Model: N/A Serial #: See Affected Units	Oct. 6, 2023
Product Bulletin # **PDC-019** Rev **1** **Alert**	

Eaton Breaker Issues on PowerTAP Units

Issue

The PowerTAP units that utilize Eaton series breakers have the potential for the closing system of the breaker to not operate correctly when pressing the close button. This issue causes the closing switch to not function properly with the breaker cover installed. Where this issue is present on a unit, follow procedure below to transfer between systems for safe operation until the breaker fix is provided by the manufacturer.

All PowerTAP units may experience the same issues and this procedure shall be followed if this occurs on another unit not listed in this document. Notify Engineering immediately if this occurs and stop work immediately until a safe procedure is provided.

The procedures below describe how to safely close the breakers on a dead bus and bring utility or generator power online through the transfer switch on the PowerTAP.

NOTICE The breaker open and all trip unit safety functions are still fully operational on all systems.

Affected Units

- The following units currently have a breaker close issue: SN005, SN008, SN010 and SN013.
- There is the potential for all serial number units from SN005 to SN025 to have a similar issue.

Bringing on Utility Power

1. Using an OSHA approved hot stick (see “OSHA Hot Sticks” on page 2), open the MVI on the transformer.

   DANGER Confirm secondary voltage is removed through the beacon or with a multi-meter.

2. Confirm that all four breakers in the Power House are open and locked out.
3. Confirm all three generators connected to the transfer switch skid are off and locked out.

4. Insert the kirk keys in the utility breakers to allow for the breakers to be closed.
5. For the breakers not functioning. Charge the breaker and close the breaker on the dead bus. After closing the breaker, reinstall all breaker covers and enclosure panels prior to energizing the transformer. Perform this step for all breakers that have the coil spring issue.

NOTICE All functioning breakers shall be operated normally

6. Once the breakers are closed on the dead bus, close the transformer MVI switch to energize the transformer.
7. Confirm that the utility voltage is present and close the Power House breakers to bring on power to the system per the PowerTAP transfer switch procedures.

Transferring from Utility Power to Generators

Follow steps below if utility power is down or transferring to generators is required:

1. Open the utility transfer switch breakers and remove the kirk keys.
2. Using an OSHA approved hot stick (see "OSHA Hot Sticks"), open the transformer MVI.
3. Install the kirk keys in the generator breakers to allow for the breakers to be closed.
4. For the breakers not functioning. Charge the breaker and close the breaker on the dead bus. After closing the breaker reinstall all breaker covers and enclosure panels prior to bringing on generators. Perform this step for all breakers that have the coil spring issue. All functioning breakers shall be operated normally.
5. Turn the selector switch in the Power House to the generator position for each generator.
6. Bring the generators online following the standard Power House procedures.

OSHA Hot Sticks

The following table R-6 from OSHA 1910.269 (Table R-6 on page 3) provides the safe minimum hot stick working clearances for the system. This table provides the minimum approach distance for the voltage level of the 60 Hz PowerTAP.

The 60 Hz PowerTAP has a 24.9 kV phase to phase voltage max and will require a minimum hot stick length of 2'-11".

The recommended hot stick is Canrig Part No. E19984 – HDE HOTSTICK, 4FT FIXED, 500 kV MAX VOLT. The manufacturer part number is HDE (Greenlee) model no. S-4C.

Table R-6: Alternative Minimum Approach Distances for Voltages of 72.5 kV and Less[1]

Nominal voltage (kV) phase-to-phase	Distance			
	Phase-to-ground exposure		Phase-to-phase exposure	
	m	ft	m	ft
0.050 to 0.300[2]	Avoid Contact		Avoid Contact	
0.301 to 0.750[2]	0.33	1.09	0.33	1.09
0.751 to 5.0	0.63	2.07	0.63	2.07
5.1 to 15.0	0.65	2.14	0.68	2.24
15.1 to 36.0	0.77	2.53	0.89	2.92
36.1 to 46.0	0.84	2.76	0.98	3.22
46.1 to 72.5	1.00	3.29	1.20	3.94

[1] Employers may use the minimum approach distances in this table provided the worksite is at an elevation of 900 meters (3,000 feet) or less. If employees will be working at elevations greater than 900 meters (3,000 feet) above mean sea level, the employer shall determine minimum approach distances by multiplying the distances in this table by the correction factor in Table R-5 corresponding to the altitude of the work.

[2] For single-phase systems, use voltage-to-ground.

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