

Construction News - Engineering

EFACEC Ring Main Units Supplied without Fault Indicators

- > Essential Energy have agreed to take supply of EFACEC RMUs from Tyree without fault indicators due to COVID-19 supply issues
- > These units can still be installed with the CTs removed, fault indicator leads short circuited and earthed
- > Fault indicators will be installed under a separate outage once supply is resumed.

Background – what happened?

Essential Energy's current supply contract for Ring Main Units (RMUs) is with Tyree. As per the contract EFACEC RMUs are meant to be supplied with FLAIR 21D fault passage indicators fitted on the outgoing cable switches as shown in Figure 1. These fault indicators are designed to indicate when fault current has passed through the RMU indicating any potential fault is beyond the individual cable switch.

Due to a component shortage issue associated with COVID-19, Tyree are currently unable to supply all EFACEC RMUs with the FLAIR 21D fault passage indicators installed. As these fault indicators are only for fault locating and perform no circuit or equipment protection purpose, Essential Energy have agreed to install the RMUs without the Fault indicators at this time. Once supply constraints have been rectified, Fault indicators will be installed under a separate outage.



Figure 1: Schneider FLAIR 21D fault passage indicator installed in EFACEC RMU

What happens now?

Due to supply inconsistency of fault passage indicators, some EFACEC RMUs will be supplied to Tyree with the wiring for the fault indicator already installed, but the indicator will be missing. Tyree will short circuit and earth the CT wiring using a neutral link (Figure 2) prior to dispatching the units. These units can be installed and energised ensuring that the CTs are removed, and the fault indicator wiring is short circuited and earthed:

- > DO NOT INSTALL THE HV CTs. The CT end of the leads shall be left disconnected and Danger Tagged at the plug-in connector (Figure 3, overleaf). The CTs should be Danger Tagged and stored in the LV switching cabinet for installation when supplies resume.
- > Check that the three phase and earth leads for the fault indicator are shorted and earthed correctly as shown in Figure 2.



Figure 2: Fault indicator leads shorted and earthed via a terminal neutral link



Figure 4: Fault indicator panel with Schneider FLAIR 21D fault indicator missing.

Currently 32 EFACEC RMUs have been dispatched by Tyree with the fault passage indicators missing and without the CT wiring shorted to earth, (Figure 4). Prior to these 32 units being commissioned, the CT wiring needs to be shorted and connected to earth using the following method:

- > Connect the three phase and earth leads for the fault indicator into a 6 terminal neutral bar (Catalogue number 235815).
- > Connect an additional earth conductor into the neutral terminal bar and lug the opposing end of the conductor.
- > Remove the front panel screw and install the lugged earth conductor under the panel screw (Figure 2).
- > DO NOT INSTALL THE HV CTs. The CT end of the leads shall be left disconnected and Danger Tagged at the plug-in connector (Figure 3). The CTs should be Danger Tagged and stored in the LV switching cabinet for installation when supplies resume.

What do you need to do?

Be aware that some EFACEC units are currently being delivered without FLAIR 21D fault passage indicators. These units can be commissioned onto the network without the fault indicators installed.

Ensure when installing units without FLAIR 21D fault passage indicators that the leads are short circuited and earthed by the above means and CTs are stored safely in the LV switching cabinet. If the fault passage indicator leads are not connected and shorted to earth, they are to be connected by the method detailed above.

Essential Energy staff installing or commissioning these units without fault indicators are to have the note "Fault indicator not installed" added to the asset in PowerOn Fusion.



More information is available on [Standards Online](#). If you have any questions, please contact: David Shephard, on 0407 139 698 or James Firman, on 0439 072 532.