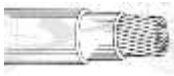
DISTRIBUTION COMMISSIONING TEST SHEET – LOW VOLTAGE CABLES AFTER REPAIR OR EXTENSION, WITHOUT DISCONNECTION OF SERVICES

HPC-4DL-07-0035-2016

This commissioning test sheet covers the minimum testing requirements for low voltage cables prior to energisation after repair of an obvious fault, or after the cable has been extended. The insulation resistance test is applied to new cable sections only, prior to making joints.



SAFETY: This sheet should be used in conjunction with Field Instruction 4.6. At all times maintain suitable clearance to all other electrical equipment and verify planned escape routes. If any part of the cable is in a public area and cannot be properly barricaded, additional personnel should stand guard at these areas during tests and commissioning, and a two-way radio must be used for communication. Cable testing should not be done in zone 1 hazardous areas (e.g. around petrol stations and fuel storage areas), refer to Field Instruction 4.12.

DATE:		**Project No.**		**Name of Officer**		**Job Location**	
Location of Cable:	**From:**			**To:**			

1. CABLE DESCRIPTION

Rated Voltage	V	Length of cable (approx.)	m	Cable size	mm²	Stock code	

2. VISUAL INSPECTION AND SAFETY CHECK

1	Check that the cable under test is correctly installed and that there is no damage that would affect cable performance, or the performance of attached equipment.	☐
2	Isolate supply to the cable.	☐
3	Perform 'Test Before You Touch' as per Field Instruction 2.25 to prove cable is de-energised (with approved testing device as per Field Instruction 2.26).	☐
4	Check that the cable is clearly marked with each phase colour and labelled (if applicable).	☐

3. INSULATION RESISTANCE TEST FOR NEW CABLE SECTIONS, PRIOR TO JOINTING

	Test Connection	Minimum Values	Test Results
Use a 500 V/1 kV insulation resistance tester for 1 minute between each phase conductor and between phase and neutral conductor (never use a 5 kV insulation tester for this test). Values greater than 10 MΩ for new cables are acceptable. (Note: 1,000 MΩ = 1 GΩ)	Red phase to white phase (@ 1 kV)	>10 MΩ	Ω
	White phase to blue phase (@ 1 kV)	>10 MΩ	Ω
	Blue phase to red phase (@ 1 kV)	>10 MΩ	Ω
	Red phase to neutral (@ 500 V)	>10 MΩ	Ω
	White phase to neutral (@ 500 V)	>10 MΩ	Ω
	Blue phase to neutral (@ 500 V)	>10 MΩ	Ω
Confirm cables have been discharged after testing.			☐

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4. CABLE TERMINATION AND JOINT CHECKS

Ensure all cable connections, joints and terminations are made, and tightened.	☐
Ensure all cables are clearly and correctly labelled (if applicable).	☐

5. BURIAL OF JOINTS

Ensure all joints have been secured and covered with 200 mm of clean dry fill, **before energising circuit**.	☐

6. SERVICE CONNECTION TESTS

Following energisation, do two Service Connection Tests, either side of joint, to check joint integrity. Use SCT form CS10# 2745508	SCT 1	Service Address:	☐
	SCT 2	Service Address:	☐

7. OPERATIONAL HANDOVER

The commissioning officer must ensure that all checks are completed and the test results comply with the minimum standards.

I hereby certify that all sections have been completed with satisfactory results and transfer responsibility to the network operating authority.

Commissioning Officer: _____ Pay Number: _____

Signature: Date: DD/MM/YY Time: HH:MM

1. Ensure the work area is left tidy with no hazards to the public.
2. Hand over responsibility to the operating authority
3. Return this sheet to the project/working file as a record of commissioning and as a document required for the Handover Certificate.

IMPORTANT: PLEASE ATTACH AS-BUILT DRAWINGS AND DATASHEETS TO THIS SHEET AND SEND TO RELEVANT ASSET MANAGER