

IEEE 802.3 Ethernet Working Group  
**DRAFT** Liaison Communication

Source: IEEE 802.3 Working Group<sup>1</sup>

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email

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email

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From: David Law Chair, IEEE 802.3 Ethernet Working Group  
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Subject: Clarification of IEC TC64 documents (and conflict with IEC TC108 documents)

Approval: Agreed to at IEEE 802.3 Plenary meeting, Berlin, Germany, 13 July 2023

Mr Devine,

The IEEE 802.3 Working Group (WG) is contacting IEC TC64 PT-716 to request their assistance in arranging a new project within TC64. This new project would cover Single Pair Ethernet technologies in the same manner that 4-pair cabling classes D to Fa and Class I/II are addressed in IEC 60364-7-716.

In addition, the IEEE 802.3 WG requests clarification and guidance from PT-716 regarding the following items related to IEEE 802.3 Power over Ethernet (PoE):

- Regarding dry locations, can you please confirm if a PoE device which is enclosed in a housing rated to the applicable environment – for example, was appropriately weatherproofed or otherwise protected from the elements when used outdoors – is considered a dry location? This would appear to be in harmony with similar provisions in IEC 60364 for use of mains voltage outdoors, i.e., an outdoor light.
- The IEEE 802.3 WG needs assistance regarding the misalignment of the IEC 60364 series (under TC64) and the equipment safety standards specified by

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<sup>1</sup> This document solely represents the views of the IEEE 802.3 Working Group and does not necessarily represent a position of the IEEE, the IEEE Standards Association, or IEEE 802.

TC108, such as IEC 62368. As an example of the misalignment, IEEE 802.3 understands that IEC 62368-3 limits the voltage of 'accessible' bare parts in 'outdoor locations' to  $\leq 30$  V DC. However, IEC PT 60364-7-716 limits the voltage to  $\leq 15$  V DC in non-dry locations. Along with the voltage misalignment, the locations are misaligned since a non-dry location can include indoor locations such as bathrooms and swimming pools. A further example of the misalignment is that IEC PT 60364-7-716 places requirements on the construction of the power supply which IEC 62368-3 does not.

The IEEE 802.3 WG would offer to present these issues more directly to PT716 at a future meeting of your choosing if you believe this would be helpful to further understand the issues raised.

Understanding that some of these issues may be beyond the scope of PT716, the IEEE 802.3 WG requests the assistance of PT716 in forwarding these topics to the appropriate committee.

Thank you for your time to consider these issues and we look forward to a reply at your soonest opportunity.

Sincerely,  
David Law  
Chair, IEEE 802.3 Ethernet Working Group