

P1826

Submitter Email: ykhersonsky@ieee.org
Type of Project: New IEEE Standard
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Status: PAR for a New IEEE Standard
Project Record: No Project Record

1.1 Project Number: P1826
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Standard for Power Electronics Open System Interfaces in Zonal Electrical Distribution Systems Rated Above 100 kW

3.1 Working Group: Power Electronics Working Group (IAS/PCI/1662_WG)
Contact Information for Working Group Chair

Name: Yuri Khersonsky
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Contact Information for Working Group Vice-Chair
None

3.2 Sponsoring Society and Committee: IEEE Industry Applications Society/Petroleum & Chemical Industry (IAS/PCI)

Contact Information for Sponsor Chair

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Contact Information for Standards Representative
None

3.3 Joint Sponsor: IEEE Power Electronics Society/Standards Committee (PEL/SC)

Contact Information for Sponsor Chair

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Contact Information for Standards Representative

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4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 06/2014

4.3 Projected Completion Date for Submittal to RevCom: 08/2014

5.1 Approximate number of people expected to be actively involved in the development of this project: 40

5.2 Scope: This standard identifies Open System Interfaces for High Power Electronics Equipment used in Zonal Electrical Distribution Systems rated above 100 kW. Interfaces are grouped into key and non-key interfaces and are based on technological maturity, accepted practices and allowances for future technology insertions. This standard defines how Openness of System should be verified and validated through rigorous assessment mechanism, interface control management and proactive conformance testing to enable plug-and-play operability independently of components origin. It also formulates specific interface requirements for Open Zonal Electrical Distribution Systems on Ships and Platforms.

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: The purpose of this document is to provide a uniform standard for High Power Electronics Open System interfaces in Zonal Electrical Distribution Systems Rated above 100 kW. The stated specifications and requirements are universally applied to maintain total power system performance and efficiency under changing mission and loads conditions. They will be sufficient for

most installations including Ships and Platforms. The document compliments IEEE Standard 1662-2008.

5.5 Need for the Project: Effective Open System Power Electronics equipment design is contingent upon adherence to well-defined interfaces that determine the degree to which all zones are cohesive (contain well-focused and well-defined functionality); encapsulated (hide the internal workings of a zone's behavior and its data); self-contained (do not constrain other zones). Well-defined Interfaces will enable plug-and-play operability, information exchange, and reconfiguration of electrical power systems in response to load demands, change of the mission or new technologies insertion. The document will define interface requirement for open system high power electronics outlined in the IEEE Std 1662-2008.

5.6 Stakeholders for the Standard: Commercial marine industry, naval engineers, commercial and military High Power Electronics equipment manufacturers, shipbuilders, port operators, classification societies, research institutes, and universities

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

7.1 Are there other standards or projects with a similar scope?: No

7.2 International Activities

a. Adoption

Is there potential for this standard (in part or in whole) to be adopted by another national, regional or international organization?: Do Not Know

Organization:

Technical Committee Name:

Technical Committee Number:

Contact Name:

Phone:

Email:

b. Joint Development

Is it the intent to develop this document jointly with another organization?: Do Not Know

Organization:

Technical Committee Name:

Technical Committee Number:

Contact Name:

Phone:

Email:

c. Harmonization

Are you aware of another organization that may be interested in portions of this document in their standardization development efforts?: No

8.1 Additional Explanatory Notes (Item Number and Explanation): The new standard will compliment the IEEE Std 1662-2008.