METROSIL CURRENT TRANSFORMER PROTECTION UNITS (CTPUs)

Prevents dangerous voltages developing during CT open circuit conditions.

Preventative measures are strongly recommended by IEEE in order to protect CTs against open circuit conditions. This condition can inadvertently occur through routine maintenance of the burden or damage to the cables of the secondary circuit. A Metrosil CTPU provides permanent protection against open circuits without the need for user intervention. It acts as a passive device while the burden is connected across the secondary winding, yet immediately clamps overvoltages during an open circuit condition – protecting the CT’s winding insulation and core characteristics.

METROSIL CTPU FEATURES:
- Provides high impedance under normal operation
- Delivers low impedance during open circuit
- Available in both single and three pole varieties
- Every CTPU tested in an open circuit condition
- Voltage free analogue alarm contacts

METROSIL CTPU BENEFITS:
- Compliance with IEEE C57.13 section 6.7.1
- Protects CT from insulation damage
- Prevents changes to CT’s core characteristics
- Maintains characteristics over extended heat cycles
- Does not create electromagnetic interference
CLAMPING VOLTAGE OF CTPU TYPES

<table>
<thead>
<tr>
<th>Secondary Load Current (Arms)</th>
<th>Metrosil CTPU Specification</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>5</td>
<td>140</td>
</tr>
<tr>
<td>1</td>
<td>95</td>
</tr>
<tr>
<td>0.5</td>
<td>81</td>
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The selection of the appropriate CTPU will depend upon the voltages experienced whilst being connected across the burden of the CT, under both normal operating and fault conditions. Please refer to the CTPU datasheet for further information.

CTPU WITH RELAY METROSIL

CTPUs can be used in the open circuit protection of high knee-point CTs, such as class X/PX devices. These CTs are often used in conjunction with high impedance differential relay systems, which often employ Relay Metrosils to limit voltage during fault conditions.

Where a CTPU is being used with a Relay Metrosil, special consideration needs to be given for the selection of appropriate devices. Please contact technical enquiries for assistance.

metrosil.com

For more technical information about our CTPUs, please contact the Metrosil team:

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