

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

Meeting Minutes

Meeting Date: 11 April 2022
Meeting Time: Session #1: 10:15 AM – Noon
Session #2: 1:30 PM – 3:15 PM
Location: Hilton Bonnet Creek, Orlando, FL

A. Call to order

The meeting of the IEEE C37.13 Working Group was called to order at 10:16 am by Keith Flowers.

B. Approval of agenda

Draft 0 of the proposed meeting agenda was reviewed. Motion to approve the agenda was made by Dan Hrcir and seconded by Mike Lafond. The proposed meeting agenda was approved by unanimous consent.

C. Introductions/Attendance

Introductions were made of all attendees. Attendees are listed below. Quorum was confirmed with 15 of 21 members present and a total of 26 attendees.

First Name	Last Name	Company	Type
Randy	Blake	Schneider Electric	Guest
Robert	Burns	Eaton Corporation	Guest
Clint	Carne	Schneider Electric	Member
Daniel	Delfino	ABB	Member
Eric	Doroz	Eaton	Guest
Doug	Edwards	Siemens Industry, Inc.	Member
Tamer	Esco	Eaton	Guest
Keith	Flowers	Siemens Industry, Inc.	Chair
Lou	Grahor	Eaton Corporation	Member
Paul	Grein	Group CBS	Guest
Tom	Hawkins	Siemens Industry, Inc.	Guest
Daniel	Hook	Western Electric Solution	Guest
Dan	Hrcir	Eaton	Member
Michael	Lafond	ABB	Member
Albert	Livshitz	CE Power Engineered Services	Member
Jeff	Mizener	Siemens Industry, Inc.	Member
Darryl	Moser	ABB	Member
Owen	Parks	ABB	Member
Mary	Owens	Eaton	Guest
Todd	Sauve	Rockwell Automation	Guest
Dean	Sigmon	Eaton Corporation	Member
Kevin	Sippel	Eaton Electric	Guest

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Paul	Sullivan	DuPont	Secretary
Christo	Thomas	SCHNEIDER ELECTRIC USA INC	Member
Will	Weishuhn	ABB	Guest
Danish	Zia	UL LLC	Member

D. Approval of Fall 2021 Meeting Minutes

Draft 1 of the Fall 2021 IEEE C37.13 Working Group meeting were reviewed. Motion to approve the minutes was made by Jeff Mizner and seconded by Mike Lafond. The meeting minutes were approved by unanimous consent.

E. Rules and guidelines for conducting working group meetings

The IEEE Patent Policy and Business Conduct Policy were presented by the Chair and reviewed by the attendees. The information is available at the following website:

<https://mentor.ieee.org/myproject/Public/mytools/mob/slideset.pdf>

A call for patents was made by the Chair. No declarations were made known during the meeting.

The IEEE SA Copyright Policy was presented by the Chair and reviewed by the attendees. The information is available at the following website:

<https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7>

F. Working group P&Ps

The approved working group policies and procedures for the Switchgear Committee are available at the following website.

https://www.ewh.ieee.org/soc/pes/switchgear/O-and-/PES_SWG_WG_PnP_Final_2019-03-19.pdf

G. Document status report

The document stats was reviewed.

- PAR request date: 07 May 2019
- PAR approval date: 05 Sep 2019
- PAR expiration date: 31 Dec 2023

H. Old business

- 1200 A Frame Size as a Preferred Rating
 - The proposed changes for adding a 1200 A frame size as a preferred rating were reviewed. The general consensus was to add the 1200 A preferred rating.

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- Two specific modifications to the proposed 1200 A modifications were agreed to. They are the following.
 - The proposed 1200 A entry in Table A.2 needs to be modified to be more consistent with how other buses are specified in the table.
 - The proposed 1200 A entry in Table A.4 needs to be modified to be the same as the 800 A entry for endurance.

ACTION: *Keith Flowers to update the draft document based on the two items listed above.*

- EMC Ad Hoc Report
 - Jeff Mizener indicated the group has not been active since the last C37.13 meeting.
 - General agreement to follow IEC guidelines for EMC.
 - Jeff will reconvene the ad hoc group to develop recommended changes to C37.13.
 - The ad hoc may need copyright assistance to use content from IEC standards.
 - Members of that ad hoc group are Jeff Mizner (chair), Jim Lagree, Danish Zia, Marcelo Valdes, and Christo Thomas.

ACTION: *The Ad Hoc is projected to have a full proposal for Working Group consideration by Fall 2022 meeting.*

- Aging of Lubricants Task Force Report
 - Jack Harley is taking over from Doug Edwards as Chair.
 - Task force to meet on April 12. Do not expect to have information available from that task force in time to meet revision time of C37.13.
- Thermal Testing Ad Hoc Report
 - Keith Flowers reported on the activities of this group.
 - The group completed a significant amount of work to compare thermal testing requirements in a variety of standards (IEEE, IEC, NEMA, UL). Keith reviewed the comparison table created by the group.
 - Keith will restart this ad hoc and work to have material for the Fall meeting.
 - Dan Hrcncir requested to be a member of this ad hoc.

ACTION: *The Ad Hoc is projected to have a full proposal for Working Group consideration by Fall 2022 meeting.*

I. New business

Draft 1 of the C37.13 document had been circulated for comments. Some comments were provided. Those comments were reviewed during the meeting. Below is information about some topics discussed.

- Voltage Ratings
 - There were discussions concerning voltage ratings such as 800 V and 900 V based on one of the comments submitted. The group determined there was not enough information at this time to modify C37.13.
 - An ad hoc was formed to investigate the voltage ratings and bring proposal to the working group. The members of the ad hoc are: Keith Flowers (chair), Danish Zia, Lou Grahor, Clint Carne, Mike Lafond, Daryl Moser.

ACTION: *The Ad Hoc shall meet and provide a report before the Fall 2022 meeting.*

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- Definitions Hierarchy
 - During review of the document, it was realized the “definitions hierarchy” information is missing in the Definitions section of the document.

ACTION: Keith Flowers will add the “definitions hierarchy” information to the Definitions section of C37.13. See information in C37.59 for proper wording.
- Reference to UL746B
 - During review of the document, a reference to UL 746B was added in section 7.3.1. The UL document needs to be added to the normative references section of the document.

ACTION: Keith Flowers will add a reference to UL 746B to the normative references section of the document.
- Table A.1 References to C37.50
 - During review of the document, it was realized the section references associated with Table A.1 are pointing to C37.50. These need to be updated to C37.10 references.

ACTION: Keith Flowers will update the references in Table A.1 to point to C37.10 instead of C37.50.
- Time Current Curves and Clearing Times
 - One discussion topic was time current curves (TCCs). Neither C37.13 or C37.17 require a TCC include the circuit breaker clearing time. That could lead to errors in the calculation for arc flash incident energy and misrepresentation on how a product operates. An ad hoc group was formed to discuss this topic and provide recommendations on how to address it in C37.13 and/or C37.17. The members of the ad hoc are: Paul Sullivan (chair), Albert Livshitz, Mike Lafond, Clint Carne, Christo Thomas, Dan Delfino, and Jeff Mizner.

ACTION: The Ad Hoc shall meet and provide a report before the Fall 2022 meeting.

A Smart Circuit Breakers PAR from EPRI in China was reviewed by Keith Flowers. The group identified several major concerns with the proposed PAR, which included concerns about restraint of trade. An ad hoc was formed to review the PAR in detail and provide a response to the PAR. The members of the ad hoc are: Jeff Mizner (chair), Keith Flowers, Doug Edwards, Dan Hrcncir, Cline Carne, Dan Delfino, and Danish Zia.

J. Adjourn

The meeting was adjourned at approximately 3:15 pm.

*Minutes submitted by:
Paul Sullivan
Secretary
April 27, 2022*