DOMESTIC ELECTRICAL INSTALLATION CERTIFICATE

Issued in accordance with British Standard BS 7671 - Requirements for Electrical Installations

Certificate Reference: 10938343

1 DETAILS OF THE CLIENT

Client: SAXILBY CONSTRUCTION LIMITED

Address: 30 CHURCH ROAD, SAXILBY, LINCOLN, LN1 2HJ

2 DETAILS AND EXTENT OF THE INSTALLATION

Installation Address: 28 BAGGHOLME ROAD, LINCOLN, LN2 5BQ

Extent of the installation covered by this certificate: 100% of the installation.

The installation is: New installation ✔ | Addition to an existing installation: N/A | Alteration to an existing installation: N/A

3 COMMENTS ON EXISTING INSTALLATION

N/A

4 NEXT INSPECTION

I RECOMMEND that this installation is further inspected and tested after an interval of not more than: Change of Owner/Occupancy/Use

5 TEST INSTRUMENTS

Details of Test Instruments used (state serial and/or asset numbers):

Multi-functional:	FLUKE 1652 8770036	Earth electrode resistance:	N/A
Insulation resistance:	N/A	Earth fault loop impedance:	N/A
Continuity:	N/A	RCD:	N/A

6 DESIGN, CONSTRUCTION, INSPECTION AND TESTING

I/We being the person(s) responsible for the design, construction, inspection and testing of the electrical installation (as indicated by my/our signatures 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 design work for which I/we have been reponsible is to the best of my/our knowledge and belief in accordance with BS 7671:2008, amended to 2015 except for the departures, if any, detailed as follows.

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

None

Details of permitted exceptions (Regulations 411.3.3): Risk assessment attached: N/A

NIL

The extent of liability of the signatory/signatories 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:

Name: SCOTT GLADDING | Position: Qualified Supervisor | Signature: SGEC | Date: 25/06/2016

7 DETAILS OF THE ELECTRICAL CONTRACTOR

Trading Title: SCOTT GLADDING ELECTRICAL

Address: 29 MANRICO DRIVE
ST GEORGES PARK
LINCOLN

Postcode: LN1 1AD

Registration Number (if applicable): EPP 22313

Telephone Number: 01522 410269

Registered Competent Person Electrical | ELECSA

8 SUPPLY CHARACTERISTICS AND EARTHING ARRANGEMENTS

Earthing Arrangements

TN-S	N/A
TN-C-S	✔
TT	N/A

Number and Type of Live Conductors

1-phase (2 wire):	✔	1-phase (3 wire):	N/A
3-phase (3 wire):	N/A	3-phase (4 wire):	N/A
Other:	N/A		

Confirmation of supply polarity: ✔

Nature of Supply Parameters

Nominal voltage(s): U:	240 V	Uo:	230 V
Nominal frequency, f:	50 Hz		
Prospective fault current, Ipf:	2.91 kA		
External earth fault loop impedance, Ze:	0.03 Ω		

Supply Protective Device

BS(EN):	1361 Fuse HBC
Type:	2
Rated current:	100 A
Short-circuit capacity:	33 kA

9 PARTICULARS OF INSTALLATION REFERRED TO IN THE CERTIFICATE

Means of Earthing

Distributor's facility:	✔
Installation earth electrode:	N/A

Details of Installation Earth Electrode (where applicable)

Type:	N/A	Location:	N/A
Resistance to Earth:	N/A Ω	Method of measurement:	N/A

Maximum Demand (Load):	80 AMPS	Protective measure(s) against electric shock:	ADS	Measured Ze:	0.03 Ω

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

Type BS(EN):	5419 Isolator	Current rating:	100 A	Supply conductors material:	Copper
Number of poles:	2	Fuse/device rating or setting:	100 A	Supply conductors csa:	25 mm²
		Voltage rating:	240 V		

If RCD main switch:

Rated residual operating current (IΔn):	N/A mA
Rated time delay:	N/A ms
Measured operating time (at IΔn):	N/A ms

Earthing and Protective Bonding Conductors

Earthing conductor — Conductor material: Copper — csa: 16 mm² — Connection/continuity verified: ✔

Main protective bonding conductors — Conductor material: Copper — csa: 10 mm² — Connection/continuity verified: ✔

Bonding of extraneous-conductive parts

To water installation pipes:	✔	To gas installation pipes:	✔
To oil installation pipes:	N/A	To lightning protection:	N/A
To structural steel:	N/A	To other service(s):	CARRIED OUT @ BOILER

10 SCHEDULE OF ITEMS INSPECTED

Item	Description	Outcome
1.0	DISTRIBUTOR'S / SUPPLY INTAKE EQUIPMENT	
1.1	Condition of service cable	✔
1.2	Condition of service head	✔
1.3	Condition of distributor's earthing arrangement	✔
1.4	Condition of tails - Distributor/Consumer	✔
1.5	Condition of metering equipment	✔
1.6	Condition of isolator (where present)	N/A
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 (551.6)	N/A
2.2	Adequate arrangements where a generating set operates in parallel with the public supply (551.7)	N/A
3.0	AUTOMATIC DISCONNECTION OF SUPPLY	
3.1	Presence and adequacy of earthing and protective bonding arrangements:	
3.1.1	Installation earth electrode (where applicable) (542.1.2.3)	N/A
3.1.2	Earthing conductor and connections including accessibility (542.3; 543.3.2)	✔
3.1.3	Main protective bonding conductors and connections, including accessibility (411.3.1.2; 543.3.2)	✔
3.1.4	Provision of safety electrical earthing / bonding labels at all appropriate locations (514.13)	✔
3.1.5	RCD(s) provided for fault protection (411.4.9; 411.5.3)	✔
4.0	BASIC PROTECTION	
4.1	Presence and adequacy of measures to provide basic protection (prevention of contact with live parts) within the installation:	
4.1.1	Insulation of live parts e.g. conductors completely covered with durable insulation materials (416.1)	✔
4.1.2	Barriers or enclosures e.g. correct IP rating (416.2)	✔

11 SCHEDULE OF ITEMS INSPECTED

Item	Description	Outcome
5.0	ADDITIONAL PROTECTION	
5.1	Presence and effectiveness of additional protection methods:	
5.1.1	RCD(s) not exceeding 30mA operating current (415.1; Part 7), see Item 8.14 of this schedule	✔
5.1.2	Supplementary bonding (415.2; Part 7)	N/A
6.0	OTHER METHODS OF PROTECTION	
6.1	Presence and effectiveness of methods which give both basic and fault protection:	
6.1.1	SELV svstems including the source and associated circuits (Section 414)	✔
6.1.2	PELV svstems, including the source and associated circuits (Section 414)	N/A
6.1.3	Double or reinforced insulation i.e. Class II or equivalent equipment and associated circuits (Section 412)	✔
6.1.4	Electrical separation for one item or equipment e.g. shaver supply unit (Section 413)	✔
7.0	CONSUMER UNIT(S) / DISTRIBUTION BOARD(S)	
7.1	Adeqacy of access and working space for items of electrical equipment including switchgear (132.12)	✔
7.2	Presence of linked main switch(s) (537.1.4; 537.1.5; 537.1.6)	✔
7.3	Isolators, for every circuit or group of circuits and all items of equipment (537.2)	✔
7.4	Suitability of enclosure(s) for IP and fire ratings (416.2; 421.1.6; 421.1.201)	✔
7.5	Protection against mechanical damage where cables enter equipment (522.8.1; 522.8.11)	✔
7.6	Confirmation that ALL conductor connections are correctly located in terminals and are tight and secure (526.1)	✔
7.7	Avoidance of heating affects where cables enter ferromagnetic enclosures e.g. steel (521.5)	✔
7.8	Selection of correct type and ratings or circuit protective devices for overcurrent and fault protection (411.3.2; 411.4, .5, .6; Sections 432, 433)	✔
7.9	Presence of appropriate circuit charts, warning and other notices:	
7.9.1	Provision of circuit charts/schedules or equivalent forms of information (514.9)	✔
7.9.2	Warning notice of method of isolation where live parts not capable of being isolated by a single device (514.11)	✔
7.9.3	Periodic inspection and testing notice (514.12.1)	✔
7.9.4	RCD quarterly test notice; where required (514.12.2)	✔
7.9.5	Warning notice of non-standard (mixed) colours of conductors present (514.14)	✔
7.10	Presence of labels to indicate the purpose of switchgear and protective devices (514.1.1; 514.8)	✔
8.0	CIRCUITS	
8.1	Adequacy of conductors for current-carrying capacity with regard to type and nature of the installation (Section 523)	✔
8.2	Cable installation methods suitable for the location(s) and external influences (Section 522)	✔
8.3	Segregation/separation of Band I (ELV) and Band II (LV) circuits, and electrical and non-electrical sevices (528)	✔
8.4	Cables correctly erected and supported throughout including escape routes, with protection against abrasion (Sections 521, 522)	✔
8.5	Provision of fire barriers, sealing arrangments where necessary (527.2)	✔
8.6	Non-sheathed cables enclosed throughout in conduit, ducting or trunking (521.10.1; 526.8)	N/A
8.7	Cables concealed under floors, above ceilings or in wall/partitions, adequately protected against damage (522.6.201, .202, .204)	✔
8.8	Conductors correctly identified by colour, lettering or numbering (Section 514)	✔
8.9	Presence, adequacy and correct termination of protective conductors (411.3.1.1; 543.1)	✔
8.10	Cables and conductors correctly connected, enclosed and with no undue mechanical strain (Section 526)	✔
8.11	No basic insulation of a conductor visible outside enclosure (526.8)	✔
8.12	Single-pole devices for switching or protection in line conductors only (132.14.1; 530.3.2)	✔
8.13	Accessories not damaged, securely fixed, correctly connected, suitable for external influences (134.1.1; 512.2; Section 526)	✔

12 SCHEDULE OF ITEMS INSPECTED

Item	Description	Outcome
8.14	Provision of additional protection by RCD not exceeding 30 mA:	
8.14.1	Socket-outlets rated at 20 A or less unless exempt (411.3.3)	✔
8.14.2	Mobile equipment with a current rating not exceeding 32 A for use outdoors (411.3.3)	✔
8.14.3	Cables concealed in walls at a depth of less than 50 mm (522.6.202, .203)	✔
8.14.4	Cables concealed in walls/partitions containing metal parts regardless of depth (522.6.202; 522.6.203)	✔
8.15	Presence of appropriate devices for isolation and switching correctly located including:	
8.15.1	Means of switching off for mechanical maintenance (537.3)	✔
8.15.2	Emergency switches (537.4)	✔
8.15.3	Functional switches, for control of parts of the installation and current-using equipment (537.5)	✔
8.15.4	Firefighter's switches (537.6)	N/A
9.0	CURRENT-USING EQUIPMENT (PERMANENTLY CONNECTED)	
9.1	Equipment not damaged, securely fixed and suitable for external influences (134.1.1; 416.2; 512.2)	✔
9.2	Provision of overload and/or undervoltage protection e.g. for rotating machines, if required (Sections 445, 552)	✔
9.3	Installed to minimise the build-up of heat and restrict the spread of fire (421.1.4; 559.4.1)	✔
9.4	Adequacy of working space. Accessibility to equipment (132.12; 513.1)	✔
10.0	LOCATION(S) CONTAINING A BATH OR SHOWER (SECTION 701)	
10.1	30 mA RCD protection for all LV circuits, equipment suitable for the zones, supplementary bonding (where required) etc.	✔
10.2	Where used as a protective measure, requirements for SELV or PELV met (701.414.4.5)	✔
10.3	Shaver sockets comply with BS EN 61558-2-5 formerly BS 3535 (701.512.3)	N/A
10.4	Presence of supplementary bonding conductors, unless not required by BS 7671:2008 (701.415.2)	✔
10.5	Low voltage (e.g. 230 volt) socket-outlets sited at least 3m from Zone 1 (701.512.3)	✔
10.6	Suitability of equipment for external influences for installed location in terms of IP rating (701.512.2)	✔
10.7	Suitability of accessories and controlgear etc. for a particular zone (701.512.3)	✔
10.8	Suitability of current-using equipment for particular position within the location (701.55)	✔
11.0	OTHER PART 7 SPECIAL INSTALLATIONS OR LOCATIONS List all other special installations or locations present, if any (Record separately the results of particular inspections)	
11.1	N/A	✔
11.2	N/A	✔

13 SCHEDULE OF ITEMS TESTED

Item	Description	Outcome
12.1	External earth fault loop impedance, Ze	✔
12.2	Installation earth electrode resistance, Ra	✔
12.3	Continuity of protective conductors	✔
12.4	Continuity of ring final circuit conductors	✔
12.5	Insulation resistance between live conductors	✔
12.6	Insulation resistance between live conductors and earth	✔
12.7	Polarity	✔
12.8	Earth fault loop impedance, Zs	✔
12.9	Verification of phase sequence	✔
12.10	Operation of residual current device(s)	✔
12.11	Functional testing of assemblies	✔
12.12	Verification of voltage drop	✔

All boxes must be completed. 'tick' indicates that an inspection or test was carried out and that the result was satisfactory. 'X' indicates than an inspection or test was carried out and the result is not satisfactory. 'N/A' indicates that an inspection or test was not applicable to the particular installation. 'LIM' indicates that, exceptionally, a limitation agreed with the person ordering the work prevented the inspection or test being carried out.

14 SCHEDULE OF CIRCUIT DETAILS AND TEST RESULTS

Designation of consumer unit: D.B. 1 | Location: UNDERSTAIR CUPBOARD | Prospective fault current: 2.91 kA | Type of Wiring O-Other: N/A

Circuit number	Circuit designation	Type of wiring	Reference Method	Number of points served	Circuit conductors: csa		Max disconnect time permitted by BS7671	Overcurrent protective devices				RCD	Maximum Z_s permitted by BS7671	Circuit impedances (Ohms)					Insulation resistance		Polarity	Maximum measured earth fault loop impedance Zs	RCD		
					Live	cpc		BS(EN)	Type No	Rating	Capacity	Operating current, IΔn		Ring final circuits only (measured end to end)			All circuits (one column to be completed)		Live - Live	Live - Earth			Disconnection time at IΔn	Disconnection time at 5IΔn	Test button operation
					mm²	mm²	s			A	kA	mA	Ω	r_1 (Line)	r_n (Neutral)	r_2 (cpc)	R_1+R_2	R_2	MΩ	MΩ	✔	Ω	ms	ms	✔
1	SOCKETS KITCHEN	A	C	17	4	2.5	0.4	60898	B	32	6	30	1.37				0.53	N/A		> 200	✔	0.56	32.8	9.1	✔
2	SOCKETS 2ND FLOOR	A	C	7	2.5	1.5	0.4	60898	B	20	6	30	2.19				0.59	N/A		> 200	✔	0.62	32.8	9.1	✔
3	BOILER	A	C	1	2.5	1.5	0.4	60898	B	20	6	30	2.19				0.31	N/A		> 200	✔	0.34	32.8	9.1	✔
4	LIGHTS 1ST FLOOR	A	C	5	1	1	0.4	60898	B	6	6	30	7.28				0.97	N/A		> 200	✔	1	32.8	9.1	✔
5	FIRE DETECTION	A	C	11	1	1	0.4	60898	B	6	6	30	7.28				1.76	N/A		> 200	✔	1.79	32.8	9.1	✔
6	SPARE						0.4					30									✔		32.8	9.1	✔
7	SOCKETS FRONT	A	C	10	2.5	1.5	0.4	60898	B	20	6	30	2.19				0.60	N/A		> 200	✔	0.63	32.0	13.3	✔
8	SOCKETS REAR	A	C	9	2.5	1.5	0.4	60898	B	20	6	30	2.19				0.58	N/A		> 200	✔	0.61	32.0	13.3	✔
9	TV AMP	A	C	1	1	1	0.4	60898	B	6	6	30	7.28				0.01	N/A		> 200	✔	0.04	32.0	13.3	✔
10	LIGHTS GROUND FLOOR	A	C	6	1	1	0.4	60898	B	6	6	30	7.28				0.61	N/A		> 200	✔	0.64	32.0	13.3	✔
11	LIGHTS 2ND FLOOR, STAIRS, EMERGENCY	A	C	12	1	1	0.4	60898	B	6	6	30	7.28				1.83	N/A		> 200	✔	1.86	32.0	13.3	✔
12	SPARE						0.4					30									✔		32.0	13.3	✔
N/	N/A																								

DOMESTIC ELECTRICAL INSTALLATION CERTIFICATE

GUIDANCE FOR RECIPIENT (to be appended to the Certificate)

This safety Certificate has been issued to confirm that the electrical installation work to which it relates has been designed, constructed and inspected and tested in accordance with British Standard 7671 (as amended) (The IET Wiring Regulations).

You should have received an original Certificate and the contractor should have retained a duplicate Certificate. If you were the person ordering the work, but not the owner of the installation, you should pass this Certificate, or a full copy of it including the schedules, immediately to the user.

The 'original' Certificate should be retained in a safe place and be shown to any person inspecting or undertaking further work on the electrical installation in the future. If you later vacate the property, this Certificate will demonstrate to the new owner that the electrical installation complied with the requirements of British Standard 7671 at the time the certificate was issued. The Construction (Design and Management) Regulations require that for a project covered by those Regulations, a copy of this Certificate, together with schedules is included in the project health and safety documentation.

For safety reasons, the electrical installation will need to be inspected at appropriate intervals by a competent person. The maximum time interval recommended before the next inspection it stated on Page 1 under 'Next Inspection'.

This Certificate is intended to be issued only for a new electrical installation or new work associated with an alteration or addition to an existing installation. It should not have been issued for the inspection of an existing electrical installation. An 'Electrical Installation Condition Report' should be issued for such an inspection.

This Certificate is only valid if a Schedule of Inspections and Schedule of Test Results are appended.