ELECTRICAL INSTALLATION CERTIFICATE

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.

ELECTRICAL INSTALLATION CERTIFICATE
[BS 7671: 2018 as amended]

FT/EIC 7563000001014

for Industrial/Commercial Premises

Requirements for Electrical Installations
BS7671 :2018 (IET Wiring Regulations 18th Edition)

Client Details

Client	Helen Lamb	Installation	Helen Lamb
Address	15 Station Road Crosshills Keighley West Yorkshire	Address	15 Station Road Crosshills Keighley West Yorkshire
Postcode	BD20 7DT	Postcode	BD20 7DT

Details of the Installation

Installation is New ☐ Addition ☐ Alteration ☑ Records Available Yes ☐ No ☑ Date of original installation: Not specified

Description of the installation: Strip out of existing wiring and install of new circuits to male/female W.C's.

Extent of the installation covered by this certificate: Installed circuits tested only.

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:

RCD Risk assessment attached (Non Dwelling ONLY) ☐

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	Sync Electrical Building Services Ltd	Position	Electrician
Inspector Name	Robert Sunley	Date	12/12/2022
Address	The Orchard Airedale Enterprise Keighley, West Yorkshire	Scheme No.	27794 Branch No.
		Signature	Robert Sunley
Reviewed By	Robert Sunley	Reviewed By Signature	Robert Sunley
Reviewed By Date	12/12/2022		

Next inspection I the designer recommend that this installation is further inspected after an interval of not more than 10 years

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: 3 No. of wires: 4

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

Nominal voltage, U/U_0 (1): 400 v — Nominal frequency, f(1): 50 H_z — Confirmation of polarity ☑

Prospective fault current, I_{pf} (2): 0.630 kA — External loop impedance, Z_e (2): 0.30 Ω

Supply Protective Device BS (EN): LIM — Type: LIM — Rated Current: LIM A

No. of Additional Supplies: N/A

Particulars of Installation at the Origin

Means of Earthing

Details of installation Earth Electrode (where applicable) Type (e.g. rod(s), tape etc): Distributors facility ☑ Installation Earth Electrode ☐

Location: Electrode resistance to earth: Ω Maximum Demand (load): 50 Amps ☑ KVA ☐

Main Protective Conductors	Material	csa		(✓) or Value		(✓) or Value	
Earthing Conductor	Copper	16	mm²	Continuity Verified ☑	Ω	Connection Verified ☑	Ω
Protective Bonding Conductor	Copper	10	mm²	Continuity Verified ☑	Ω	Connection Verified ☑	Ω

	Material	csa		(connection / continuity) (✓) or Value		(✓) or Value	
Main Supply Conductor	Copper	25	mm²	Water installation ☑	Ω	To structural steel NA	Ω
Main Switch Location: Store room.				Gas installation pipes ☑	Ω	To lightning protection NA	Ω
				Oil installation pipes NA	Ω	Other ☐	Ω

Fuse/device rating or setting A Voltage rating: 400 V BS(EN): 5419 Isolator No. of Poles: 3 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

The equipotential bonding to the water supply is not located within 600mm of the stop tap. The connection is located in the loft above the female toilet (in the entrance)

(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.

ELECTRICAL INSTALLATION CERTIFICATE - Schedule of Inspections

FT/EIC 7563000001014

for Industrial/Commercial Premises

Requirements for Electrical Installations - BS 7671: 2018 (IET Wiring Regulations 18th Edition) All items inspections to confirm as appropriate, compliance with the relevant clauses in BS 7671:2018

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
2.1.1	Dedicated earthing arrangement independent of that of the public supply (551.4.3.2.1)	N/A
2.2	Adequate arrangements where a generating set operates in parallel with the public supply (551.7)	N/A
2.2.1	Correct connection of generator in parallel (551.7.2)	N/A
2.2.2	Compatibility of characteristics of means of generation (551.7.3)	N/A
2.2.3	Means to provide automatic disconnection of generator in the event of loss of public supply system or voltage or frequency deviation beyond declared values (551.7.4)	N/A
2.2.4	Means to prevent connection of generator in the event of loss of public supply system or voltage or frequency deviation beyond declared values (551.7.5)	N/A
2.2.5	Means to isolate generator from the public supply system (551.7.6)	N/A
3.0 Automatic Disconnection Of Supply		
3.1	Protective earthing/bonding arrangements (411.3; Chap 54)	✓
3.2	**Adequacy of**	
3.2.1	Distributor's earthing arrangement (542.1.2.1; 542.1.2.2) or installation earth electrode arrangement (542.1.2.3)	✓
3.2.2	Earthing conductor and connections (Section 526; 542.3; 542.3.2; 543.1.1)	✓
3.2.3	Main protective bonding conductors and connections (Section 526; 544.1; 554.1.2)	✓
3.2.4	Earthing bonding labels at all appropriate locations (514.13)	✓
3.3	**Accessibility of**	
3.3.1	Earthing conductor connections	✓
3.3.2	All protective bonding connections (543.3.2)	N/A
3.4	FELV - requirements satisfied (411.7; 411.7.1)	N/A
4.0 Other Methods Of Protection (Where any of the methods listed below are employed details should be provided on separate sheets)		
4.1	**Basic and fault protection (where used, confirmation that the requirements are satisfied)**	
4.1.1	SELV (Section 414)	N/A
4.1.2	PELV (Section 414)	N/A
4.1.3	Double insulation (Section 412)	✓
4.1.4	Reinforced insulation (Section 412)	N/A
4.2	**Basic protection**	
4.2.1	Insulation of live parts (416.1)	✓
4.2.2	Barriers or enclosures (416.2; 416.21)	✓
4.2.3	Obstacles (Section 417; 417.2.1; 417.2.2)	N/A
4.2.4	Placing out of reach (Section 417; 417.3)	N/A
4.3	**Fault protection**	
4.3.1	Non-conducting location (418.1)	N/A
4.3.2	Earth-free local equipotential bonding (418.2)	N/A
4.3.3	Electrical separation (Section 415; 415.2)	N/A
4.4	**Additional protection**	
4.4.1	RCDs not exceeding 30 mA as specified (415.1)	✓
4.4.2	Supplementary bonding (Section 415; 415.2)	N/A
5.0 Distribution Equipment		
5.1	Security of fixing (134.1.1)	✓
5.2	Insulation of live parts not damaged during erection (416.1)	✓
5.3	Adequacy/security of barriers (416.2)	✓
5.4	Suitability of enclosure(s) for IP and fire rating (416.2; 421.1.6; 421.1.201;526.5)	✓
5.5	Enclosure not damaged during installation (134.1.1)	✓
5.6	Presence and effectiveness of obstacles (417.2)	N/A
5.7	Components are suitable according to manufacturers' assembly instructions or literature (536.4.203)	✓

5.8	Presence of main switch(es), linked where required (462.1.201)	✓
5.9	Operation of main switch(es) (functional check) (643.10)	✓
5.10	Manual operation of circuit-breakers and RCDs to prove functionality (643.10)	✓
5.11	Confirmation that integral test button/switch causes RCDs to trip when operated (functional check) (643.10)	✓
5.12	RCDs provided for fault protection where specified (411.4.204; 411.5.2; 531.2)	N/A
5.13	RCDs provided for additional protection where specified (415.1)	✓
5.14	Confirmation overvoltage protection (SPDs) provided where specified (534.4.1.1)	✓
5.15	Presence of RCD six-monthly test notice at or near the origin (514.12.2)	✓
5.16	Presence of diagrams, charts or schedules at or near each distribution board, where required (514.9.1)	✓
5.17	Presence of non-standard (mixed) cable colour warning notice at or near the appropriate distribution board, where required (514.14)	✓
5.18	**Presence of alternative supply warning notice at or near**	
5.18.1	The origin	N/A
5.18.2	The meter position, if remote from the origin	N/A
5.18.3	The distribution board to which the alternative/additional sources are connected	N/A
5.18.4	All points of isolation of ALL sources of supply	N/A
5.19	Presence of next inspection recommendation label (514.12.1)	N/A
5.20	Presence of other required labelling (Section 514)	N/A
5.21	Selection of protective device(s) and base(s); correct type and rating(411.3.2; 411.4; 411.4.5; 411.4.6; Sections 432; 433; 434)	✓
5.22	Single-pole protective devices in line conductors only (132.14.1; 530.3.3; 643.6)	✓
5.23	Protection against mechanical damage where cables enter equipment (522.8.1; 522.8.5; 522.8.11)	✓
5.24	Protection against electromagnetic effects where cables enter ferromagnetic enclosures (521.5.1)	N/A
5.25	Confirmation that ALL conductor connections, including connections to busbars, are correctly located in terminals and are tight and secure (526.1)	✓
6.0 Final Circuits		
6.1	Identification of conductors (514.3.1)	✓
6.2	Cables correctly supported throughout their run (521.10.202; 522.8.5)	✓
6.3	Examination of cables for signs of mechanical damage during installation (522.6.1; 522.8.1; 522.8.3)	✓
6.4	Examination of insulation of live parts, not damaged during erection (522.6.1; 522.8.1)	✓
6.5	Non-sheathed cables protected by enclosure in conduit, ducting or trunking (521.10.1)	N/A
6.6	Suitability of containment systems (including flexible conduit) (Section 522)	N/A
6.7	Correct temperature rating of cable insulation (522.1.1; Table 52.1)	✓
6.8	Adequacy of cables for current-carrying capacity with regard for the type and nature of installation (Section 523)	✓
6.9	Adequacy of protective devices: type and rated current for fault protection (411.3)	✓
6.10	Presence and adequacy of circuit protective conductors (411.3.1; 543.1)	✓
6.11	Co-ordination between conductors and overload protective devices (433.1; 533.2.1)	✓
6.12	Wiring systems and cable installation methods/practices with regard to the type and nature of installation and external influences (Section 522)	✓
6.13	Cables concealed under floors, above ceilings, in walls/partitions, adequately protected against damage (522.6.201; 522.6.202; 522.6.203; 522.6.204)	✓
6.14	Provision of additional protection by RCDs having rated residual operating current not exceeding 30 mA	✓
6.14.1	For all socket-outlets of rating (32 A) or less, unless exempt (411.3.3)	N/A
6.14.2	Supplies for mobile equipment not exceeding 32 A rating for use outdoors (411.3.3)	N/A
6.14.3	For cables concealed in walls at a depth of less than 50mm (522.6.202, 522.6.203)	✓
6.14.4	For cables concealed in walls/partitions containing metal parts regardless of depth (522.6.202, 522.6.203)	N/A
6.14.5	Circuits supplying luminaires within domestic (household) premises (411.3.4)	N/A
6.15	Provision of fire barriers, sealing arrangements so as to minimize the spread of fire (Section 527)	N/A
6.16	Band II cables segregated/separated from Band I cables (528.1)	N/A
6.17	Cables segregated/separated from non-electrical services (528.3)	N/A
6.18	**Termination of cables at enclosures (Section 526)**	
6.18.1	Connections under no undue strain (522.8.5; 526.6)	✓
6.18.2	No basic insulation of a conductor visible outside enclosure (526.8)	✓
6.18.3	Connections of live conductors adequately enclosed (526.5)	✓
6.18.4	Adequately connected at point of entry to enclosure (glands, bushes etc) (522.8.5)	N/A
6.19	Suitability of circuit accessories for external influences (512.2)	✓
6.20	Circuit accessories not damaged during erection (134.1.1)	✓
6.21	Single-pole devices for switching or protection in line conductors only (132.14.1; 530.3.3; 643.6)	✓
6.22	Adequacy of connections, including CPCs, within accessories and at fixed and stationary equipment (Section 526)	✓

Inspector's Name: Robert Sunley

Signature: *Robert Sunley*

Date: 12/12/2022

ELECTRICAL INSTALLATION CERTIFICATE - Schedule of Tests

FT/EIC 7563000001014

for Industrial/Commercial Premises

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

Company Name	Sync Electrical Building Services Ltd	**Company Address**	The Orchard	**Postcode**	BD21 5LE	**Branch No.**	**Scheme No.** 27794
Client	Helen Lamb	**Installation Address**	Helen Lamb, 15 Station Road, Crosshills, Keighley, West Yorkshire			**Postcode**	BD20 7DT

Distribution board details - Complete in every case

Location: Store room
Designation: DB 1
Num. of ways: 3 Num. of phases: 3
Supply polarity confirmed: ☑ Phase sequence confirmed: ☑

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: BS(EN): Type: Rating: A Voltage: V

Characteristics at this distribution board

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

Test instrument serial number(s)

Loop impedance	1016911877
Insulation resistance	1016911877
Continuity	1016911877
RCD	1016911877

CIRCUIT DETAILS / TEST RESULTS

Circuit No. and Line No.	Distribution board Designation / 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	Type No.	Rating (A)	Breaking capacity (KA)	RCD operating (mA)	BS 7671 Max. permitted Zs Other 80% (Ω)	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 (✓)
4L1	Handryers	A	C	2	2.5	1.5	0.4	61009 RCD/RCBO	B	16	10	30	2.18	0.18	0.18	0.31	✓	0.13		500	>200	>200	✓	0.44	38.6	28.6	✓	N/A
4L2	Water heater	A	C	1	2.5	1.5	0.4	61009 RCD/RCBO	B	16	10	30	2.18				N/A	0.11		500	>200	>200	✓	0.42	38.8	28.8	✓	N/A
4L3	Lights/Fans	A	C	6	1.5	1	0.4	61009 RCD/RCBO	B	6	10	30	5.82				N/A	0.64		500	>200	>200	✓	0.94	28.9	28.9	✓	N/A

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

Date(s) dead testing: 12/12/2022 To: 12/12/2022

Date(s) live testing: 12/12/2022 To: 12/12/2022

Tested by: Name (capital letters): ROBERT SUNLEY Position: Date: 12/12/2022

Signature: *Robert Sunley*

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, MW Metal Work, FM Ferrous Metal, O Other
A/A1 - Single Core PVC Cables (4D1A), A/A2 - Multicore PVC Cables (4D2A), F/F1 - Single-core armoures PVC SWA Cables (4D3A), F/F2 - PVC SWA Cables (4D4A), A/A3 - PVC Twin & Earth (4D5), O/O1 - LSF single core cables 90°C rated (4E1A), O/O2 - Multi-core LSF cables 90°C rated (4E2A), G/G1 - Single-core armoured XLPE cables or 90°C rated (4E3A), G/G2 - Multi-core armoured XLPE cables or 90°C rated (4E4A), H/H1 - MICC exposed to touch (4G1A)