

Construction News - Engineering

Correct Transformer Low Voltage Connections

- > A recent failure of a transformer neutral connection resulted in significant damage to a customer's premises
- > The investigation revealed that the incorrect cable and connectors were used for the neutral
- > All work carried out on the network must be in accordance with the drawings CEOM7106.20 and CEOM7302.06 that detail the correct connection types.

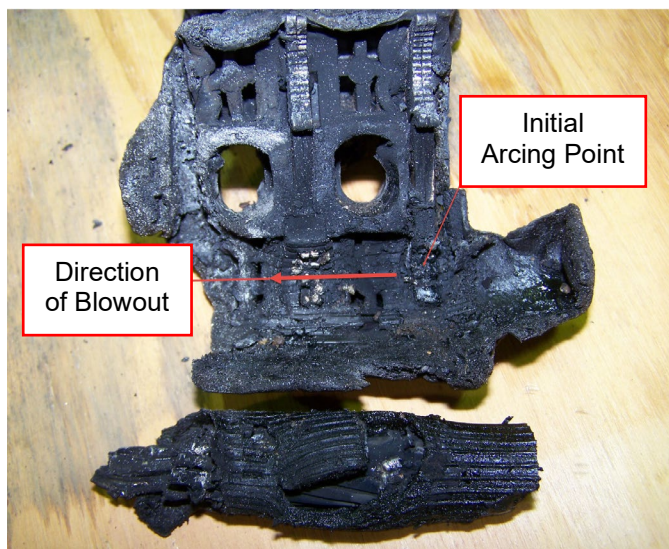
Background – what happened?

An Insulation Piercing Connector (IPC) on a 315kVA transformer neutral connection failed from intermittent load and fault currents on the neutral. This structure was not constructed to Essential Energy's Construction Standards and consisted of IPCs and ABC bridging from the open mains to the transformer bushings.

Connections Standards

The correct bridging connection from Low Voltage (LV) transformer bushings to the open wire overhead mains and neutral connections are Parallel Grove Clamps with proper joint preparation as detailed on drawing CEOM7106.20. Where bridging connections connect to ABC mains refer to drawing CEOM7302.06.

IPC are not to be installed on transformer neutral connections due to the safety risk.



What do you need to do?

All work on the Essential Energy's network including connectors and connections points should always be in accordance with the current design and construction standards.

Should variations be required under Fault and Emergency conditions, an eMWL must be raised to ensure the correct connectors and connections for each application are installed or rectified at the next earliest available opportunity.



More information is available on [Standards Online](#). If you have any questions, please contact: Brett Atkinson, on 0419 343 400.