ELECTRICAL INSTALLATION CERTIFICATE

[BS 7671:2008 as amended]

ICN0000146 - Master

NICEIC APPROVED CONTRACTOR

GEORGE buxton

Details of the Client

Client/Address	Area , The Old post Office, 3 Station Road, Egham, Surrey, TW209LA

Details of the Installation

		The installation is:	
Address	Tudor Street, 22 Tudor Street, London, EC4Y0AY	New	✓
Extent of the installation covered by this certificate	WHOLE INSTALLATION	An Addition	N/A
		An Alteration	N/A

Design

We being the person(s) responsible for the design of the electrical installation (as indicated by our signature(s) below), particulars of which are described above, have exercised reasonable skill and care when carrying out the design hereby CERTIFY that the design work for which We have been responsible is, to the best of our knowledge and belief in accordance with BS 7671 amended to July 2015 (date) 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): N/A

Where applicable, a suitable risk assessment(s) must be attached to this Certificate: N/A Number of pages: N/A

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

For the DESIGN of the installation:

Signature		Date	08/01/2019	Name (CAPITALS)	KEVIN WOODING	Designer 1
Signature		Date	08/01/2019	Name (CAPITALS)	Kevin Myers	Designer 2 **

**(where there is divided responsibility for the design)

Construction

We being the person(s) responsible for the construction of the electrical installation (as indicated by our signature(s) below), particulars of which are described above, have exercised reasonable skill and care when carrying out the construction hereby CERTIFY that the construction work for which We have been responsible is, to the best of our knowledge and belief in accordance with BS 7671 amended to July 2015 (date) except for the departures, if any detailed as follows:

Details of departures from BS 7671, as amended (Regulations 120.3, 133.5) None

The extent of liability of the signatory is limited to the work described above as the subject of this certificate.

For the CONSTRUCTION of the installation:

Signature		Date	13/05/2019	Name (CAPITALS)	Tom Stagg	Constructor

Inspection and Testing

We being the person(s) responsible for the inspection and testing of the electrical installation (as indicated by our signature(s) below), particulars of which are described above, have exercised reasonable skill and care when carrying out the inspection and testing hereby CERTIFY that the work for which We have been responsible is, to the best ofour knowledge and belief in accordance with BS 7671 amended to July 2015 (date) except for the departures, if any detailed as follows:

Details of departures from BS 7671, as amended (Regulations 120.3, 133.5) None

The extent of liability of the signatory is limited to the work described above as the subject of this certificate.

For the INSPECTION AND TESTING of the installation:

Signature		Date	13/05/2019	Reviewed by Signature		Date	22/05/2019
Name (CAPITALS)	Brian Stanford	Inspector		Name (CAPITALS)	Anthony Wilkinson	Qualified Supervisor	

Particulars of the Organisation(s) Responsible for the Electrical Installation

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DESIGN (1)	Organisation	George E Buxton Ltd		
Address	2 Twyford Business Centre London Road Bishops Stortford Hertfordshire CM23 3YT	Tel 01279 659911	NICEIC Enrolment Number	111970
			Branch No.(If Applicable)	N/A
DESIGN (2)	Organisation	George E Buxton Ltd		
Address	2 Twyford Business Centre London Road Bishops Stortford Hertfordshire CM23 3YT	Tel 01279 659911	NICEIC Enrolment Number	111970
			Branch No.(If Applicable)	N/A
CONSTRUCTION	Organisation	George E Buxton Ltd		
Address	2 Twyford Business Centre London Road Bishops Stortford Hertfordshire CM23 3YT	Tel 01279 659911	NICEIC Enrolment Number	111970
			Branch No.(If Applicable)	N/A
INSPECTION AND TESTING	Organisation	George E Buxton Ltd		
Address	2 Twyford Business Centre London Road Bishops Stortford Hertfordshire CM23 3YT	Tel 01279 659911	NICEIC Enrolment Number	111970
			Branch No.(If Applicable)	N/A

Supply Characteristics and Earthing Arrangements

Tick boxes and enter details, as appropriate

System Type(s)

TN-S	✓
TN-C-S	N/A
TN-C	N/A
TT	N/A
IT	N/A

Number and Type of Live Conductors

		a.c.	✓	d.c.	N/A
1-Phase (2 wire)	N/A	1-Phase (3 wire)	N/A	2 Pole	N/A
2-Phase (3 wire)	N/A			3 Pole	N/A
3-Phase (3 wire)	N/A	3-Phase (4 wire)	✓	Other	N/A
Other	N/A				

Nature of Supply Parameters

Nominal Voltage	U	400 V	Uo	230 V
Nominal frequency	f	50 Hz		
Prospective fault current	Ipf	10 kA		
External loop impedence	Ze	0.02 Ω		
Number of Sources		1		

Characteristics of primary supply overcurrent protective Device(s)

BS(EN)	88-2 Fuse HRC
Type	gG
Rated current	630 A
Short circuit Capacity	80 kA
Confirmation of Supply Polarity	✓

Particulars of Installation at the Origin

Means of Earthing

Distributor's facility	✓
Installation earth electrode	N/A

Details of Installation Earth Electrode (where applicable)

Type (eg rod(s), tape etc)	N/A	Location	N/A
Electrode resistance, R_A	N/A Ω	Method of measurement	N/A

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

Type BS(EN)	60947-2	Voltage Rating	690 V
No. of poles	4	Rated Current, In	630 A
Supply Conductors material	Copper	RCD operating current, IΔn	N/A mA
Supply Conductors CSA	4x95 mm^2	RCD operating time at, IΔn	N/A ms
		Rated time delay	N/A ms

Maximum Demand (Load)

500 Amps

Protective measure(s) against electric shock

ADS

Earthing and Protective Bonding Conductors

Earthing conductor		Main protective bonding conductors	
Conductor material:	Copper	Conductor material:	Copper
Conductor csa:	50 mm^2	Conductor csa:	50 mm^2
Continuity/ connection verifed	N/A	Continuity/ connection verified	N/A

Bonding of extraneous conductive parts (✓)

Water installation pipes	✓
Lightning Protection	✓
Oil installation pipes	N/A
Structural Steel	✓
Gas installation pipes	✓
Other	

Comments on Existing Installation

In the case of an alteration or additions see Regulation 633: None

Next Inspection

We, the designer(s) RECOMMEND that this installation is further inspected and tested after an interval of not more than 5 Years or change of tenancy.

Schedule of Items Inspected

Outcomes	Acceptable condition	✓	Not applicable	N/A

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Item No	Description	Outcome
1.0	**CONDITION OF DISTRIBUTOR'S/SUPPLY INTAKE EQUIPMENT (the Distributor should be notified of any unsatisfactory equipment)**	
1.1	Service cable	✓
1.2	Service head	✓
1.3	Distributor's earthing arrangement	✓
1.4	Meter tails - Distributor/Consumer	✓
1.5	Metering equipment	✓
1.6	Isolator	✓
2.0	**PARALLEL OR SWITCHED ALTERNATIVE SOURCES OF SUPPLY**	
2.1	Presence of adequate arrangements where generator to operate as a switched alternative	✓
2.1 a)	Dedicated earthing arrangement independent of that of the public supply	✓
2.2	Presence of adequate arrangements where generator to operate in parallel with public supply system	
2.2 a)	Correct connection of generator in parallel	✓
2.2 b)	Compatibility of characteristics of means of generation	✓
2.2 c)	Means to provide automatic disconnection of generator in the event of loss of public supply system or voltage or frequency deviation beyond declared values	✓
2.2 d)	Means to prevent connection of generator in the event of loss of public supply system or voltage or frequency deviation beyond declared values	✓
2.2 e)	Means to isolate generator from the public supply system	✓
2.3	Presence of alternative/additional supply warning notices at:	
2.3 a)	The origin	✓
2.3 b)	The meter position, if remote from origin	✓
2.3 c)	The consumer unit/distribution board to which the alternative/ additional sources are connected	✓
2.3 d)	All points of isolation of ALL sources of supply	✓
3.0	**AUTOMATIC DISCONNECTION OF SUPPLY**	
3.1	Presence and adequacy of protective earthing/bonding arrangements as follows:	
3.1 a)	Distributor's earthing arrangement or installation earth electrode arrangement	N/A
3.1 b)	Earthing conductor and connections	✓
3.1 c)	Main protective bonding conductors and connections	✓
3.1 d)	Earthing/bonding labels at all appropriate locations	✓
3.2	Accessibility of:	
3.2 a)	Earthing conductor connections	✓
3.2 b)	All protective bonding connections	✓
3.3	FELV - requirements satisfied	N/A
3.4	Reduced low voltage - requirements satisfied	✓
4.0	**BASIC PROTECTION**	
4.1	Presence and adequacy of protective measures to provide basic protection	
4.1 a)	Insulation of live parts	✓
4.1 b)	Barriers or enclosures	✓
4.1 c)	Obstacles	N/A
4.1 d)	Placing out of reach	N/A
5.0	**ADDITIONAL PROTECTION**	
5.1	The presence and effectiveness of additional protection methods used, as follows:	
5.1 a)	RCDs not exceeding 30mA operating current	✓
5.1 b)	Supplementary bonding	✓

Item No	Description		Outcome
6.0	**OTHER METHODS OF PROTECTION (insert location in box provided)**		
6.1	Basic and fault protection	LOCATION	
a)	SELV		✓
b)	PELV		N/A
c)	Double insulation/Reinforced insulation		N/A
d)	Electrical separation for one item of equipment		N/A
6.2	Fault protection	LOCATION	
a)	Non-conducting location/Earth-free local equipotential bonding **		N/A
b)	Electrical separation for more than one item of equipment**		N/A
7.0	**DISTRIBUTION EQUIPMENT**		
7.1	Adequacy of working space/accessibility		✓
7.2	Security of fixing		✓
7.3	Insulation of live parts not damaged during erection		✓
7.4	Adequacy / security of barriers		✓
7.5	Suitability of enclosures for IP and fire ratings		✓
7.6	Enclosures not damaged during installation		✓
7.7	Presence and effectiveness of obstacles		✓
7.8	Presence of main switch(es), linked where required		✓
7.9	Operation of main switch(es) (functional check)		✓
7.10	Operation of circuit-breakers and RCDs to prove functionality		✓
7.11	RCD(s) provided for fault protection, where specified RCD(s) provided for fault protection, where specified		✓
7.12	RCD(s) provided for protection against fire		✓
7.13	RCD(s) provided for additional protection, where specified		✓
7.14	Confirmation overvoltage protection (SPDs) provided where specified		✓
7.15	Confirmation of indication that SPD is functional		✓
7.16	Presence of RCD quarterly test notice at or near the origin		✓
7.17	Presence of diagrams, charts or schedules at or near each distribution board, where required		✓
7.18	Presence of non-standard (mixed) cable colour warning notice at or near the appropriate distribution board, where required		✓
7.19	Presence of next inspection recommendation label		✓
7.20	Presence of other required labelling		✓
7.21	Selection of protective device(s) and base(s); correct type and rating		✓
7.22	Single-pole protective devices in line conductor only		✓
7.23	Protection against mechanical damage where cables enter equipment		✓
7.24	Protection against electromagnetic effects where cables enter ferromagnetic enclosures		✓
7.25	Confirmation that ALL conductor connections, including connections to busbars are correctly located in terminals and are tight and secure		✓

Schedule of Items Inspected

Outcomes	Acceptable condition	✓	Not applicable	N/A

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Item No	Description	Outcome	Item No	Description	Outcome
8.0	**CIRCUITS**		9.0	**ISOLATION AND SWITCHING**	
8.1	Identification of conductors	✓	9.1	**Isolators**	
8.2	Cables correctly supported throughout their length	✓	9.1 a)	Presence and location of appropriate devices	✓
8.3	Examination of cables for signs of mechanical damage during installation	✓	9.1 b)	Capable of being secured in the OFF position	✓
8.4	Examination of insulation of live parts, not damaged during erection	✓	9.1 c)	Correct operation verified (functional check)	✓
8.5	Non-sheathed cables protected by enclosure in conduit	✓	9.1 d)	The installation, circuit or part thereof that will be isolated is clearly identified by location and/or durable marking	✓
8.6	Suitability of containment systems (including flexible conduit)	✓	9.1 e)	Warning label posted in situations where live parts cannot be isolated by the operation of a single device	✓
8.7	Correct temperature rating of cable insulation	✓	9.2	**Switching off for mechanical maintenance**	
8.8	Adequacy of cables for current carrying capacity with regard to the type and nature of installation	✓	9.2 a)	Presence of appropriate devices	✓
8.9	Adequacy of protective devices; type and rated current for fault protection	✓	9.2 b)	Acceptable location (state if local or remote) — Local	✓
8.10	Presence and adequacy of circuit protective conductors	✓	9.2 c)	Capable of being secured in the OFF position	✓
8.11	Coordination between conductors and overload protective devices	✓	9.2 d)	Correct operation verified (functional check)	✓
8.12	Wiring systems and cable installation methods / practices appropriate to the type and nature of installation and external influences	✓	9.2 e)	The circuit or part thereof to be disconnected clearly identified by location and/or durable marking	✓
8.13	**Cables installed under floors, above ceilings, in walls/partions, adequately protected against damage**		9.3	**Emergency switching/stopping**	
8.13 a)	Installed in prescribed zones	✓	9.3 a)	Presence of appropriate devices	✓
8.13 b)	Incorporating earthed armour or sheath, or installed within earthed wiring system, or otherwise protected against mechanical damage by nails, screws and the like	✓	9.3 b)	Readily accessible for operation where danger might occur	✓
8.14	**Provision of additional protection by RCDs having rated residual operating current (IΔn) not exceeding 30 mA**		9.3 c)	Correct operation verified (functional check)	✓
8.14 a)	For mobile equipment with a current rating not exceeding 32A for use outdoors	N/A	9.3 d)	The installation, circuit or part thereof to be disconnected, clearly identified by location and/or durable marking	✓
8.14 b)	For all socket-outlets of rating 20 A or less, unless exempt	✓	9.4	**Functional switching**	
8.14 c)	For cables installed in walls/partitions at a depth of less than 50 mm	✓	9.4 a)	Presence of appropriate devices	✓
8.14 d)	For cables installed in walls/partitions containing metal parts regardless of depth	✓	9.4 b)	Correct operation verified (functional check)	✓
8.15	Provision of fire barriers, sealing arrangements so as to minimize the spread of fire	✓	10.0	**CURRENT-USING EQUIPMENT (PERMANENTLY CONNECTED)**	
8.16	Band II cables segregated/separated from Band I cables	✓	10.1	Suitability of equipment in terms of IP and fire rating	✓
8.17	Cables segregated/separated from non-electrical services	✓	10.2	Enclosure not damaged/deteriorated during installation so as to impair safety	✓
8.18	**Termination of cables and enclosures**		10.3	Suitability for the environment and external influences	✓
8.18 a)	Connections under no undue strain	✓	10.4	Security of fixing	✓
8.18 b)	No basic insulation of a conductor visible outside enclosure	✓	10.5	Cable entry holes in ceilings above luminaires, sized or sealed so as to restrict the spread of fire	✓
8.18 c)	Connections of live conductors adequately enclosed	✓	10.6	**Recessed luminaires (downlighters)**	
8.18 d)	Adequately connected at point of entry to enclosure (glands, bushes etc.)	✓	10.6 a)	Correct type of lamps fitted	✓
8.19	Suitability of circuit accessories for external influences	✓	10.6 b)	Installed to minimise build up of heat	✓
8.20	Circuit accessories not damaged during erection	✓	10.7	Provision of undervoltage protection, where specified	✓
8.21	Single-pole devices for switching in line conductor only	✓	10.8	Provision of overload protection, where specified	✓
8.22	Adequacy of connections, including cpcs, within accessories and at fixed and stationary equipment	✓	10.9	Adequacy of working space/accessibility to equipment	✓
11.0	**SPECIAL INSTALLATIONS OR LOCATIONS**				

12.0	OTHER	OUTCOME

Inspected By

Name: Tom Stagg

Date: 20/05/2019

Signature:

Schedule of Additional Records (See attached schedule)

The attached Schedules are part of this document and this Certificate is valid only when they are attached to it

8 - 80 (even) Schedules of Inspections and 9 - 81 (odd) Schedules of Test Results

SCHEDULE OF CIRCUIT DETAILS FOR THE INSTALLATION

ICN0000146 - Master

Board Details

TO BE COMPLETED IN EVERY CASE	ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Location of distribution board: BASEMENT LV SWITCH ROOM

Distribution board designation: LV 1 SWITCH

Supply to distribution board is from: N/A

No of phases: N/A

Nominal Voltage: N/A V

Overcurrent protective device for the distribution circuit

Type BS(EN): N/A

Rating: N/A A

Associated RCD (if any)

BS(EN): N/A

RCD No of poles: N/A

RCD rating, I Δ n: N/A mA

Circuit Details

Circuit number and line	Circuit designation	Type of wiring	Reference method	No of points served	Circuit conductors csa		Max. permitted disconnection time	Overcurrent protective device				RCD	Max. permitted Zs
					Live mm²	cpc mm²	s	BS(EN)	Type	Rating A	Short circuit capacity kA	Op. current $I_{\Delta n}$	Ω
1/TP	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-
2/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
3/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
4/TP	Sub Mains(DB/LLB/MECH)	G	E	1	25	70	5	60947-2 MCCB		100	50	N/A	0.2
5/TP	Sub Mains(DB LIFT 1/2 & 3)	G	E	1	25	70	5	60947-2 MCCB		100	50	N/A	0.2
6/TP	Sub Mains(DB/COMMS)	G	E	1	25	70	5	60947-2 MCCB		100	50	N/A	0.2
7/TP	Sub Mains(DB/LL/B)	G	E	1	25	70	5	60947-2 MCCB		100	50	N/A	0.2
8/TP	Sub Mains(DB/LL/2)	G	E	1	25	70	5	60947-2 MCCB		100	50	N/A	0.2
9/TP	Sub Mains(DB/LL/4)	G	E	1	25	70	5	60947-2 MCCB		100	50	N/A	0.2
10/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
11/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
12/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
13/L1	FIRE ALARM PANEL	O	E	1	4	4	0.4	60947-2 MCCB		16	50	N/A	1
13/L2	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-
13/L3	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-
14/TP	Sub Mains(DB/LLB/AHU)	G	E	1	35	80	5	60947-2 MCCB		125	50	N/A	0.15
15/TP	Sub Mains(DB/LLR)	G	E	1	70	138	5	60947-2 MCCB		160	50	N/A	0.14
16/TP	Sub Mains(DB/LLR/MECH)	G	E	1	95	160	5	60947-2 MCCB		250	50	N/A	0.07
17/TP	Sub Mains(RISING BUSBAR)	G	E	7	150	230	5	60947-2 MCCB		400	50	N/A	0.09
18/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
19/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-

Wiring Code

A	B	C	D	E	F	G	H	O
Thermoplastic insulated/ sheathed cables	Thermoplastic cables in metallic conduit	Thermoplastic cables in non-metallic conduit	Thermoplastic cables in metallic trunking	Thermoplastic cables in non-metallic trunking	Thermoplastic/ SWA cables	Thermosetting/ SWA cables	Mineral-insulated cables	Other

Board Tests

ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Zs	N/A Ω	Operating times of associated RCD (if any)	At $I_{\Delta n}$	N/A ms	
Ipf	N/A kA		At $5I_{\Delta n}$ (if applicable)	N/A ms	
Confirmation of Supply polarity	✓	Phase sequence confirmed (where appropriate)	✓		

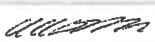
TEST INSTRUMENTS (SERIAL NUMBERS) USED

Earth fault loop impedance	0706070380	RCD	0706070380
Insulation resistance	0706070380	Multi-function	N/A
Continuity	0706070380	Other	N/A

Circuit Tests

Circuit number and line	Circuit impedances Ω					Insulation resistance				Polarity	Maximum measured earth fault loop impedance	RCD		
	Ring final circuits only (measured end to end)			All circuits (At least one column to be completed)								Operating times		
	r_1 (Line)	r_n (Neutral)	r_2 (cpc)	$R_1 + R_2$	R_2	Line/ Line MΩ	Line/ Neutral MΩ	Line/ Earth MΩ	Earth/ Neutral MΩ		Ω	At $I_{\Delta n}$ ms	At $5I_{\Delta n}$ ms	Test button operation
1/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/TP	N/A	N/A	N/A	0.09	N/A	>499	>499	>499	>499	✓	0.06	N/A	N/A	N/A
5/TP	N/A	N/A	N/A	0.13	N/A	>499	>499	>499	>499	✓	0.16	N/A	N/A	N/A
6/TP	N/A	N/A	N/A	0.10	N/A	>499	>499	>499	>499	✓	0.14	N/A	N/A	N/A
7/TP	N/A	N/A	N/A	0.02	N/A	>499	>499	>499	>499	✓	0.05	N/A	N/A	N/A
8/TP	N/A	N/A	N/A	0.08	N/A	>499	>499	>499	>499	✓	0.06	N/A	N/A	N/A
9/TP	N/A	N/A	N/A	0.07	N/A	>499	>499	>499	>499	✓	0.06	N/A	N/A	N/A
10/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/L1	N/A	N/A	N/A	0.34	N/A	N/A	>299	>299	>299	✓	0.26	N/A	N/A	N/A
13/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/TP	N/A	N/A	N/A	0.10	N/A	>499	>499	>499	>499	✓	0.08	N/A	N/A	N/A
15/TP	N/A	N/A	N/A	0.08	N/A	>499	>499	>499	>499	✓	0.06	N/A	N/A	N/A
16/TP	N/A	N/A	N/A	0.05	N/A	>499	>499	>499	>499	✓	0.06	N/A	N/A	N/A
17/TP	N/A	N/A	N/A	0.10	N/A	>499	>499	>499	>499	✓	0.03	N/A	N/A	N/A
18/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Tested By

Signature		Position	Qualifying Supervisor
Name	Anthony Wilkinson	Date of testing	22/02/2019

SCHEDULE OF CIRCUIT DETAILS FOR THE INSTALLATION

ICN0000146 - Master

Board Details

TO BE COMPLETED IN EVERY CASE	ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Location of distribution board: ELECTRICAL RISER

Distribution board designation: RISING BUSBAR

Supply to distribution board is from: SubMains(LV 1 SWITCH , 17/TP)

No of phases: 3 — Nominal Voltage: 400 V

Overcurrent protective device for the distribution circuit

Type BS(EN): 60947-2 MCCB — Rating: 400 A

Associated RCD (if any)

BS(EN): N/A

RCD No of poles: N/A

RCD rating, $I\Delta n$: N/A mA

Circuit Details

Circuit number and line	Circuit designation	Type of wiring	Reference method	No of points served	Circuit conductors csa		Max. permitted disconnection time	Overcurrent protective device				RCD	Max. permitted Zs
					Live mm^2	cpc mm^2	s	BS(EN)	Type	Rating A	Short circuit capacity kA	Op. current $I_{\Delta n}$	Ω
1/TP	Sub Mains(DB/B/P,DB/B/L)	B	B	1	25	16	5	60947-2 MCCB		100	36	N/A	0.22
2/TP	Sub Mains(DB/G/P,DB/G/L)	B	B	1	25	16	5	60947-2 MCCB		100	36	N/A	0.22
3/TP	Sub Mains(DB/1/P,DB/1/L)	B	B	1	25	16	5	60947-2 MCCB		100	36	N/A	0.22
4/TP	Sub Mains(DB/2/P,DB/2/L)	B	B	1	25	16	5	60947-2 MCCB		100	36	N/A	0.22
5/TP	Sub Mains(DB/3/P,DB/3/L)	B	B	1	25	16	5	60947-2 MCCB		100	36	N/A	0.22
6/TP	Sub Mains(DB/4/P,DB/4/L)	B	B	1	25	16	5	60947-2 MCCB		100	36	N/A	0.22
7/TP	Sub Mains(DB/5/P,DB/5/L)	B	B	1	25	16	5	60947-2 MCCB		100	36	N/A	0.22
8/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
9/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
10/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
11/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
12/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
13/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
14/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
15/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
16/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
17/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
18/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
19/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
20/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
21/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
22/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-

Wiring Code

A	B	C	D	E	F	G	H	O
Thermoplastic insulated/ sheathed cables	Thermoplastic cables in metallic conduit	Thermoplastic cables in non-metallic conduit	Thermoplastic cables in metallic trunking	Thermoplastic cables in non-metallic trunking	Thermoplastic/ SWA cables	Thermosetting/ SWA cables	Mineral-insulated cables	Other

Board Tests

ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Zs	0.03 Ω	Operating times of associated RCD (if any)	At $I_{\Delta n}$	N/A ms	
Ipf	10 kA		At $5I_{\Delta n}$ (if applicable)	N/A ms	
Confirmation of Supply polarity	✓	Phase sequence confirmed (where appropriate)	✓		

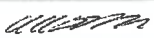
TEST INSTRUMENTS (SERIAL NUMBERS) USED

Earth fault loop impedance	0706070380	RCD	0706070380
Insulation resistance	0706070380	Multi-function	N/A
Continuity	0706070380	Other	N/A

Circuit Tests

Circuit number and line	Circuit impedances Ω					Insulation resistance				Polarity	Maximum measured earth fault loop impedance	RCD		
	Ring final circuits only (measured end to end)			All circuits (At least one column to be completed)								Operating times		Test button operation
	r_1 (Line)	r_n (Neutral)	r_2 (cpc)	$R_1 + R_2$	R_2	Line/ Line MΩ	Line/ Neutral MΩ	Line/ Earth MΩ	Earth/ Neutral MΩ		Ω	At $I_{\Delta n}$ ms	At $5I_{\Delta n}$ ms	
1/TP	N/A	N/A	N/A	0.01	N/A	>499	>499	>499	>499	✓	0.03	N/A	N/A	N/A
2/TP	N/A	N/A	N/A	0.01	N/A	>499	>499	>499	>499	✓	0.03	N/A	N/A	N/A
3/TP	N/A	N/A	N/A	0.01	N/A	>499	>499	>499	>499	✓	0.03	N/A	N/A	N/A
4/TP	N/A	N/A	N/A	0.01	N/A	>499	>499	>499	>499	✓	0.03	N/A	N/A	N/A
5/TP	N/A	N/A	N/A	0.01	N/A	>499	>499	>499	>499	✓	0.03	N/A	N/A	N/A
6/TP	N/A	N/A	N/A	0.01	N/A	>499	>499	>499	<499	✓	0.03	N/A	N/A	N/A
7/TP	N/A	N/A	N/A	0.01	N/A	>499	>499	>499	>499	✓	0.03	N/A	N/A	N/A
8/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Tested By

Signature		Position	Qualifying Supervisor
Name	Anthony Wilkinson	Date of testing	25/02/2019

Board Details

TO BE COMPLETED IN EVERY CASE	ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Location of distribution board: BASEMENT ELECTRICAL RISER

Distribution board designation: DB/B/L

Supply to distribution board is from: SubMains(RISING BUSBAR, 1/TP)

No of phases: 3 Nominal Voltage: 400 V

Overcurrent protective device for the distribution circuit

Type BS(EN): 60947-2 MCCB Rating: 100 A

Associated RCD (if any)

BS(EN): N/A

RCD No of poles: N/A

RCD rating, I Δ n: N/A mA

Circuit Details

Circuit number and line	Circuit designation	Type of wiring	Reference method	No of points served	Circuit conductors csa		Max. permitted disconnection time	Overcurrent protective device				RCD	Max. permitted Zs
					Live mm²	cpc mm²	s	BS(EN)	Type	Rating A	Short circuit capacity kA	Op. current $I_{\Delta n}$	Ω
1/L1	LIGHTING HARDWIRED LCM 2	O	E	15	2.5	2.5	0.4	60898 MCB	C	10	10	N/A	2.19
1/L2	LIGHTING HARDWIRED LCM 3	O	E	18	2.5	2.5	0.4	60898 MCB	C	10	10	N/A	2.19
1/L3	LIGHTING 20 PERSON MEETING ROOM	O	E	2	2.5	2.5	0.4	60898 MCB	C	10	10	N/A	2.19
2/L1	LIGHTING INTERACTIVE ROOM	O	E	1	2.5	2.5	0.4	60898 MCB	C	10	10	N/A	2.19
2/L2	LIGHTING HARDWIRED LCM 5	O	E	22	2.5	2.5	0.4	60898 MCB	B	10	10	N/A	4.37
2/L3	BUS LOUNGE NEON	O	E	1	2.5	2.5	0.4	60898 MCB	C	10	10	N/A	2.19
3/L1	ARCADE NEON	O	E	1	2.5	2.5	0.4	60898 MCB	C	10	10	N/A	2.19
3/L2	5A SOCKETS	O	E	2	2.5	2.5	0.4	60898 MCB	C	10	10	N/A	2.19
3/L3	AREA CONTROLLER	O	E	1	2.5	2.5	0.4	60898 MCB	C	10	10	N/A	2.19
4/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
4/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
4/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
5/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
5/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
5/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
6/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
6/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
6/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-

Wiring Code

A	B	C	D	E	F	G	H	O
Thermoplastic insulated/ sheathed cables	Thermoplastic cables in metallic conduit	Thermoplastic cables in non-metallic conduit	Thermoplastic cables in metallic trunking	Thermoplastic cables in non-metallic trunking	Thermoplastic/ SWA cables	Thermosetting/ SWA cables	Mineral-insulated cables	Other

SCHEDULE OF CIRCUIT TESTS FOR THE INSTALLATION

ICN0000146 - Master

Board Tests

ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Zs	0.03 Ω	Operating times of associated RCD (if any)	At $I_{\Delta n}$	N/A ms	
Ipf	9.3 kA		At $5I_{\Delta n}$ (if applicable)	N/A ms	
Confirmation of Supply polarity	✓	Phase sequence confirmed (where appropriate)	✓		

TEST INSTRUMENTS (SERIAL NUMBERS) USED

Earth fault loop impedance	101333008	RCD	101333008
Insulation resistance	101333008	Multi-function	N/A
Continuity	101333008	Other	N/A

Circuit Tests

Circuit number and line	Circuit impedances Ω					Insulation resistance				Polarity	Maximum measured earth fault loop impedance	RCD		
	Ring final circuits only (measured end to end)			All circuits (At least one column to be completed)		Line/ Line	Line/ Neutral	Line/ Earth	Earth/ Neutral			Operating times		Test button operation
	r_1 (Line)	r_n (Neutral)	r_2 (cpc)	$R_1 + R_2$	R_2	MΩ	MΩ	MΩ	MΩ		Ω	At $I_{\Delta n}$ ms	At $5I_{\Delta n}$ ms	
1/L1	N/A	N/A	N/A	1.21	N/A	N/A	>299	>299	>299	✓	1.30	N/A	N/A	N/A
1/L2	N/A	N/A	N/A	1.79	N/A	N/A	>299	>299	>299	✓	1.88	N/A	N/A	N/A
1/L3	N/A	N/A	N/A	0.16	N/A	N/A	>299	>299	>299	✓	0.25	N/A	N/A	N/A
2/L1	N/A	N/A	N/A	0.21	N/A	N/A	>299	>299	>299	✓	0.30	N/A	N/A	N/A
2/L2	N/A	N/A	N/A	2.88	N/A	N/A	>299	>299	>299	✓	2.97	N/A	N/A	N/A
2/L3	N/A	N/A	N/A	0.30	N/A	N/A	>299	>299	>299	✓	0.39	N/A	N/A	N/A
3/L1	N/A	N/A	N/A	0.47	N/A	N/A	>299	>299	>299	✓	0.56	N/A	N/A	N/A
3/L2	N/A	N/A	N/A	0.22	N/A	N/A	>299	>299	>299	✓	0.33	N/A	N/A	N/A
3/L3	N/A	N/A	N/A	0.02	N/A	N/A	>299	>299	>299	✓	0.11	N/A	N/A	N/A
4/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Tested By

Signature	Brian	Position	Electrician
Name	Brian Stanford	Date of testing	09/05/2019

SCHEDULE OF CIRCUIT DETAILS FOR THE INSTALLATION

ICN0000146 - Master

Board Details

TO BE COMPLETED IN EVERY CASE	ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Location of distribution board: BASEMENT ELECTRICAL RISER

Distribution board designation: DB/B/P

Supply to distribution board is from: SubMains(RISING BUSBAR, 1/TP)

No of phases: 3 — Nominal Voltage: 400 V

Overcurrent protective device for the distribution circuit

Type BS(EN): 60947-2 MCCB — Rating: 100 A

Associated RCD (if any)

BS(EN): N/A

RCD No of poles: N/A

RCD rating, I Δ n: N/A mA

Circuit Details

Circuit number and line	Circuit designation	Type of wiring	Reference method	No of points served	Circuit conductors csa		Max. permitted disconnection time	Overcurrent protective device				RCD	Max. permitted Zs
					Live mm²	cpc mm²	s	BS(EN)	Type	Rating A	Short circuit capacity kA	Op. current $I_{\Delta n}$	Ω
1/L1	GENERAL USE SOCKETS 1	O	C	3	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
1/L2	ARCADE MACHINE	O	E	4	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
1/L3	GENERAL USE SOCKETS 2	O	C	15	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
2/L1	GENERAL USE SOCKETS 3	O	C	9	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
2/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
2/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
3/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
3/L2	PHONE BOOTH - RADIAL	O	C	5	4	4	0.4	61009 RCD/RCBO	C	20	10	30	1.09
3/L3	AV POWER	O	E	7	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
4/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
4/L2	FAN COIL RING	O	E	3	4	4	0.4	60898 MCB	C	32	10	N/A	0.68
4/L3	FAN COIL RING	O	E	5	4	4	0.4	60898 MCB	C	32	10	N/A	0.68
5/L1	COFFEE MACHINE	G	C	1	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
5/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
5/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
6/L1	COFFEE BAR FRIDGE & BILLI TAP	O	C	2	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
6/L2	WASTE PUMP	O	C	1	4	4	0.4	60898 MCB	C	16	10	N/A	1.37
6/L3	CLEANERS SOCKETS	O	C	5	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
7/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
7/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
7/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
8/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
8/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
8/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-

Wiring Code

A	B	C	D	E	F	G	H	O
Thermoplastic insulated/ sheathed cables	Thermoplastic cables in metallic conduit	Thermoplastic cables in non-metallic conduit	Thermoplastic cables in metallic trunking	Thermoplastic cables in non-metallic trunking	Thermoplastic/ SWA cables	Thermosetting/ SWA cables	Mineral-insulated cables	Other

SCHEDULE OF CIRCUIT TESTS FOR THE INSTALLATION

ICN0000146 - Master

Board Tests

ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Zs	0.03 Ω	Operating times of associated RCD (if any)	At $I_{\Delta n}$	N/A ms	
Ipf	9.3 kA		At $5I_{\Delta n}$ (if applicable)	N/A ms	
Confirmation of Supply polarity	✓	Phase sequence confirmed (where appropriate)	✓		

TEST INSTRUMENTS (SERIAL NUMBERS) USED

Earth fault loop impedance	101333008	RCD	101333008
Insulation resistance	101333008	Multi-function	N/A
Continuity	101333008	Other	N/A

Circuit Tests

Circuit number and line	Circuit impedances Ω					Insulation resistance				Polarity	Maximum measured earth fault loop impedance	RCD		
	Ring final circuits only (measured end to end)			All circuits (At least one column to be completed)		Line/ Line	Line/ Neutral	Line/ Earth	Earth/ Neutral			Operating times		Test button operation
	r_1 (Line)	r_n (Neutral)	r_2 (cpc)	$R_1 + R_2$	R_2	MΩ	MΩ	MΩ	MΩ		Ω	At $I_{\Delta n}$ ms	At $5I_{\Delta n}$ ms	
1/L1	0.34	0.33	0.22	0.13	N/A	N/A	>299	>299	>299	✓	0.38	28.8	28.9	✓
1/L2	0.27	0.27	0.19	0.09	N/A	N/A	>299	>299	>299	✓	0.19	28.9	28.9	✓
1/L3	0.56	0.56	0.27	0.17	N/A	N/A	>299	>299	>299	✓	0.20	28.9	29	✓
2/L1	0.31	0.31	0.19	0.09	N/A	N/A	>299	>299	>299	✓	0.14	29	29	✓
2/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/L2	N/A	N/A	N/A	0.14	N/A	N/A	>299	>299	>299	✓	0.24	28.9	28.9	✓
3/L3	0.33	0.33	0.10	0.07	N/A	N/A	>299	>299	>299	✓	0.17	28.7	29.2	✓
4/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/L2	0.33	0.34	0.21	0.12	N/A	N/A	>299	>299	>299	✓	0.17	N/A	N/A	N/A
4/L3	0.22	0.24	0.13	0.07	N/A	N/A	>299	>299	>299	✓	0.19	N/A	N/A	N/A
5/L1	N/A	N/A	N/A	0.10	N/A	N/A	>299	>299	>299	✓	0.19	29	29	✓
5/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/L1	0.28	0.28	0.14	0.07	N/A	N/A	>299	>299	>299	✓	0.17	28.9	28.9	✓
6/L2	N/A	N/A	N/A	0.16	N/A	N/A	>299	>299	>299	✓	0.25	N/A	N/A	N/A
6/L3	0.47	0.40	0.23	0.17	N/A	N/A	>299	>299	>299	✓	0.16	38.9	28.9	✓
7/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Tested By

Signature	BSF	Position	Electrician
Name	Brian Stanford	Date of testing	09/05/2019

SCHEDULE OF CIRCUIT DETAILS FOR THE INSTALLATION

ICN0000146 - Master

Board Details

TO BE COMPLETED IN EVERY CASE	ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION	
Location of distribution board: BASEMENT ELECTRICAL RISER	Supply to distribution board is from: SubMains(RISING BUSBAR, 1/TP)	Associated RCD (if any) BS(EN): N/A
Distribution board designation: DB/B/P	No of phases: 3 — Nominal Voltage: 400 V	RCD No of poles: N/A
	Overcurrent protective device for the distribution circuit	
	Type BS(EN): 60947-2 MCCB — Rating: 100 A	RCD rating, I Δ n: N/A mA

Circuit Details

Circuit number and line	Circuit designation	Type of wiring	Reference method	No of points served	Circuit conductors csa		Max. permitted disconnection time	Overcurrent protective device				RCD	Max. permitted Zs
					Live mm²	cpc mm²	s	BS(EN)	Type	Rating A	Short circuit capacity kA	Op. current I Δ n	Ω
9/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
9/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
9/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
10/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
10/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
10/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
11/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
11/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
11/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
12/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
12/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
12/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
13/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
13/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
13/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
14/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
14/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
14/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
15/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
16/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
16/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
16/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-

Wiring Code

A	B	C	D	E	F	G	H	O
Thermoplastic insulated/ sheathed cables	Thermoplastic cables in metallic conduit	Thermoplastic cables in non-metallic conduit	Thermoplastic cables in metallic trunking	Thermoplastic cables in non-metallic trunking	Thermoplastic/ SWA cables	Thermosetting/ SWA cables	Mineral-insulated cables	Other

Board Tests

ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Zs	0.03 Ω	Operating times of associated RCD (if any)	At $I_{\Delta n}$	N/A ms	
Ipf	9.3 kA		At 5$I_{\Delta n}$ (if applicable)	N/A ms	
Confirmation of Supply polarity	✔	Phase sequence confirmed (where appropriate)	✔		

TEST INSTRUMENTS (SERIAL NUMBERS) USED

Earth fault loop impedance	101333008	RCD	101333008
Insulation resistance	101333008	Multi-function	N/A
Continuity	101333008	Other	N/A

Circuit Tests

Circuit number and line	Circuit impedances Ω					Insulation resistance				Polarity	Maximum measured earth fault loop impedance	RCD		
	Ring final circuits only (measured end to end)			All circuits (At least one column to be completed)		Line/ Line	Line/ Neutral	Line/ Earth	Earth/ Neutral			Operating times		Test button operation
	r_1 (Line)	r_n (Neutral)	r_2 (cpc)	$R_1 + R_2$	R_2	MΩ	MΩ	MΩ	MΩ		Ω	At $I_{\Delta n}$ ms	At 5$I_{\Delta n}$ ms	
9/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Tested By

Signature	Brian	Position	Electrician
Name	Brian Stanford	Date of testing	09/05/2019

SCHEDULE OF CIRCUIT DETAILS FOR THE INSTALLATION

ICN0000146 - Master

Board Details

TO BE COMPLETED IN EVERY CASE		ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION			
Location of distribution board	GROUND FLOOR ELECTRICAL RISER	Supply to distribution board is from	SubMains(RISING BUSBAR, 2/TP)	Associated RCD (if any) BS(EN)	N/A
		No of phases	3	Nominal Voltage 400 V	RCD No of poles N/A
Distribution board designation	DB/G/L	Overcurrent protective device for the distribution circuit			
		Type BS(EN)	60947-2 MCCB	Rating 100 A	RCD rating, I Δ n N/A mA

Circuit Details

Circuit number and line	Circuit designation	Type of wiring	Reference method	No of points served	Circuit conductors csa		Max. permitted disconnection time	Overcurrent protective device				RCD	Max. permitted Zs
					Live mm²	cpc mm²	s	BS(EN)	Type	Rating A	Short circuit capacity kA	Op. current $I_{\Delta n}$	Ω
1/L1	LIGHTING LCM SPUR	O	E	4	2.5	2.5	0.4	60898 MCB	C	10	10	N/A	2.19
1/L2	LIGHTING LCM SPUR	O	E	4	2.5	2.5	0.4	60898 MCB	C	10	10	N/A	2.19
1/L3	LIGHTING HARDWIRED LCM ZONE 2	O	E	49	2.5	2.5	0.4	60898 MCB	B	10	10	N/A	4.37
2/L1	LIGHTING HARDWIRED LCM ZONE 3	O	E	26	2.5	2.5	0.4	60898 MCB	C	10	10	N/A	2.19
2/L2	LIGHTING LCM SPUR	O	E	1	2.5	2.5	0.4	60898 MCB	C	10	10	N/A	2.19
2/L3	LIGHTING HARDWIRED LCM ZONE 4	O	E	14	2.5	2.5	0.4	60898 MCB	C	10	10	N/A	2.19
3/L1	LIGHTING AREA CONTROLLER	O	E	1	2.5	2.5	0.4	60898 MCB	C	10	10	N/A	2.19
3/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
3/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
4/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
4/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
4/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
5/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
5/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
5/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
6/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
6/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
6/L3	SPARE	-	-	-	-	-	-	-	-	-	-	-	-

Wiring Code

A	B	C	D	E	F	G	H	O
Thermoplastic insulated/ sheathed cables	Thermoplastic cables in metallic conduit	Thermoplastic cables in non-metallic conduit	Thermoplastic cables in metallic trunking	Thermoplastic cables in non-metallic trunking	Thermoplastic/ SWA cables	Thermosetting/ SWA cables	Mineral-insulated cables	Other

Board Tests

ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Zs	0.03 Ω	Operating times of associated RCD (if any)	At $I_{\Delta n}$	N/A ms	
Ipf	9.1 kA		At $5I_{\Delta n}$ (if applicable)	N/A ms	
Confirmation of Supply polarity	✓	Phase sequence confirmed (where appropriate)	✓		

TEST INSTRUMENTS (SERIAL NUMBERS) USED

Earth fault loop impedance	101333008	RCD	101333008
Insulation resistance	101333008	Multi-function	N/A
Continuity	101333008	Other	N/A

Circuit Tests

Circuit number and line	Circuit impedances Ω					Insulation resistance				Polarity	Maximum measured earth fault loop impedance	RCD		
	Ring final circuits only (measured end to end)			All circuits (At least one column to be completed)								Operating times		
	r_1 (Line)	r_n (Neutral)	r_2 (cpc)	$R_1 + R_2$	R_2	Line/ Line MΩ	Line/ Neutral MΩ	Line/ Earth MΩ	Earth/ Neutral MΩ		Ω	At $I_{\Delta n}$ ms	At $5I_{\Delta n}$ ms	Test button operation
1/L1	N/A	N/A	N/A	0.26	N/A	N/A	>299	>299	>299	✓	0.38	N/A	N/A	N/A
1/L2	N/A	N/A	N/A	0.36	N/A	N/A	>299	>299	>299	✓	0.48	N/A	N/A	N/A
1/L3	N/A	N/A	N/A	2.94	N/A	N/A	>299	>299	>299	✓	3.06	N/A	N/A	N/A
2/L1	N/A	N/A	N/A	1.70	N/A	N/A	>299	>299	>299	✓	1.82	N/A	N/A	N/A
2/L2	N/A	N/A	N/A	0.37	N/A	N/A	>299	>299	>299	✓	0.49	N/A	N/A	N/A
2/L3	N/A	N/A	N/A	0.63	N/A	N/A	>299	>299	>299	✓	0.75	N/A	N/A	N/A
3/L1	N/A	N/A	N/A	0.01	N/A	N/A	>299	>299	>299	✓	0.13	N/A	N/A	N/A
3/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Tested By

Signature	Brian	Position	Electrician
Name	Brian Stanford	Date of testing	29/04/2019

SCHEDULE OF CIRCUIT DETAILS FOR THE INSTALLATION

ICN0000146 - Master

Board Details

TO BE COMPLETED IN EVERY CASE	ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Location of distribution board: GROUND FLOOR ELECTRICAL RISER

Distribution board designation: DB/G/P

Supply to distribution board is from: SubMains(RISING BUSBAR, 2/TP)

No of phases: 3 — Nominal Voltage: 400 V

Overcurrent protective device for the distribution circuit

Type BS(EN): 60947-2 MCCB — Rating: 100 A

Associated RCD (if any)

BS(EN): N/A

RCD No of poles: N/A

RCD rating, $I\Delta n$: N/A mA

Circuit Details

Circuit number and line	Circuit designation	Type of wiring	Reference method	No of points served	Circuit conductors csa		Max. permitted disconnection time	Overcurrent protective device				RCD	Max. permitted Zs
					Live	cpc		BS(EN)	Type	Rating	Short circuit capacity	Op. current	
					mm²	mm²	s			A	kA	$I\Delta n$	Ω
1/L1	FLOOR TRACK 4	G	C	1	10	10	0.4	60898 MCB	C	32	10	N/A	0.68
1/L2	FLOOR TRACK 1	G	C	1	10	10	0.4	60898 MCB	C	32	10	N/A	0.68
1/L3	FLOOR TRACK 2	G	C	1	10	10	0.4	60898 MCB	C	32	10	N/A	0.68
2/L1	FLOOR TRACK 5	G	C	1	10	10	0.4	60898 MCB	C	32	10	N/A	0.68
2/L2	FLOOR TRACK 3	G	C	1	10	10	0.4	60898 MCB	C	32	10	N/A	0.68
2/L3	GENERAL USE SOCKETS 1	G	C	20	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
3/L1	GENERAL USE SOCKETS 2	G	C	8	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
3/L2	PHONE BOOTH - RADIAL	G	C	1	4	4	0.4	61009 RCD/RCBO	C	20	10	30	1.09
3/L3	AV SOCKETS	G	C	6	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
4/L1	DISHWASHER BACK OF HOUSE	G	C	1	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
4/L2	AV SOCKETS	G	C	2	4	4	0.4	61009 RCD/RCBO	C	20	10	30	1.09
4/L3	GENERAL USE SOCKETS 3	G	C	3	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
5/L1	TEA POINT RING	G	C	7	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
5/L2	AV SOCKETS	G	C	5	4	4	0.4	61009 RCD/RCBO	C	20	10	30	1.09
5/L3	FAN COIL RING	O	E	8	4	4	0.4	60898 MCB	C	32	10	N/A	0.68
6/L1	ZIP TAP BACK OF HOUSE	G	C	1	4	4	0.4	60898 MCB	C	16	10	N/A	1.37
6/L2	PSU MAG LOCKS	O	C	1	4	4	0.4	60898 MCB	C	16	10	N/A	1.37
6/L3	FAN COIL RING	O	E	7	4	4	0.4	60898 MCB	C	16	10	N/A	1.37
7/L1	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
7/L2	CLEANERS SOCKETS	G	C	6	4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
7/L3	COFFEE BAR RING	G	C		4	4	0.4	61009 RCD/RCBO	C	32	10	30	0.68
8/L1	RECEPTION SOCKETS	G	C	1	4	4	0.4	61009 RCD/RCBO	C	20	10	30	1.09
8/L2	SPARE	-	-	-	-	-	-	-	-	-	-	-	-
8/L3	COFFEE BAR BOILER	G	C	1	4	4	0.4	60898 MCB	C	16	10	N/A	1.37

Wiring Code

A	B	C	D	E	F	G	H	O
Thermoplastic insulated/ sheathed cables	Thermoplastic cables in metallic conduit	Thermoplastic cables in non-metallic conduit	Thermoplastic cables in metallic trunking	Thermoplastic cables in non-metallic trunking	Thermoplastic/ SWA cables	Thermosetting/ SWA cables	Mineral-insulated cables	Other

SCHEDULE OF CIRCUIT TESTS FOR THE INSTALLATION

ICN0000146 - Master

Board Tests

ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Zs	0.03 Ω	Operating times of associated RCD (if any)	At $I_{\Delta n}$	N/A ms	
Ipf	9.1 kA		At $5I_{\Delta n}$ (if applicable)	N/A ms	
Confirmation of Supply polarity	✓	Phase sequence confirmed (where appropriate)	✓		

TEST INSTRUMENTS (SERIAL NUMBERS) USED

Earth fault loop impedance	101333008	RCD	101333008
Insulation resistance	101333008	Multi-function	N/A
Continuity	101333008	Other	N/A

Circuit Tests

Circuit number and line	Circuit impedances Ω					Insulation resistance				Polarity	Maximum measured earth fault loop impedance	RCD		
	Ring final circuits only (measured end to end)			All circuits (At least one column to be completed)		Line/ Line	Line/ Neutral	Line/ Earth	Earth/ Neutral			Operating times		Test button operation
	r_1 (Line)	r_n (Neutral)	r_2 (cpc)	R_1+R_2	R_2	MΩ	MΩ	MΩ	MΩ		Ω	At $I_{\Delta n}$ ms	At $5I_{\Delta n}$ ms	
1/L1	N/A	N/A	N/A	0.04	N/A	N/A	>299	>299	>299	✓	0.16	N/A	N/A	N/A
1/L2	N/A	N/A	N/A	0.03	N/A	N/A	>299	>299	>299	✓	0.15	N/A	N/A	N/A
1/L3	N/A	N/A	N/A	0.04	N/A	N/A	>299	>299	>299	✓	0.16	N/A	N/A	N/A
2/L1	N/A	N/A	N/A	0.03	N/A	N/A	>299	>299	>299	✓	0.15	N/A	N/A	N/A
2/L2	N/A	N/A	N/A	0.03	N/A	N/A	>299	>299	>299	✓	0.15	N/A	N/A	N/A
2/L3	0.85	0.85	0.18	0.12	N/A	N/A	>299	>299	>299	✓	0.29	29	29	✓
3/L1	0.76	0.72	0.12	0.07	N/A	N/A	>299	>299	>299	✓	0.33	28.4	28.9	✓
3/L2	N/A	N/A	N/A	0.33	N/A	N/A	>299	>299	>299	✓	0.45	29	29.1	✓
3/L3	0.45	0.45	0.26	0.15	N/A	N/A	>299	>299	>299	✓	0.19	29	28.8	✓
4/L1	0.09	0.09	0.04	0.02	N/A	N/A	>299	>299	>299	✓	0.11	28.9	28.9	✓
4/L2	N/A	N/A	N/A	0.30	N/A	N/A	>299	>299	>299	✓	0.42	29	28.8	✓
4/L3	N/A	N/A	N/A	0.19	N/A	N/A	>299	>299	>299	✓	0.11	28.9	29	✓
5/L1	0.26	0.26	0.09	0.04	N/A	N/A	>299	>299	>299	✓	0.22	38.9	28.8	✓
5/L2	N/A	N/A	N/A	0.26	N/A	N/A	>299	>299	>299	✓	0.36	38.9	28.9	✓
5/L3	0.59	0.59	0.12	0.15	N/A	N/A	>299	>299	>299	✓	0.25	N/A	N/A	N/A
6/L1	N/A	N/A	N/A	0.11	N/A	N/A	>299	>299	>299	✓	0.23	N/A	N/A	N/A
6/L2	N/A	N/A	N/A	0.05	N/A	N/A	>299	>299	>299	✓	0.17	N/A	N/A	N/A
6/L3	0.55	0.56	0.15	0.17	N/A	N/A	>299	>299	>299	✓	0.20	N/A	N/A	N/A
7/L1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/L2	0.78	0.77	0.18	0.12	N/A	N/A	>299	>299	>299	✓	0.30	38.8	28.9	✓
7/L3	0.28	0.28	0.15	0.07	N/A	N/A	>299	>299	>299	✓	0.16	28.9	28.9	✓
8/L1	N/A	N/A	N/A	0.12	N/A	N/A	>299	>299	>299	✓	0.24	29	29	✓
8/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/L3	N/A	N/A	N/A	0.18	N/A	N/A	>299	>299	>299	✓	0.30	N/A	N/A	N/A

Tested By

Signature	BSS	Position	Electrician
Name	Brian Stanford	Date of testing	29/04/2019

S . L . E . S

Specialist . Lightning & Earthing . Services

PASS

CERTIFICATE OF TEST

Client:	**Buxton Electrical**		
Site:	**22 Tudor Street, London, EC4Y 0AY**		
Structure Tested:	**22 Tudor Street, London, EC4Y 0AY**		
Test Date:	**April 2019**	Issue Date:	**April 2019**
Air Termination:	**25x 3 mm PVC Coated Aluminium Conductor**		
Down Conductor:	**Structural Steel Frame**		
Project No.:	**01975**	Test Engineer:	**D.Anderson**
Test Method:	**Two Pole**	Building Height:	**20m**

We certify that the lightning protection system installed at the above site has been tested and visually inspected in accordance with BS 6651:1999 , BS EN 62305:2011 , BS 7430:2011 and BS 7671:2008 IET Wiring Regulations (17th Edition).

In accordance with the 17th Edition Regulations, the lightning protection system requires a test and visual inspection to be carried out at intervals not exceeding 12 months. Additionally, electrical testing of the system has been carried out in accordance with the requirements of the aforementioned Standard guidelines.

Roof Level Continuity Tests

	Continuity Reading		**Continuity Reading**		**Continuity Reading**		**Continuity Reading**
Position 1	**0.71 Ω**	Position 2	**0.62Ω**	Position 3	**0.71 Ω**	Position 4	**0.60 Ω**
Position 5	**0.67 Ω**	Position 6	**0.72Ω**	Position 7	**0.77 Ω**	Position 8	**0.80 Ω**
Combined Value:	**0.55 Ω**			Next Test & Inspection Due:		**April 2020**	

Test Instrument:	**4105A**	Model:	**Kyoritsu**
Calibration No.:	**CAP090118/02**	Calibration Expiry Date:	**June 2019**
Signed:	*Arran Anderson*	Name:	**Mr Arran Anderson**

Standards:	This record shows that this installation does generally comply with the edition of BS 6651 (installation design criteria) at the time of this Test.