

Grounding and Bonding of Meterbases

Distribution Company Awareness

The Ontario Electrical Safety Code (OESC) recognizes new methods of grounding and bonding for meter mounting devices (meterbases). The product standard for meterbases (C22.2 No. 115 Meter-mounting devices) aligns with these methods, and permits the following types of neutral assemblies within meterbases:

- 1) Permanently bonded to the enclosure;
- 2) Permanently isolated from the enclosure; or
- 3) Supplied with means to bond or isolate from the enclosure, complete with marking on a temporary tag, instruction sheet, or equivalent indicating how the bond is to be removed or installed

The neutral assembly may be installed at the manufacturing facility or in the field with a provided kit.

The meterbase will be marked to indicate if the neutral assembly is bonded or isolated from the enclosure (i.e. frame) with either of the following markings:

“PERMANENTLY BONDED NEUTRAL ASSEMBLY”, or equivalent wording; or
“PERMANENTLY ISOLATED NEUTRAL ASSEMBLY”, or equivalent wording



OESC Rule 10-210 requires the grounded conductor (neutral) of a solidly grounded ac system supplied by the supply authority to be grounded at the consumer's service, either at the meterbase or service box.

The allowable consumer service grounding and bonding method (permitted by the OESC and Bulletin 10-15-*) is based on the specific neutral assembly configuration within the meterbase. For example, an isolated neutral assembly within the meterbase requires a bond conductor to be installed in the service raceway to the service box.

ESA Recommends

- Information regarding the various possible neutral assembly configurations and markings for meter mounting devices should be reviewed and communicated to the Electrical Distributor's operational staff.
- The associated methods of grounding and bonding should be reviewed and communicated to the Electrical Distributor's operational staff.
- Electrical Distributors should consider meterbases with isolated neutrals as acceptable for installation by LECs.
- Electrical Distributor should review with operational staff how to address isolated neutral assemblies that do not have a bonding conductor:
 - The Electrical Distributor should not energize the customer; and
 - The incident should be reported to the local ESA Inspector.