



This certificate is not valid if the serial number has been defaced or altered

ICN2/0125911

ELECTRICAL INSTALLATION CERTIFICATE

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

DETAILS OF THE CLIENT

Client / Address: CCJV, Junction 12, M1, Tadlington

Postcode: LU5 6HP

DETAILS OF THE INSTALLATION

Address: M1 J1 @ M/J 54/4 M (G15)

Postcode:

New

Extent of the installation covered by this certificate: Power installation supplies to CECLB, CCTV, FTMS and Gentries.

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 JAN 2008 (date)

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:

Signature [REDACTED]

Date 14/04/2012

Name (CAPITALS) [REDACTED]

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

Designer 1

Signature [REDACTED]

Date 14/04/2012

Name (CAPITALS) [REDACTED]

** 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 JAN 2008 (date)

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 [REDACTED]

Date 14/04/2012

Name (CAPITALS) [REDACTED]

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 signature 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 JAN 2008 (date)

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 [REDACTED]

Date 14/03/2012

Signature [REDACTED]

Date 14/03/2012

Name (CAPITALS) [REDACTED]

Inspector [REDACTED]

Name (CAPITALS) [REDACTED]

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 said work for which I have been responsible is to the best of my knowledge and belief, in accordance with BS 7671, amended to JAN 2008 (date)

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:

Signature [REDACTED]

Date 14/03/2012

Signature [REDACTED]

Date 14/03/2012

Name (CAPITALS) [REDACTED]

Name (CAPITALS) [REDACTED]

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 evaluated by the registered Qualified Supervisor.



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Original (to the person ordering the work)

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

DESIGN (1)	Organisation [†] SERCO	NICEIC Enrolment No (where appropriate)
Address:	Cavendish House Claywater Park Stockton on Tees	Branch number: (if applicable)
	Postcode: TS17 6QY	
DESIGN (2)	Organisation [†]	NICEIC Enrolment No (where appropriate)
Address:		Branch number: (if applicable)
	Postcode:	
CONSTRUCTION	Organisation ERH Communications Ltd	NICEIC Enrolment No (Essential Information) 042643
	Address: Communications House Grange Industrial Estate Cwmbran	Branch number: (if applicable)
	Postcode: NP44 8HO	
INSPECTION AND TESTING	Organisation [†] ERH Communications Ltd	NICEIC Enrolment No (where appropriate) 042643
Address:	Communications House Grange Industrial Estate Cwmbran	Branch number: (if applicable)
	Postcode: NP44 8HO	

SUPPLY CHARACTERISTICS AND EARTHING ARRANGEMENTS

System Type(s)		Number and Type of Live Conductors		Nature of Supply Parameters						Characteristics of Primary Supply Overcurrent Protective Device(s)		
TN-S	N/A	a.c.	✓	d.c.	N/A	Nominal Voltage(s), U ₀	230	v	U ₀ (B)	v		
TN-C-S	✓	1-phase (2 wire)	N/A	1-phase (3 wires)	✓	Nominal frequency, f (in Hz)	50	Hz	Notes: (1) by enquiry		BSI EN	1361
TN-C	N/A	2-phase (3 wire)	N/A		3 pole	N/A	Prospective fault current, I _{F,exc}	2.2	kA	(2) by enquiry or by measurement	Type	
TT	N/A	3-phase (3 wire)	N/A	3-phase (4 wires)	N/A	External earth fault loop impedance, Z _{E,ext}	0.11	Ω	(3) values given shall be supply, record the higher or highest values		Rated current 100	A
IT	N/A	Other				Number of supplies	1		(4) by measurement		Short-circuit capacity	33 kA

PARTICULARS OF INSTALLATION AT THE ORIGIN

Means of Earthing		Details of Installation Earth Electrode (where applicable)											
Distributor's facility:	✓	Type: (eg rods, tape etc)	Location:										
Installation earth electrode:	N/A	Electrode resistance, R _A :	(Ω)	Method of measurement:									
◆ Main Switch or Circuit-Breaker				Maximum Demand (Load)		Amps		Protective measures against electric shock:					
*Applicable only where an RCD is suitable and is used as a main switch-breaker								Main protective bonding conductors					
Type:	BSI EN	Voltage rating	250 V	Earthing conductor		Conductor material	Copper	Conductor csa	10 mm ²	Welded service	N/A	Rating of extraneous-conductive-parts (A)	
No of Poles	2	Rated current, I _R	100 A	Conductor csa	18 mm ²	mm ²	Conductor csa	10 mm ²	DU service	N/A	Gas Service	N/A	
Supply conductors material	Copper	RCD operating current, I _{O,R}	mA	Continuity/ connection verified	✓		Continuity/ connection verified	✓	Lightning protection	N/A	Structural	✓	
Supply conductors csa	25 mm ²	RCD operating time (t _{O,R})	ms							Other incoming service(s)	N/A		

COMMENTS ON EXISTING INSTALLATION

In the case of an alteration or additions see Section 633	NONE	Note: Enter 'NONE' or, where appropriate, the page number(s) of additional page(s) of comments on the existing installation.
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NEXT INSPECTION	5 Year interval in terms of years, months or weeks, as appropriate
We the design(s), RECOMMEND that this installation is further inspected and tested after an interval of not more than	\$ SIX 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 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 set must be provided which identifies the relevant information relating to each additional source.

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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	
✓ Obstacles **		✓	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				
✓ Presence of adequate arrangements for alternative sources, where applicable				
✓ 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 **				
N/A	Presence of earth-free equipotential bonding			
Electrical separation				
✓	For one item of current using equipment			
✓	For more than one item of current using equipment **			
Additional protection				
✓	Presence of residual current device(s)			
✓	Presence of supplementary bonding conductors			
** for use in controlled supervised/conditions only				
SCHEDULE OF ITEMS TESTED				† See note below
✓	External earth fault loop impedance, Z_E			✓ Basic protection by barrier or enclosure provided during erection
✓	Installation earth electrode resistance, R_A			✓ Insulation of non-conducting floors or walls
✓	Continuity of protective conductors			✓ Polarity
N/A	Continuity of ring final circuit conductors			✓ Earth fault loop impedance, Z_E
✓	Insulation resistance between live conductors			✓ Verification of phase sequence
✓	Insulation resistance between live conductors and Earth			✓ Operation of residual current devices
✓	Protection by separation of circuits			✓ Functional testing of assemblies
✓				✓ Verification of voltage drop
SCHEDULE OF ADDITIONAL RECORDS* (See attached schedule)				
				Page No(s)
Note: Additional pages must be identified by the Electrical Installation Certificate serial number and page number.				

* 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 for a part of such systems, this electrical safety certificate should be accompanied by the particular certificate(s) for the systems.

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SCHEDULE OF CIRCUIT DETAILS FOR THE INSTALLATION

CIRCUIT DETAILS

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:	EI @ 54/4 M	Supply to distribution board is from:		No of phases:	Nominal voltage:	V
Distribution board designation:	54/4M EI	Overcurrent protective device for the distribution circuit: Type: BS(EN)	Rating:	RCD (if any): BS(EN)	RCD No of poles:	I _{an} mA

Original (to the person ordering the work)

^f See Table 4A2 of Appendix 4 of BS 7671.

COMPOSITION FOR TYPE OF WIRING								D (Kilometer - please state)
A	B	C	D	E	F	G	H	
The non-polarized standard telephone cables	Thermoplastic cables in solid or twisted construction	Thermoplastic cables in solid or twisted construction	Thermoplastic cables in solid or twisted construction	Thermoplastic cables in solid or twisted construction	Thermoplastic /STCA cables	Thermoplastic /STCA cables	Mineral twisted cables	D1 = TR 2183 02 - CY

* In such cases, details of the distributor test-model circuit(s), together with the test results for the circuit(s), must also be provided, on confirmation schedule.

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See next page for
Schedule of Test Results



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SCHEDULE OF TEST RESULTS FOR THE INSTALLATION

Original | To the person ordering the work

TEST RESULTS									
TO BE COMPLETED ONLY IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE SOURCE OF THE INSTALLATION					Test instruments (serial numbers) used:				
Characteristics of the distribution board									
Confirmation of supply polarity					Earth fault loop impedance	ERH 389	RCD		
* See note below	Z _s	Ω	Operating times of associated RCD (if any)	At I _{Δn}	ms	Insulation resistance	ERH 339	Other	
I _{Δn}	mA		At 5I _{Δn}	ms		Continuity	ERH 339	Other	
Circuit impedances (Ω)									
Circuit number and phase	Ring final circuits only (measured end to end)			All circuits (At least one column to be completed)		Line/Line ↑	Line/Neutral ↑	Line/Earth ↑	Neutral/Earth ↑
	I ₁ (Line)	I ₂ (Neutral)	I ₃ (Earth)	R ₁ + R ₂	R ₃	(MΩ)	(MΩ)	(MΩ)	(MΩ)
1	N/A	N/A	N/A	0.1			> 100	> 100	> 100
2	N/A	N/A	N/A	0.13			> 100	> 100	> 100
3	N/A	N/A	N/A	0.24			> 100	> 100	> 100
4	N/A	N/A	N/A	N/A			> 100	> 100	> 100
5	N/A	N/A	N/A						
1	N/A	N/A	N/A				> 100	> 100	> 100
2	N/A	N/A	N/A				> 100	> 100	> 100
3	N/A	N/A	N/A				> 100	> 100	> 100
4	N/A	N/A	N/A				> 100	> 100	> 100
5	N/A	N/A	N/A				> 100	> 100	> 100
1	N/A	N/A	N/A	0.54			> 100	> 100	> 100
2	N/A	N/A	N/A	0.58			> 100	> 100	> 100
3	N/A	N/A	N/A	0.84			> 100	> 100	> 100
4	N/A	N/A	N/A	0.69			> 100	> 100	> 100
5	N/A	N/A	N/A	0.26			> 100	> 100	> 100
1	N/A	N/A	N/A	0.06			> 100	> 100	> 100
2	N/A	N/A	N/A	0.04			> 100	> 100	> 100
3	N/A	N/A	N/A						
4	N/A	N/A	N/A						
5	N/A	N/A	N/A						
6	N/A	N/A	N/A						
7	N/A	N/A	N/A						
8	N/A	N/A	N/A						
9	N/A	N/A	N/A						
10	N/A	N/A	N/A						
11	N/A	N/A	N/A						
12	N/A	N/A	N/A						
13	N/A	N/A	N/A						
14	N/A	N/A	N/A						
15	N/A	N/A	N/A						
16	N/A	N/A	N/A						
17	N/A	N/A	N/A						
18	N/A	N/A	N/A						
19	N/A	N/A	N/A						
20	N/A	N/A	N/A						
21	N/A	N/A	N/A						
22	N/A	N/A	N/A						
23	N/A	N/A	N/A						
24	N/A	N/A	N/A						
25	N/A	N/A	N/A						
26	N/A	N/A	N/A						
27	N/A	N/A	N/A						
28	N/A	N/A	N/A						
29	N/A	N/A	N/A						
30	N/A	N/A	N/A						
31	N/A	N/A	N/A						
32	N/A	N/A	N/A						
33	N/A	N/A	N/A						
34	N/A	N/A	N/A						
35	N/A	N/A	N/A						
36	N/A	N/A	N/A						
37	N/A	N/A	N/A						
38	N/A	N/A	N/A						
39	N/A	N/A	N/A						
40	N/A	N/A	N/A						
41	N/A	N/A	N/A						
42	N/A	N/A	N/A						
43	N/A	N/A	N/A						
44	N/A	N/A	N/A						
45	N/A	N/A	N/A						
46	N/A	N/A	N/A						
47	N/A	N/A	N/A						
48	N/A	N/A	N/A						
49	N/A	N/A	N/A						
50	N/A	N/A	N/A						
51	N/A	N/A	N/A						
52	N/A	N/A	N/A						
53	N/A	N/A	N/A						
54	N/A	N/A	N/A						
55	N/A	N/A	N/A						
56	N/A	N/A	N/A						
57	N/A	N/A	N/A						
58	N/A	N/A	N/A						
59	N/A	N/A	N/A						
60	N/A	N/A	N/A						
61	N/A	N/A	N/A						
62	N/A	N/A	N/A						
63	N/A	N/A	N/A						
64	N/A	N/A	N/A						
65	N/A	N/A	N/A						
66	N/A	N/A	N/A						
67	N/A	N/A	N/A						
68	N/A	N/A	N/A						
69	N/A	N/A	N/A						
70	N/A	N/A	N/A						
71	N/A	N/A	N/A						
72	N/A	N/A	N/A						
73	N/A	N/A	N/A						
74	N/A	N/A	N/A						
75	N/A	N/A	N/A						
76	N/A	N/A	N/A						
77	N/A	N/A	N/A						
78	N/A	N/A	N/A						
79	N/A	N/A	N/A						
80	N/A	N/A	N/A						
81	N/A	N/A	N/A						
82	N/A	N/A	N/A						
83	N/A	N/A	N/A						
84	N/A	N/A	N/A						
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86	N/A	N/A	N/A						
87	N/A	N/A	N/A						
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91	N/A	N/A	N/A						
92	N/A	N/A	N/A						
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98	N/A	N/A	N/A						
99	N/A	N/A	N/A						
100	N/A	N/A	N/A						
101	N/A	N/A	N/A						
102	N/A	N/A	N/A						
103	N/A	N/A	N/A						
104	N/A	N/A	N/A						
105	N/A	N/A	N/A						
106	N/A	N/A	N/A						
107	N/A	N/A	N/A						
108	N/A	N/A	N/A						
109	N/A	N/A	N/A						
110	N/A	N/A	N/A						
111	N/A	N/A	N/A						
112	N/A	N/A	N/A						
113	N/A	N/A	N/A						
114	N/A	N/A	N/A						
115	N/A	N/A	N/A						
116	N/A	N/A	N/A						
117	N/A	N/A	N/A						
118	N/A	N/A	N/A						
119	N/A	N/A	N/A						
120	N/A	N/A	N/A						
121	N/A	N/A	N/A						
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126	N/A	N/A	N/A						
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134	N/A	N/A	N/A						
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136	N/A	N/A	N/A						
137	N/A	N/A	N/A						
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140	N/A	N/A	N/A						
141	N/A	N/A	N/A						
142	N/A	N/A	N/A						
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144	N/A	N/A	N/A						
145	N/A	N/A	N/A						
146	N/A	N/A	N/A						
147	N/A	N/A	N/A						
148	N/A	N/A	N/A						
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150	N/A	N/A	N/A						
151	N/A	N/A	N/A						
152	N/A	N/A	N/A						
153	N/A	N/A	N/A						
154	N/A	N/A	N/A						
155	N/A	N/A	N/A						
156	N/A	N/A	N/A						
157	N/A	N/A	N/A						
158	N/A	N/A	N/A						
159	N/A	N/A	N/A						
160	N/A	N/A	N/A						
161	N/A	N/A</							