## **ELECTRICAL INSTALLATION CERTIFICATE**

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

			Certificate Reference:	Grenfe	II Tower / 145002
1. DETAILS OF TI	HE GLITENT Royal Borough of Kensi	ngton & Chelsea , TM	O, Network Hub, 292a	Kensal Road, L	ondon, W10 5BE
2, DETAILS OF T	HEINSTALLATION				
Installation Address:	Grenfell Tower, Grenfel	Road, London, W11	1TQ		
Extent of the installation covered by this certificate:	New CC1H120mm MICC su riser cupboard.	pply cable from domest	c riser sub-mains service	head 2.to riser e	nclosure in walkway
The installation is:	New M/A An addit	ion N/A An al	teration /		
3. DESIGN					
particulars of which are o that the design work for	responsible for the design lescribed above, having a which I/we have been re 2011 except for the depa	xercised reasonable soonsible is	kill and care when carr of my/our knowledge a	ying out the de	sign, hereby CERTIFY
Details of departures from	m BS 7671 (Regulations 1	.20.3, 133.5):	N/A		
The extent of liability of I For the DESIGN of the	the signatory/signatories	is limited to the work	described above as the	subject of this	certificate,
Name: N/A	The second second	N/A	Signature:	N/A	Date: N/A
Where there is divided	responsibility for the	designi			
Name: N//	Position:	N/A	Signature:	N/A	Date: N/A
4. CONSTRUCTIO					
particulars of which are o	responsible for the const lescribed above, having e	xercised reasonable s	kill and care when carry	ring out the co	istruction, hereby
	ction work for which I/we :2008, amended to 2011				no belier in
Potalle of deportures from	n BS 7671 (Regulations 1	20.2. 122 F):	N/A		
	he signatory/signatories i		described above as the	subject of this	certificate.
For the CONSTRUCTIO				<u> </u>	1
Name: Bob Gre		Qualified Supervisor	Signature:	4-	Date: 09/07/2013
5. INSPECTION A	ND) TESTING: responsible for the inspe	ction and testing of th	e electrical installation	/as indicated h	v my/our signatures
pelow), particulars of whitesting, hereby CERTIFY	ch are described above, I that the inspection and te	naving exercised reasons sting work for which	mable skill and care wh /we have been reponsi	en carrying ou ble is to the be	t the inspection and st of my/our
cnowledge and belief in a	ccordance with BS 7671:	2008, amended to 20	11 except for the depar	tures, if any, d	etailed as follows.
Details of departures from	n BS 7671 (Regulations 1	20,3, 133,5):	N/A		
	he signatory/signatories i		described above as the	subject of this	certificate.
_	ND TESTING of the insi ene Position:	allation: Qualified Supervisor	Signatura	n .	Date: 09/07/2013
Name: Bob Gre Report reviewed and c		Quaimed Supervisor	Signature:	#-	Date: 09/07/2013
Name; Bob Gre		Qualified Supervisor	Signature:	<u> </u>	Date: 09/07/2013
5. DESIGN, CONS	TRUCTION, INSPE	TON AND TES	IIIVG		Assessment of the second of th
ov my/our signatures bel	responsible for the desigow), particulars of which	are described above.	naving exercised reasor	lable skill and i	care when carrying
out the design, constructi	on, inspection and testing wiedge and belief in acco	, hereby CERTIFY the	it the design work for w	hich I/we have	been reponsible is
letailed as follows:					
	n BS 7671 (Regulations 1		N/A	antena afakir	an elitarita
	ne signatory/signatories in DNSTRUCTION, and the				cerdilate.
lame: N-A	Position:	N/A	Signature:	N/A	Date: N/A
Report reviewed and co	7	4476	<u></u>	51 / A	B. L. 1 3177
lame: N/A	Position:	N/A	Signature:	N/A	Date: N/A
/. NEXT INSPECT. /We the designer(s), RE(	ONE OMMEND that this install	ation is further inspec	ted and tested after an	1	2.84
nterval of not more than:				<u> </u>	2 Months
חם וטוויו ום טממפט טוו נוופ	moder shown in whheildix	0 01 DO 7071.2008 8	menucu ZUII.		Page: 1 of 7

			Registrat	ion Number		
<b>3</b> 33						
	Essex	ICE 2TH	Telephon	e Number:		
Telephone Number:  Postcode:  Construction Trading Title:  Address:  Construction Trading Title:  Postcode:  P						
	ading Title:		)			
Ayursas.						
			Telephon	e Number:		
		Postcode:				
	iding Title:			an Da esti e Deritario e de Parel Greno de esta de Carlo	er (ge v. 1 m) som kap (ge gl. lav v. 2 m), er (m) kap kapada er kjent av damet er kjent i ser damet er kjent	et mer tigen i de motion vider (den 1 de 1
Address:						
			Telephon	e Number:		
		Postcode:				
Inspection and Testing Ira	ding Title:					
Address:						
		Postcode:				
RECEIVED TO CONTRACT TO CONTRA						
System Nu Type(s)		Ac. TN/A	Parametei		Characte Primary Overcurren	Supply
	ise 1-phase		ominal oltage(s): U: 400 V	<b>Uo:</b> 230 ∨	Devi	
'''	re): N/A	3 pole: M/A		h	1	2 Fuse HRC
TNC N/A 3-pna (3 wir	e): N/A (4 wire):	✓ Other; N/A				gG
TT N/A Cother	·	₹/A.			Rated current: Short-circuit	400 A
IT N/A Confir	mation of supply pola	rity:  \[ \]	Number of supplies:	2	capacity:	80 kA
Distributor's	, ⊤_i	T		wnere appli	:ADIE)  N/A	
Installation	- i Electrode		Method of		N/A	
	ad): N/A N/A	1 Protective measure	(s) against electric st		ADS	
						in .
BS(EN):		- Conductor		Conductor	N/A mm2 conn	inuity & ection N7A
poles:		NA AS	ertive bonding con			ea: Land
conductors		Conductor		Conductor	MA mm <sup>2</sup> conni verifi	ection
Supply	RCD operating	3 Mater 2	Gas	01	Light	ning ;
	ume:	service:	Other incom	DCI VIL	e: prote	ction:
		i Steel;			W/A	
and the second s	ON EXECUTING III	STALLATION onnections whilst surr	ounding building "	arks ongoing	Vibration pres	ant Evicting
		THE PROPERTY OF THE PROPERTY O				······
This form is based on th	ne mouel snown in Api	76/1:20 ס אוטושכ	ivo arriended 2011. Ri	er: Grentell To	ower/145002	Page: 2 of 7

Tel: Fax:-

12, SCHED	ULE OF ITEMS INSPECTED		
Both basic and	otection against electric shock I fault protection:	Preve	ntion of mutual detrimental influence (a) Proximity of non-electrical services and other influences
N/A (I) SELV		N/A	(b) Segregation of Band I and Band II circuits or use of Band II insulation
V/A (II) PELV		N/A	(c) Segregation of safety circuits
	ble or Reinforced Insulation		ification Presence of diagrams, instructions, circuit charts and
Basic protection (i) Insula	on: ation of live parts	N/A	similar information
V		N/A	Presence of danger notices and other warning notices
	ers or enclosures	N/A	Labelling of protective devices, switches and terminals
N/A (iii) Obsi		N/A	Identification of conductors
	ing out of reach **	Cable: N/A	<ul> <li>and Conductors</li> <li>Selection of conductors for current carrying capacity and voltage drop</li> </ul>
Fault protectio (i) Automatic	n; disconnection of supply	N/A	Erection methods
√ Presence	e of earthing conductor	NZ/A	Routing of cables in prescribed zones or within
N/A Presence	of circuit protective conductors	LIM	mechanical protection  Cables incorporating earthed armour or sheath, or run
N/A Presence	of main protective bonding conductors	Live	within an earthed wiring system, or otherwise adequately protected against nails, screws and the like
Presence	of earthing arrangements for combined se and functional purposes		
Presence	of adequate arrangements for alternative	W/A	Additional protection provided by 30mA RCD for cables in concealed walls (where required in premises not under the supervision of skilled or instructed persons)
source(s	), where applicable		The Superstances States of Australia Comments
1 24	nd setting of protective and monitoring devices		Connection of conductors
√ (for fault	protection and/or overcurrent protection)	X	Presence of fire barriers, suitable seals and protection against thermal effects
(ii) Non-condu	icting location **	Gener X	Presence and correct location of appropriate devices for
N/A Absence	of protective conductors	X	isolation and switching Adequacy of access to switchgear and other equipment
(iii) Earth-free	local equipotential bonding **	_ <b>_^</b>   N/A ]	Particular protective measures for special installations
	of earth-free local equipotential bonding	2000	and locations Connection of single-pole devices for protection or
(iv) Electrical !		IV/A	switching in line conductors only
Provided	for 'one item' of current-using equipment for 'more than one item' of current-using	\ <u>\</u>	Correct connection of accessories and equipment
equipmer	nt **		Presence of undervoltage protective devices
Additional prot		N/A	Selection of equipment and protective measures appropriate to external influences
3,10001100	of residual current device(s)	N/A	Selection of appropriate functional switching devices
	of supplementary bonding conductors ontrolled supervised/conditions only		
	ILE OF ITEMS TESTED	Tw/A	Protection against direct contact by barrier or enclosure
r	earth fault loop impedance, Ze		provided during erection
	on earth electrode resistance, RA	N/A	Insulation of non-conducting floors or walls
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		<b>\</b>	Polarity
	y of protective conductors		Earth fault loop impedance, Zs
	y of ring final circuit conductors		Verification of phase sequence
	resistance between live conductors	N/A	Operation of residual current device(s)
Insulation	n resistance between live conductors and earth	<b>_</b>	Functional testing of assemblies
N/A Protection	n by separation of circuits		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.

This form is based on the model shown in Appendix 6 of BS 7671:2008 amended 2011. Ref: Grenfell Tower / 145002 Page: 3 of 7

Tel:- Fax:-

	IRCUIT DETAILS Ition board designation:	Se	rvice	Head	d 1			Location:		Maii	n Intak	ce roor	n
7			Q		condi	cuit ictors: sa	t time 857671	Overcum d	ent p evice	rotecti s	ve	RCD	857671
Greult number and phase	Circuit designation	Type of wining	Reference Method	Number of points served	Live	cpc	Max disconnect time permitted by BS7671	BS(EN)	Type No	Rating	Short-circuit Capacity	Operating . current	Maximum Zs Permitted by BS7671
1 L1	Ground to tenth floor Flat Ryfields	H	F	1	120	mm2 37	<b>S</b> 5	88-2	gG	<b>A</b> 400	<b>kA</b> 80	m <b>A</b> N/A	N/A
1 L2	Ground to tenth floor Flat Ryfields	Н	F	1	120	37	5	88-2	gG	400	80	N/A	N/A
1 L3	Ground to tenth floor Flat Ryfields	н	F	1	120	37	5	88-2	gG	400	80	N/A	NZA
											1.	() ()	
N.		À			14.	4. 1. 1. 1. 1. 1. 1. 1. 1. 1.	i v	MANA	1 43 10 10 10			, 1975 V 1975	
i i				* .		A.S.	N 2	A AMENIA Manya Man					:.
			. :			\ \ \ \							
													1.
N. P											. :	1. 1	:
							]						
													CONTRACTOR AND ADMINISTRA
			-										
								¥					
Type of \	Wiring O-Other:							j					
APPLIES	OARD CHARACTERISTICS  S WHEN THE BOARD IS NOT CONNECTED  O this distribution board is from:	D TC	THE (		IN OF	THE I	100000000000000000000000000000000000000	LLATION o of phases:	1	3			
	ent protective device istribution circuit: BS(EN):		oedeeca Vi	THE PARTY			i de la compa	ating:	40	О Д	Nomi Volta	nal ge:	400 V
RCD	BS(EN):	orași a litera		<del>Tátiritos en</del>		DCN -	10000	o of poles:	<u> </u>	1	Ratin	<u> </u>	/∆ mA
	ition of supply polarity N/A Zs: 6	//A (		N.A		RCD c		MU III.	J	ms	At 5	3331 <u>.                                  </u>	/A ms : 4 of ∶

Tel: Fax:-

Fax:-

		<b>ಪ್ರಾಗಿತ್ರ</b> rd designa				Servic	e Head	j <b>1</b>		Loc	ation:	Main li	ntake roo	om .
	Circuit impedances		(Ohms)	et ingle 242 in Section for the	Ir (recon	sulation d lower (	resistar or lowes	ice : value)		Maximum measured	RC	D Operal times	ting	
Circuit number and phase	Ring f (meas	inal circuit ured end t	s only o end)	All ci (one co be com	rcuits lumn to ipleted)	Line/ Line	Line/ Neutral	Line/ Earth	Neutral/ Earth	Polarity	earth fault loop impedance Zs	At In	At 5 In	Test button Operation
	r1 (Line)	m (Neutral)	r2 (cpc)	R1+R2	R2	MΩ	мΩ	MΩ	MΩ	1	Ω	ms	ms	23
1 L1	M/A	ΆΛΛ	ANV	0.03	MAN	0.03	500>	500>	500>	✓	0.20	NJZΛ	N/A	NZA
1 L2	N/A	N/A	N/A	0.04	NZA	0.04	500>	500>	500>	✓	0.21	N/A	R/A	N/A
1 L3	N/A	M/A	N/A	0.05	*IZA	0.05	500>	500>	500>	✓	0.22	NZA	N/A	√/A
		4 5 17	•.		\\\.\.	¥. **	N.				11.20			
<u>All</u>			8.4	\\					11		A. A. A.			
:			· .			i i	19.75	: .	1		n i i i i			:
:		14.25	\								1. 1			
	.											* PP . 4 . A . A . A . A . A . A . A . A . A		- SO TOUR WEAR
	14.													
					Ì									<del> </del>
	f Test In	30 FUE struments		ate seria					· resistan	ce:		N/A		
nsulatio	n resista	nce:			112		Earth f		impedai			RGE112		
Continuit Continuit Iame:	y: SIED	<b>BY</b> Bob Greer	ne	Positio	112 on: Q∟	ialified S	RCD: Supervis	or <b>Sig</b>	nature:		<u> </u>	RGE112	.; 09/0	7/2013

IWS00002282/5

Fax:-

ш <sub>V/</sub>	iu <sub>l</sub>	2 1A	sw	V/N	:nl 1A en	perati	gcD o	k∀	l v/N	:Jql	ប ,	/M <b>:9Z</b>	Variation ylqque to noti	ទពារពិព
w 🗤	, ] :E	Rating		/iv	:səlod jo	2000				/\ /\		BS(EN):		a:
082	: 06:	Volta	٧		:5បង្ក	<b>8</b> 8					25500202	BS(EN):	ent protective device istribution circuit:	the di
				L	:saseud to o	23.22.22				jinO			el basod nolludiatsib zirla c	pply to
					NOTTAIL	ATZN	I 3H1	N OF.	DING	THE (	OT (		OCHARACTERISTIC SWHEN THE BOARD IS	
												W/N	Viring O-Other:	
مناحدت				T						L	2702002		<del>a estend</del> akonsulaketak	
	<u>                                     </u>		<u> </u>				<u> </u>				<u> </u>			<u> </u>
		<u>                                     </u>				_		<u> </u>	<u> </u>		ļ			<u> </u>
		ļ	ļ	ļ				ļ	ļ		-			<u> </u>
						_		ļ		<u></u>	ļ			<u> </u>
,		ļ	<u> </u>	_		ļ		ļ	ļ		<u> </u>			ļ
										<u></u>				
												HANA NO A		
											Ī		OFFICE AND A STATE OF THE STATE	
										<u> </u>			. W. And J. Main P. Market and a state of the state of th	
		<u> </u>						<del>                                     </del>			<del> </del>			
		<u> </u>	<u> </u>								<u> </u>	er valari a		<u> </u>
				-	Maria Arte di	ļ		<u> </u>	<u> </u>		<u> </u>		A. En Wests	
				ļ		ļ					-			
		<u> </u>		ļ						<u> </u>	<u> </u>			
			1	ļ		<u> </u>					ļ			
				ļ			ļ	ļ				ng nampa Makabaha sa	, take is explained.	
												#		
					Parks.									
	:												NASSASSIA.	
	<u></u>	L		L				<b></b>						
						<u> </u>	<u> </u>	<u> </u>			<u> </u>			
	V/N	08	001	- -96	2-88	.L	7.5	120	<u> </u> 	<u>.</u> 	Н		11th to 20th Flat Ryfield	ε
//N	ANN	08	007	96	2-88	S	75	120	 		Н		11th to 20th Flat Ryfield	z
						ļ	L	ļ	L	<u>.</u>	<b> </b>	<u> </u>	11th to 20th Flat Ryfield	
ZIV.	Am AND	<b>AX</b> 80	00 <b>b</b>	56 5	2-88	S S	<b>5000</b> 7.5	<b>2mm</b> 0S1	V.2	<u>∃</u>	H	21	Maily of teld of the by Bytish	ι ≌Ω
Š	20	Short	Rating	Type No	(Na)ca	Max perm		20.00	inte S S	feren	pe of			
	Operating current	Short-dicuit Capacity	ā	8	(N3)58	disco	odo	₽∧∏	Number of points served	Reference Method	Type of wiring	подви	Disab JimiD	Circult number and phase
Maximum Zs		<b>F</b>				Max disconnect time permitted by BS7671			•	ethod	<b>E</b>			9
, ,	всо	9/	otectiv	ant pr	anuoneviO ab	25 25 25 25 25 25 25 25 25 25 25 25 25 2	ctors:	MD UDUOO SO						
ALC: THE PARTY OF	:e roor	ı lutak	nisM		:иодерод	القنتونييون.			DPƏL	l əsiv	19C		troitengiseb breod noit	nausi

	RESUL tion boa	nd designa	tion:		and the second con-	Servic	e Heac	1 2		Loc	ation:	Main Ir	ntake roc	om	
		Circuit im	pedances				nsulation d lower c				Maximum measured	RCD Operating times			
Circuit number and phase	Ring final circuits only (measured end to end)			All circuits (one column to be completed)		Line/ Line	Line/ Neutral	Line/ Earth	Neutral/ Earth	Polarity	earth fault	At In	At 5 In	Test button Operation	
	r1 (Line)	rn (Neutral)	r2 (cpc)	R1+R2	R2	QN	MΩ	MΩ	MΩ	1	Ω	ms	ms	NA P	
1	INA	N/A	NZΑ	0.07	ANIZ	۷۷V	500>	500>	500>	✓	0.24	V/A	N/A	N/A	
2	AVV	N/A	sj/A	0.05	M/A	N/A	500>	500>	500>	✓	0.22	NZA	N/A	N/A	
3	97A	N//A	NZA	0.05	057#	N/A	500>	500>	500>	✓	0.22	N/A	MAV	V/Λ	
								****							
			F C											~~~	
	]														
		P. A. V. L.						TO COMMUNICATION STANSON COMMUNICATION COMMU							
		— · — — — — — — — — — — — — — — — — — —									}				
														. managa 1,50 g 3,50 f 1,64 f 1,64 f	
ils o		TESTEL struments		ate seria		asset n			resistan	ice:		V//)			
	n resista	nce:			E112				impeda		I	RGE112			
inuit	y:			RGI	E112		RCD:					RGE112			

IWS00002282/7