



ISO/IEC JTC 1/SC 25 **N 2352**

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INTERCONNECTION OF INFORMATION TECHNOLOGY EQUIPMENT
Secretariat: Germany (DIN)

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on remote powering

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**REQUESTED
ACTION:** To IEEE 802.3 for consideration
to SC 25 for information

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P-, L-, O-Members of SC 25,
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ISO/IEC JOINT TECHNICAL COMMITTEE 1

SUBCOMMITTEE No.25: INTERCONNECTION OF
INFORMATION TECHNOLOGY EQUIPMENT
WORKING GROUP 3: CUSTOMER PREMISES CABLING

57th Meeting of WG 3
Beijing, China 2014-09-15/18

**Title: Liaison from ISO/IEC JTC 1/SC 25 to IEEE 802.3 on remote powering
To**

David Law, Chair IEEE 802.3 (david_law@ieee.org)

CC

Alan Flatman, Liaison, IEEE 802.3 & ISO/IEC/JTC 1/SC 25/WG 3, (a_flatman@tiscali.co.uk)

Matei Cocimarov, IEC Technical Officer (mco@iec.ch)

Dear Mr Law,

Thank you for the liaison communication from your March 2014 meeting (circulated as SC 25 N 2268). This was considered at the September 2014 meeting of ISO/IEC JTC1/SC 25/WG 3.

In response to your request for pair-to-pair resistance unbalance, our members are compiling current product data that will be used to provide values for cable Categories 5 through 7_A.

There are no plans to improve the DC resistance unbalance within a pair, which is currently specified by ISO/IEC 11801 as 3% or 200 mΩ maximum, whichever is larger.

Regarding your request to study temperature rise of cable bundles under different installation conditions, the SC 25/WG 3 is developing specifications including:

1. Open air installation
2. Open tray installation
3. Installation in conduit
4. Installation in conduit sealed at both ends

The effect of temperature rise with barometric pressure up to elevations of 3 000 m is not expected to have a significant effect compared to the other installation conditions. We will try to verify this but need to identify an appropriate test facility first.

As stated in our previous liaison letter the use of PoE up to 300 mA per wire is expected to fall within the 10 C temperature rise allowed in your document and stated in our technical report.

We are collecting testdata for different types of cabling and different installation conditions to support the use of PoE with 500 mA per conductor. It is too early to give fixed numbers but it looks like:

- For existing installations it might be advisable to do an assesment of the installation conditions before applying a 500 mA per conductor.
- For new installations we expect to develop installation requirements and recomendations to support the use of 4-pair PoE with 500 mA per conductor.

We plan to have an initial working draft of ISO/IEC TR 29125 Edition 2 for your review by March 2015.

We look forward to working with you on this important project in support of remote powering applications using balanced twisted pair cabling.

Sincerely,

Prof. Dr. Albrecht Oehler
Convenor ISO/IEC JTC 1/SC 25 WG 3