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.

NAPIT Administration Centre, 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 Supply

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

NA/EIC 7 4 8 4 0 0 0 0 1 0 1 3

1 Details of the Installation

Client	JOE DAWSON	Installation	JOE DAWSON
Address	305 HULL ROAD YORK	Address	22 NICHOLAS GARDENS YORK
Postcode	YO10 3LU	Postcode	YO10 3EX

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

Installation is New ☐ Addition ☐ Alteration ☑ Records Available Yes ☐ No ☑ Date of original installation Unknown

Description of installation
2 X REPLACEMENT CONSUMER UNITS INSTALLED

Extent of installation covered by this certificate

Details of departures from BS 7671 (regulations 120.3, 133.1.3 and 133.5)

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

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 N/A
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	Esselle Electrical	Signature	Stephen Liddell
Inspector Name	Stephen Liddell	Position	Inspector
Address	6 Wolviston Avenue YORK, West Yorkshire YO10 3DD	Date	04/07/2019
		Member No.	7484

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 Hz Confirmation of polarity ☑

Prospective fault current, I_{pf} (2) 5.74 kA External loop impedance, Z_e (2) .04 Ω Or Z_{db} Source of Circuit

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) 68 Amps ☑ KVA ☐

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

(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 HALLWAY

Fuse/device rating or setting A Voltage rating 400 V BS(EN) 60947-3 No. of Poles 2 Current Rating 100 A

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

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

(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.

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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)	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, 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)	✓
6.2	PELV system, including the source and associated circuits (Section 414)	✓
6.3	Double or reinforced insulation i.e. Class II or equivalent equipment and associated circuits (Section 412)	✓
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)	✓
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	✓
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)	✓
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)	✓
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 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)	✓
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 Test Results to be recorded on Schedule of Test Result

12.1	External earth loop impedance, Ze	Yes	12.9	Insulation Resistance between Live Conductors	Yes
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	Yes

Inspector's Name: Stephen Liddell

Signature: *Stephen Liddell*

Date: 19/06/2019

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Electrical Certificate Installation/Modification Test Schedule

for Domestic and Similar Premises up to 100 A Supply

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

NA/EIC 7 4 8 4 0 0 0 0 0 1 0 1 3

Client JOE DAWSON | **Installation Address** 22 NICHOLAS GARDENS, YORK | **Postcode** YO10 3EX

Distribution board details - Complete in every case

Location: HALLWAY
Designation: DB1
Num. of ways: 10

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

Supply to distribution board is from
Overcurrent protective device for the distribution circuit: No. of phases: 1 | Type: BS(EN) | Nominal Voltage | Rating: A
Supply polarity confirmed ☐ Phase sequence confirmed ☐

Characteristics at this distribution board

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

Test instrument serial number(s)

Loop impedence 07471445
Insulation resistance 07471445
Continuity 07471445
RCD 07471445

CIRCUIT DETAILS / TEST RESULTS

Circuit No. and Line No.	Circuit designation (Distribution board Designation: DB1)	Type of wiring	Ref. method	No. of points	Circuit conductors csa: L/N (mm2)	Circuit conductors csa: CPC (mm2)	Maximum disconnection	Overcurrent protective devices: BS EN Number	Type No.	Rating (A)	Breaking capacity (KA)	RCD operating current IΔn (mA)	BS 7671 Max. permitted value Zs Other 80% (Ω)	Circuit impedence 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	Skt Ring Circuit	A	100	12	2.5	1.5	0.4	60898	B	32	6	30	1.10	N/A	N/A	N/A	✓	.70		230	>200	>200	✓	.74	31	15	✓	N/A
2	TOWEL RAIL	A	100	1	2.5	1.5	0.4	60898	B	16	6	30	2.18	N/A	N/A	N/A	N/A	.25		230	>200	>200	✓	.29	31	15	✓	N/A
3	Immersion Heater	A	100	1	2.5	1.5	0.4	60898	B	16	6	30	2.18	N/A	N/A	N/A	N/A	.32		230	>200	>200	✓	.36	31	15	✓	N/A
4	Lights	A	100	9	1	1	0.4	60898	B	6	6	30	5.82	N/A	N/A	N/A	N/A	.64		230	>200	>200	✓	.68	31	15	✓	N/A
5	Fire Alarm	A	100	3	1	1	0.4	60898	B	6	6	30	5.82	N/A	N/A	N/A	N/A	.55		230	>200	>200	✓	.59	31	15	✓	N/A
6	Spare													N/A	N/A	N/A	N/A						N/A				N/A	N/A
7	Spare													N/A	N/A	N/A	N/A						N/A				N/A	N/A
8	Spare													N/A	N/A	N/A	N/A						N/A				N/A	N/A
9	Cooker	A	100	2	6	2.5	0.4	60898	B	32	6	30	1.10	N/A	N/A	N/A	N/A	.57		230	>200	>200	✓	.61	32	15	✓	N/A
10	Electric Shower	A	100	1	6	2.5	0.4	60898	B	32	6	30	1.10	N/A	N/A	N/A	N/A	.75		230	>200	>200	✓	.79	32	15	✓	N/A

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

Date(s) dead testing 19/06/2019 To 19/06/2019

Date(s) live testing 19/06/2019 To 19/06/2019

Tested by: Name (capital letters) STEPHEN LIDDELL | Position Inspector | Date 19/06/2019 | Signature *Stephen Liddell*

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

Electrical Certificate Installation/Modification Test Schedule

for Domestic and Similar Premises up to 100 A Supply

Requirements for Electrical Installations
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NAPIT

NA/EIC 7 4 8 4 0 0 0 0 0 1 0 1 3

Client JOE DAWSON

Installation Address 22 NICHOLAS GARDENS, YORK

Postcode YO10 3EX

Distribution board details - Complete in every case

Location
Designation DB2
Num. of ways 1

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

Supply to distribution board is from
Overcurrent protective device for the distribution circuit: No. of phases 1 Type BS(EN)
Nominal Voltage Rating A
Supply polarity confirmed ☐ Phase sequence confirmed ☐

Characteristics at this distribution board

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

Test instrument serial number(s)

Loop impedence
Insulation resistance
Continuity
RCD

CIRCUIT DETAILS

TEST RESULTS

Circuit No. and Line No.	Circuit designation	Distribution board Designation	Type of wiring	Ref. method	No. of points	Circuit conductors csa L/N (mm2)	Circuit conductors csa CPC (mm2)	Maximum disconnection	Overcurrent protective devices BS EN Number	Type No.	Rating (A)	Breaking capacity (KA)	RCD operating current IΔn (mA)	BS 7671 Max. permitted value Zs Other 80% (Ω)	Circuit impedence 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	RCD testing 30mA or below 5 IΔn ms	Manual test button operation RCD (✓)	Manual test button operation AFDD (✓)
1	LOUNGE HEATER	DB2	A	100	1	2.5	1.5	0.4	60898	B	16	6	30	2.18	N/A	N/A	N/A	N/A	.35		230	>200	>200	✓	.39	28	14	✓	N/A
2	REAR BED HEATER		A	100	1	2.5	1.5	0.4	60898	B	16	6	30	2.18	N/A	N/A	N/A	N/A	.35		230	>200	>200	✓	.39	28	14	✓	N/A
3	HALL HEATER		A	100	1	2.5	1.5	0.4	60898	B	16	6	30	2.18	N/A	N/A	N/A	N/A	.19		230	>200	>200	✓	.24	28	14	✓	N/A
4	FRONT BED HEATER		A	100	1	2.5	1.5	0.4	60898	B	16	6	30	2.18	N/A	N/A	N/A	N/A	.25		230	>200	>200	✓	.29	28	14	✓	N/A
5	Immersion Heater		A	100	1	2.5	1.5	0.4	60898	B	16	6	30	2.18	N/A	N/A	N/A	N/A	.30		230	>200	>200	✓	.34	28	14	✓	N/A
6	Spare														N/A	N/A	N/A	N/A						N/A				N/A	N/A

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

Date(s) dead testing Not Specified To Not Specified

Date(s) live testing Not Specified To Not Specified

Tested by: Name (capital letters)

Position

Date Not Specified

Signature

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