

Technical Bulletin

TB 0297A– Current transformers in Siemens 8DJH circuit breaker units

Purpose

To detail the correct method of installing and verifying the installation of phase and core balanced transformers (CT) in Siemens 8DJH distribution switchgear with circuit breaker function. (Re-issued for greater clarity as errors found in new installations)

Background

Endeavour Energy has been using Siemens 8DJH RL, RLR & RLRR switchgear with circuit breakers since 2014. The IKI 30 self-powered protection relay supplied by KRIES is used in this switchgear to operate the circuit breaker under fault conditions based on current sensing by the non-conventional instrument transformer installed in the cable box.

Initial supply of circuit breaker units was supplied with a black colour CT that need to be fitted during assembly of the cable tail and the core balanced CT was not used. (Refer to Fig. 1)

Actions

Based on development work with Kries, Siemens and Endeavour Energy a new CT and improved relay is introduced.

Effective February 2020, all circuit breakers units are supplied with factory fitted blue colour CTs and an unfitted large core balanced blue colour CT. The core balance CT is used to detect earth faults. The core balanced blue colour CTs used in a RL, RLR & RLRR switchgear must be installed in accordance to Figure 2 and the manufacturer's instructions. It is important that the earth cable run through the core balance CT window as shown in Figure 2.

Please confirm the cable ties are securely fitted during installation. If the cable ties are

unsatisfactory, utilise standard cable ties from the stores (stock code: ST16250).

CT's must be checked to be secured prior to commissioning and shall be inspected during routine maintenance.

All verification and installation works shall be done in accordance with the Electrical Safety Rules.

Compatibility with IKI 30 relay

The following IKI 30 relays are compatible with either the black or blue colour CTs:

Relay Art. No.	Phase CT	Core balance CT
2500287	Black*	Black**
2500287_S092_DIW	Blue#	Blue ##

* - Phase CT installed by EE/ASP

** - Core balanced CT never used

- Phase CT pre-installed in factory

- Core balanced CT installed by EE/ASP

Implementation

The contents of this Technical Bulletin shall be implemented immediately.

Impacted Standards

The contents of this technical bulletin will be included in the next update of the following standard(s):

- SDI 120– Testing and commissioning for distribution systems
- SDI 210 - Siemens 8DJH and 8DJ10/8DJ20 12/24kV switchgear

Contacts

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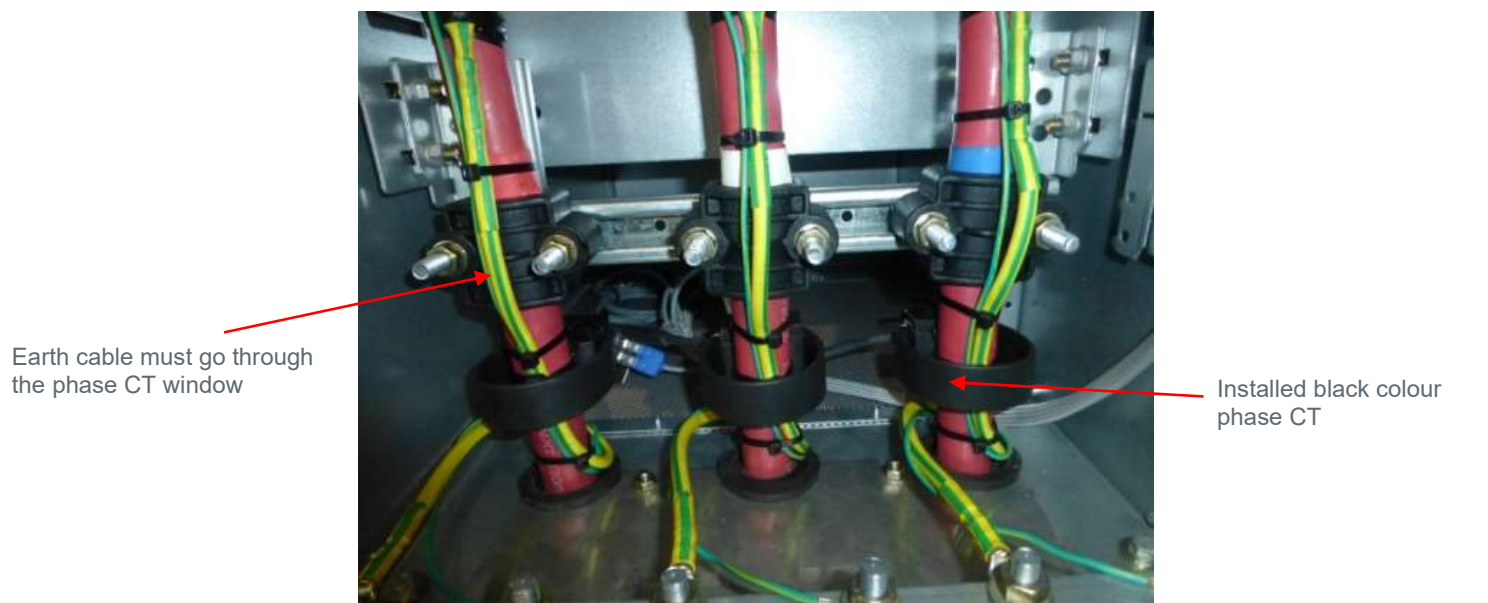


Fig. 1 Installed black colour CTs (pre-February 2020)

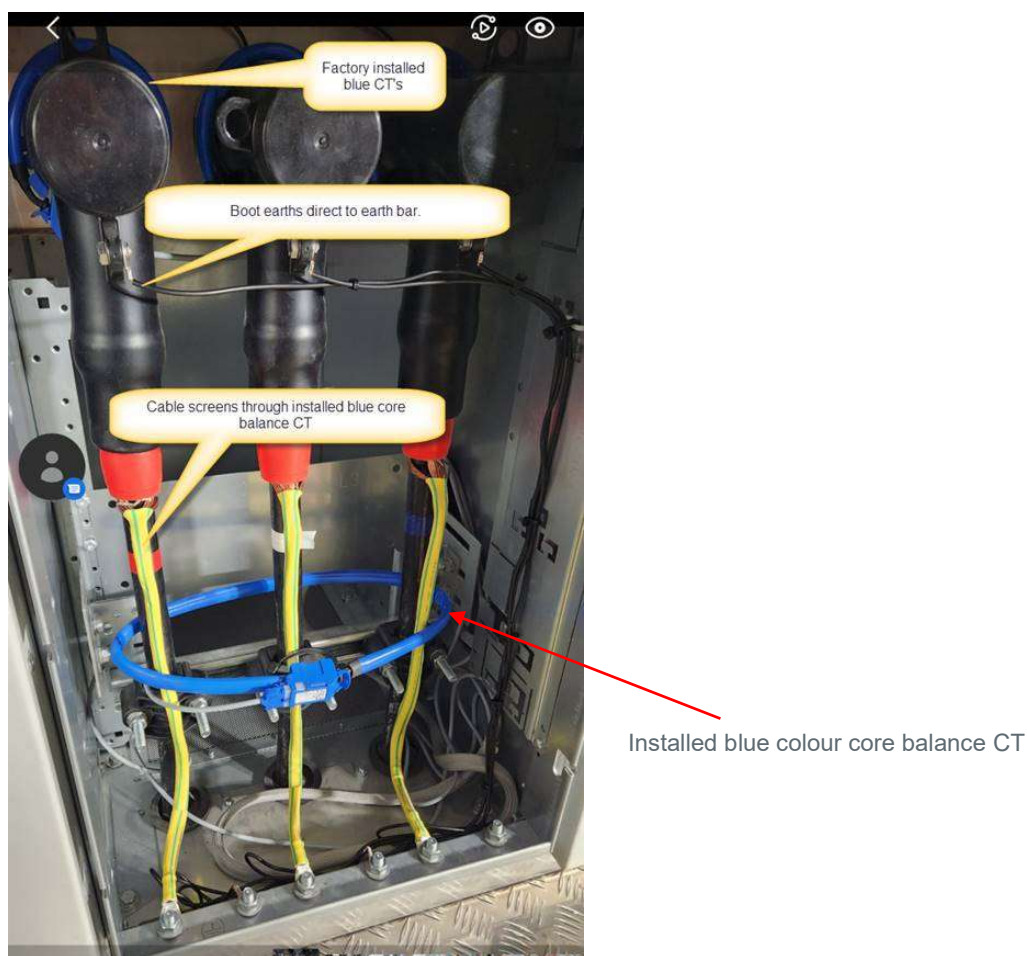


Fig. 2 Installed blue colour CTs (post-February 2020)