lectrical engineering solutions Itd

DOMESTIC ELECTRICAL INSTALLATION CERTIFICATE

Issued in accordance with British Standard BS 7671 - Requirements for Electrical Installations

Certificate Reference: DEIC556615

DETAILS OF THE CLIENT

Client: Chris Heritage Croft Prop Management

5 Hertford Place, Coventry, Warwickshire, CV1 3JZ Address:

DETAILS AND EXTENT OF THE INSTALLATION

Installation Address: C/O Croft Property Management, 23 Queensland Avenue, Coventry, Warwickshire, CV5 8FE

Extent of the installation covered by this certificate:

Replace accessories sockets and switches, replace wiring, light, fan to bathroom, remove accessories in from zones, rewire cooker circuit alter/rewire sockets to kitchen cooker hood,

test installation, install additional fire detection D LD3 system certified separately.

The installation is:

New installation

N/A

Addition to an existing installation

Alteration to an existing installation

COMMENTS ON EXISTING INSTALLATION

The installation is some 30 years old with evidence of alterations. Generally in good condition and maintained, the consumer unit has been upgrade 16th edition and bonding complies with BS7671 as amended.

NEXT INSPECTION

I RECOMMEND that this installation is further inspected and tested after an interval of not more than:

5 Years or change of tenant/owner

TEST INSTRUMENTS

Details of Test Instruments used (state serial and/or asset numbers):

Multi-functional: N/A Earth electrode resistance: 101259114

Insulation resistance: Earth fault loop impedance: 101182760 101259114

Continuity: RCD. 101182760 101259114

DESIGN, CONSTRUCTION, INSPECTION AND TESTING

I/We being the person(s) responsible for the design, construction, 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 design, construction, inspection and testing, hereby CERTIFY that the design work for which I/we have been reponsible is to the best of my/our knowledge and belief in accordance with BS 7671:2008, amended to 2015 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):

Risk assessment attached

029754000

N/A

The extent of liability of the signatory/signatories 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:

Date: 20/10/2015 Name: Position: Director/Electricians Signature: E.Brown, G.Hughes,

Report reviewed and confirmed by:

Name: **EAMONN BROWN** Position: **Qualified Supervisor** Signature: Date: 07/11/2015

DETAILS OF THE ELECTRICAL CONTRACTOR

Trading Title: **Electrical Engineerig Solutions Limited**

Address: 1 Finham Grove, Finham, Coventry

Registration Number (if applicable):

Telephone Number: 024 76690870

CV3 6PN Postcode:

8 SI	JPPLY CHARAC	TERISTICS	AND EAR	THING	ARRANGE	MENTS							
Eartl Arrange		nber and Type of	Live	! N	lature of Suppl	ly Paramet	ers	Supply	Protecti	ve Device			
TN-S	1-phase (2 wire):	Conductors 1-ph: N/A (3 wi	ase re): 🗸	Nomina voltage	11. //11) V Uo:	230 V	BS(EN):	88-2 F	use HRC			
	3-phase (3 wire):	3-pha N/A (4 wi		!	Nominal frequ	iency, f:	50 Hz	Type:		gG			
TN-C-S	N/A Cother:	N/A	16).		Prospective fa current, lpf:	ult	kA	Rated curr	ent:	100 A			
TT	N/A Confirmation	n of supply pola	rity:	-	External earth		0.25 Ω	Short-circo capacity:	uit	80 kA			
D	l l			1	loop impedand			-					
	ARTICULARS OF of Earthing	- INSTALLA !			ion Earth Elec			_					
Distribu facility:	tor's	Type:	N/A	Δ	N/A								
Installat	ion N/A	Resistance to Earth:	Ν/Α Ω										
Maximu	m Demand (Load):	60 Amps	Protective against el			ADS		Measur	ed Ze:	0.25 Ω			
	itch / Switch-Fuse /	Circuit-Breaker	/ RCD		Supply		If RC	D main swit	 ch:				
Type BS(EN):	5419 Isolator	Current rat	ing:	100 A	conductors	Coppe		d residual ating curren	t (ln):	N/A m/			
Number of poles	_	Fuse/device or setting:	erating	V/A A	material: Supply	d time delay	elay: N/A r						
, ,		Voltage rati	ing: 2	240 V	conductors csa:	nductors 25 mm ² Measured operating							
Earthing	and Protective Bond	ing Conductors					eous-conduc						
Earthing Conduct	conductor	Connection continuity		To water pipes:	r installatio	on	To gas in pipes:	nstallati	on				
materia	: Copper	verified:		To oil ins		To lightning protection:							
Main pro	otective bonding cond or		Connection	V	pipes: To struc	tural	N/A	To other		N/A (s):			
materia	: Copper	csa: 10 mn	verified:	· /	steel:	turai	N/A		N/A				
10 SC	HEDULE OF ITI	EMS INSPE	CTED										
Item				Descrip	otion					Outcome			
1.0	DISTRIBUTOR'S /		KE EQUIPM	IENT									
1.1	Condition of service									<i>V</i>			
1.2	Condition of service Condition of distribu		rrangomont							V V			
1.4	Condition of tails - E									V			
1.5	Condition of meterin		unici							'			
1.6	Condition of isolator		t)							· ·			
2.0	PARALLEL OR SWITCHED ALTERNATIVE SOURCES OF SUPPLY												
2.1	Adequate arrangem (551.6)	ents where a ge	enerating set	operates	as a switched	l alternativ	ve to the pu	iblic supply		N/A			
2.2	Adequate arrangement	ents where a ge	nerating set	operates	in parallel wit	h the pub	lic supply (551.7)		N/A			
3.0	AUTOMATIC DISC	ONNECTION C	F SUPPLY										
3.1	Presence and adequ	acy of earthing	and protecti	ve bondin	g arrangemer	nts:							
3.1.1	Installation earth ele	ectrode (where	applicable) (542.1.2.3)					N/A			
3.1.2	Earthing conductor a	and connections	including ac	ccessibility	(542.3; 543.	3.2)				~			
3.1.3	Main protective bon	ding conductors	and connect	tions, incl	uding accessib	oility (411	3.1.2; 543	.3.2)		/			
3.1.4	Provision of safety e				all appropriate	locations	(514.13)			/			
3.1.5	RCD(s) provided for	·	(411.4.9; 4	11.5.3)						/			
4.0	BASIC PROTECTIO		s to provide	hasis prot	taction (provide	ntion of ac	ntact with	livo porto) v	vithin				
4.1	Presence and adeque the installation:								VILLIILI				
4.1.1	Insulation of live pa		<u> </u>		a with durable	e insulatio	n materials	(416.1)		•			
4.1.2	Barriers or enclosure	es e.g. correct i	r rating (410	0.2)						V			

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	CHEDULE OF ITEMS INSPECTED	
Item	Description	Outcome
5.0	ADDITIONAL PROTECTION	
5.1	Presence and effectiveness of additional protection methods:	
5.1.1	RCD(s) not exceeding 30mA operating current (415.1; Part 7), see Item 8.14 of this schedule	/
5.1.2	Supplementary bonding (415.2; Part 7)	
6.0	OTHER METHODS OF PROTECTION	
6.1	Presence and effectiveness of methods which give both basic and fault protection:	
6.1.1	SELV systems including the source and associated circuits (Section 414)	N/A
6.1.2	PELV systems, including the source and associated circuits (Section 414)	N/A
6.1.3	Double or reinforced insulation i.e. Class II or equivalent equipment and associated circuits (Section 412)	N/A
6.1.4	Electrical separation for one item or equipment e.g. shaver supply unit (Section 413)	N/A
7.0	CONSUMER UNIT(S) / DISTRIBUTION BOARD(S)	
7.1	Adeqacy of access and working space for items of electrical equipment including switchgear (132.12)	✓
7.2	Presence of linked main switch(s) (537.1.4; 537.1.5; 537.1.6)	~
7.3	Isolators, for every circuit or group of circuits and all items of equipment (537.2)	✓
7.4	Suitability of enclosure(s) for IP and fire ratings (416.2; 421.1.6; 421.1.201)	V
7.5	Protection against mechanical damage where cables enter equipment (522.8.1; 522.8.11)	✓
7.6	Confirmation that ALL conductor connections are correctly located in terminals and are tight and secure (526.1)	LIM
7.7	Avoidance of heating affects where cables enter ferromagnetic enclosures e.g. steel (521.5)	~
7.8	Selection of correct type and ratings or circuit protective devices for overcurrent and fault protection (411.3.2; 411.4, .5, .6; Sections 432, 433)	•
7.9	Presence of appropriate circuit charts, warning and other notices:	
7.9.1	Provision of circuit charts/schedules or equivalent forms of information (514.9)	✓
7.9.2	Warning notice of method of isolation where live parts not capable of being isolated by a single device (514.11)	•
7.9.3	Periodic inspection and testing notice (514.12.1)	✓
7.9.4	RCD quarterly test notice; where required (514.12.2)	~
7.9.5	Warning notice of non-standard (mixed) colours of conductors present (514.14)	~
7.10	Presence of labels to indicate the purpose of switchgear and protective devices (514.1.1; 514.8)	~
8.0	CIRCUITS	
8.1	Adequacy of conductors for current-carrying capacity with regard to type and nature of the installation (Section 523)	•
8.2	Cable installation methods suitable for the location(s) and external influences (Section 522)	LIM
8.3	Segregation/separation of Band I (ELV) and Band II (LV) circuits, and electrical and non-electrical sevices (528)	LIM
8.4	Cables correctly erected and supported throughout including escape routes, with protection against abrasion (Sections 521, 522)	LIM
8.5	Provision of fire barriers, sealing arrangments where necessary (527.2)	LIM
8.6	Non-sheathed cables enclosed throughout in conduit, ducting or trunking (521.10.1; 526.8)	'
8.7	Cables concealed under floors, above ceilings or in wall/partitions, adequately protected against damage (522.6.201, .202, .204)	LIM
8.8	Conductors correctly identified by colour, lettering or numbering (Section 514)	V
8.9	Presence, adequacy and correct termination of protective conductors (411.3.1.1; 543.1)	✓
8.10	Cables and conductors correctly connected, enclosed and with no undue mechanical strain (Section 526)	~
8.11	No basic insulation of a conductor visible outside enclosure (526.8)	✓
8.12	Single-pole devices for switching or protection in line conductors only (132.14.1; 530.3.2)	V
	Accessories not damaged, securely fixed, correctly connected, suitable for external influences (134.1.1; 512.2;	

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12/S	CHEDULE OF ITEMS INSPECTED	
Item	Description	Outcome
8.14	Provision of additional protection by RCD not exceeding 30mA:	
8.14.1	Socket-outlets rated at 20 A or less unless exempt (411.3.3)	V
8.14.2	Mobile equipment with a current rating not exceeding 32 A for use outdoors (411.3.3)	V
8.14.3	Cables concealed in walls at a depth of less than 50 mm (522.6.202, .203)	'
8.14.4	Cables concealed in walls/partitions containing metal parts regardless of depth (522.6.202; 522.6.203)	'
8.15	Presence of appropriate devices for isolation and switching correctly located including:	
8.15.1	Means of switching off for mechanical maintenance (537.3)	·
8.15.2	Emergency switches (537.4)	· ·
8.15.3	Functional switches, for control of parts of the installation and current-using equipment (537.5)	·
8.15.4	Firefighter's switches (537.6)	N/A
9.0	CURRENT-USING EQUIPMENT (PERMANENTLY CONNECTED)	
9.1	Equipment not damaged, securely fixed and suitable for external influences (134.1.1; 416.2; 512.2)	'
9.2	Provision of overload and/or undervoltage protection e.g. for rotating machines, if required (Sections 445, 552)	~
9.3	Installed to minimise the build-up of heat and restrict the spread of fire (421.1.4; 559.4.1)	'
9.4	Adequacy of working space. Accessibility to equipment (132.12; 513.1)	V
10.0	LOCATION(S) CONTAINING A BATH OR SHOWER (SECTION 701)	
10.1	30 mA RCD protection for all LV circuits, equipment suitable for the zones, supplementary bonding (where required) etc.	•
10.2	Where used as a protective measure, requirements for SELV or PELV met (701.414.4.5)	'
10.3	Shaver sockets comply with BS EN 61558-2-5 formerly BS 3535 (701.512.3)	'
10.4	Presence of supplementary bonding conductors, unless not required by BS 7671:2008 (701.415.2)	✓
10.5	Low voltage (e.g. 230 volt) socket-outlets sited at least 3m from Zone 1 (701.512.3)	N/A
10.6	Suitability of equipment for external influences for installed location in terms of IP rating (701.512.2)	'
10.7	Suitability of accessories and controlgear etc. for a particular zone (701.512.3)	'
10.8	Suitability of current-using equipment for particular position within the location (701.55)	'
11.0	OTHER PART 7 SPECIAL INSTALLATIONS OR LOCATIONS List all other special installations or locations present, if any (Record separately the results of particular inspect	ions)
11.1	N/A	'
11.2	N/A	'
13/S	CHEDULE OF ITEMS TESTED	
Item	Description	Outcome
12.1	External earth fault loop impedance, Ze	'
12.2	Installation earth electrode resistance, Ra	N/A
12.3	Continuity of protective conductors	'
12.4	Continuity of ring final circuit conductors	'
12.5	Insulation resistance between live conductors	'
12.6	Insulation resistance between live conductors and earth	'
12.7	Polarity	'
12.8	Earth fault loop impedance, Zs	'
12.9	Verification of phase sequence	'
12.10	Operation of residual current device(s)	'
12.11	Functional testing of assemblies	'
12.12	Verification of voltage drop	/

All boxes must be completed. 'tick' indicates that an inspection or test was carried out and that the result was satisfactory. 'X' indicates than an inspection or test was carried out and the result is not satisfactory. 'N/A' indicates that an inspection or test was not applicable to the particular installation. 'LIM' indicates that, exceptionally, a limitation agreed with the person ordering the work prevented the inspection or test being carried out.

14 SCHEDULE OF CIRCUIT DETAILS AND TEST RESULTS																									
Designation of consumer unit: D.B. 1				Location:					Understairs					Prospective fault current: 0.92 kA				kA O	ype of ' -Other	N/A					
	Circuit designation				Circuit conductors: csa		time	Overcurrent protective devices				RCD	BS7671	Circuit impedance			ces (Ohms)		Insulation resistance		sured			RCD	
Circuit number			Reference Method	Number of points served	Live	cpc	Max		∑ Capacity	3 Operating Surrent	Maximum Zs σ permitted by B3	Ring final circuits only (measured end to end) r1 rn r2 (Line) (Neutral) (cpc)			All circuits (one column to be completed)		- Live - Live	ΩM Live - Earth	▼ Polarity	Maximum measured B earth fault loop impedance Zs	Disconnection stime at In	Bisconnection strime at 5ln	Test button operation		
1	Downstairs Lights & understairs	А	С	6	1.5	1.0	0.4	61009	В	6	6	30	7.28				0.54	N/A		> 200		0.79	18.2	18.2	~
2	Up lights & down smoke alarms	А	С	8	1.5	1.0	0.4	61009	В	6	6	30	7.28				0.93	N/A		> 200		1.18	19	30.2	~
3	Spare																								
4	Spare																								
5	Spare																								
6	Spare																								
7	Upstairs sockets	А	С	7	2.5	1.5	0.4	60898	В	32	6	30	1.37	0.29	0.33	0.48	0.19	N/A		> 200		1	45.6	20	~
8	Down Sockets	Α	С	5	2.5	1.5	0.4	60898	В	32	6	30	1.37	0.41	0.36	0.6	0.25	N/A		> 200		0.85	45.6	20	~
9	Kitchen skts left/right & hood	А	С	5	2.5	1.5	0.4	60898	В	32	6	30	1.37	0.15	0.15	0.25	0.1	N/A		> 200		0.83	45.6	20	~
10	Cooker	А	С	1	6.0	2.5	0.4	60898	В	32	6	30	1.37				0.3	N/A		> 200		0.55	45.6	20	~
11	Boiler	Α	С	1	2.5	1.5	0.4	61009	В	20	6	30	2.19				0.45	N/A		> 200		0.7	45.6	20	~
12	Spare																								

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DOMESTIC ELECTRICAL INSTALLATION CERTIFICATE

GUIDANCE FOR RECIPIENT (to be appended to the Certificate)

This safety Certificate has been issued to confirm that the electrical installation work to which it relates has been designed, constructed and inspected and tested in accordance with British Standard 7671 (as amended) (The IET Wiring Regulations).

You should have received an original Certificate and the contractor should have retained a duplicate Certificate. If you were the person ordering the work, but not the owner of the installation, you should pass this Certificate, or a full copy of it including the schedules, immediately to the user.

The 'original' Certificate should be retained in a safe place and be shown to any person inspecting or undertaking further 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 British Standard 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 documentation.

For safety reasons, the electrical installation will need to be inspected at appropriate intervals by a competent person. The maximum time interval recommended before the next inspection it stated on Page 1 under 'Next Inspection'.

This Certificate is intended to be issued only for a new electrical installation or new work associated with an alteration or addition to an existing installation. It should not have been issued for the inspection of an existing electrical installation. An 'Electrical Installation Condition Report' should be issued for such an inspection.

This Certificate is only valid if a Schedule of Inspections and Schedule of Test Results are appended.