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TR-42: Engineering Committee on Premises Telecommunications Cabling

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From: Herb Congdon, Chair, TR-42 (hvcongdon@tycoelectronics.com)

Subject: Bundled cabling maximum current carrying capacity specifications

TIA TR42 has received several liaison requests from IEEE 802.3 to develop telecommunications cabling specifications for the support of the Power over Ethernet Plus (PoEP) application. One of the requests is to specify a higher current capacity for balanced twisted-pair cabling. We have done some preliminary modeling and measurements that indicate that such higher currents may lead to a temperature that may exceed 60º C under certain environmental and installation conditions in bundled cable configurations.

Since this issue affects temperature rating of cables, this may require an amendment to an existing standard (UL 60950, Clause 6.3), or the creation of a new document. Accordingly, we think it is prudent to cooperate with your organization to develop current capacity capabilities for bundled cables.

We look forward to cooperating in developing cabling standards that will enable and support this new application from IEEE.

Best regards,

Herb Congdon