

ELECTRICAL INSTALLATION CONDITION REPORT

80347 - Master



A. Details of the Client/Person Ordering the Report		B. Reason for Producing this Report	
Client:	DEFRA FM - NV10020850	Purpose of this report: To provide detailed results of the in-service periodic inspection and test of the installation as prescribed in accordance with the Allianz IS3 specification.	
Address:	Anglian Region Kingfisher House Goldhay Way, Orton Goldham Peterborough PE2 5ZR	Date(s) on which Inspection: and testing was carried out 30/11/2021	
C. Details of the Installation which is the Subject of this Report			
Installation:	Fish Diseases (Biology Lab)	Description of premises:	Domestic N/A Commercial N/A Industrial <input checked="" type="checkbox"/>
Occupier:	DEFRA FM	Other:	N/A
Address:	Fish Diseases Lab Central Area Office Bromholme Lane Brampton PE28 4NE	Estimated age of wiring system:	10 yrs
Record of Installation available:	<input checked="" type="checkbox"/>	Evidence of alterations or additions:	<input checked="" type="checkbox"/> If yes estimated Age 2 yrs
Records held By:	Head Office	Date of previous inspection:	Not Known
D. Extent and Limitations Inspection and Testing			
Extent of Electrical Installation covered by this report: For Extent comments; --See Additional Page--		Agreed limitations including the reasons (See regulation 653.2) For Agreed Limitations comments --See Additional Page--	
Operational Limitations including the reasons (See page No 10 to 11)		Agreed with name Gary	
For Operational Limitations comments --See Additional Page--			
This inspection and testing detailed in this report and accompanying schedules have been carried out in accordance with BS7671:2018 (IET Wiring Regulations) as amended to July 2018 It should be noted that cables concealed within trunking and conduits, under floors, in roof spaces, and generally within the fabric of the building or underground, have NOT been inspected unless specifically agreed between the client and inspector prior to the inspection. An inspection should be made within an accessible roof space housing other electrical equipment.			
E. Summary of the Condition of the Installation			
General condition of the installations (In terms of electrical safety)		For Summary of the Condition of the Installation comments --See Additional Page--	
Overall assessment of the installation		Unsatisfactory *An unsatisfactory assessment indicates that dangerous (code C1) and/or potentially dangerous (code C2) conditions have been identified.	
F. Recommendations			
Where the overall assessment of the suitability of the installation for continued use above is stated as UNSATISFACTORY, I recommend that any observations classified as 'Danger present' (code C1) or 'Potentially dangerous' (code C2) are acted upon as a matter of urgency. Investigation without delay is recommended for observations identified as 'further investigation required' (code FI). Observation classified as 'Improvement recommended' (code C3) should be given due consideration. Subject to the necessary remedial action being taken I recommend that the installation is further inspected and tested by 03/12/2024			
G. Declaration			
I, being the person(s) responsible for the inspection and testing of the electrical installation (as indicated by My signatures below), particulars of which are described above, having exercised reasonable skill and care when carrying out the inspection and testing, hereby declare that the information in this report, including the observations and attached schedules, provides an accurate assessment of the condition of the electrical installation taking into account the stated extent and limitations in section D of this report.			
Trading Title and address	Powertest Ltd, Delta House, Bridge Road, Haywards Heath, West Sussex, RH16 1UA	NICEIC Enrolment Number	23384
		Branch No. (If Applicable)	N/A
Inspected and tested by:			
Name	Richard Johns	Position	Grade 1 Test Engineer
Signature		Date	30/11/2021
Report authorised for issue by:			
Name	Steven Cope	Position	Qualified Supervisor
Signature		Date	13/12/2021
H. Schedule(s)			
The attached schedule(s) are part of this document and this report is valid only when they are attached to it.			
2	Schedule(s) of inspection and	2	Schedule(s) of test results are attached

I. Supply Characteristics and Earthing Arrangements

Earthing Arrangements	Number and Type of Live Conductors				Nature of Supply Parameters		Supply protective device	
TN-S <input type="checkbox"/> N/A	a.c. <input checked="" type="checkbox"/>		d.c. <input type="checkbox"/> N/A		Nominal Voltage $U^{(1)}$	400 V	BS(EN)	LIM
TN-C-S <input checked="" type="checkbox"/>	1-Phase (2 wire) <input type="checkbox"/> N/A	1-Phase (3 wire) <input type="checkbox"/> N/A	2 Wire <input type="checkbox"/> N/A		Nominal Voltage $U_0^{(1)}$	230 V	Type	N/A
TN-C <input type="checkbox"/> N/A	2-Phase (3 wire) <input type="checkbox"/> N/A		3 Wire <input type="checkbox"/> N/A		Nominal frequency $f^{(1)}$	50 Hz	Prospective fault current $I_{pf}^{(2)}$	12 kA
TT <input type="checkbox"/> N/A	3-Phase (3 wire) <input type="checkbox"/> N/A	3-Phase (4 wire) <input type="checkbox"/> N/A	Other <input type="checkbox"/> N/A		External loop impedance $Z_e^{(2)}$	0.03 Ω	Nominal current rating	LIM A
IT <input type="checkbox"/> N/A	Other <input type="text"/> N/A				Number of supplies	2	Short circuit capacity	N/A kA
Confirmation of supply polarity <input checked="" type="checkbox"/>				(Note: (1) by enquiry, (2) by enquiry or by measurement)				

J. Particulars of Installation Referred to in the Report

Means of earthing	Details of installation Earth Electrode (where applicable)	
Distributor's facility <input checked="" type="checkbox"/>	Type (e.g. rod(s), tape etc.) <input type="text"/> N/A	Location <input type="text"/> N/A
Installation earth electrode <input type="checkbox"/> N/A	Resistance to Earth <input type="text"/> N/A Ω	Method of measurement <input type="text"/> N/A

Main Protective Conductors Tick boxes and enter details as applicable

Earthing Conductor	Material <input type="text"/> Copper	csa <input type="text"/> 120	mm ²	Continuity Verified <input checked="" type="checkbox"/>	Connection Verified <input checked="" type="checkbox"/>
Main protective bonding conductors	Material <input type="text"/> Copper	csa <input type="text"/> 10	mm ²	Continuity Verified <input checked="" type="checkbox"/>	Connection Verified <input checked="" type="checkbox"/>

Bonding of Incoming Service

Water installation pipes <input type="checkbox"/> N/A	Gas installation pipes <input checked="" type="checkbox"/>	Structural Steel <input type="checkbox"/> N/A	Lightning protection <input type="checkbox"/> N/A	Maximum Demand (Load)
Oil installation pipes <input type="checkbox"/> N/A	Please State			<input type="text"/> N/A Amps
Other incoming service(s) <input type="checkbox"/> N/A	<input type="text"/> N/A			Protective measure(s) against electric shock
				ADS <input type="text"/>

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

Location	<input type="text"/> Switchroom Main DB		Current rating	<input type="text"/> 400 A	if RCD main switch Rated residual operation current, $I_{\Delta n}$ <input type="text"/> N/A mA Rated time delay <input type="text"/> N/A ms RCD Operating time at, $I_{\Delta n}$ <input type="text"/> N/A ms	
Type BS(EN)	<input type="text"/> 60947-2 MCCB	No of poles	<input type="text"/> 3	Fuse/Device rating or setting		<input type="text"/> 400 A
Supply Conductors material	<input type="text"/> Copper	Supply Conductors csa	<input type="text"/> 120	Voltage rating		<input type="text"/> 400 V

K. Observations

Referring to the attached schedule(s) of Inspection and Test Results, and subject to the limitations specified at the Extent and Limitations of the Inspection and testing section.

No remedial action is required. ☐ N/A The following observations are made ☒

Item No	Observations	Code
1	3.0 EARTHING / BONDING ARRANGEMENTS (411.3; Chap 54) 3.6 Confirmation of main protective bonding conductor sizes (544.1), Comment: Main protective bonding conductor is under-sized in relation to PEN conductor in all installations. Table 54.8	C2

One of the following codes, as appropriate, has been allocated to each of the observations made above to indicate to the person(s) responsible for the installation the degree of urgency for remedial action.

C1 - Danger present. Risk of injury. Immediate remedial action required	<input type="text"/> 0
C2 - Potentially dangerous - urgent remedial action required	<input type="text"/> 1
C3 - Improvement recommended	<input type="text"/> 0
FI - Further investigation required without delay	<input type="text"/> 0

CONDITION REPORT INSPECTION SCHEDULE FOR DOMESTIC AND SIMILAR PREMISES WITH UP TO 100A SUPPLY

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Note: this form is suitable for many types of smaller installations, not exclusively domestic.

Outcomes	Acceptable condition	✓	Unacceptable condition	State C1 or C2	Improvement recommended	State C3	Further investigation	FI	Not verified	N/V	Limitation	LIM	Not applicable	N/A
Item No	Description										Outcome		Comments	
1.0	EXTERNAL CONDITION OF INTAKE EQUIPMENT (VISUAL INSPECTION ONLY)													
1.1	Service cable										✓		No	
1.2	Service head										✓		No	
1.3	Earthing arrangement										✓		No	
1.4	Meter tails										✓		No	
1.5	Metering equipment										✓		No	
1.6	Isolator (where present)										✓		No	
2.0	PRESENCE OF ADEQUATE ARRANGEMENTS FOR OTHER SOURCES SUCH AS MICROGENERATORS (551.6; 551.7)										✓		No	
3.0	EARTHING / BONDING ARRANGEMENTS (411.3; Chap 54)													
3.1	Presence and condition of distributor's earthing arrangement (542.1.2.1; 542.1.2.2)										✓		No	
3.2	Presence and condition of earth electrode connection where applicable (542.1.2.3)										✓		No	
3.3	Provision of earthing/bonding labels at all appropriate locations (514.13.1)										✓		No	
3.4	Confirmation of earthing conductor size (542.3; 543.1.1)										✓		No	
3.5	Accessibility and condition of earthing conductor at MET (543.3.2)										✓		No	
3.6	Confirmation of main protective bonding conductor sizes (544.1)										C2 (see section K)		Yes	
3.7	Condition and accessibility of main protective bonding conductor connections (543.3.2; 544.1.2)										✓		No	
3.8	Accessibility and condition of other protective bonding connections (543.3.1; 543.3.2)										✓		No	
4.0	CONSUMER UNIT(S) / DISTRIBUTION BOARD(S)													
4.1	Adequacy of working space/accessibility to consumer unit/distribution board (132.12; 513.1)										✓		No	
4.2	Security of fixing (134.1.1)										✓		No	
4.3	Condition of enclosure(s) in terms of IP rating etc (416.2)										✓		No	
4.4	Condition of enclosure(s) in terms of fire rating etc (421.1.201; 526.5)										✓		No	
4.5	Enclosure not damaged/deteriorated so as to impair safety (651.2)										✓		No	
4.6	Presence of main linked switch (as required by 462.1.201)										✓		No	
4.7	Operation of main switch (functional check) (643.10)										LIM		No	
4.8	Manual operation of circuit-breakers and RCDs to prove disconnection (643.10)										✓		No	
4.9	Correct identification of circuit details and protective devices (514.8.1; 514.9.1)										✓		No	
4.10	Presence of RCD six-monthly test notice at or near consumer unit/distribution board (514.12.2)										✓		No	
4.11	Presence of non-standard (mixed) cable colour warning notice at or near consumer unit/distribution board (514.14)										✓		No	
4.12	Presence of alternative supply warning notice at or near consumer unit/distribution board (514.15)										✓		No	
4.13	Presence of other required labelling (please specify) (Section 514)										N/A		No	
4.14	Compatibility of protective devices, bases and other components; correct type and rating (No signs of unacceptable thermal damage, arcing or overheating) (411.3.2; 411.4; 411.5; 411.6; Sections 432, 433)										✓		No	
4.15	Single-pole switching or protective devices in line conductor only (132.14.1; 530.3.3)										✓		No	
4.16	Protection against mechanical damage where cables enter consumer unit/distribution board (132.14.1; 522.8.1; 522.8.5; 522.8.11)										✓		No	
4.17	Protection against electromagnetic effects where cables enter consumer unit/distribution board/enclosures (521.5.1)										✓		No	
4.18	RCD(s) provided for fault protection - includes RCBOs (411.4.204; 411.5.2; 531.2)										N/A		No	
4.19	RCD(s) provided for additional protection/requirements - includes RCBOs (411.3.3; 415.1)										✓		No	
4.20	Confirmation of indication that SPD is functional (651.4)										N/A		No	
4.21	Confirmation that ALL conductor connections, including connections to busbars, are correctly located in terminals and are tight and secure (526.1)										✓		No	
4.22	Adequate arrangements where a generating set operates as a switched alternative to the public supply (551.6)										✓		No	
4.23	Adequate arrangements where a generating set operates in parallel with the public supply (551.7)										✓		No	
5.0	FINAL CIRCUITS													
5.1	Identification of conductors (514.3.1)										✓		No	
5.2	Cables correctly supported throughout their run (521.10.202; 522.8.5)										✓		No	
5.3	Condition of insulation of live parts (416.1)										✓		No	

CONDITION REPORT INSPECTION SCHEDULE FOR DOMESTIC AND SIMILAR PREMISES WITH UP TO 100A SUPPLY CONTINUED

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Note: this form is suitable for many types of smaller installations not exclusively domestic.

Outcomes	Acceptable condition	✓	Unacceptable condition	State C1 or C2	Improvement recommended	State C3	Further investigation	FI	Not verified	N/V	Limitation	LIM	Not applicable	N/A
Item No	Description										Outcome			Comments
5.0	FINAL CIRCUITS (Continued)													
5.4	Non-sheathed cables protected by enclosure in conduit, ducting or trunking (521.10.1)										✓			No
5.4.1	To include the integrity of conduit and trunking systems (metallic and plastic)										✓			No
5.5	Adequacy of cables for current-carrying capacity with regard for the type and nature of installation (Section 523)										✓			No
5.6	Coordination between conductors and overload protective devices (433.1; 533.2.1)										✓			No
5.7	Adequacy of protective devices: type and rated current for fault protection (411.3)										✓			No
5.8	Presence and adequacy of circuit protective conductors (411.3.1; Section 543)										✓			No
5.9	Wiring system(s) appropriate for the type and nature of the installation and external influences (Section 522)										✓			No
5.10	Concealed cables installed in prescribed zones (see Section D. Extent and limitations) (522.6.202)										LIM			No
5.11	Cables concealed under floors, above ceilings or in walls/partitions, adequately protected against damage (see Section D. Extent and limitations) (522.6.204)										LIM			No
5.12	Provision of additional requirements for protection by RCD not exceeding 30 mA:													
5.12.1	For all socket-outlets of rating 32 A or less, unless an exception is permitted (411.3.3)										✓			No
5.12.2	For the supply of mobile equipment not exceeding 32 A rating for use outdoors (411.3.3)										✓			No
5.12.3	For cables concealed in walls at a depth of less than 50 mm (522.6.202; 522.6.203)										✓			No
5.12.4	For cables concealed in walls/partitions containing metal parts regardless of depth (522.6.203)										✓			No
5.12.5	Final circuits supplying luminaires within domestic (household) premises (411.3.4)										N/A			No
5.13	Provision of fire barriers, sealing arrangements and protection against thermal effects (Section 527)										LIM			No
5.14	Band II cables segregated/separated from Band I cables (528.1)										✓			No
5.15	Cables segregated/separated from communications cabling (528.2)										✓			No
5.16	Cables segregated/separated from non-electrical services (528.3)										✓			No
5.17	Termination of cables at enclosures - indicate extent of sampling in Section D of the report (Section 526)													
5.17.1	Connections soundly made and under no undue strain (526.6)										✓			No
5.17.2	No basic insulation of a conductor visible outside enclosure (526.8)										✓			No
5.17.3	Connections of live conductors adequately enclosed (526.5)										✓			No
5.17.4	Adequately connected at point of entry to enclosure (glands, bushes etc.) (522.8.5)										✓			No
5.18	Condition of accessories including socket-outlets, switches and joint boxes (651.2(v))										✓			No
5.19	Suitability of accessories for external influences (512.2)										✓			No
5.20	Adequacy of working space/accessibility to equipment (132.12; 513.1)										✓			No
5.21	Single-pole switching or protective devices in line conductors only (132.14.1;530.3.3)										✓			No
6.0	LOCATION(S) CONTAINING A BATH OR SHOWER													
6.1	Additional protection for all low voltage (LV) circuits by RCD not exceeding 30 mA (701.411.3.3)										N/A			No
6.2	Where used as a protective measure, requirements for SELV or PELV met (701.414.4.5)										N/A			No
6.3	Shaver sockets comply with BS EN 61558-2-5 formerly BS 3535 (701.512.3)										N/A			No
6.4	Presence of supplementary bonding conductors, unless not required by BS 7671:2018 (701.415.2)										N/A			No
6.5	Low voltage (e.g. 230 volt) socket-outlets sited at least 3 m from zone 1 (701.512.3)										N/A			No
6.6	Suitability of equipment for external influences for installed location in terms of IP rating (701.512.2)										N/A			No
6.7	Suitability of accessories and controlgear etc. for a particular zone (701.512.3)										N/A			No
6.8	Suitability of current-using equipment for particular position within the location (701.55)										N/A			No
7.0	OTHER PART 7 SPECIAL INSTALLATIONS OR LOCATIONS													
7.1	List all other special installations or locations present, if any. (Record separately the results of particular inspections applied.)									Number of locations	0		No	

Inspected By

Name: Richard Johns

Date: 30/11/2021

Signature:



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	Main Switchroom (Main Building)	Supply to distribution board is from:	N/A
Distribution board designation	Main DB	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	N/A mA

Circuit Details

Circuit number and phase	Circuit designation	Type of wiring	Reference method	No of points served	Circuit conductors csa		Max permitted disconnection times (s)	Overcurrent protective device					RCD	Maximum permitted Zs (Ω)
					Live mm ²	cpc mm ²		BS(EN)	AFDD	Type	Rating (A)	Short circuit capacity (kA)		
1/TP	Not covered by This Report													
2/TP	Not covered by This Report													
3/TP	Not covered by This Report													
4/TP	Not covered by This Report													
5/TP	Sub Mains(DB 5)	F	D	2021	35	84	5	60947-2 MCCB			100	35	N/A	0.23
6/TP	Not covered by This Report													
7/TP	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
8/TP	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
9/TP	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
10/TP	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
11/TP	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
12/TP	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
13/TP	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
14/TP	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
15/TP	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
16/TP	Not covered by This Report													
17/L1	Not covered by This Report													
17/L2	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
17/L3	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
18/TP	Not covered by This Report													

Wiring Code

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

Board Tests

TO BE COMPLETED IN EVERY CASE		TEST INSTRUMENTS (SERIAL NUMBERS) USED	
Correct supply polarity confirmed <input checked="" type="checkbox"/>	Phase sequence confirmed (where appropriate) <input checked="" type="checkbox"/>	Earth fault loop impedance	3283060 RCD 3283060
Supplementary Conductors <input checked="" type="checkbox"/>		Insulation resistance	3283060 Multi-function N/A
ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION		Continuity	3283060 Other N/A
Zs N/A Ω Ipf N/A kA			
Operating times of associated RCD (if any) At I Δ n N/A ms			

Details of circuits and/or equipment vulnerable to damage

N/A

Circuit Tests

Circuit number and phase	Circuit Impedances Ω					Insulation resistance					Polarity (v)	Maximum measured earth fault loop impedance Ω	RCD		AFDD Test button operation	Remarks see continuation sheet
	Ring final circuits only (measure end to end)			All circuits (At least one column to be completed)		Test Voltage	Live/ Live MΩ	Live/ Neutral MΩ	Live/ Earth MΩ	Earth/ Neutral MΩ			Disconnection time (ms)	Test button operation		
	r ₁ (Line)	r _n (Neutral)	r ₂ (cpc)	(R ₁ + R ₂)	(R ₂)											
1/TP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
2/TP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
3/TP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
4/TP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
5/TP	N/A	N/A	N/A	N/A	N/A	LIM	N/A	N/A	LIM	N/A	✓	0.09	N/A	N/A		NO
6/TP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
7/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16/TP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
17/L1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
17/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18/TP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO

Tested By

Signature



Position

Grade 1 Test Engineer

Name

Richard Johns

Date of testing

03/12/2021

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	Store Cupboard Biology Building.	Supply to distribution board is from:	SubMains(Main DB, 5/TP)
Distribution board designation	DB 5	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	N/A mA

Circuit Details

Circuit number and phase	Circuit designation	Type of wiring	Reference method	No of points served	Circuit conductors csa		Max permitted disconnection times (s)	Overcurrent protective device					RCD	Maximum permitted Zs (Ω)
					Live mm ²	cpc mm ²		BS(EN)	AFDD	Type	Rating (A)	Short circuit capacity (kA)	Operating current (Δn)	
1/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-
2/L1	Biology Lab A/C unit- As Marked	A	C		6	6	0.4	60898 MCB		B	32	10	N/A	1.37
2/L2	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
2/L3	Cleanser Sockets Biology Lab Cabinet	A	C	2021	4	4	0.4	61009 RCD/RCBO		C	32	10	30	0.68
3/L1	Server FCU- As Marked	A	C		2x2.5	2x1.5	0.4	60898 MCB		B	16	10	N/A	2.73
3/L2	Door Entry FCU	A	B	2021	2.5	1.5	0.4	60898 MCB		B	6	10	N/A	7.28
3/L3	Instrument room A/C- As Marked	A	B		6	6	0.4	60898 MCB		B	32	10	N/A	1.37
4/TP	Biology Lab Cleanser	H	C	2021	2.5	2.5	0.4	60898 MCB		B	16	10	N/A	2.73
5/L1	Sec/ Alarm- As Marked	A	B		2x2.5	2x1.5	0.4	60898 MCB		B	16	10	N/A	2.73
5/L2	Biology & Instrument room Htr FCU's.	A	B	2021	4	1.5	0.4	60898 MCB		B	20	10	N/A	2.19
5/L3	Instrument room sockets.	A	B	2021	2x2.5	2x1.5	0.4	61009 RCD/RCBO		C	32	10	30	0.68
6/L1	Biology Lab PC area & Office	A	B	2021	2x2.5	2x1.5	0.4	61009 RCD/RCBO		C	32	10	30	0.68
6/L2	Science Lab Office sockets	A	B	2021	2x2.5	2x1.5	0.4	61009 RCD/RCBO		C	32	10	30	0.68
6/L3	Biology Lab & Store sockets	A	B	2021	2x2.5	2x1.5	0.4	61009 RCD/RCBO		C	32	10	30	0.68
7/L1	Lights instrument room- As Marked	A	B		1.5	1	0.4	60898 MCB		B	6	10	N/A	7.28
7/L2	Lights Corridor, toilets, store, Biology Lab- As Marked	A	B		1.5	1	0.4	60898 MCB		B	6	10	N/A	7.28
7/L3	Lights Biology Lab, office & science office- As Marked	A	B	2017	1.5	1	0.4	60898 MCB		B	6	10	N/A	7.28
8/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-
9/L1	3x LED flood lights to rear- As Marked	A	B	2017	1	1	0.4	60898 MCB		C	6	10	N/A	3.64
9/L2	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
9/L3	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
10/TP	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
11/TP	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-
12/TP	Way Not Available	-	-	-	-	-	-	-	-	-	-	-	-	-

Wiring Code

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

Board Tests

TO BE COMPLETED IN EVERY CASE		TEST INSTRUMENTS (SERIAL NUMBERS) USED	
Correct supply polarity confirmed <input checked="" type="checkbox"/>	Phase sequence confirmed (where appropriate) <input checked="" type="checkbox"/>	Earth fault loop impedance	N/A RCD 3283060
Supplementary Conductors <input checked="" type="checkbox"/>		Insulation resistance	3283060 Multi-function N/A
ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION		Continuity	3283060 Other N/A
Zs 0.09 Ω	Ipf 3.2 kA		
Operating times of associated RCD (if any) At IΔn N/A ms			

Details of circuits and/or equipment vulnerable to damage

N/A

Circuit Tests

Circuit number and phase	Circuit Impedances Ω					Insulation resistance					Polarity (V)	Maximum measured earth fault loop impedance Ω	RCD		AFDD Test button operation	Remarks see continuation sheet
	Ring final circuits only (measure end to end)			All circuits (At least one column to be completed)		Test Voltage	Live/ Live MΩ	Live/ Neutral MΩ	Live/ Earth MΩ	Earth/ Neutral MΩ			Disconnection time (ms)	Test button operation		
	r ₁ (Line)	r _n (Neutral)	r ₂ (cpc)	(R ₁ + R ₂)	(R ₂)											
1/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/L1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
2/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/L3	N/A	N/A	N/A	N/A	N/A	500	N/A	N/A	299	N/A	✓	0.53	31/30	✓		NO
3/L1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
3/L2	N/A	N/A	N/A	N/A	N/A	500	N/A	N/A	299	N/A	✓	0.27	N/A	N/A		NO
3/L3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
4/TP	N/A	N/A	N/A	N/A	N/A	500	N/A	N/A	299	N/A	✓	0.31	N/A	N/A		NO
5/L1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
5/L2	N/A	N/A	N/A	N/A	N/A	500	N/A	N/A	299	N/A	✓	0.35	N/A	N/A		NO
5/L3	N/A	N/A	N/A	N/A	N/A	500	N/A	N/A	299	N/A	✓	0.34	33/31	✓		NO
6/L1	N/A	N/A	N/A	N/A	N/A	500	N/A	N/A	299	N/A	✓	0.4	33/31	✓		NO
6/L2	N/A	N/A	N/A	N/A	N/A	500	N/A	N/A	299	N/A	✓	0.43	32/30	✓		NO
6/L3	N/A	N/A	N/A	N/A	N/A	500	N/A	N/A	299	N/A	✓	0.51	34/31	✓		NO
7/L1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
7/L2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
7/L3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
8/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/L1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A		NO
9/L2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/L3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Tested By

Signature		Position	Grade 1 Test Engineer
Name	Richard Johns	Date of testing	03/12/2021

Supply Characteristics and Earthing Arrangements				Type of supply:				Supply protective device characteristics			
System Type(s)		Number and Type of Live Conductors		Generator				BS(EN)			
TN-S	N/A	a.c.	<input checked="" type="checkbox"/>	d.c.	<input checked="" type="checkbox"/>			LIM			
TN-C-S	<input checked="" type="checkbox"/>	1-Phase (2 wire)	N/A	1-Phase (3 wire)	N/A	2 Pole	N/A	Type			
TN-C	N/A	2-Phase (3 wire)	N/A	3 Pole	N/A			N/A			
TT	N/A	3-Phase (3 wire)	N/A	3-Phase (4 wire)	<input checked="" type="checkbox"/>	Other	N/A	Nominal current rating			
IT	N/A	Other	N/A					N/A A			
				Nature of Supply Parameters				Short circuit Capacity			
				Nominal Voltage	U	400	V	U _o	230	V	
				Nominal frequency	f	50	Hz				
				Prospective fault current	I _{pf}	N/A	kA	N/A kA			
				External loop impedance	Z _e	N/A	Ω	Confirmation of Polarity			
								N/A			
Particulars of Installation Referred to in the Certificate											
Means of Earthing		Details of Installation Earth Electrode (where applicable)									
Distributor's facility	<input checked="" type="checkbox"/>	Type (eg rod(s), tape etc)	N/A			Location		N/A			
Installation earth electrode	N/A	Electrode resistance, R _A	N/A Ω			Method of measurement		N/A			
Main Switch or Circuit-Breaker				Maximum Demand (load)		Protective measure(s) against electric shock					
				N/A Amps		ADS					
Type BS(EN)				60947-2							
Voltage Rating				400 V							
No. of poles				3							
Current Rating				400 A							
Supply Conductors material				Copper							
Supply Conductors CSA				120 mm ²							
RCD operating current, I _{Δn}				N/A mA							
RCD operating time at, I _{Δn}				N/A ms							
				Earthing and Protective Bonding Conductors							
				Earthing Conductor			Main protective bonding conductors				
				material: Copper			material: Copper				
				csa: 10 mm ²			csa 10 mm ²				
				Continuity verified <input checked="" type="checkbox"/>			Continuity verified <input checked="" type="checkbox"/>				
				Connection verified <input checked="" type="checkbox"/>			Connection verified <input checked="" type="checkbox"/>				
				Bonding of extraneous conductors							
				Water installation pipes		N/A		Gas installation pipes		<input checked="" type="checkbox"/>	
				Oil installation pipes		N/A		Structural steel		N/A	
				Other incoming service		N/A		N/A		Please state	
Comments on Existing Installation											
Where appropriate comments on the existing installation are to be found on page(s)											
None											

Extent of Electrical Installation covered by this report, Continued. from page 1

To provide detailed results of the areas detailed as (Biology Lab) supplemented by a risk based approach to final circuit testing. Inspection & Testing undertaken in accordance with IET Guidance Note 3.

With the exception of those circuits whose designation have been confirmed (as detailed with the inclusion of tests), it should be observed that all other circuit details are 'as marked' and may not be relied upon for their accuracy.

The test result sheet columns entitled 'Number of points served' specifies the year of test of that circuit.

Agreed limitations including the reasons, Continued. from page 1

Powertest Ltd were not responsible for the design or installations of the electrical system covered by this report and are therefore not responsible for any of these aspects of work over which they have no control.

Cables concealed within trunking and conduits or cables and conduits concealed under floors in roof spaces and generally within the fabric of the building or underground have not been inspected.

The inspection and testing of installed machinery is limited to: -

- a. An external visual inspection for electrical safety excluding all control and operational functions.
- b. Earth continuity test to all exposed conductive parts.

Unless otherwise requested the following specialist areas will be subject to separate contracts and will not therefore form part of the inspection and test.

- a. Emergency lighting systems.
- b. Lightning protection systems.
- c. Lift installations.
- d. Potentially explosive atmosphere installations.
- e. High level parts of the fixed installation and other parts of the installation not normally accessible without specialised equipment.
- f. Examination of machinery.
- g. H.V. Power Systems i.e. in excess of 1000 volts ac.
- h. Fire detection and alarm systems.
- i. Data/telecommunication systems.

The installation may have been completed to IET Wiring Regulations that predate the current edition. In this case recommendations may be made with regard to current safety standards.

Operational Limitations including the reasons, Continued. from page 1

- 1- Unable to isolate local server.
- 2- Unable to operate main switch or submains.
- 3- Unable to obtain details of primary over-current device.

- 4- Unable to isolate whole installation to perform Ze. Reading obtained with all earths connected.
- 5- Unable to remove main panel cover as unable to isolate panel.
- 6- Unable to perform insulation resistance on voltage sensitive equipment or circuits that was unable to be isolated at time of the inspection.
- 7- No accessories inspected behind furniture or large stored materials.
- 8- Circuits found isolated left isolated at time of inspection.

General condition of the installations (In terms of electrical safety), Continued. from page 1

Owing to the presence of C2 defects the installation is deemed to be in an Unsatisfactory condition until these are rectified because they are judged to have the potential to impair the safety of the installation.

You are reminded of your obligations under Regulation 4 of the Electricity at Work Regulations (EaWR) that specifies the requirement for electrical installation 'Maintenance'.

Approximately 53 % percentage of circuits have been tested for disconnection in the event of a fault has been re-validated.

CONDITION REPORT GUIDANCE FOR RECIPIENTS (to be appended to the Report)

This Report is an important and valuable document which should be retained for future reference.

1. The purpose of this Report is to confirm, so far as reasonably practicable, whether or not the electrical installation is in a satisfactory condition for continued service (see Section E). The Report should identify any damage, deterioration, defects and/or conditions which may give rise to danger (see Section K).
2. The person ordering the Report should have received the 'original' Report and the inspector should have retained a duplicate.
3. The 'original' Report should be retained in a safe place and be made available to any person inspecting or undertaking work on the electrical installation in the future. If the property is vacated, this Report will provide the new owner/occupier with details of the condition of the electrical installation at the time the Report was issued.
4. Where the installation incorporates a residual current device (RCD) there should be a notice at or near the device stating that it should be tested six-monthly. **For safety reasons it is important that this instruction is followed.**
5. Section D (Extent and Limitations) should identify fully the extent of the installation covered by this Report and any limitations on the inspection and testing. The inspector should have agreed these aspects with the person ordering the Report and with other interested parties (licensing authority, insurance company, mortgage provider and the like) before the inspection was carried out.
6. Some operational limitations such as inability to gain access to parts of the installation or an item of equipment may have been encountered during the inspection. The inspector should have noted these in Section D.
7. For items classified in Section K as C1 ('Danger present'), **the safety of those using the installation is at risk**, and it is recommended that a skilled person or persons competent in electrical installation work undertakes the necessary remedial work immediately.
8. For items classified in Section K as C2 ('Potentially dangerous'), **the safety of those using the installation may be at risk** and it is recommended that a skilled person or persons competent in electrical installation work undertakes the necessary remedial work as a matter of urgency.
9. Where it has been stated in Section K that an observation requires further investigation (code FI) the inspection has revealed an apparent deficiency which may result in a code C1 or C2, and could not, due to the extent or limitations of the inspection, be fully identified. Such observations should be investigated without delay. A further examination of the installation will be necessary, to determine the nature and extent of the apparent deficiency (see Section F).
10. For safety reasons, the electrical installation should be re-inspected at appropriate intervals by a skilled person or persons, competent in such work. The recommended date by which the next inspection is due is stated in Section F of the Report under 'Recommendations' and on a label at or near to the consumer unit/distribution board.