THE CLIENT

Client and address

Postcode

## ADDRESS OF THE INSTALLATION

Installation address 46 Kesington Avenue

London

Postcode E12 6NP

## DETAILS OF THE INSTALLATION

Extent of the installation work covered by this certificate: Power points and lighting

The installation is: New ✓ / An addition / An alteration

## DESIGN, CONSTRUCTION, INSPECTION AND TESTING

I, being the person(s) responsible for the design, construction, inspection and testing of the electrical installation (as indicated by my signature adjacent), particulars of which are described above, having exercised reasonable skill and care when carrying out the design, construction, inspection and testing, hereby CERTIFY that the said work for which I have been responsible is, to the best of my knowledge and belief, in accordance with BS 7671, 2008 amended to 2016 (date) except for the departures, if any, detailed as follows:

Details of departures from BS 7671, as amended (Regulations 120.3, 133.5)

The extent of liability of the signatory is limited to the work described above as the subject of this certificate. For the **DESIGN**, the **CONSTRUCTION** and the **INSPECTION AND TESTING** of the installation

Signature Name (CAPITALS) TARNAWSKI P. Date 09/09/16

**The results of the inspection and testing reviewed by the Qualified Supervisor**

Signature Name (CAPITALS) Date

## PARTICULARS OF THE REGISTERED DOMESTIC INSTALLER

Trading title First Power Solution Ltd

Address 9 Bavons Walk

Shirley

Croydon

Telephone No Postcode CRO 7NY

ELECSA Registration No (Essential information) 93599

## NEXT INSPECTION

§ *Enter interval in terms of years, months or weeks, as appropriate*

I RECOMMEND that this installation is further inspected and tested after an interval of not more than § 6 years

## COMMENTS ON EXISTING INSTALLATION

*Note: Enter 'NONE' or, where appropriate, the page number(s) of additional page(s) of comments on the existing installation*

None

*In the case of an alteration or additions see Section 633 of BS 7671*

## SCHEDULE OF ADDITIONAL RECORDS*

*See attached schedule*

** Where the electrical work to which this certificate relates includes the installation of a fire detection/alarm system (or a part of such a system), this electrical safety certificate should be accompanied by the particular certificate for the system.*

This certificate is based on the model forms shown in Appendix 6 of BS 7671.



**Please see the 'Notes for Recipients' on the reverse of this page.**

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# DOMESTIC ELECTRICAL INSTALLATION CERTIFICATE

**Original** (To the person ordering the work)

## SUPPLY CHARACTERISTICS

*Tick boxes and enter details, as appropriate*

**System type(s)**

| | |
|---|---|
| TN-S | ✓ |
| TN-C-S | |
| TT | |

**Number and type of live conductors**

| | | | |
|---|---|---|---|
| 1-phase (2-wire) | ✓ | 1-phase (3-wire) | |
| 3-phase (3-wire) | | 3-phase (4-wire) | |
| Other | Please state | | |

**Nature of supply parameters** *Notes: (1) by enquiry (2) by enquiry or by measurement (3) where more than one supply, record the higher or highest values*

| | | | |
|---|---|---|---|
| Number of sources | 1 | Nominal voltage(s) $U^{(1)}$ | N/k V |
| | | $U_o$ $^{(1)}$ | 230 V |
| Nominal frequency, $f^{(1)}$ | 50 Hz | | |
| External earth fault loop impedance, $Z_e$ $^{(1)}$ | 0.80 Ω | | |
| **Single-phase** Prospective fault current, $I_{pf}$ $^{(2)(3)}$ | 2.0 kA | **3-phase** Prospective fault current, $I_{pf}$ $^{(2)(3)}$ | / kA |

**Characteristics of primary supply overcurrent protective device(s)**

| | | | |
|---|---|---|---|
| BS(EN) | B61 | Short-circuit capacity | 33 kA |
| Type | 2 | Confirmation of supply polarity | ✓ ✓ |
| Rated current | 100 A | | |

## PARTICULARS OF INSTALLATION AT THE ORIGIN

*Tick boxes and enter details, as appropriate*

**Means of earthing**

| | |
|---|---|
| Distributor's facility | ✓ |
| Installation earth electrode | |

**Details of installation earth electrode (where applicable)**

| | | | |
|---|---|---|---|
| Type (eg rod(s), tape etc) | | Location | |
| Electrode resistance, $R_A$ | Ω | Method of measurement | |

| | | | |
|---|---|---|---|
| Measured $Z_e$ | 0.26 Ω | | |
| Protective measure(s) for fault protection | 2.0 | Maximum demand (Load) | 60 kVA/ Amps *Delete as appropriate* |
| | | Number of smoke alarms | / ‡ |

**Earthing conductor**

| | | | |
|---|---|---|---|
| Conductor material | | | |
| Conductor csa | mm² | Continuity/ connection verified | ✓ |

**Main protective bonding conductors and bonding of extraneous-conductive-parts (✓)**

| | | | | | |
|---|---|---|---|---|---|
| Continuity/ connection verified | ✓ ✓ | Conductor material | COPPER | Conductor csa | 10 mm² |
| Location (where not obvious) | | | | | |

| | | | |
|---|---|---|---|
| Water installation pipes | ✓ | Structural steel | |
| Oil installation pipes | | Other | |
| Gas installation pipes | ✓ | | |

**Main Switch/Switch-Fuse/Circuit-Breaker/RCD**

| | | | |
|---|---|---|---|
| Type BS(EN) | 60947-3 | Voltage rating | 240 V |
| No of poles | 2 | Rated current, $I_n$ | 100 A |
| Supply conductors material | COPPER | RCD operating current, $I_{\Delta n}$* | / mA |
| Supply conductors csa | 25 mm² | RCD operating time (at $I_{\Delta n}$)* | / ms |
| | | Rated time delay*,* | / ms |

** applicable only where an RCD is used as a main circuit-breaker*

## SCHEDULE OF ITEMS INSPECTED

† *See note below*

**1.0 CONDITION/ADEQUACY OF DISTRIBUTOR'S/SUPPLY INTAKE EQUIPMENT (the Distributor should be notified of any unsatisfactory equipment)**

| | | |
|---|---|---|
| 1.1 | Service cable | ✓ |
| 1.2 | Service head | ✓ |
| 1.3 | Distributor's earthing arrangement | ✓ |
| 1.4 | Meter tails - Distributor/Consumer | ✓ |
| 1.5 | Metering equipment | ✓ |
| 1.6 | Means of main isolation (where present) | N/k |

**2.0 PARALLEL OR SWITCHED ALTERNATIVE SOURCES OF SUPPLY**

| | | |
|---|---|---|
| 2.1 | Adequate arrangements where a generating set operates as a switched alternative to the public supply | N/k |
| 2.2 | Adequate arrangements where a generating set operates in parallel with the public supply | N/k |
| 2.3 | Presence of alternative/additional supply warning notice(s) | N/k |

**3.0 AUTOMATIC DISCONNECTION OF SUPPLY**

3.1 Presence and adequacy of protective earthing/ bonding arrangements as follows:

| | | |
|---|---|---|
| a) | Distributor's earthing arrangement or installation earth electrode arrangement | N/k |
| b) | Earthing conductor and connections | ✓ |
| c) | Main protective bonding conductors and connections | ✓ |
| d) | Earthing/bonding labels at all appropriate locations | / |

3.2 Accessibility of:

| | | |
|---|---|---|
| a) | Earthing conductor connections | ✓ |
| b) | All protective bonding connections | ✓ |

**4.0 BASIC PROTECTION**

4.1 Presence and adequacy of measures to provide basic protection (prevention of contact with live parts) within the installation:

| | | |
|---|---|---|
| a) | Insulation of live parts e.g. conductors completely covered with durable insulating materials | ✓ |
| b) | Barriers or enclosures e.g. correct IP rating | ✓ |

**5.0 ADDITIONAL PROTECTION**

5.1 Presence and effectiveness of additional protection methods

| | | |
|---|---|---|
| a) | RCD(s) not exceeding 30 mA operating current | ✓ |
| b) | Supplementary bonding | ✓ |

**6.0 OTHER METHODS OF PROTECTION**

| | | | LOCATION |
|---|---|---|---|
| 6.1 | Basic and fault protection | | |
| a) | SELV | | |
| b) | PELV | | |
| c) | Double insulation/Reinforced insulation | | |
| d) | Electrical separation for one item of equipment | | |

† ***All boxes must be completed.*** *'✓' indicates that an inspection was carried out and that the result was* ***satisfactory****. 'N/A' indicates that an inspection was* ***not applicable*** *to the particular installation.*

‡ *Where a smoke alarm has been installed, separate certification is required on the appropriate form.*

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# DOMESTIC ELECTRICAL INSTALLATION CERTIFICATE

Original (To the person ordering the work)

## SCHEDULE OF ITEMS INSPECTED † *See note below*

| | | |
|---|---|---|
| **7.0** | **CONSUMER UNIT(S)** | |
| 7.1 | Adequacy of working space/accessibility | ✓ |
| 7.2 | Security of fixing | ✓ |
| 7.3 | Adequacy / security of barriers | ✓ |
| 7.4 | Insulation of live parts not damaged during erection | ✓ |
| 7.5 | Enclosures not damaged during installation | ✓ |
| 7.6 | Suitability of enclosures for IP and fire ratings | ✓ |
| 7.7 | Presence and operation of main switch(es), linked, where appropriate | ✓ |
| 7.8 | Operation of circuit-breakers and RCDs to prove functionality | ✓ |
| 7.9 | Correct identification of circuit protective devices | ✓ |
| 7.10 | RCD(s) provided for fault protection, where specified | ✓ |
| 7.11 | RCD(s) provided for additional protection, where specified | ✓ |
| 7.12 | Confirmation overvoltage protection (SPDs) provided and functional where specified | ✓ |
| 7.13 | Presence of RCD quarterly test notice at or near the origin | ✓ |
| 7.14 | Presence of diagrams, charts or schedules at or near each Consumer unit(s) | ✓ |
| 7.15 | Presence of non-standard (mixed) cable colour warning notice at or near the appropriate distribution board, where required | ✓ |
| 7.16 | Presence of next inspection recommendation label | ✓ |
| 7.17 | Presence of other required labelling | ✓ |
| 7.18 | Selection of protective device(s) and base(s); correct type and rating | ✓ |
| 7.19 | Single-pole protective devices in line conductor only | ✓ |
| 7.20 | Protection against mechanical damage where cables enter equipment | ✓ |
| 7.21 | Protection against electromagnetic effects where cables enter ferromagnetic enclosures | ✓ |
| 7.22 | Confirmation that ALL conductor connections, including connections to busbars are correctly located in terminals and are tight and secure | ✓ |
| **8.0** | **CIRCUITS** | |
| 8.1 | Identification of conductors | ✓ |
| 8.2 | Cables adequately supported throughout their length | ✓ |
| 8.3 | Examination of cables for signs of mechanical damage during installation | ✓ |
| 8.4 | Adequacy of cables for current-carrying capacity with regard to the type and nature of installation | ✓ |
| 8.5 | Adequacy of protective devices: type and rated current for fault protection | ✓ |
| 8.6 | Presence and adequacy of circuit protective conductors | ✓ |
| 8.7 | Coordination between conductors and overload protective devices | ✓ |
| 8.8 | Non-sheathed cables enclosed throughout (e.g. in conduit/trunking) | N/a |
| 8.9 | Cables installed under floors, above ceilings, in walls / partitions, adequately protected against damage | |
| | a) Installed in prescribed zones | ✓ |
| | b) Incorporating earthed armour or sheath, or installed within earthed wiring system, or otherwise protected against mechanical damage by nails, screws and the like | ✓ |
| 8.10 | Provision of additional protection by RCDs having rated residual operating current ($I_{\Delta n}$) not exceeding 30 mA | |
| | a) For mobile equipment with a current rating not exceeding 32 A for use outdoors | ✓ |
| | b) For all socket-outlets of rating 20 A or less, unless exempt | ✓ |
| | c) For cables installed in walls/partitions at a depth of less than 50 mm | ✓ |
| | d) For cables installed in walls/partitions containing metal parts regardless of depth | ✓ |
| 8.11 | Provision of fire barriers, sealing arrangements so as to minimize the spread of fire | ✓ |
| 8.12 | Band II cables segregated/separated from Band I cables | ✓ |
| 8.13 | Cables segregated/separated from non-electrical services | ✓ |
| 8.14 | Termination of cables at enclosures | |
| | a) Connections under no undue strain | ✓ |
| | b) No basic insulation of a conductor visible outside enclosure | ✓ |
| 8.15 | Circuit accessories not damaged during erection | ✓ |
| 8.16 | Single-pole devices for switching or protection in the line conductors only | ✓ |
| 8.17 | Adequacy of connections, including cpcs, within accessories and at fixed and stationary equipment | ✓ |
| 8.18 | Presence of appropriate devices for isolation and switching correctly located | |
| | a) Accessible means of switching off for mechanical maintenance | ✓ |
| | b) Correct operation verified (functional check) | ✓ |
| **9.0** | **CURRENT-USING EQUIPMENT (PERMANENTLY CONNECTED)** | |
| 9.1 | Adequacy of working space/accessibility | ✓ |
| 9.2 | Suitability of equipment in terms of IP and fire ratings | ✓ |
| 9.3 | Enclosure not damaged/deteriorated during installation so as to impair safety | ✓ |
| 9.4 | Cable entry holes in ceilings above luminaires, sized or sealed so as to restrict the spread of fire | ✓ |
| 9.5 | Recessed luminaires (downlighters) | |
| | a) Correct type of lamps fitted | ✓ |
| | b) Installed to minimise build-up of heat | ✓ |
| **10.0** | **LOCATION(S) CONTAINING A BATH OR SHOWER** | |
| 10.1 | Additional protection by RCD not exceeding 30 mA | |
| | a) For low voltage circuits serving the location | ✓ |
| | b) For low voltage circuits passing through Zone 1 and/or Zone 2 not serving the location | ✓ |
| 10.2 | Where used as a protective measure, requirements for SELV or PELV are met | ✓ |
| 10.3 | Shaver sockets comply with BS EN 61558-2-5 formerly BS 3535 | ✓ |
| 10.4 | Presence of supplementary bonding conductors unless not required by BS 7671: 2008 | ✓ |
| 10.5 | Low voltage (e.g. 230 volts) socket-outlets sited at least 3 m from zone 1 | ✓ |
| 10.6 | Suitability of equipment for external influences for installed location in terms of IP rating | ✓ |
| 10.7 | Suitability of electrical equipment for installation in a particular zone | ✓ |
| **11.0** | **OTHER PART 7 SPECIAL INSTALLATIONS OR LOCATIONS** | |
| 11.1 | List all other special installations or locations present, if any. (Record separately the results of particular inspections applied separately) | |

## SCHEDULE OF ITEMS INSPECTED BY:

Signature: Tarnawski P. Name (Capitals): TARNAWSKI P. Date: 09/05/2016

† ***All boxes must be completed.*** *'✓' indicates that an inspection was carried out and that the result was* ***satisfactory.*** *'N/A' indicates that an inspection was* ***not applicable*** *to the particular installation.*

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# DOMESTIC ELECTRICAL INSTALLATION CERTIFICATE

Original (To the person ordering the work)

## CIRCUIT DETAILS

## TEST RESULTS

| Circuit number | Circuit designation (* To be completed only where this consumer unit is remote from the origin of the installation. Record details of the circuit supplying this consumer unit in the bold box.) | Type of wiring (see code) | Reference method (see Appendix 4 of BS 7671) | Number of points served | Circuit conductors: csa Live (mm²) | Circuit conductors: csa cpc (mm²) | Max. disconnection time permitted by BS 7671 (s) | Overcurrent protective devices: BS (EN) | Type | Rating (A) | Short-circuit capacity (kA) | RCD: Operating current $I_{\Delta n}$ (mA) | Maximum $Z_s$ permitted by BS 7671 (Ω) | Circuit impedances (Ω): Ring final circuits only (measured end to end) $r_1$ (Line) | $r_n$ (Neutral) | $r_2$ (cpc) | All circuits (At least one column to be completed) $(R_1 + R_2)$ | $R_2$ | Insulation resistance: Line/Line (MΩ) | Line/Neutral (MΩ) | Line/Earth (MΩ) | Neutral/Earth (MΩ) | Polarity (✓) | Maximum measured earth fault loop impedance, $Z_s$ (Ω) | RCD operating times: at $I_{\Delta n}$ (ms) | RCD operating times: at 5 $I_{\Delta n}$ (if applicable) (ms) | RCD Test button operation (✓) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | D.B & Main Switch | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Supply Shower RCD1 | B | C | 1 | 6.0 | 2.5 | 0.4 | BS88 | B | 40 | 6 | 30 | 0.87 | | | | 0.18 | | | >100 | >100 | >100 | ✓ | 0.44 | 24 | 17 | ✓ |
| 2 | Sockets bals. front | B | C | 1 | 2.5 | 1.5 | 0.4 | -"- | B | 32 | 6 | 30 | 1.09 | 0.24 | 0.21 | 0.32 | 0.18 | | | >100 | >100 | >100 | ✓ | 0.44 | 24 | 17 | ✓ |
| 3 | Lights bathroom | B | C | 1 | 1.5 | 1.5 | 0.4 | -"- | B | 6 | 6 | 30 | 5.83 | | | | 0.46 | | | >100 | >100 | >100 | ✓ | 0.82 | 24 | 17 | ✓ |
| 4 | Lights bedroom | B | C | 1 | 1.5 | 1.5 | 0.4 | -"- | B | 6 | 6 | 30 | 5.83 | | | | 0.52 | | | >100 | >100 | >100 | ✓ | 0.78 | 24 | 17 | ✓ |
| 1/ | Supply shower RCD2 | B | C | 1 | 6.0 | 2.5 | 0.4 | -"- | B | 32 | 6 | 30 | 1.09 | | | | 0.2 | | | >100 | >100 | >100 | ✓ | 0.38 | 21 | 14 | ✓ |
| 2/ | Sockets bals. back | B | C | 1 | 2.5 | 1.5 | 0.4 | -"- | B | 32 | 6 | 30 | 1.09 | 0.21 | 0.19 | 0.29 | 0.17 | | | >100 | >100 | >100 | ✓ | 0.44 | 21 | 14 | ✓ |
| 3/ | Smoke alarm supply | B | C | 1 | 1.5 | 1.5 | 0.4 | -"- | B | 6 | 6 | 30 | 5.83 | | | | 0.01 | | | >100 | >100 | >100 | ✓ | 0.21 | 21 | 14 | ✓ |
| 4/ | Lights. | B | C | 1 | 1.5 | 1.5 | 0.4 | -"- | B | 6 | 6 | 30 | 5.83 | | | | 0.46 | | | >100 | >100 | >100 | ✓ | 0.72 | 21 | 14 | ✓ |
| | D.B. & Main Switch RCD1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/ | Supply Cooker | B | C | 1 | 6.0 | 2.5 | 0.4 | -"- | B | 40 | 6 | 30 | 0.87 | | | | 0.16 | | | >100 | >100 | >100 | ✓ | 0.32 | 22 | 17 | ✓ |
| 2/ | Sockets kitchen | B | C | 1 | 2.5 | 1.5 | 0.4 | -"- | B | 32 | 6 | 30 | 1.09 | 0.14 | 0.13 | 0.26 | 0.17 | | | >100 | >100 | >100 | ✓ | 0.43 | 22 | 17 | ✓ |
| 3/ | Sockets bals. 1,2,3 | B | C | 1 | 1.5 | 1.5 | 0.4 | -"- | B | 20 | 6 | 30 | 1.74 | 0.25 | 0.22 | 0.36 | 0.21 | | | >100 | >100 | >100 | ✓ | 0.51 | 22 | 17 | ✓ |
| 4/ | Supply boiler | B | C | 1 | 2.5 | 1.5 | 0.4 | -"- | B | 16 | 6 | 30 | 2.18 | | | | 0.11 | | | >100 | >100 | >100 | ✓ | 0.32 | 22 | 17 | ✓ |
| 5/ | Lighting bals. 1,2 RCD2 | B | C | 1 | 1.5 | 1.5 | 0.4 | -"- | B | 6 | 6 | 30 | 5.83 | | | | 0.16 | | | >100 | >100 | >100 | ✓ | 0.82 | 22 | 17 | ✓ |
| 1/ | Supply cooker | B | C | 1 | 6.0 | 2.5 | 0.4 | -"- | B | 32 | 6 | 30 | 1.09 | | | | 0.4 | | | >100 | >100 | >100 | ✓ | 0.40 | 24 | 16 | ✓ |
| 2/ | Sockets kitchen | B | C | 1 | 2.5 | 1.5 | 0.4 | -"- | B | 32 | 6 | 30 | 1.09 | 0.16 | 0.12 | 0.26 | 0.13 | | | >100 | >100 | >100 | ✓ | 0.38 | 24 | 16 | ✓ |
| 3/ | Lights kitchen | B | C | 1 | 1.5 | 1.5 | 0.4 | -"- | B | 6 | 6 | 30 | 5.83 | | | | 0.42 | | | >100 | >100 | >100 | ✓ | 0.66 | 24 | 16 | ✓ |
| 4/ | Supply security | B | C | 1 | 1.5 | 1.5 | 0.4 | -"- | B | 6 | 6 | 30 | 5.83 | | | | 0.3 | | | >100 | >100 | >100 | ✓ | 0.24 | 24 | 16 | ✓ |
| 5/ | Lights top basement | B | C | 1 | 1.5 | 1.5 | 0.4 | -"- | B | 6 | 6 | 30 | 5.83 | | | | 0.19 | | | >100 | >100 | >100 | ✓ | 0.51 | 24 | 16 | ✓ |

CODES FOR TYPE OF WIRING: A Thermoplastic insulated/sheathed cables; B Thermoplastic cables in metallic conduit; C Thermoplastic cables in non-metallic conduit; D Thermoplastic cables in metallic trunking; E Thermoplastic cables in non-metallic trunking; F Thermoplastic/SWA cables; G Thermosetting/SWA cables; H Mineral-insulated cables; O (Other - please state)

Location of consumer unit: Cloakroom cupboard

Designation of consumer unit:

Prospective fault current at consumer unit: 2.0 kA

## TEST INSTRUMENTS

*Test instruments (serial numbers) used*

Multi-function: 06/06218/r

Insulation resistance:

Continuity:

Earth electrode resistance:

Earth fault loop impedance:

RCD: