DOMESTIC ELECTRICAL INSTALLATION CERTIFICATE

Requirements For Electrical Installations - BS 7671 IET Wiring Regulations

Certificate Reference: 109381199

1 DETAILS OF THE CLIENT

Client: Mr. Richard Smith

Address: Hall Farm, Pipe Ridware, Rugeley, Staffs, WS15 3QL

2 DETAILS AND EXTENT OF THE INSTALLATION

Installation Address: Flat 3, Beechwood House, Dolgellau, Gwynedd

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

Comments on existing installation (In the case of an addition or alteration see Regulation 644.1.2):

N/A

4 NEXT INSPECTION

I RECOMMEND that this installation is further inspected and tested after an interval of not more than: 10 Years or change of tenant/owner

5 TEST INSTRUMENTS

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

Multi-functional:	MFT1553	Earth electrode resistance:	N/A
Insulation resistance:	MTF1553	Earth fault loop impedance:	MTF1553
Continuity:	MTF1553	RCD:	MTF1553

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 7671:2018, amended to 2018 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

N/A

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: Alun Morris | Position: Owner | Signature: Alun Morris | Date: 15/07/2020

7 DETAILS OF THE ELECTRICAL CONTRACTOR

Trading Title: Alun Morris Electrics Ltd

Address: Bryn Glas
LLandderfel
Bala

Postcode: LL23 7HY

Registration Number (if applicable): NICEIC 604597000

Telephone Number: 01678530440

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): N/A
1-phase (3 wire): ✔
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: 0.98 kA
External earth fault loop impedance, Ze: 0.24 Ω

Supply Protective Device

BS(EN): 1361 Fuse HBC
Type: 2
Rated current: LIM A
Short-circuit capacity: LIM 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): 100 Amps
Protective measure(s) against electric shock: ADS
Measured Ze: 0.24 Ω

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

Type BS(EN): 60947-3 Isolator
Number of poles: 2
Current rating: 100 A
Fuse/device rating or setting: 80 A
Voltage rating: 240 V
Supply conductors material: Copper
Supply conductors csa: 25 mm²

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: N/A
To oil installation pipes: N/A
To lightning protection: N/A
To structural steel: N/A
To other service(s): N/A

10 INSPECTION SCHEDULE FOR DOMESTIC & SIMILAR PREMISES WITH UP TO 100A SUPPLY

Item No	Description	Outcome
1.0	EXTERNAL CONDITION OF INTAKE EQUIPMENT (VISUAL INSPECTION ONLY)	
1.1	Service cable	✔
1.2	Service head	✔
1.3	Earthing arrangement	✔
1.4	Meter tails	✔
1.5	Metering equipment	✔
1.6	Isolator (where present)	✔
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	Distributor's earthing arrangement (542.1.2.1; 542.1.2.2)	✔
3.1.2	Installation earth electrode (where applicable) (542.1.2.3)	N/A
3.1.3	Earthing conductor and connections, including accessibility (542.3; 543.3.2)	✔
3.1.4	Main protective bonding conductors and connections, including accessibility (411.3.1.2; 543.3.2; 544.1)	✔
3.1.5	Provision of safety electrical earthing/bonding labels at all appropriate locations (514.13)	✔
3.1.6	RCD(s) provided for fault protection (411.4.204; 411.5.3)	✔

11 INSPECTION SCHEDULE FOR DOMESTIC & SIMILAR PREMISES WITH UP TO 100A SUPPLY

Item No	Description	Outcome
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 insulating material (416.1)	✔
4.1.2	Barriers or enclosures e.g. correct IP rating (416.2)	✔
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)	✔
6.0	OTHER METHODS OF PROTECTION	
6.1	Presence and effectiveness of methods which give both basic and fault protection:	
6.1.1	SELV system, including the source and associated circuits (Section 414)	✔
6.1.2	PELV system, including the source and associated circuits (Section 414)	✔
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 of equipment e.g. shaver supply unit (Section 413)	✔
7.0	CONSUMER UNIT(S) / DISTRIBUTION BOARD(S)	
7.1	Adequacy of access and working space for items of electrical equipment including switchgear (132.12)	✔
7.2	Components are suitable according to assembly manufacturer's instructions or literature (536.4.203)	✔
7.3	Presence of linked main switch(es) (462.1.201)	✔
7.4	Isolators, for every circuit or group of circuits and all items of equipment (462.2)	✔
7.5	Suitability of enclosure(s) for IP and fire ratings (416.2; 421.1.6; 421.1.201; 526.5)	✔
7.6	Protection against mechanical damage where cables enter equipment (522.8.1; 522.8.5; 522.8.11)	✔
7.7	Confirmation that ALL conductor connections are correctly located in terminals and are tight and secure (526.1)	✔
7.8	Avoidance of heating effects where cables enter ferromagnetic enclosures e.g. steel (521.5)	✔
7.9	Selection of correct type and ratings of circuit protective devices for overcurrent and fault protection (411.3.2; 411.4, 411.5, 411.6; Sections 432, 433; 537.3.1.1)	✔
7.10	Presence of appropriate circuit charts, warning and other notices:	
7.10.1	Provision of circuit charts/schedules or equivalent forms of information (514.9)	✔
7.10.2	Warning notice of method of isolation where live parts not capable of being isolated by a single device (514.11)	✔
7.10.3	Periodic inspection and testing notice (514.12.1)	✔
7.10.4	RCD six-monthly test notice; where required (514.12.2)	✔
7.10.5	AFDD six-monthly test notice; where required	N/A
7.10.6	Warning notice of non-standard (mixed) colours of conductors present (514.14)	N/A
7.11	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 services (528)	✔
8.4	Cables correctly erected and supported throughout, with protection against abrasion (Sections 521, 522)	✔
8.5	Provision of fire barriers, sealing arrangements where necessary (527.2)	✔

12 INSPECTION SCHEDULE FOR DOMESTIC & SIMILAR PREMISES WITH UP TO 100A SUPPLY

Item No	Description	Outcome
8.6	Non-sheathed cables enclosed throughout in conduit, ducting or trunking (521.10.1; 526.8)	✔
8.7	Cables concealed under floors, above ceilings or in walls/partitions, adequately protected against damage (522.6.201, 522.6.202, 522.6.203; 522.6.204)	✔
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; 530.3.3; 643.6)	✔
8.13	Accessories not damaged, securely fixed, correctly connected, suitable for external influences (134.1.1; 512.2; Section 526)	✔
8.14	Provision of additional protection/requirements by RCD not exceeding 30mA:	
8.14.1	Socket-outlets rated at 32A or less, unless exempt (411.3.3)	✔
8.14.2	Supplies for mobile equipment with a current rating not exceeding 32A for use outdoors (411.3.3)	✔
8.14.3	Cables concealed in walls at a depth of less than 50mm (522.6.202; 522.6.203)	✔
8.14.4	Cables concealed in walls/partitions containing metal parts regardless of depth (522.6.202; 522.6.203)	✔
8.14.5	Final circuits supplying luminaires within domestic (household) premises (411.3.4)	✔
8.15	Presence of appropriate devices for isolation and switching correctly located including:	
8.15.1	Means of switching off for mechanical maintenance (Section 464; 537.3.2)	✔
8.15.2	Emergency switching (465.1; 537.3.3)	N/A
8.15.3	Functional switching, for control of parts of the installation and current-using equipment (463.1; 537.3.1)	✔
8.15.4	Firefighter's switches (537.4)	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 minimize 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	Additional protection for all low voltage (LV) circuits by RCD not exceeding 30mA (701.411.3.3)	✔
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 7671:2018 (701.415.2)	✔
10.5	Low voltage (e.g. 230 volt) socket-outlets sited at least 3m from zone 1 (701.512.3)	N/A
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	N/A
11.2	N/A	N/A

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.

13 SCHEDULE OF CIRCUIT DETAILS AND TEST RESULTS

Designation of consumer unit: D.B. 1 | Location: Corridor Cupboard | Prospective fault current: 0.98 kA

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		AFDD
					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	Test voltage			Disconnection time	Test button operation	Test button operation
					mm^2	mm^2	s			A	kA	mA	Ω	r_1 (Line)	r_n (Neutral)	r_2 (cpc)	R_1+R_2	R_2	MΩ	MΩ	V	✔	Ω	ms	✔	✔
1	Smoke Detectors	A	C		1.0	1.0	0.4	60898	B	6	6	30	7.28	N/A	N/A	N/A	0.48	N/A	N/A	> 200	500	✔	0.73	24.5	✔	N/A
2	Kitchen & Lounge Lights	A	C		1.0	1.0	0.4	60898	B	6	6	30	7.28	N/A	N/A	N/A	0.22	N/A	N/A	> 200	500	✔	0.46	24.5	✔	N/A
3	Kitchen & Lounge Heaters	A	C		2.5	1.5	0.4	60898	B	16	6	30	2.73	N/A	N/A	N/A	0.41	N/A	N/A	> 200	500	✔	0.65	24.5	✔	N/A
4	Bedroom & Hall Sockets	A	C		2.5	1.5	0.4	60898	B	16	6	30	2.73	N/A	N/A	N/A	0.71	N/A	N/A	> 200	500	✔	0.95	24.5	✔	N/A
5	Cooker	A	C		6	2.5	0.4	60898	B	32	6	30	1.37	N/A	N/A	N/A	0.18	N/A	N/A	> 200	500	✔	0.42	24.5	✔	N/A
6	Kitchen & Lounge Sockets	A	C		2.5	1.5	0.4	60898	B	32	6	30	1.37	N/A	N/A	N/A	0.23	N/A	N/A	> 200	500	✔	0.47	23.2	✔	N/A
7	Bedroom & Bathoom Lights	A	C		1.0	1.0	0.4	60898	B	6	6	30	7.28	N/A	N/A	N/A	0.24	N/A	N/A	> 200	500	✔	0.48	23.2	✔	N/A
8	Bedroom & Hall Heater + Towel Rail	A	C		2.5	1.5	0.4	60898	B	16	6	30	2.73	N/A	N/A	N/A	0.32	N/A	N/A	> 200	500	✔	0.56	23.2	✔	N/A
9	Water Heater	A	C		2.5	1.5	0.4	60898	B	16	6	30	2.73	N/A	N/A	N/A	0.10	N/A	N/A	> 200	500	✔	0.34	23.2	✔	N/A
10	Shower	A	C		10	4	0.4	60898	B	40	6	30	1.09	N/A	N/A	N/A	0.06	N/A	N/A	> 200	500	✔	0.3	23.2	✔	N/A

CODES FOR TYPE OF WIRING	A	B	C	D	E	F	G	H	O - Other
	Thermoplastic insulated/sheathed cables	Thermoplastic cables in metallic conduit	Thermoplastic cables in nonmetallic conduit	Thermoplastic cables in metallic trunking	Thermoplastic cables in nonmetallic trunking	Thermoplastic /SWA cables	Thermosetting /SWA cables	Mineral insulated cables	N/A

DOMESTIC ELECTRICAL INSTALLATION CERTIFICATE
GUIDANCE FOR RECIPIENTS

(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.