

DISTRIBUTION COMMISSIONING FORM (DCF) 2.13 – UMSx steel standard (class II assembly)

The *Distribution Commissioning Manual* ([EDM 34137510](#)) must be referenced for guidance when completing this form.

Purpose: This form covers the electrical testing and commissioning of UMSx supply installation on a steel standard. This form can be used for new UMSx installations and fault repairs. The testing ensures correct electrical installation, and safe work practices.

Parameters

- The following tests must be performed before energisation or re-energisation.
- The sequence of tests must be completed in order.
- If the test results do not meet requirements, the unit should be tagged and sent for repair.
- All UMSx installations must be made on a Class II Assets

1. Task Details

| Pick ID | Address |
|---------|---------|
|---------|---------|

2. Visual Inspection and Safety Check of steel standard

| Description | |
|---|-------------|
| Install an independent earth > 2m from the steel standard. Perform a touch test between the streetlight column and the independent earth. (< 6V) | Volts |
| Remove the inspection cover. Confirm that all the cables and streetlight standards are correctly installed and that there are no signs of damage. Ensure installation is Class II | Pass / Fail |
| Visually check UMSx cabling, and power supply are free from cracks, cuts, and abrasions | Pass / Fail |

Note: Refer to the *Distribution Construction Standards Handbook* (DCSH) Part 11 (drawings N300 – 1); cut-outs must comply with DCSH Part 2 - R26 series

3. UMSx AC cable – Supply side insulation test

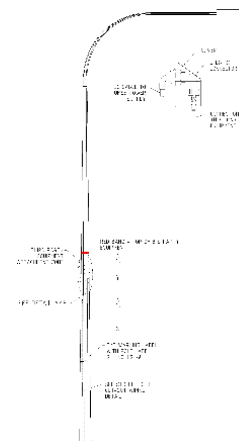
Note: To prevent failure of electronic components in the transformer, DO NOT test between the Active and Neutral when testing.

| Description | |
|---|----|
| Test insulation resistance of the cable to the steel standard: (> 1 MΩ at 500VDC) | MΩ |
| Active - steel std | |
| Neutral - steel std | |

4. UMSx DC cable – Load side insulation test

Note: To prevent failure of electronic components in the transformer, DO NOT test between the Positive and Negative when testing. Use DC plug to make secure connection at Point of Supply.

| Description | |
|--|----|
| Test insulation resistance between Positive and steel standard: (> 0.5 MΩ at 250VDC) | MΩ |
| Positive - steel std | |
| Negative - steel std | |



5. Re-energise standard.

| Description | |
|---|-------|
| Measure the touch voltage between the steel standard and the independent earth, as preformed in 2.1 above. (< 6V) | Volts |
| | |
| Record fuse rate and reinstall the cut-out fuse link cover | A |
| | |
| Whilst reinserting the cutout, observe the voltmeter. If 6V or more is recorded, cease testing, and DO NOT bring into service. Investigate the source of the voltage and/or report this to your supervisor. | Volts |
| | |

6. Power supply functionality and Polarity

Note: To complete task you will require the DC plug used previously

| Description of task | |
|---|-------------|
| Test voltage at Point of Supply (+48v) Positive - Negative | Volts (-/+) |
| | |

7. Declaration

| | | | |
|--|--|-------------|--|
| I hereby certify that all items have been completed with satisfactory results and transfer control to the network operating authority. | | | |
| Commissioned by | | BNA | |
| Signature | | Date & Time | |

1. Ensure that all the metal inspection covers are replaced, and the work area is left tidy with no hazards to the public.
2. Hand over responsibility to the operating authority.
3. The completed form must be returned to the project file/work pack.