

ELECTRICAL INSTALLATION CERTIFICATE

Issued in accordance with British Standard 7671 - Requirements for Electrical Installations by an Approved Contractor or Conforming Body enrolled with NICEIC, Warwick House, Houghton Hall Park, Houghton Regis, Dunstable, LU5 5ZX

PART P NUMBER: N/A

DETAILS OF THE CLIENT

Client / Address: RYDON MAINTENANCE, RYDON HOUSE, STATION ROAD, FOREST ROW, EAST SUSSEX Postcode: RH18 5DW

DETAILS OF THE INSTALLATION

Address: GRENFELL TOWER, LONDON Postcode:

Extent of the installation covered by this certificate: ADDITIONAL SUPPLIES FROM LANDLORDS BUSBAR

The installation is:

New ☐

An addition ☒

An alteration ☐

DESIGN

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

except for the departures, if any, detailed as follows:

Details of departures from BS 7671, as amended (Regulations 120.3,133.5):

The extent of liability of the signatory/signatories is limited to the work described above as the subject of this certificate.
For the DESIGN of the installation:

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

Signature Date 25/11/2015 Name (CAPITALS) Designer 1

Signature Date 25/11/2015 Name (CAPITALS) ** Designer 2

CONSTRUCTION

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

except for the departures, if any, detailed as follows:

Details of departures from BS 7671, as amended (Regulations 120.3,133.5):

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 25/11/2015 Name (CAPITALS) Constructor

INSPECTION AND TESTING

I/We, being the person(s) responsible for the inspection and testing of the electrical installation (as indicated by my/our signatures below), particulars of which are described above, having exercised reasonable skill and care when carrying out the inspection and testing, hereby CERTIFY that the work for which I/we have been responsible is, to the best of my/our knowledge and belief, in accordance with BS 7671 amended to (date)

except for the departures, if any, detailed as follows:

Details of departures from BS 7671, as amended (Regulations 120.3,133.5):

The extent of liability of the signatory/signatories is limited to the work described above as the subject of this certificate.
For the INSPECTION AND TESTING of the installation:

Signature Date 25/11/2015 Signature Date 25/11/2015

Name (CAPITALS) Inspector Name (CAPITALS) Qualified Supervisor†

DESIGN, CONSTRUCTION, INSPECTION AND TESTING *

* This box to be completed only where the design, construction, inspection and testing have been the responsibility of one person.

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

except for the departures, if any, detailed as follows:

Details of departures from BS 7671, as amended (Regulations 120.3,133.5):

The extent of liability of the signatory is limited to the work described above as the subject of this certificate.
For the DESIGN, the CONSTRUCTION and the INSPECTION AND TESTING of the installation:

Reviewed by

Signature Date 25/11/2015 Signature Date 25/11/2015

Name (CAPITALS) ANDREW BRIDGES Name (CAPITALS) DAN MOODIE Qualified Supervisor††

† Where the inspection and testing have been carried out by an Approved Contractor, the inspection and testing results are to be reviewed by the registered Qualified Supervisor.

†† Where the design, the construction, and the inspection and testing have been the responsibility of one person, the inspection and testing results are to be reviewed by the registered Qualified Supervisor.

ELECTRICAL INSTALLATION CERTIFICATE

Original (To the person ordering the work)

PARTICULARS OF THE ORGANISATION(S) RESPONSIBLE FOR THE ELECTRICAL INSTALLATION

DESIGN (1)	Organisation	† R.J. Electrics		
	Address:	[Redacted]		
	Postcode:	[Redacted]		
	NICE/IC Enrolment No (where appropriate)	22884		
	Branch number: (if applicable)	N/A		
DESIGN (2)	Organisation	† R.J. Electrics		
	Address:	[Redacted]		
	Postcode:	[Redacted]		
	NICE/IC Enrolment No (where appropriate)	22884		
	Branch number: (if applicable)	N/A		
CONSTRUCTION	Organisation	† R.J. Electrics		
	Address:	[Redacted]		
	Postcode:	[Redacted]		
	NICE/IC Enrolment No (Essential Information)	22884		
	Branch number: (if applicable)	N/A		
INSPECTION AND TESTING	Organisation	† R.J. Electrics		
	Address:	[Redacted]		
	Postcode:	[Redacted]		
	NICE/IC Enrolment No (where appropriate)	22884		
	Branch number: (if applicable)	N/A		

SUPPLY CHARACTERISTICS AND EARTHING ARRANGEMENTS

Tick boxes and enter details, as appropriate

System Type(s)	Number and Type of Live Conductors	Nature of Supply Parameters	Characteristics of Primary Supply Overcurrent Protective Device(s)
TN-S	a.c. <input checked="" type="checkbox"/> d.c. <input type="checkbox"/> N/A	Nominal Voltage(s): $U_0^{(1)}$ 400 V $U_0^{(1)}$ 230 V	BS(EN) BS 88-2 Fuse E
TN-C-S	1-phase (2 wire) N/A 1-phase (3 wire) N/A 2-pole N/A	Nominal frequency, $f^{(1)}$ 50 Hz	Type E
TN-C	2-phase (3 wire) N/A 3-pole N/A	Prospective fault current, $I_p^{(2)(3)}$ 19.9 kA	Rated current 300 A
TT	3-phase (3 wire) N/A 3-phase (4 wire) <input checked="" type="checkbox"/> other N/A	External earth fault loop impedance, $Z_e^{(2)(3)}$ 0.01 Ω	Short-circuit capacity 33.3 kA
IT	Other N/A	Number of supplies 1	

Notes: (1) by enquiry (2) by enquiry or by measurement (3) where more than one supply, record the higher or highest values (4) by measurement

PARTICULARS OF INSTALLATION AT THE ORIGIN

Means of Earthing Distributor's facility: <input checked="" type="checkbox"/> Installation earth electrode: N/A Type: (eg rod(s), tape etc) N/A Electrode resistance, R_A : N/A (Ω)		Details of Installation Earth Electrode (where applicable) Location: N/A Method of measurement: N/A													
Main Switch or Circuit-Breaker <small>*(applicable only where an RCD is suitable and is used as a main circuit-breaker)</small> Type: BS Voltage rating 230 V No of Poles 3 Rated current, I_n 400 A Supply conductors material Copper RCD operating current, $I_{\Delta n}$ N/A mA Supply conductors csa 300 mm ² RCD operating time (at $I_{\Delta n}$) [*] N/A ms		Maximum Demand (Load) N/A Amps Protective measures against electric shock: ADS Earthing and Protective Bonding Conductors <table border="1"> <tr> <th>Earthing conductor</th> <th>Main protective bonding conductors</th> <th>Bonding of extraneous-conductive parts (✓)</th> </tr> <tr> <td>Conductor material Copper</td> <td>Conductor material Copper</td> <td>Water service <input checked="" type="checkbox"/> Gas service <input checked="" type="checkbox"/></td> </tr> <tr> <td>Conductor csa SWA mm²</td> <td>Conductor csa 120 mm²</td> <td>Oil service N/A Structural steel <input checked="" type="checkbox"/></td> </tr> <tr> <td>Continuity/connection verified N/A</td> <td>Continuity/connection verified N/A</td> <td>Lightning protection <input checked="" type="checkbox"/> Other incoming service(s) N/A</td> </tr> </table>		Earthing conductor	Main protective bonding conductors	Bonding of extraneous-conductive parts (✓)	Conductor material Copper	Conductor material Copper	Water service <input checked="" type="checkbox"/> Gas service <input checked="" type="checkbox"/>	Conductor csa SWA mm ²	Conductor csa 120 mm ²	Oil service N/A Structural steel <input checked="" type="checkbox"/>	Continuity/connection verified N/A	Continuity/connection verified N/A	Lightning protection <input checked="" type="checkbox"/> Other incoming service(s) N/A
Earthing conductor	Main protective bonding conductors	Bonding of extraneous-conductive parts (✓)													
Conductor material Copper	Conductor material Copper	Water service <input checked="" type="checkbox"/> Gas service <input checked="" type="checkbox"/>													
Conductor csa SWA mm ²	Conductor csa 120 mm ²	Oil service N/A Structural steel <input checked="" type="checkbox"/>													
Continuity/connection verified N/A	Continuity/connection verified N/A	Lightning protection <input checked="" type="checkbox"/> Other incoming service(s) N/A													

COMMENTS ON EXISTING INSTALLATION

In the case of an alteration or additions see Section 633 N/A

Note: Enter 'NONE' or, where appropriate, the page number(s) of additional page(s) of comments on the existing installation.

NEXT INSPECTION

Interval in terms of years, months or weeks, as appropriate

I/We the designer(s), RECOMMEND that this installation is further inspected and tested after an interval of not more than

5 YEARS

† Where the Approved Contractor responsible for the construction of the electrical installation has also been responsible for the design and the inspection and testing of that installation, the 'Particulars of the Organisation(s) responsible for the Electrical Installation' may be recorded only in the section entitled 'CONSTRUCTION'

✦ Where a number of sources are available to supply the installation, and where the data given for the primary source may differ from other sources, a separate sheet must be provided which identifies the relevant information relating to each additional source.

ELECTRICAL INSTALLATION CERTIFICATE

Original (To the person ordering the work)

SCHEDULE OF ITEMS INSPECTED

† See note below

PROTECTIVE MEASURES AGAINST ELECTRIC SHOCK

Basic and fault protection

Extra low voltage

N/A SELV N/A PELV

Double or reinforced insulation

✓ Double or Reinforced Insulation

Basic Protection

✓ Insulation of live parts ✓ Barriers or enclosures
N/A Obstacles ** N/A Placing out of reach **

Fault protection

Automatic disconnection of supply

✓ Presence of earthing conductor
✓ Presence of circuit protective conductors
✓ Presence of main protective bonding conductors
✓ Presence of earthing arrangements for combined protective and functional purposes
N/A Presence of adequate arrangements for alternative source(s), where applicable
N/A FELV
✓ Choice and setting of protective and monitoring devices (for fault protection and/or overcurrent protection)

Non-conducting location **

N/A Absence of protective conductors

Earth-free equipotential bonding**

✓ Presence of earth-free equipotential bonding

Electrical separation

✓ For one item of current using equipment
N/A For more than one item of current using equipment**

Additional protection

N/A Presence of residual current device(s)
✓ Presence of supplementary bonding conductors

** for use in controlled supervised/conditions only

Prevention of mutual detrimental influence

N/A Proximity of non-electrical services and other influences
N/A Segregation of Band I and Band II circuits or Band II insulation used
✓ Segregation of safety Circuits

Identification

✓ Presence of diagrams, instructions, circuit charts and similar information
✓ Presence of danger notices and other warning notices
✓ Labelling of protective devices, switches and terminals
✓ identification of conductors

Cables and Conductors

✓ Selection of conductors for current carrying capacity and voltage drop
✓ Erection methods
✓ Routing of cables in prescribed zones
N/A Cables incorporating earthed armour or sheath or run in an earthed wiring system, or otherwise protected against nails, screws and the like
N/A Additional protection by 30mA RCD for cables concealed in walls (where required, in premises not under the supervision of skilled or instructed persons)
✓ Connection of conductors
N/A Presence of fire barriers, suitable seals and protection against thermal effects

General

✓ Presence and correct location of appropriate devices for isolation and switching
✓ Adequacy of access to switchgear and other equipment
✓ Particular protective measures for special installations and locations
✓ Connection of single-pole devices for protection or switching in line conductors only
✓ Correct connection of accessories and equipment
N/A Presence of undervoltage protective devices
✓ Selection of equipment and protective measures appropriate to external influences
✓ Selection of appropriate functional switching devices

SCHEDULE OF ITEMS TESTED

† See note below

✓ External earth fault loop impedance, Z_e
✓ Installation earth electrode resistance, R_A
✓ Continuity of protective conductors
✓ Continuity of ring final circuit conductors
✓ Insulation resistance between live conductors
✓ Insulation resistance between live conductors and Earth
✓ Protection by separation of circuits

✓ Basic protection by barrier or enclosure provided during erection
✓ Insulation of non-conducting floors or walls
✓ Polarity
✓ Earth fault loop impedance, Z_s
N/A Verification of phase sequence
✓ Operation of residual current devices
✓ Functional testing of assemblies
✓ Verification of voltage drop

SCHEDULE OF ADDITIONAL RECORDS* (See attached schedule)

Page No(s) N/A

(Note: Additional page(s) must be identified by the Electrical Installation Certificate serial number and page number(s).)

† All boxes must be completed. '✓' indicates that an inspection or a test was carried out and that the result was satisfactory. 'N/A' indicates that an inspection or a test was not applicable to the particular installation

* Where the electrical works to which this certificate relates includes the installation of a fire alarm system and/or an emergency lighting system (or a part of such system), this electrical safety certificate should be accompanied by the particular certificate(s) for the system(s).

This form is based on the model shown in Appendix 6 of BS7671 (as amended).
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SCHEDULE OF CIRCUIT DETAILS FOR THE INSTALLATION

CIRCUIT DETAILS

TO BE COMPLETED IN EVERY CASE		TO BE COMPLETED ONLY IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION*									
Location of distribution board:	SWITCHROOM	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:				Associated RCD (if any):	BS(EN) N/A				
Distribution board designation:	BUSBAR	Type: BS(EN)	N/A	Rating:	300	A	RCD No of poles:	N/A	I _{Δn}	N/A	mA

[illegible]

↑ See Table 4A2 of Appendix 4 of BS 7671

CODES FOR TYPE OF WIRING								
A	B	C	D	E	F	G	H	O (Other - please state)
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	N/A

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* In such cases, details of the distribution (sub-main) circuit(s), together with the test results for the circuit(s), must also be provided, on continuation schedules.

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**See next page for
Schedule of Test Results**

Original (To the person ordering the work)


SCHEDULE OF TEST RESULTS FOR THE INSTALLATION

TEST RESULTS

TO BE COMPLETED ONLY IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION							Test instruments (serial numbers) used:			
Characteristics at this distribution board							Earth fault loop impedance	6111-754/071107/3190	RCD	6111-754/071107/3190
N/A		Confirmation of supply polarity								
* See note below							Insulation resistance	6111-754/071107/3190	Other	N/A
Z _S	N/A	Ω	Operating times of associated RCD (if any)	At I _{Δn}	N/A	ms				
I _{pr}	N/A	kA		At 5I _{Δn}	N/A	ms	Continuity	6111-754/071107/3190	Other	N/A

[illegible]

* Note: Where the installation can be supplied by more than one source, such as a primary source (eg public supply) and a secondary source (eg standby generator), the higher or highest values must be recorded.

TESTED BY			
Signature:		Position:	TESTER
Name: (CAPITALS)	RICHARD HAMILTON	Date of testing:	19/11/2015

SCHEDULE OF CIRCUIT DETAILS FOR THE INSTALLATION

Original (To the person ordering the work)

CIRCUIT DETAILS												
TO BE COMPLETED IN EVERY CASE			TO BE COMPLETED ONLY IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION*									
Location of distribution board:	ROOF PLANT ROOM		Supply to distribution board is from:	BUSBAR			No of phases:	3	Nominal voltage:	400	V	
	Distribution board designation:	DB ROOF PLANT		Overcurrent protective device for the distribution circuit:				Associated RCD (if any): BS(EN)		N/A		
			Type: BS(EN)	BS 88-2 Fuse G		Rating:	60	A	RCD No of poles:	N/A	I _{Δn}	N/A

[illegible]

↑ See Table 4A2 of Appendix 4 of BS 7671

CODES FOR TYPE OF WIRING								
A	B	C	D	E	F	G	H	O (Other - please state)
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	N/A

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* In such cases, details of the distribution (sub-main) circuit(s), together with the test results for the circuit(s), must also be provided, on continuation schedules.

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**See next page for
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SCHEDULE OF TEST RESULTS FOR THE INSTALLATION

TEST RESULTS

TO BE COMPLETED ONLY IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION						Test instruments (serial numbers) used:			
Characteristics at this distribution board						Earth fault loop impedance	6111-754/071107/3190	RCD	6111-754/071107/3190
Yes	Confirmation of supply polarity								
* See note below									
Z _S 0.12	Ω	Operating times of associated RCD (if any)	At I _{Δn}	N/A	ms	Insulation resistance	6111-754/071107/3190	Other	N/A
I _{pr} 2.2	kA		At 5I _{Δn}	N/A	ms	Continuity	6111-754/071107/3190	Other	N/A

[illegible]

* Note: Where the installation can be supplied by more than one source, such as a primary source (eg public supply) and a secondary source (eg standby generator), the higher or highest values must be recorded.

TESTED BY			
Signature:		Position:	TESTER
Name: (CAPITALS)	RICHARD HAMILTON	Date of testing:	19/11/2015