

Meeting Minutes
PC37.13 Ad Hoc on EMC Standards
IEEE STANDARD FOR LOW-VOLTAGE AC POWER CIRCUIT BREAKERS USED IN ENCLOSURES
KEITH FLOWERS, CHAIRMAN
JEFF MIZENER, MEETING CONVENOR

Meeting Date: 8 August, 2021
Meeting Time: 11:00AM-1:00PM, CDT
Location: Teams / On-Line

A. Call to order

The meeting was called to order at 11:04AM CDT.

B. Instructions for Chairs of Standards Development Activities and IEEE SA Copyright Policy

It was confirmed that all in attendance had reviewed the latest slides for "[INSTRUCTIONS FOR CHAIRS OF STANDARDS DEVELOPMENT ACTIVITIES](#)" and "[IEEE SA COPYRIGHT POLICY](#)" prior to the meeting. These slides can be downloaded from the links.

C. Introductions

There were 4 members in attendance. Mr. Flowers was unable to attend.

D. Approval of agenda

The agenda was discussed and approved.

E. Approval of the minutes from the previous meeting

There were no minutes to approve as this was the first meeting

F. Working group P&Ps

All in attendance were referred to the Switchgear Committee P&P link in the case of procedural questions.

[http://www.ewh.ieee.org/soc/pes/switchgear/O-and-P/PES_WG_PP-Switchgear--approved-\(2013-09-19\).pdf](http://www.ewh.ieee.org/soc/pes/switchgear/O-and-P/PES_WG_PP-Switchgear--approved-(2013-09-19).pdf)

G. Document status report

As this is an Ad Hoc group, there was no document status.

H. New business

- The goal of the meeting was to discuss how best to add EMC standards to C37.13.
- Motivation: At the moment, most (if not all) LVPCBs covered under C37.13 call out C37.90.1, .2, & .3.. These standards are optimized for protective relays and require a degree of interpretation to apply to LVPCBs. For that reason, the standards may not be being applied uniformly.
- Question: What is different about the IEC market that would make it necessary/desirable to have different standards for our products in the IEEE-realm (ANSI/NEMA-influenced region)?
- Jim Lagree prepared a presentation and sheet comparing the EMC tests in the IEC and IEEE world as well as some suggested pluses and minuses of adopting one or the other.
- Potential model for what we want to do: UL 489 Supplements SF & SG incorporate text from IEC 60947-2, Version 4. The text is incorporated, and the specific version is referenced to keep from needing to keep up with the relatively rapid changes that happen in IEC standards.

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- IEC standards in question:
 - IEC 61000-4-2
 - IEC 61000-4-3
 - IEC 61000-4-4
 - IEC 61000-4-5
 - IEC 61000-4-12
 - Possibly IEC 61000-4-18

I. Conclusion

- The members were unanimous that moving to the IEC EMC framework was desirable. Doing so would simplify testing across product lines and remove interpretation of C37.90.x from the equation.

J. To be decided:

- Discuss and decide whether to reference a specific set of IEC standards or to draw text from them into an appendix (or whatever). Drawing text would require re-writing it so as not to run afoul of the IEC guideline of including 10% of a standard without requiring permission.
- Determine whether adopting the IEC standard for radiated emissions (CISPR) would cover the testing required in FCC at 15B.
- Review whatever standards are referenced/included and, if necessary, document deviations, create new figures and tables as required. The IEC standards cover a broad range of breaker types but are heavily MCCB-centric and may need to be “modified” for use with LVPCBs.
- Jim Lagree will update his EMC comparison spreadsheet to include some tests he forgot in the initial version.
- Evaluate including some material from C62 (Surge Protection: IEEE Standards Collection 1995) which gives a historical picture of how EMC standards came to be and how the levels for testing were arrived at.

Meeting ended at 12:48 PM CDT

Meeting minutes respectfully submitted by Jeff Mizener

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Attendees List:

Last name	First name	Affiliation	Role
Carne	Clint	Schneider Electric	Member
Lagree	James	Eaton	Member
Mizener	Jeff	Siemens Industry, Inc.	Moderator
Zia	Danish	UL LLC	Member
Thomas	Christo	Schneider Electric	Member