Electrical Certificate *Installation/Modification*

Requirements for Electrical Installations - BS 7671:2018
(IET Wiring Regulations 18th Edition)

Information for recipients:

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

You should have received an original Certificate and the contractor should have retained a duplicate.

If you were the person ordering this work, 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 demonstrate to the new owner that the electrical installation complied with the requirements of BS 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 document.

For safety reasons, the electrical installation will need to be re-inspected at appropriate intervals by a skilled person or persons, competent in such work. The maximum time interval recommended before the next inspection is stated on Page 2 under "NEXT INSPECTION".

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

This Certificate is only valid if accompanied by the schedule of inspections and the schedule(s) of test results.

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

Electrical Certificate Installation/Modification

for Domestic and Similar Premises up to 100 A

Requirements for Electrical Installations
BS 7671:2018 (IET Wiring Regulations 18th Edition)

NA/EIC 6302800001015

1 Details of the Installation

Client	Andrew Cobley	Installation	Tennant
Address	2 Sycamore Terrace YORK	Address	9 Sails Drive YORK
Postcode	YO30 7DN	Postcode	YO10 3LR

2 Description, extent and limitations of the installation (note 5)

Installation is New ☐ Addition ☐ Alteration ☑ Records Available Yes ☐ No ☑ Date of original installation: January 2000

Description of the installation
Replace consumer unit

Extent of the installation covered by this certificate
All circuits from DB1 - No inspection in roof voids, under floor boards or connection to integrated kitchen appliances

Details of departures from BS 7671 (regulations 120.3, 133.1.3 and 133.5): N/A

Details of permitted exception. (regulation 411.3.3) where applicable a suitable risk assessment(s) must be attached to this certificate
N/A

RCD Risk assessment attached (Non Dwelling ONLY) ☐

3 Declaration For design, construction, Inspection and testing (for sole person responsibility)

I being the person responsible for design, construction, inspection and the test of the electrical installation (as indicated by my signature below), particulars of which are described in Section 2, having exercised reasonable skill and care when carrying out the design, construction, inspection and test hereby CERTIFY that the design, construction, inspection and test for which i have been responsible is to the best of my knowledge and belief in accordance with BS 7671:2018, amended to 2020

The extent of liability of the signatory or the signatories is limited to work described in Section 2 as subject of this certificate.

For the DESIGN / CONSTRUCTION / INSPECTION & TEST of the installation:

Company	A.S Electrical	Signature	A.Sadler
Inspector Name	A.Sadler	Position	QS
Address	Cottage B, The Sycamores Bore Tree Baulk Dunnington YORK, North Yorkshire YO19 5HD	Date	04/01/2022
		Member No.	63028

Next inspection I the designer recommend that this installation is further inspected after an interval of not more than 5 years

4 Supply characteristics and earthing arrangements

Earthing Arrangements TN-S ☐ TN-C-S ☑ TT ☐ Other ☐ If Other please specify: N/A

Number & Type of live conductors AC ☑ DC ☐ No. of phases: 1 No. of wires: 2

Nature of Supply Parameters (Note: (1) by enquiry, (2) by enquiry or by measurement)

Nominal voltage, U/U_0 (1): 230 v
Nominal frequency, f (1): 50 H_z
Confirmation of polarity ☑
Prospective fault current, I_{pf} (2): 1.35 kA
External loop impedance, Z_e (2): 0.18 Ω
Or Z_{db} Source of Circuit: 0.18
Supply Protective Device BS (EN): 1361
Type: 2
Rated Current: 60 A
Other Sources of Supply (as detailed on attached schedule):

5 Particulars of installation referred to in this certificate

Details of installation Earth Electrode (where applicable) Type (e.g. rod(s), tape etc):
Location:
Electrode resistance to earth: Ω

Means of Earthing
Distributors facility ☑ Installation Earth Electrode ☐
Maximum Demand (load): N/A Amps ☐ KVA ☐

	Material	csa	(✓) or Value
Earthing Conductor	Copper	16	☑ Ω
Protective Bonding Conductor (to extraneous-conductive-parts)	Copper	10	☑
Main Supply Conductor	Copper	25	

(connection / continuity)

	(✓) or Value		(✓) or Value	
Water installation	☑ Ω	To structural steel	☐ Ω	
Gas installation pipes	☑ Ω	To lightning protection	☐ Ω	
Oil installation pipes	☐ Ω	Other	☐ Ω	

Main Switch Location: Rear Entrance Hall

Fuse/device rating or setting: N/A A Voltage rating: 230 V BS(EN): 60947-3 No. of Poles: 2 Current Rating: 100 A

If RCD main switch: Rated residual operating current I Δn: N/A mA Rated time delay: N/A ms Measured operating trip time: N/A ms

Comments on existing installation (in case of addition or alteration see section 644.1.2) use continuation sheet if needed

The installation is in a good safe condition

(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.

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

Outcomes

Indicates an inspection has been carried out and the result is satisfactory	✓	Indicates the inspection is not applicable to a particular item	N/A

Item No.	Description	Outcome
1.0 External Condition Of Intake Equipment (Visual Inspection Only) Where inadequacies are encountered, it is recommended that the person ordering the report informs the appropriate authority		
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, Presence And Adequacy Of Earthing And Protective Bonding Arrangements		
3.1	Distributor's earthing arrangement (542.1.2.1; 542.1.2.2)	✓
3.2	Installation earth electrode (where applicable) (542.1.2.3)	N/A
3.3	Earthing conductor and connections, including accessibility (542.3; 543.3.2)	✓
3.4	Main protective bonding conductors and connections, including accessibility (411.3.1.2; 543.3.2; Section 544.1)	✓
3.5	Provision of safety electrical earthing/bonding labels at all appropriate locations (514.13)	✓
3.6	RCD(s) provided for fault protection (411.4.204; 411.5.3)	✓
4.0 Basic Protection, Presence And Adequacy Of Measures To Provide Basic Protection (Prevention Of Contact With Live Parts) Within The Installation		
4.1	Insulation of live parts e.g. conductors completely covered with durable insulating material (416.1)	✓
4.2	Barriers or enclosures e.g. correct IP rating (416.2)	✓
5.0 Additional Protection, Presence And Effectiveness Of Additional Protection Methods		
5.1	RCD(s) not exceeding 30 mA operating current (415.1; Part 7), see Item 8.14 of this schedule	✓
5.2	Supplementary bonding (415.2; Part 7)	N/A
6.0 Other Methods Of Protection, Presence And Effectiveness Of Methods Which Give Both Basic And Fault Protection		
6.1	SELV system, including the source and associated circuits (Section 414)	N/A
6.2	PELV system, including the source and associated circuits (Section 414)	N/A
6.3	Double or reinforced insulation i.e. Class II or equivalent equipment and associated circuits (Section 412)	N/A
6.4	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)	N/A
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)	✓
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)	N/A
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)	✓
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 walls/partitions, adequately protected against damage (522.6.201, 522.6.202, 522.6.203; 522.6.204)	N/A
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 30 mA**	✓
8.14.1	Socket-outlets rated at 32 A or less, unless exempt (411.3.3)	✓
8.14.2	Supplies for 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, 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)	N/A
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	30 mA RCD protection for all LV circuits, equipment suitable for the zones, supplementary bonding (where required) etc.	✓
11.0 Other Part 7 Special Installations or Locations (list all other special installations or locations present)		
11.1	**List all other special installations or locations present, if any. (Record separately the results of particular inspections applied)**	

12.0 Schedule of Tests Results to be recorded on Schedule of Test Results

12.1	External earth loop impedance, Ze	Yes	12.9	Insulation Resistance between Live Conductors	N/A
12.2	Installation earth electrode	N/A	12.10	Insulation Resistance between Live Conductors & Earth	Yes
12.3	Prospective fault current, Ipf	Yes	12.11	Polarity (prior to energisation)	Yes
12.4	Continuity of Earth Conductors	Yes	12.12	Polarity (after energisation) including phase sequence	Yes
12.5	Continuity of Circuit Protective Conductors	Yes	12.13	Earth Fault Loop Impedance	Yes
12.6	Continuity of ring final circuit	Yes	12.14	RCDs / RCBOs including selectivity	Yes
12.7	Continuity of Protective Bonding Conductors	Yes	12.15	Functional testing of RCD devices	Yes
12.8	Volt drop verified	Yes	12.16	Functional testing of AFDD(s) devices	N/A

Inspector's Name:	A.Sadler
Date:	04/01/2022

Signature: *A.Sadler*

Electrical Certificate Installation/Modification Test Schedule

for Domestic and Similar Premises up to 100 A

Requirements for Electrical Installations
BS 7671:2018 (IET Wiring Regulations 18th Edition)

NA/EIC 6 3 0 2 8 0 0 0 0 1 0 1 5

Client Andrew Cobley | **Installation Address** 9 Sails Drive, YORK | **Postcode** YO10 3LR

Distribution board details - Complete in every case

Location: Rear entrance hall
Designation: DB1
Num. of ways: 12

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

Overcurrent protective device for the distribution circuit: No. of phases; Nominal Voltage
Supply to distribution board is from: Type; BS(EN); Rating A
Supply polarity confirmed ☐ Phase sequence confirmed ☐

Characteristics at this distribution board

Associated RCD(if any): BS (EN)
Z_d Ω I_{pf} kA
No. of poles; IΔn
Time delay (if applicable)
Above 30mA (if applicable): Operating at 1 IΔn ms
30mA or below: Operating at 5 IΔn ms

Test instrument serial number(s)

Loop impedance 14440702
Insulation resistance 14440702
Continuity 14440702
RCD 14440702

CIRCUIT DETAILS

Distribution board Designation: DB1

Circuit No. and Line No.	Circuit designation	Type of wiring	Ref. method	No. of points	Circuit conductors csa (mm²) L / N	Circuit conductors csa (mm²) CPC	Maximum disconnection	Overcurrent protective devices BS EN Number	Overcurrent protective devices Type No.	Overcurrent protective devices Rating (A)	Breaking capacity (KA)	RCD operating (mA)	BS 7671 Max. permitted Zs Other 80% (Ω)
1	Cooker Hob	A	100		6	2.5	0.4	61009	B	32	6	30	1.37
2	Immersion Heater	A	100	1	2.5	1.5	0.4	61009	B	16	6	30	2.18
3	Lights down	A	100	16	1	1	0.4	61009	B	6	6	30	7.28
4	Lights up	A	100	11	1	1	0.4	61009	B	6	6	30	7.28
5	Smoke detectors	A	100	11	1	1	0.4	61009	B	6	6	30	7.28
6	Ground floor sockets	A	100	20	2.5	1.5	0.4	61009	B	32	6	30	1.08
7	1st Floor sockets	A	100	13	2.5	1.5	0.4	61009	B	32	6	30	1.08
8	Electric Shower	A	100	1	10	4	0.4	61009	B	40	6	30	0.87
9	Spare												
10	Spare												
11	Spare												
12	Spare												

TEST RESULTS

Circuit No. and Line No.	Circuit impedance Ω: Ring final circuits only (measured end-to-end) r1	rn	r2	Fig 8 check (✓)	All circuits to be completed using R1R2 or R2, not both: R1 + R2	R2	Insulation resistance (Record lower reading): Test voltage V	L/L, L/N M(Ω)	L/E, N/E M(Ω)	Polarity (✓)	Max. Measured Zs (Ω)	RCD testing: Above 30mA IΔn ms	30mA or below 5 IΔn ms	Manual test button operation: RCD (✓)	AFDD (✓)
1	N/A	N/A	N/A	N/A	0.07	N/A	250	N/A	>1000	✓	0.22	27.9	18.0	✓	N/A
2	N/A	N/A	N/A	N/A	1.58	N/A	250	N/A	>1000	✓	1.78	28.9	18.2	✓	N/A
3	N/A	N/A	N/A	N/A	0.61	N/A	250	N/A	>1000	✓	0.81	28.8	18.6	✓	N/A
4	N/A	N/A	N/A	N/A	0.39	N/A	250	N/A	>1000	✓	0.57	28.8	19.0	✓	N/A
5	N/A	N/A	N/A	N/A	0.43	N/A	250	N/A	>1000	✓	0.61	25.9	18.0	✓	N/A
6	0.73	0.73	1.17	✓	0.48	N/A	250	N/A	>1000	✓	0.61	25.3	17.7	✓	N/A
7	0.30	0.30	0.90	✓	0.33	N/A	250	N/A	>1000	✓	0.46	26.9	18.0	✓	N/A
8	N/A	N/A	N/A	N/A	0.28	N/A	250	N/A	>1000	✓	0.44	28.0	19.3	✓	N/A
9				N/A						N/A				N/A	N/A
10				N/A						N/A				N/A	N/A
11				N/A						N/A				N/A	N/A
12				N/A						N/A				N/A	N/A

Details of circuits and/or installed equipment vulnerable to damage when testing: N/A

Date(s) dead testing 04/01/2022 To 04/01/2022

Date(s) live testing 04/01/2022 To 04/01/2022

Tested by: Name (capital letters) A.SADLER Position QS Date 04/01/2022

Signature *A.Sadler*

Wiring Types. A PVC/PVC B PVC cables in metallic Conduit C PVC cables in non-metallic Conduit D PVC cables in metallic Trunking E PVC cables in non-metallic Trunking F PVC/SWA cables G SWA/XPLE cables H Mineral Insulated O Other

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