

John Berwick Electrical

Electrical Installation Condition Report

(Requirements for Electrical Installations – BS 7671 IET 18th Edition Wiring Regulations)

A. DETAILS OF THE CLIENT OR PERSON ORDERING THE WORK

Name: LMC Properties Scotland LTD

Address: 21 Annfield Court , Kirkmuirhill, Lanark, ML11 9PR Email: N/A

B. REASON FOR PRODUCING THIS REPORT

Landlord ready to rent property

Date(s) inspection and testing carried out:

09/12/2023

C. DETAILS OF THE INSTALLATION WHICH IS THE SUBJECT OF THIS REPORT

Occupier:

Address: 21 Annfield Court Kirkmuirhill Lanark M11 9PR

Description of premises: Domestic N/A Commercial N/A Industrial N/A Other, please specify :

Estimated age of the wiring system 18+ **Years** **Evidence of additions or alterations** N/A **Yes** **No** N/A **Not apparent**

Installation records available? (Regulation 621.1) **Yes** N/A **No** **Date of last inspection** **If yes, estimated age** **years** Alternative source of supply (as described in attached schedule if applicable) N/A

D. EXTENT AND LIMITATIONS OF INSPECTION AND TESTING

The inspection and testing detailed in this report and accompanying schedules have been carried out in accordance with BS 7671 as amended

Extent of the electrical installation covered by this report Full electrical installation

Agreed limitations including the reasons, see Regulations 653.2

Cables concealed in ceiling, wall and floor spaces

Limitations agreed with

N/A

Position (if applicable)

N/A

Operational limitations including the reasons

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 accessible roof space housing other electrical equipment.

E. SUMMARY OF THE CONDITION OF THE INSTALLATION

General condition of the installation (in terms of electrical safety)

Very good working order

Overall assessment of the installation in terms of its suitability for continued use:

SATISFACTORY

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 on page 1 is stated as UNSATISFACTORY, I/we 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' (FI) Observations classified as 'improvement recommended' (Code C3) should be given due consideration.

Subject to the necessary remedial action being taken, I/we recommend that the installation is further inspected and tested by

09/12/2028

G. DECLARATION

I/We, being the person(s) responsible for the inspection and testing 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 inspection and testing, hereby declare that the information in this report, including the observations and the 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.

INSPECTED AND TESTED BY:

Name (CAPITALS) NICKY WEIR

Signature *NICKY WEIR*

Position Approved Electrician Date 09/12/2023

Contact Tel **07557878499**

Email

Web

REPORT AUTHORISED FOR ISSUE BY:

Contractor John Berwick Electrical

Address 1 Dalbeattie Drive
Blantyre
G720WJ

Name Nicky Weir

Signature *NICKY WEIR*

ENROLMENT NO (If applicable)

Date 09/12/2023

H. SCHEDULES

The attached schedule(s) are part of this document and this report is valid only when they are attached to it

Schedule(s) of inspection and

Schedule(s) of test results attached

I. SUPPLY CHARACTERISTICS AND EARTHING ARRANGEMENTS

Earthing Arrangements(s)	Number and Type of Live Conductors				Nature of Supply Parameters			Characteristics of Primary Over current Protective Device(s)	
<input type="checkbox"/> N/A TN-S	<input checked="" type="checkbox"/> AC			<input type="checkbox"/> DC	Nominal voltage U (o)	230	Volts	BS (EN)	BS 1361
<input type="checkbox"/> N/A TN-C-S	<input type="checkbox"/> 1 phase (2 wire)			<input type="checkbox"/> 2 wire	Nominal frequency f (1)	50	Hz	Type	Fuse HBC - Type 2
<input type="checkbox"/> N/A TT	<input type="checkbox"/> 2 phase (3 wire)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 1 phase (3 wire)	<input type="checkbox"/> 3 wire	PFC Ipf (1,2)	1.2	kA	Rated current	100
<input type="checkbox"/> N/A IT					External loop impedance	0.19	Ω	Short circuit capacity	33
<input type="checkbox"/> N/A TN-C	<input type="checkbox"/> 3 phase (3 wire)	<input type="checkbox"/> 3 phase (4 wire)	<input type="checkbox"/> Other		Note: (1) by enquiry (2) by enquiry or by measurement			Confirmation of Supply Polarity	<input checked="" type="checkbox"/>

J. PARTICULARS OF INSTALLATION REFERRED TO IN THIS REPORT

Means of earthing	<input checked="" type="checkbox"/>	Distributor's facility	Type	N/A	Resistance to earth	N/A	Ω
	<input type="checkbox"/>	Installation earth electrode	Location of the earth electrode (Where applicable)		N/A		

MAIN PROTECTIVE CONDUCTORS (to extraneous conductive parts)

MAIN SWITCH/SWITCH-FUSE/CIRCUIT BREAKER/RCD

Earthing Conductor		Main protective bonding conductor		Main Bonding					
Conductor Material	Copper	Conductor Material	Copper	<input type="checkbox"/> N/A Water installation pipes	<input type="checkbox"/> N/A Structural steel	Type BS (EN)	60947-3	Voltage rating	230 V
Conductor Csa mm ²	16	Conductor Csa mm ²	10	<input checked="" type="checkbox"/> Gas installation pipes	<input type="checkbox"/> N/A Other (specify)	No of poles	2	Current Rating	100 A
Connection/continuity verified	<input checked="" type="checkbox"/>	Connection/continuity verified	<input checked="" type="checkbox"/>	<input type="checkbox"/> N/A Oil installation pipes		Supply Conductor	Copper	*Rated time delay	N/A ms
						Conductor csa mm ²	16	*Rated RCD Operating current	N/A mA
						* If RCD main switch		*RCD Operating time	N/A ms

DISTRIBUTION BOARD DETAILS FOR 21 Annfield Court Kirkmuirhill M11 9PR

DB ref:	DB2	Zs at this board (Ω):	0.28	lpf at this board (kA):	1.2	Main switch type BSEN	60947	Rating:	100	A	SPD Type(s)	Supply	16	mm ²	Earth:	16	mm ²
Distribution board location:	Front door	Phase Sequence Confirmed (where appropriate)	✓	Supplied from:	Mains	No. Of phases:	Single	Supply protective device type BSEN reference:	BS 1361 Type 2b	Rating:	100	Amps					

CIRCUIT DETAILS TEST RESULTS

Circuit reference	Circuit designation	Type of wiring	Reference method	Number of points served	Circuit conductors		Max disconnection time	Overcurrent protective device					RCD				Continuity Ω					Insulation resistance					Polarity	Maximum measured Zs Ω	RCD		AFDD
					Live (mm ²)	cpc (mm ²)		Type BS (EN)	Type	Rating	Breaking capacity (kA)	80% Max permitted Zs (Ω)	Type BS (EN)	Type	IΔn (mA)	Rating (A)	Ring final circuits only (measured end to end)			All circuits (At least 1 column to be completed)		Test voltage V	Live - Live (MΩ)	Live - Neutral (MΩ)	Live - Earth (MΩ)	Neutral - Earth (MΩ)			Disconnection time (ms)	Test button/functionality	
																	r ₁ (line)	r _n (neutral)	r ₂ (cpc)	(R ₁ + R ₂)	R ₂										

1	Bedroom Panel heater	A	C		2.5	1.5	0.4	60898	B	16	6	2.3	N/A	N/A	N/A	N/A	N/A	N/A	0.31	N/A	500	>500	>500	>500	>500	✓	0.50	N/A	✓	
2	Bedroom Panel heater	A	C		2.5	1.5	0.4	60898	B	16	6	2.30	N/A	N/A	N/A	N/A	N/A	N/A	0.33	N/A	500	>500	>500	>500	>500	✓	0.52	N/A	✓	
3	Toilet heater	A	C		2.5	1.5	0.4	60898	B	16	6	2.3	N/A	N/A	N/A	N/A	N/A	N/A	0.34	N/A	500	>500	>500	>500	>500	✓	0.53	N/A	✓	
4	Living room convactor heater	A	C		2.5	1.5	0.4	60898	B	16	6	2.3	N/A	N/A	N/A	N/A	N/A	N/A	0.29	N/A	500	>500	>500	>500	>500	✓	0.48	N/A	✓	
5	Water heater	A	C		2.5	1.5	0.4	60898	B	16	6	2.3	N/A	N/A	N/A	N/A	N/A	N/A	0.36	N/A	500	>500	>500	>500	>500	✓	0.55	N/A	✓	
6	Shower	A	C		6	2.5	0.4	60898	B	40	6	0.92	N/A	N/A	N/A	N/A	N/A	N/A	0.22	N/A	500	>500	>500	>500	>500	✓	0.41	N/A	✓	
7	OFF PEAK MAIN SWITCH								N/A				N/A	N/A	500	N/A				✓		N/A	✓							
8	Lounge storage heater	A	C		2.5	1.5	0.4	60898	B	16	6	2.3	N/A	N/A	N/A	N/A	N/A	N/A	0.31	N/A	500	>500	>500	>500	>500	✓	0.50	N/A	✓	
9	Kitchen storage heater	A	C		2.5	1.5	0.4	60898	B	16	6	2.3	N/A	N/A	N/A	N/A	N/A	N/A	0.34	N/A	500	>500	>500	>500	>500	✓	0.53	N/A	✓	
10	Hall storage heater	A	C		2.5	1.5	0.4	60898	B	16	6	2.3	N/A	N/A	N/A	N/A	N/A	N/A	0.27	N/A	500	>500	>500	>500	>500	✓	0.46	N/A	✓	
11	Water heater off peak	A	C		2.5	1.5	0.4	60898	B	16	6	2.3	N/A	N/A	N/A	N/A	N/A	N/A	0.39	N/A	500	>500	>500	>500	>500	✓	0.58	N/A	✓	

Not all SPDs have visible functionality indication. RCD effectiveness is verified using an alternating current test at rated residual operating current (I_{an}). Not all AFDDs have a test button

TEST INSTRUMENTS USED

Earth fault loop impedance TIS MFT Eco

RCD ""

Insulation resistance 20010610

MFT ""

Continuity ""

Other N/A

Inspected by:

Signature



Name
(CAPITALS)

NICKY WEIR

Date of
inspection

09/12/2023

EICR IMAGES

Engineers optional images of C1 or C2 observations if applicable



N. INSPECTION SCHEDULE FOR A DISTRIBUTION BOARD INSTALLATION

Outcomes	Acceptable Condition ✓ ■	Unacceptable condition C1 or C2 ■	Improvement recommended C3 ■	Further investigation: FI ■	Not Verified: NV	Limitation: LIM	Not Applicable: N/A
ITEM	DESCRIPTION						OUTCOME
	(Use codes above. Provide additional comment where appropriate. C1, C2, C3 and FI coded items to be recorded in Section K of the Condition Report)						
1.0	INTAKE EQUIPMENT (VISUAL INSPECTION ONLY) An outcome against an item in this section, other than access to live parts, should not be used to determine the overall outcome						
1.1	Condition of service cable						✓
	Condition of service head						✓
	Condition of distributor's earthing arrangement						✓
	Condition of meter tails - Distributor/Consumer						✓
	Condition of metering equipment isolator (where present)						N/A
	Condition of isolator (where present)						✓
2.0	PRESENCE OF ADEQUATE ARRANGEMENTS FOR OTHER SOURCES SUCH AS MICROGENERATORS (551.6; 551.7)						N/A
3.0	EARTHING AND BONDING ARRANGEMENTS (411.3, Chapter 54)						
3.1	Presence and condition of distributor's earthing arrangement (542.1.2.1; 542.1.2.2)						✓
3.2	Presence and condition of earth electrode connection where applicable (542.1.2.3)						N/A
3.3	Provision of earthing/bonding labels at all appropriate locations (514.13)						✓
3.4	Adequacy of earthing conductor size (542.3, 543.1.1)						✓
3.5	Accessibility and condition of earthing conductor at MET (543.3.2)						✓
3.6	Adequacy of main protective bonding conductor sizes (544.1)						✓
3.7	Condition and accessibility of main protective bonding conductor connections (411.3.1.2; 543.3.2; 544.1.2)						✓
3.8	Accessibility and condition of other protective bonding connections (543.3.1; 543.3.2)						✓
4.0	CONSUMER UNIT OR DISTRIBUTION BOARD						
4.1	Adequacy of working space / accessibility to consumer unit / distribution board (132.12; 513.1)						✓
4.2	Security of fixing (134.1.1)						✓
4.3	Condition of enclosure(s) in terms of IP rating etc (416.2)						✓
4.4	Condition of enclosure(s) in terms of fire rating etc (421.1.201; 526.5)						C3
4.5	Enclosure not damaged or deteriorated so as to impair safety (651.2)						✓
4.6	Presence of main linked switch (as required by 462.1.201)						✓
4.7	Operation of main switch - (functional check) (643.10)						✓
4.8	Manual operation of circuit breakers and RCDs to prove disconnection (643.10)						C3
4.9	Correct identification of circuit details and protective devices (514.8.1; 514.9.1)						✓
4.10	Presence of RCD six-monthly test notice, where required (514.12.2)						✓
4.11	Presence of alternative supply warning notice at or near consumer unit/distribution board (514.15)						✓
4.12	Presence of other required labelling (please specify) (Section 514)						✓
4.13	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)						✓

N. INSPECTION SCHEDULE FOR A DISTRIBUTION BOARD INSTALLATION										
Outcomes	Acceptable Condition ✓ 	Unacceptable condition C1 or C2 	Improvement recommended C3 	Further investigation: FI 	Not Verified: NV	Limitation: LIM	Not Applicable: N/A			
ITEM	DESCRIPTION						OUTCOME <small>(Use codes above. Provide additional comment where appropriate. C1, C2, C3 and FI coded items to be recorded in Section K of the Condition Report)</small>			
4.14	Single-pole switching or protective devices in line conductor only (132.14.1; 530.3.3)						✓			
4.15	Protection against mechanical damage where cables enter consumer unit/distribution board (522.8.1; 522.8.5; 522.8.11)						✓			
4.16	Protection against electromagnetic effects where cables enter consumer unit/distribution board/enclosures (521.5.1)						✓			
4.17	RCD(s) provided for fault protection - includes RCBOs (411.4.204; 411.5.2; 531.2)						✓			
4.18	RCD(s) provided for additional protection/requirements - includes RCBOs (411.3.3; 415.1)						✓			
4.19	Confirmation of indication that SPD is functional (651.4)						C3			
4.20	Confirmation that ALL conductor connections, including connections to busbars, are correctly located in terminals and are tight and secure (526.1)						✓			
4.21	Adequate arrangements where a generating set operates as a switched alternative to the public supply (551.6)						✓			
4.22	Adequate arrangements where a generating set operates in parallel with the public supply (551.7)						✓			
5.0	FINAL CIRCUITS									
5.1	Identification of conductors (514.3.1)						✓			
5.2	Cables correctly supported throughout their run (521.10.202; 522.8.5)						✓			
5.3	Condition of the insulation of live parts (416.1)						✓			
5.4	Non-sheathed cables protected by enclosure in conduit, ducting or trunking (521.10.1) To include the integrity of conduit and trunking systems (metallic and plastic)						✓			
5.5	Adequacy of cables for current-carrying capacity with regard for the type and nature of installation (Section 523)						✓			
5.6	Coordination between conductors and overload protective devices (433.1; 533.2.1)						✓			
5.7	Adequacy of protective devices: type and rated current for fault protection (411.3)						✓			
5.8	Presence and adequacy of circuit protective conductors (411.3.1; Section 543)						✓			
5.9	Wiring system(s) appropriate for the type and nature of the installation and external influences (section 522)						✓			
5.10	Concealed cables installed in prescribed zones (see Section D. Extent and limitations) (522.6.202)						LIM			
5.11	Concealed cables incorporating earthed armour or sheath, or run within earthed wiring system, or otherwise protected against mechanical damage from nails, screws and the like (see Section D. Extent and limitations) (522.6.204)						LIM			
5.12	Provision of additional requirements for protection by RCD not exceeding 30 mA									
*	For all socket-outlets of rating 32 A or less, unless an exception is permitted (411.3.3)						N/A			
*	For the supply of mobile equipment not exceeding 32 A rating for use outdoors (411.3.3)						N/A			
*	For cables concealed in walls at a depth of less than 50 mm (522.6.202; 522.6.203)						C3			
*	For cables concealed in walls/partitions containing metal parts regardless of depth (522.6.203)						N/A			
*	Final circuits supplying luminaires within domestic (household) premises (411.3.4)						✓			
5.13	Provision of fire barriers, sealing arrangements and protection against thermal effects (Section 527)						N/A			
5.14	Band II cables segregated or separated from Band I cables (528.1)						N/A			
5.15	Cables segregated or separated from communication cabling (528.2)						N/A			
5.16	Cables segregated or separated from non-electrical services (528.3)						N/A			

N. INSPECTION SCHEDULE FOR A DISTRIBUTION BOARD INSTALLATION

Outcomes	Acceptable Condition ✓ ■	Unacceptable condition C1 or C2 ■	Improvement recommended C3 ■	Further investigation: FI ■	Not Verified: NV	Limitation: LIM	Not Applicable: N/A
ITEM	DESCRIPTION						OUTCOME
							(Use codes above. Provide additional comment where appropriate. C1, C2, C3 and FI coded items to be recorded in Section K of the Condition Report)
5.17	Termination of cables at enclosures – indicate extent of sampling in Section D of the report (Section 526)						
*	Connections soundly made and under no undue strain (526.6)						✓
*	No basic insulation of a conductor visible outside enclosure (526.8)						✓
*	Connections of live conductors adequately enclosed (526.5)						✓
*	Adequately connected at the point of entry to enclosure (glands, bushes etc) (522.8.5)						✓
5.18	Condition of accessories including socket-outlets, switches and joint boxes (651.2(v))						✓
5.19	Suitability of accessories for external influences (512.2)						✓
5.20	Adequacy of working space/accessibility to equipment (132.12; 513.1)						✓
5.21	Single-pole switching or protective devices in line conductors only (132.14.1, 530.3.2)						✓
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
6.2	Where used as a protective measure, requirements for SELV or PELV met (701.414.4.5)						✓
6.3	Shaver supply units comply with BS EN 61558-2-5 formerly BS 3535 (701.512.3)						N/A
6.4	Presence of supplementary bonding conductors, unless not required by BS 7671:2018 (701.415.2)						N/A
6.5	Low voltage (e.g. 230 V) socket-outlets sited at least 2.5 m from zone 1 (701.512.3)						N/A
6.6	Suitability of equipment for external influences for installed location in terms of IP rating (701.512.2)						N/A
6.7	Suitability of equipment for installation in a particular zone (701.512.3)						✓
6.8	Suitability of current-using equipment for particular position within the location (701.55)						N/A
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)						N/A
8.0	PROSUMER'S LOW VOLTAGE ELECTRICAL INSTALLATION(S)						
8.1	Where the installation includes additional requirements and recommendations relating to Chapter 82, additional inspection items should be added to the checklist						N/A

*Special installations or locations present, if any. Details of circuits and/or installed equipment vulnerable to damage when testing and/or remarks

PROSUMERS LOW VOLTAGE INSTALLATION

Outcomes		Acceptable Condition ✓ 	Unacceptable condition C1 or C2 	Improvement recommended C3 	Further investigation: FI 	Not Verified: NV	Limitation: LIM	Not Applicable: N/A
ITEM	DESCRIPTION							OUTCOME <small>(Use codes above. Provide additional comment where appropriate. C1, C2, C3 and FI coded items to be recorded in Section K of the Condition Report)</small>
8.2								N/A
8.3								N/A
8.4								N/A
8.5								N/A
8.6								N/A
8.7								N/A
8.8								N/A
8.9								N/A
8.10								N/A
8.11								N/A
8.12								N/A
8.13								N/A
8.14								N/A
8.15								N/A
8.16								N/A
8.17								N/A
8.18								N/A
8.19								N/A
8.20								N/A
8.21								N/A
8.22								N/A
8.23								N/A
8.24								N/A
8.25								N/A
8.26								N/A
8.27								N/A
8.28								N/A
8.29								N/A
8.30								N/A
8.31								N/A
8.32								N/A
8.33								N/A

CONDITION REPORT GUIDANCE FOR RECIPIENTS

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 This Report is only valid if accompanied by the Inspection Schedule(s) and the Schedule(s) of Circuit Details and Test Results.

3 The person ordering the Report should have received the 'original' Report and the inspector should have retained a duplicate.

4 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.

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'.

11 Where the installation includes a residual current device (RCD) it should be tested six-monthly by pressing the button marked 'T' or 'Test'. The device should switch off the supply and should then be switched on to restore the supply. If the device does not switch off the supply when the button is pressed, seek expert advice. For safety reasons it is important that this instruction is followed.

12 Where the installation includes an arc fault detection device (AFDD) having a manual test facility it should be tested six-monthly by pressing the test button. Where an AFDD has both a test button and automatic test function, manufacturer's instructions shall be followed with respect to test button operation.

13 Where the installation includes a surge protective device (SPD) the status indicator should be checked to confirm it is in operational condition in accordance with manufacturer's information. If the indication shows that the device is not operational, seek expert advice. For safety reasons it is important that this instruction is followed.

14 Where the installation includes alternative or additional sources of supply, warning notices should be found at the origin or meter position or, if remote from the origin, at the consumer unit or distribution board and at all points of isolation of all sources of supply.

CODES FOR TYPES OF WIRING

A	B	C	D	E	F	G	H	O
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	Thermoplastic SWA cables	Mineral insulated cables	Other