C37.04 TF on 3 Phase Line Faults
and Critical Currents
Synopsis of Meeting on 2012 2 October
San Diego CA

Attendance: 17 Members and 33 Guests

3 Phase Line Faults

Subject covered at the spring meeting & recommendation given to C37.04 WG

Critical Currents

There was considerable discussion around the IEC method for finding critical currents. A slight modification of our previous discussions is below.

Since this is only a test requirement it needs to be taken up by the C37.09WG

The players can remain the same but report to C37.09 WG. If it is acceptable to the chair of the C37.09 WG, we can just change our reporting.

Grace & Peace
Roy Alexander
Chair 3 phase line fault and Critical currents TF

Critical Currents:

When the minimum arcing time of a T30 test exceeds the minimum arcing time of a T60 test by more than ¼ cycle, then tests shall be made at T45 and T20 with time delay <0.1 µs. (3 shots each) Also if the minimum arcing time of a T10 test is more than ¼ cycle longer than a T30 test, t5 and t20 tests (3 shots each)shall be done with a time delay <0.1µs
Passing these tests indicates the breaker IS ok.

Note: We should check the language in C37.14. Apparently those dc breakers Always have critical currents and the manufacturer has to find the critical current and demonstrate that the breaker will work there.

Grace & Peace
Roy Alexander
Chair Critical Currents TF