

**IEEE Power Engineering Society  
Switchgear Committee  
Low Voltage Switchgear Devices Subcommittee**

**C37.13a Working Group Report  
October 10, 2011 – Nashville, TN**

**C37.13a Low-Voltage AC Power Circuit Breakers Used in Enclosures**

PC37.13a working groups met for Monday afternoon session subsequent to C37.16 WG meeting sharing the 1:30 PM to 3:15 PM slot on October 10, 2011.

**Participants:**

Members – 16 total, 8 present, 7 absent, 1 corresponding member (absent)

Guest – 12

Attendance list is attached.

**Patents:**

IEEE-SA rules on Patents were reviewed prior to further discussions. The introductory slide, and slides #1 through #5 of the IEEE-SA Patents Slide Set dated 25-March-2008 were shown. The WG attendees were advised:

- The IEEE's patent policy is consistent with the ANSI patent policy and is described in Clause 6 of the IEEE-SA Standards Board Bylaws;
- Early identification of patent claims which may be essential for the use of standards under development is encouraged;
- There may be Essential Patent Claims of which the IEEE is not aware. Additionally, neither the IEEE, the WG, nor the WG chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.

The participants were provided an opportunity to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of the standard which will result from the activity of the WG.

No responses were received during the meeting regarding patent claim(s)/patent application claim(s) and/or the holder of the patent claim(s)/patent application claim(s) that were identified (if any) and by whom.

The patent slides were reviewed by all present at the beginning of the C37.16 WG meeting. Statement was made reminding all present that the Patent Slides were applicable to C37.13a WG meeting as well. Since no persons had come in new to the meeting, the Patent Slides review was not repeated.

**Distributed documents included:**

C37.13a-4.pdf July 2011 was provided via emailed prior to meeting. This is document as submitted for ballot.

C37.13a-D4 Ballot Comments - 2009-09-29.pdf. This document was provided via emailed prior to meeting.

**Discussion Points / Agenda**

1. Review of ballot comments and negative vote item discussions. Summary is:
  - a. Negative vote item - Request to move changes to an Annex and not in the normative portion of the standard.
  - b. Negative vote item - Scope overlap with HVCB concerning 1000 Vac
  - c. Affirmative vote comment – Requested change of title

Note: Details for each comment are summarized in the C37 C37.13a-D4 Ballot Comments - 2009-10-10.pdf (attached).

- a. Request to move changes to an Annex.

Ted Burse was given floor to present position. After extended discussion (items are summarized in the C37.13a-D4 Ballot Comments - 2009-10-10.pdf document), vote was taken of the WG members (quorum was present) to move forward with draft as previously balloted or to move the changes to an Annex. Vote was 7 for moved forward as previously balloted (C37.13a-D4) and 1 for moved details on an Annex. Thus, no change will be made to the document. Instead, the comments will be distributed in document recirculation ballot.
- b. Scope overlap with HVCB concerning 1000 Vac

There is an acknowledged numeric overlap with HVCB S/C at the 1000 Vac level. However the C37.13a Scope clarifies rating by stating the voltage rating of 1000 Vac nominal and 1058 Vac maximum. Thus, no change will be made to the document. Instead, the comments will be distributed in document recirculation ballot.
- c. Request change of title

Discussed that the wording of the current title, "Amendment 1: Increase to 1000 V AC and Below" This "increase ... to ... and below" although oddly wording is considered clear and similar to wording used for other standards' titles. Thus, no change will be made to the document title. Instead, the comments will be distributed in document recirculation ballot.

**Action Items:**

2. Initiate recirculation ballot C37.13a-D4 and these minutes including the C37.13a-D4 Ballot Comments - 2009-10-10.pdf document.

Reported by: Doug Edwards, Chair  
10/10/2011

## C37.13a

### 2011 Fall - Nashville Attendance

Role	Type	First Name	Last Name	10/10/2011
Guest	Interested Individual	Jarrod	Coomer	
Member	Member	Keith	Flowers	X
Member	Member	T	Olsen	
Guest	Active Participant	Nancy	Gunderson	
Member	Member	Harry	Josten	X
Chair	Member	Doug	Edwards	X
Chair	Member	Doug	Edwards	X
Member	Active Participant	Albert	Livshitz	
Guest	Member	R.	Long	
Member	Member	Charles	Morse	X
Member	Member	Michael	Sigmon	X
Guest	Interested Individual	Michael	Flack	
Member	Member	Paul	Barnhart	
Member	Interested Individual	Chad	Kennedy	
Member	Interested Individual	James	Wiseman	
Guest	Interested Individual	Amit	Patel	
Guest	Interested Individual	Amit	Patel	
Member	Member	Jeffery	Mizener	
Guest	Interested Individual	Dan	Hrncir	X
Corresponding Member	Honorary Member	Robert	Puckett	
Member	Member	Paul	Sullivan	
Member	Interested Individual	Donald	Colaberardino	
Guest	Honorary Member	Paul	Notarian	
Guest	Member	John	Webb	X
Guest	Member	John	Webb	X
Member	Interested Individual	Carl	Schneider	
Guest	Interested Individual	Paul	Terry	
Member	Interested Individual	David	Dunne	X
Guest	Interested Individual	Jeffrey	Hidaka	X
Guest	Interested Individual	Jeffrey	Hidaka	X
Guest	Interested Individual	Marc	Leclerc	
Member	Interested Individual	Michael	Lafond	X
Member	Interested Individual	Anurag	Jivanani	X
Guest	Interested Individual	Michael	Cannady	
Guest	Interested Individual	Darryl	Moser	X
Guest	Interested Individual	Gabriel	Arce	X
Guest	Interested Individual	Lou	Grahor	X
Guest	Interested Individual	Clint	Carne	X
Guest	Interested Individual	Thomas	Hawkins	X
Guest	Interested Individual	Francis	Beauchemin	X
Guest	Interested Individual	Steven	Dozier	X
Guest	Interested Individual	Sven	Kreichgauer	X
Guest	Interested Individual	Brian	Gerzeny	X

**C37.13a-D4 Comments  
2011-10-11 Working Group Resolution**

Name	Vote	Category	Page	Subclause	Line	Comment	File	Must Be Satisfied	Proposed Change	Resolution Status	Resolution Detail
Giraud, Douglas	Disapprove	Technical	2	1	1	Changing scope to include voltages above 1000V overlaps MV circuit breaker scope and ratings. It creates two classes of circuit breakers for the same voltage. One with BIL and Power Frequency Withstand requirements and one without.		No	Eliminate proposed voltage levels until such time they can be coordinated with other existing standards and published ratings to not overlap.	Rejected	<p>This issue is addressed in the scope by defining the scope as being applicable to 1000 Vac nominal voltage. The scope listed for High Voltage Circuit Breakers (HVCB) sub-committee states, "Treatment of all matters relating to high voltage power circuit breakers (above 1000 Volts AC and 3200 Volts DC)." That is, "above 1000 Volts AC."</p> <p>-----</p> <p>2011-10-10 WG mtg: Acknowledging there is an numeric overlap HVCB S/C at the 1000 Vac level. However the C37.13a Scope clarifies rating.</p>
Burse, Ted	Disapprove	General	2	1		The proposed voltages do not fully align/harmonize with other international standards. (i.e IEC)		Yes	Either (1) Move the proposed additional material to an informative annex, or (2) create a guide (C37.13.2?) to address the emerging technology until such time full harmonization can be achieved.	Rejected	<p>In review of IEC 60497-1 2004, sub-clause 1.1 "1.1 Scope and object This standard applies, ... to switchgear ... the rated voltage of which does not exceed 1 000 V a.c. or 1 500 V d.c."</p> <p>This scope of 1000 Vac in IEC 60497-1 2004 is in harmony with IEEE C37.13a-D4.</p> <p>-----</p> <p>2011-10-10 WG mtg: The scope differences between C37.13a-D4 and IEC 60497-1 2004 are considered minor differences.</p> <p>Discussed moving increase voltage changes to an Annex versus leaving document as drafted. By WG vote, decision made to leave document as is - C37.13a-D4.</p>
Burse, Ted	Disapprove	General	2	1		Although I recognize there are specific, yet seemingly limited, applications for LV breakers at voltages higher than 635V such as mining and wind turbine generators, The need to "rush to standardize" is questionable until such time that the emerging technologies, and also the required infrastructure to enable full system coordination (i.e Transformers, Motors, etc) have more fully developed.		Yes	Either (1) Move the proposed additional material to an informative annex, or (2) create a guide (C37.13.2?) to address the emerging technology until such time full coordination can be achieved.	Rejected	<p>The request for addressing this voltage greater than 600 Vac was due to user of the standard having applications above 600 Vac. There are motors and transformers being built with industry standardized voltages of 690Vac and 975 Vac nominal. These voltages are not detailed in standards but market has standardizing.</p> <p>-----</p> <p>2011-10-10 WG mtg: Discussed moving increase voltage changes to an Annex versus leaving document as drafted. By WG vote, decision made to leave document as is - C37.13a-D4.</p>
Turner, Michelle		General	0	0	0	This draft meets all editorial requirements.		Yes		Accepted	No changes required.
Montillet, Georges	Approve	Editorial	1	Title	6	The title of the Amendment is: "Amendment 1: Increase of Voltages to 1000 V AC and Below." This sound very awkward. Why not say just "Increase of Voltages up to 1000 V AC." The 690 V is included in this new title.		No	Amendment 1: Increase of Voltages to 1000 V AC.	Rejected	<p>This was deferred for discussion at 2011-10-10 WG meeting.</p> <p>-----</p> <p>2011-10-10 WG mtg: Agreed that although the wording is awkward. However this wording of "1000Vac and Below" is similar to or the same as other switchgear and circuit breaker documents. By discussion, WG agreed that the title wording is clear and matches other standards and should not be changed.</p>