

ELECTRICAL INSTALLATION CERTIFICATE

Issued in accordance with British Standard 7671 - Requirements for Electrical Installations by an Approved Contractor or Conforming Body enrolled with NICEIC, Warwick House, Houghton Hall Park, Houghton Regis, Dunstable, LU5 5ZX

Original (To the person ordering the work)

DETAILS OF THE CLIENT

Client / Address: **JOHN SISK AND SON LIMITED, 1 CURO PARK, FROGMORE, ST ALBANS, HERTFORDSHIRE** Postcode: **AL2 2DD**

DETAILS OF THE INSTALLATION

Address: **465 JACKSON BUILDING, 2 ENGINEERS WAY, WEMBLEY** Postcode: **HA9 0SH** The installation is: **New**
 Extent of the installation covered by this certificate: **CIRCUITS FED VIA APARTMENT DB ONLY** **An addition**
An alteration


DESIGN

Details of permitted exceptions appended: **N/A** Risk assessment appended: **N/A** No. of pages

I/We, being the person(s) responsible for the design of the electrical installation (as indicated by my/our signature(s) below), particulars of which are described above, having exercised reasonable skill and care when carrying out the design, hereby CERTIFY that the design work for which I/we have been responsible is, to the best of my/our knowledge and belief, in accordance with BS 7671 amended to **2015** (date) except for the departures, if any, detailed as follows:

Details of departures from BS 7671, as amended (Regulations 120.3,133.5): **NONE**

The extent of liability of the signatory/signatories is limited to the work described above as the subject of this certificate. For the **DESIGN** of the installation:

Signature  Date **23/09/2019** Name (CAPITALS) **J ROBINSON** Designer 1
 Signature _____ Date _____ Name (CAPITALS) _____ ** Designer 2

CONSTRUCTION

I, being the person responsible for the construction of the electrical installation (as indicated by my signature below), particulars of which are described above, having exercised reasonable skill and care when carrying out the construction, hereby CERTIFY that the construction work for which I have been responsible is to the best of my knowledge and belief, in accordance with BS 7671, amended to **2015** (date) except for the departures, if any, detailed as follows:

Details of departures from BS 7671, as amended (Regulations 120.3,133.5): **NONE**

The extent of liability of the signatory is limited to the work described above as the subject of this certificate. For the **CONSTRUCTION** of the installation:



Signature  Date **20/09/2019** Name (CAPITALS) **L BOURDICE** Constructor

INSPECTION AND TESTING

I, being the person responsible for the inspection and testing of the electrical installation (as indicated by my signature below), particulars of which are described above, having exercised reasonable skill and care when carrying out the inspection and testing, hereby CERTIFY that the work for which I have been responsible is to the best of my knowledge and belief, in accordance with BS 7671, amended to **2015** (date) except for the departures, if any, detailed as follows:

Details of departures from BS 7671, as amended (Regulations 120.3,133.5): **NONE**

The extent of liability of the signatory/signatories is limited to the work described above as the subject of this certificate. For the **INSPECTION AND TESTING** of the installation:

Signature  Date **20/09/2019** Name (CAPITALS) **S WILSON** Inspector
 Signature  Date **20/09/2019** Name (CAPITALS) **S WILSON** Qualified Supervisor †

DESIGN, CONSTRUCTION, INSPECTION AND TESTING *

* This box to be completed only where the design, construction, inspection and testing have been the responsibility of one person.

Details of permitted exceptions appended: **N/A** Risk assessment appended: **N/A** No. of pages

I, being the person responsible for the design, construction, inspection and testing of the electrical installation (as indicated by my signature below), 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 work for which I have been responsible is to the best of my knowledge and belief, in accordance with BS 7671, amended to _____ (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 _____ Date _____ Signature _____ Date _____ Reviewed by _____
 Name (CAPITALS) _____ Name (CAPITALS) _____ Qualified Supervisor ††

† Where the inspection and testing have been carried out by an Approved Contractor, the inspection and testing results are to be reviewed by the registered Qualified Supervisor.
 †† Where the design, the construction, and the inspection and testing have been the responsibility of one person, the inspection and testing results are to be reviewed by the registered Qualified Supervisor.

PARTICULARS OF THE ORGANISATION(S) RESPONSIBLE FOR THE ELECTRICAL INSTALLATION

| | | | | | | |
|-------------------------------|-------------------------------------|---|--|--------------------|---|--------------------------------|
| DESIGN (1) | Organisation † HURLEY PALMER FLATT | Address: 240 BLACKFRIARS ROAD LONDON | | Postcode: SE1 8NW | NICEIC Enrolment No (where appropriate) | Branch number: (if applicable) |
| DESIGN (2) | Organisation † | Address: | | Postcode: | NICEIC Enrolment No (where appropriate) | Branch number: (if applicable) |
| CONSTRUCTION | Organisation † H E SIMM AND SON LTD | Address: 55-56 RUSSELL SQUARE BLOOMSBURY LONDON | | Postcode: WC1B 4HP | NICEIC Enrolment No (Essential Information) 036051001 | Branch number: (if applicable) |
| INSPECTION AND TESTING | Organisation † H E SIMM AND SON LTD | Address: 55-56 RUSSELL SQUARE BLOOMSBURY LONDON | | Postcode: WC1B 4HP | NICEIC Enrolment No (where appropriate) 036051001 | Branch number: (if applicable) |

SUPPLY CHARACTERISTICS AND EARTHING ARRANGEMENTS

| | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|
| <p>System Type(s)</p> <p>TN-S <input type="checkbox"/></p> <p>TN-C-S <input checked="" type="checkbox"/></p> <p>TN-C <input type="checkbox"/></p> <p>TT <input type="checkbox"/></p> <p>IT <input type="checkbox"/></p> | | | | <p>Number and Type of Live Conductors</p> <p>a.c. <input checked="" type="checkbox"/> d.c. <input type="checkbox"/></p> <p>1-phase (2 wire) <input checked="" type="checkbox"/> 1-phase (3 wire) <input type="checkbox"/> 2-pole <input type="checkbox"/></p> <p>2-phase (3 wire) <input type="checkbox"/> 3-pole <input type="checkbox"/></p> <p>3-phase (3 wire) <input type="checkbox"/> 3-phase (4 wire) <input type="checkbox"/> other <input type="checkbox"/></p> <p>Other <input type="checkbox"/></p> | | | | <p>Nature of Supply Parameters</p> <p>Nominal Voltage(s): U⁽¹⁾ N/A V U₀⁽¹⁾ 230 V</p> <p>Nominal frequency, f⁽¹⁾ 50 Hz</p> <p>Prospective fault current, I_{pf}⁽²⁾⁽³⁾ 5.9 kA</p> <p>External earth fault loop impedance, Z_e⁽²⁾⁽³⁾ 0.5 Ω</p> <p>Number of sources 1</p> <p><i>Notes:</i> (1) by enquiry (2) by enquiry or by measurement (3) where more than one supply, record the higher or highest values</p> | | | | <p>Characteristics of Primary Supply Overcurrent Protective Device(s)</p> <p>BS(EN) BS 88-3 Fuse C</p> <p>Type C</p> <p>Rated current 100 A</p> <p>Short-circuit capacity 31.5 kA</p> <p>Confirmation of supply polarity <input checked="" type="checkbox"/></p> | | | |
|---|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|

PARTICULARS OF INSTALLATION AT THE ORIGIN

| | | | | | |
|--|--|---|--|---|--|
| <p>Means of Earthing</p> <p>Distributor's facility: <input checked="" type="checkbox"/></p> <p>Installation earth electrode: <input type="checkbox"/></p> | | <p>Type: <input type="checkbox"/></p> <p>(eg rod(s), tape etc)</p> <p>Electrode resistance, R_A: <input type="text"/> (Ω)</p> | | <p>Details of Installation Earth Electrode (where applicable)</p> <p>Location: <input type="text"/></p> <p>Method of measurement: <input type="text"/></p> | |
| <p>Main Switch/Switch-Fuse/Circuit-Breaker/RCD</p> <p>Type: BS EN 60947-3</p> <p>No of Poles 2</p> <p>Supply conductors material Copper</p> <p>Supply conductors csa 25 mm²</p> | | <p>Voltage rating 230 V</p> <p>Rated current, I_n 100 A</p> <p>RCD operating current, I_{Δn}* N/A mA</p> <p>RCD operating time (at I_{Δn})* N/A ms</p> <p>Rated delay* N/A ms</p> | | <p>Maximum Demand (Load) 80 Amps</p> <p>Protective measures against electric shock: ADS</p> | |
| <p>Earthing conductor</p> <p>Conductor material Copper</p> <p>Conductor csa 25 mm²</p> <p>Continuity/connection verified <input checked="" type="checkbox"/></p> | | <p>Earthing and Protective Bonding Conductors</p> <p>Main protective bonding conductors</p> <p>Conductor material Copper</p> <p>Conductor csa 16 mm²</p> <p>Continuity/connection verified <input checked="" type="checkbox"/></p> | | <p>Bonding of extraneous-conductive-parts (v)</p> <p>Water installation pipes <input checked="" type="checkbox"/> Lightning protection N/A</p> <p>Oil installation pipes N/A Structural steel N/A</p> <p>Gas installation pipes N/A Other M E</p> | |

COMMENTS ON EXISTING INSTALLATION

In the case of an alteration or additions see Section 633 **NONE**

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

NEXT INSPECTION **

§ Interval in terms of years, months or weeks, as appropriate

I/We the designer(s), RECOMMEND that this installation is further inspected and tested after an interval of not more than **5 10 YEARS**

** The proposed date for the next inspection should take into consideration the frequency and quality of maintenance that the installation can reasonably be expected to receive during its intended life, and the period should be agreed between the designer, installer and other relevant parties.

† Where the Approved Contractor responsible for the construction of the electrical installation has also been responsible for the design and the inspection and testing of that installation, the 'Particulars of the Organisation(s) responsible for the Electrical Installation' may be recorded only in the section entitled 'CONSTRUCTION'

‡ Where a number of sources are available to supply the installation, and where the data given for the primary source may differ from other sources, a separate sheet must be provided which identifies the relevant information relating to each additional source.

SCHEDULE OF ITEMS INSPECTED

† See note below

1.0 CONDITION OF ELECTRICAL 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 | Isolator | ✓ |

2.0 PARALLEL OR SWITCHED ALTERNATIVE SOURCES OF SUPPLY

| | | |
|-----|---|-----|
| 2.1 | Presence of adequate arrangements where generator to operate as a switched alternative | |
| a) | Dedicated earthing arrangement independent of that of the public supply | N/A |
| 2.2 | Presence of adequate arrangements where generator to operate in parallel with public supply system | |
| a) | Correct connection of generator in parallel | N/A |
| b) | Compatibility of characteristics of means of generation | N/A |
| c) | Means to provide automatic disconnection of generator in the event of loss of public supply system or voltage or frequency deviation beyond declared values | N/A |
| d) | Means to prevent connection of generator in the event of loss of public supply system or voltage or frequency deviation beyond declared values | N/A |
| e) | Means to isolate generator from the public supply system | N/A |
| 2.3 | Presence of alternative/additional supply warning notices at: | |
| a) | The origin | N/A |
| b) | The meter position, if remote from origin | N/A |
| c) | The consumer unit/distribution board to which the alternative/additional sources are connected | N/A |
| d) | All points of isolation of ALL sources of supply | N/A |

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 | ✓ |
| 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 | ✓ |
| 3.3 | FELV - requirements satisfied | N/A |
| 3.4 | Reduced low voltage - requirements satisfied | N/A |

4.0 BASIC PROTECTION

| | | |
|-----|--|-----|
| 4.1 | Presence and adequacy of protective measures to provide basic protection | |
| a) | Insulation of live parts | ✓ |
| b) | Barriers or enclosures | ✓ |
| c) | Obstacles** | N/A |
| d) | Placing out of reach** | N/A |

5.0 ADDITIONAL PROTECTION

| | | |
|-----|---|-----|
| 5.1 | The presence and effectiveness of additional protection methods used, as follows: | |
| a) | RCDs not exceeding 30 mA operating current | ✓ |
| b) | Supplementary bonding | N/A |

6.0 OTHER METHODS OF PROTECTION

(insert location in box provided)

The presence and effectiveness of other methods of protection against electric shock where used, as follows:

| 6.1 | Basic and fault protection | LOCATION | |
|-----|--|----------|-----|
| a) | SELV | | N/A |
| b) | PELV | | N/A |
| c) | Double insulation/Reinforced insulation | | N/A |
| d) | Electrical separation for one item of equipment | | N/A |
| 6.2 | Fault protection | | |
| a) | Non-conducting location/Earth-free local equipotential bonding** | | N/A |
| b) | Electrical separation for more than one item of equipment** | | N/A |

7.0 DISTRIBUTION EQUIPMENT

| | | | |
|------|--|-----|--|
| 7.1 | Adequacy of working space/accessibility | ✓ | |
| 7.2 | Security of fixing | ✓ | |
| 7.3 | Insulation of live parts not damaged during erection | ✓ | |
| 7.4 | Adequacy / security of barriers | ✓ | |
| 7.5 | Suitability of enclosures for IP and fire ratings | ✓ | |
| 7.6 | Enclosures not damaged during installation | ✓ | |
| 7.7 | Presence and effectiveness of obstacles | ✓ | |
| 7.8 | Presence of main switch(es), linked where required | ✓ | |
| 7.9 | Operation of main switch(es) (functional check) | ✓ | |
| 7.10 | Operation of circuit-breakers and RCDs to prove functionality | ✓ | |
| 7.11 | RCD(s) provided for fault protection, where specified | N/A | |
| 7.12 | RCD(s) provided for protection against fire | N/A | |
| 7.13 | RCD(s) provided for additional protection, where specified | ✓ | |
| 7.14 | Confirmation overvoltage protection (SPDs) provided where specified | N/A | |
| 7.15 | Confirmation of indication that SPD is functional | N/A | |
| 7.16 | Presence of RCD quarterly test notice at or near the origin | ✓ | |
| 7.17 | Presence of diagrams, charts or schedules at or near each distribution board, where required | ✓ | |
| 7.18 | Presence of non-standard (mixed) cable colour warning notice at or near the appropriate distribution board, where required | N/A | |
| 7.19 | Presence of next inspection recommendation label | ✓ | |
| 7.20 | Presence of other required labelling | ✓ | |
| 7.21 | Selection of protective device(s) and base(s); correct type and rating | ✓ | |
| 7.22 | Single-pole protective devices in line conductor only | ✓ | |
| 7.23 | Protection against mechanical damage where cables enter equipment | ✓ | |
| 7.24 | Protection against electromagnetic effects where cables enter ferromagnetic enclosures | ✓ | |
| 7.25 | Confirmation that ALL conductor connections, including connection to busbars are correctly located in terminals and are tight and secure | ✓ | |
| 8.0 | CIRCUITS | | |
| 8.1 | Identification of conductors | ✓ | |
| 8.2 | Cables correctly supported throughout their length | ✓ | |
| 8.3 | Examination of cables for signs of mechanical damage during installation | ✓ | |
| 8.4 | Examination of insulation of live parts, not damaged during erection | ✓ | |

** For use in controlled supervised/conditions only

SCHEDULE OF CIRCUIT DETAILS FOR THE INSTALLATION

Original (To the person ordering the work)

| TO BE COMPLETED IN EVERY CASE | | TO BE COMPLETED ONLY IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION* | | | | | | | | | | |
|---------------------------------|----------------------------|---|-----------------------------|---------------|-----|------------------|-------------------------------------|------------------|-----|----------------|-----|----|
| Location of distribution board: | APARTMENT SERVICE CUPBOARD | Supply to distribution board is from: | UKPS RISER | No of phases: | 1 | Nominal voltage: | 230 | V | | | | |
| Distribution board designation: | DB 465 JACKSON BUILDING | Overcurrent protective device for the distribution circuit: | Type: BS(EN) BS 88-3 Fuse C | Rating: | 100 | A | Associated RCD (if any): BS(EN) N/A | RCD No of poles: | N/A | $I_{\Delta n}$ | N/A | mA |

| Circuit number and line | Circuit designation | Type of wiring (see code below) | Reference method | Number of points served | Circuit conductors: csa | | Max. disconnection time permitted by BS 7671 (s) | Overcurrent protective devices | | | | RCD | Maximum Z_s permitted by BS 7671 (Ω) |
|-------------------------|--|---------------------------------|------------------|-------------------------|-------------------------|------------------------|--|--------------------------------|------|------------|-----------------------------|-----|---|
| | | | | | Live (mm ²) | cpc (mm ²) | | BS (EN) | Type | Rating (A) | Short-circuit capacity (kA) | | |
| 1 | FIRE ALARMS | A | 102 | 6 | 1.5 | 1 | 0.4 | 60898 MCB | B | 6 | 6 | | 7.28 |
| 2 | INTRUDER ALARM | A | 102 | 1 | 2.5 | 1.5 | 0.4 | 60898 MCB | B | 6 | 6 | | 7.28 |
| * | RCCB | | | | | | | 61008 RCD | | | | 30 | |
| 3 | KITCHEN SOCKETS | A | 102 | 6 | 2.5 | 1.5 | 0.4 | 60898 MCB | C | 32 | 6 | | 0.68 |
| 4 | HOB | A | 102 | 1 | 6 | 2.5 | 0.4 | 60898 MCB | C | 32 | 6 | | 0.68 |
| 5 | LIGHTS-HALL/KITCHEN/BEDROOM | A | 102 | 12 | 1.5 | 1 | 0.4 | 60898 MCB | B | 6 | 6 | | 7.28 |
| 6 | SPARE | | | | | | | | | | | | |
| 7 | SPARE | | | | | | | | | | | | |
| 8 | SPARE | | | | | | | | | | | | |
| 9 | SPARE | | | | | | | | | | | | |
| 10 | SPARE | | | | | | | | | | | | |
| * | RCCB | | | | | | | 61008 RCD | | | | 30 | |
| 11 | LIVING/HALL/BEDROOM SOCKETS | A | 102 | 9 | 2.5 | 1.5 | 0.4 | 60898 MCB | C | 32 | 6 | | 0.68 |
| 12 | OVEN | A | 102 | 1 | 2.5 | 1.5 | 0.4 | 60898 MCB | C | 20 | 6 | | 1.09 |
| 13 | UTILITY CUPBOARD- SOCKETS/SPURS | A | 102 | 4 | 2.5 | 1.5 | 0.4 | 60898 MCB | C | 20 | 6 | | 1.09 |
| 14 | BATHROOM POD- LIGHTING/T/RAIL/MVHR/MEV | A | 102 | 12 | 2.5 | 1.5 | 0.4 | 60898 MCB | C | 16 | 6 | | 1.37 |
| 15 | SPARE | | | | | | | | | | | | |
| 16 | SPARE | | | | | | | | | | | | |
| 17 | SPARE | | | | | | | | | | | | |
| * | SUPPLY TO APARTMENT | G | E | 1 | 25 | 25 | 5 | 88-3 C | C | 100 | 31.5 | | 0.38 |

↑ See Table 4A2 of Appendix 4 of BS 7671

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

* In such cases, details of the distribution (sub-main) circuit(s), together with the test results for the circuit(s), must also be provided, on continuation schedules.

See next page for Schedule of Test Results

