

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

**C37.13 Task Group Report  
September 28, 2010 – Las Vegas, NV**

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

PC37.13 working groups met for Tuesday afternoon session from 4:15 PM to 5:43 PM on September 28, 2010.

**Participants:**

Members (16 total, 7 present, 9 absent)		Guests (3)	
D. Edwards (P)	J. Mizener (A)	G. Arce	
P. Barnhart (A)	C. A. Morse (P)	J. Hidaka	
D. Dunne (A)	T. W. Olsen (A)	D. Moser	
K. Flowers (P)	R. Puckett (A)		
J. Anurag (P)	C. Schneider (P)		
H. Josten (A)	M. D. Sigmon (A)		
C. Kenndey (P)	P. Sullivan (A)		
M. Lafond (P)			
A. Livshitz (A)			

P = present, E = excused, A = absent

**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.

**Distributed documents included:**

C37.13a-D1.1 (2010-09-19).pdf (emailed prior to meeting)  
C37.13a Comment D1.1 creating D2.xls (emailed prior to meeting)  
C37.13a-D2-Full (2010-09-28).doc (not emailed prior to meeting – shown in discussions)

**Discussion Points / Agenda**

1. PAR – Status & Options
  
2. Review of drafts
  - a. C37.13a-D1.1 (2010-09-19).pdf  
Added two sections to the draft revisions.
    1. Scope – No change from draft 1.1.
    - 8.2.3. Changed new bullet a) 2) for 635 V and above.
    - 5.2. Changed to include 1058 V, and 730 V for maximum voltages.
    - 9.1.4.3. Added changes for bullet “b)” to change 600 V to 1000 V
  
  - b. C37.13a-D2-Full (2010-09-28).doc – Used for references only. Not fully reviewed.
  
3. Decisions – PAR Amendment or Full Revision  
Participants in meeting agreed to resubmit PAR for an Amendment, not a full revision. As requested by NesCom, a copy of the draft Amendment document will be provided for NesCom reference and review for clarifying the extent of the changes.
  
4. Discussed the One-Minute Withstand test voltages  
WG reviewed other standards and the corresponding hi-pot test voltages.

**C37.13a-D2** – IEEE Standard for Low-Voltage AC Power Circuit Breakers Used in Enclosures,  
Amendment 1: Increase of Voltages to 1000 V and Below - for 1000 V, **dielectric test voltage is 3000 V.**

$$V_{DEt} = 2 * V_n + 1000$$

*Where :*

$V_{DEt}$  = Dielectric Test Voltage

$V_n$  = Nomnal Voltage

**UL347** – MV Motor Controls (not full title) – for **750 V and below, dielectric test value is 2500 V.**

$$V_{DEt} = 2 * V_R + 1000$$

*Where :*

$V_{DEt}$  = Dielectric Test Voltage

$V_R$  = Rated Voltage

**UL347** – MV Motor Controls (not full title) – for above **750 V up to 1500 V, dielectric test value is 4250 V.**

$$V_{DEt} = 2.25 * V_R + 2000$$

*Where :*

$V_{DEt}$  = Dielectric Test Voltage

$V_R$  = Rated Voltage

**UL1008** – Transfer Switch Equipment - for 750 V, dielectric test value is 2500 V.

$$V_{DEt} = 2 * V_{Max} + 1000$$

*Where :*

$V_{DEt}$  = Dielectric Test Voltage

$V_{Max}$  = Maximum Voltage

**UL1066** – Low-Voltage AC and DC Power Circuit Breakers Used in Enclosures - for 750 V, dielectric test value is 2500 V.

$$V_{DEt} = 2 * V_R + 1000$$

*Where :*

$V_{DEt}$  = Dielectric Test Voltage

$V_R$  = Rated Voltage

Reported by: Doug Edwards, Chair  
9/29/10