

Rooftop Ampacity Adjustments under the 2008 NEC

David Brender, P.E., Copper Development Association

The National Electrical Code has long required adjustments to the ampacity of conductors when operated in higher (or lower) ambient temperature conditions (Table 310.16). However, correction for conditions within conduits subject to direct sunlight on rooftops was previously arbitrary, if such corrections were performed at all. This talk will explain the background and methodology of experiments that led to specific Code language to deal with this situation, and numerous examples of how to apply the temperature correction factors. Useful tools will be handed out.

David Brender is National Program Manager for the Copper Development Association (CDA) in New York City. His duties involve directing and managing the electrical programs at CDA, including their Energy Efficiency and Power Quality Initiatives, research activities, and National Electrical Code work, among others. He represents the copper industry before various government, technical and public forums.

Dave has authored several magazine articles on energy efficiency and power quality subjects, as well as an IEEE Transaction Paper on this specific topic. He is a principal member of Panel 5 of the National Electrical Code, and indirectly participates on four additional panels. He is a Senior Member of the IEEE, a Life Member of the Association of Energy Engineers, and a licensed Professional Engineer in New York, New Jersey and Pennsylvania.