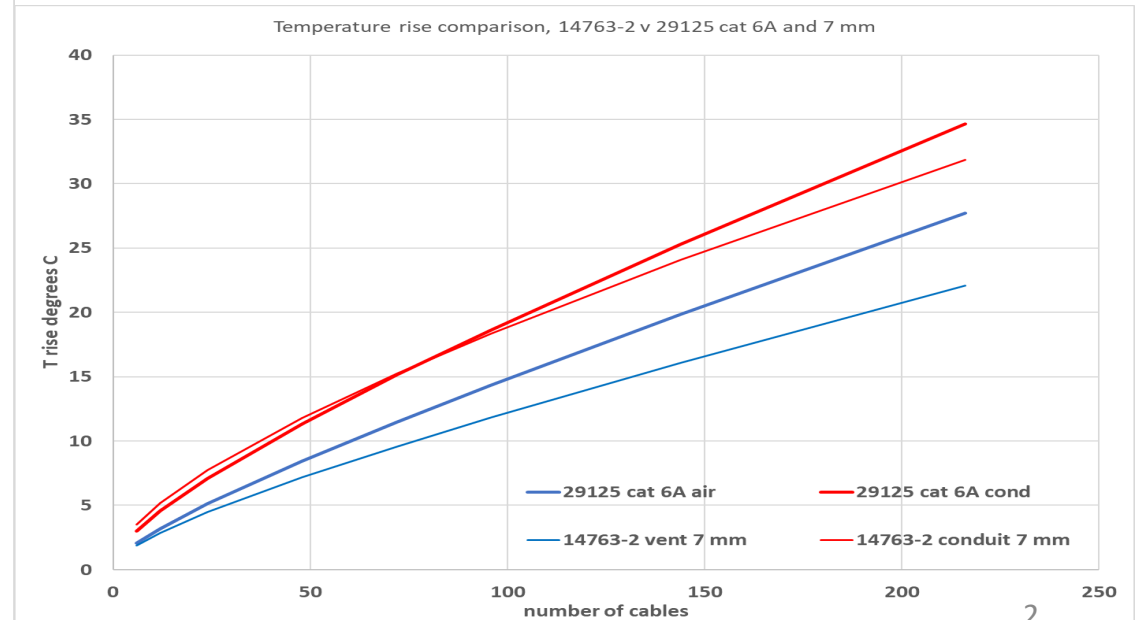
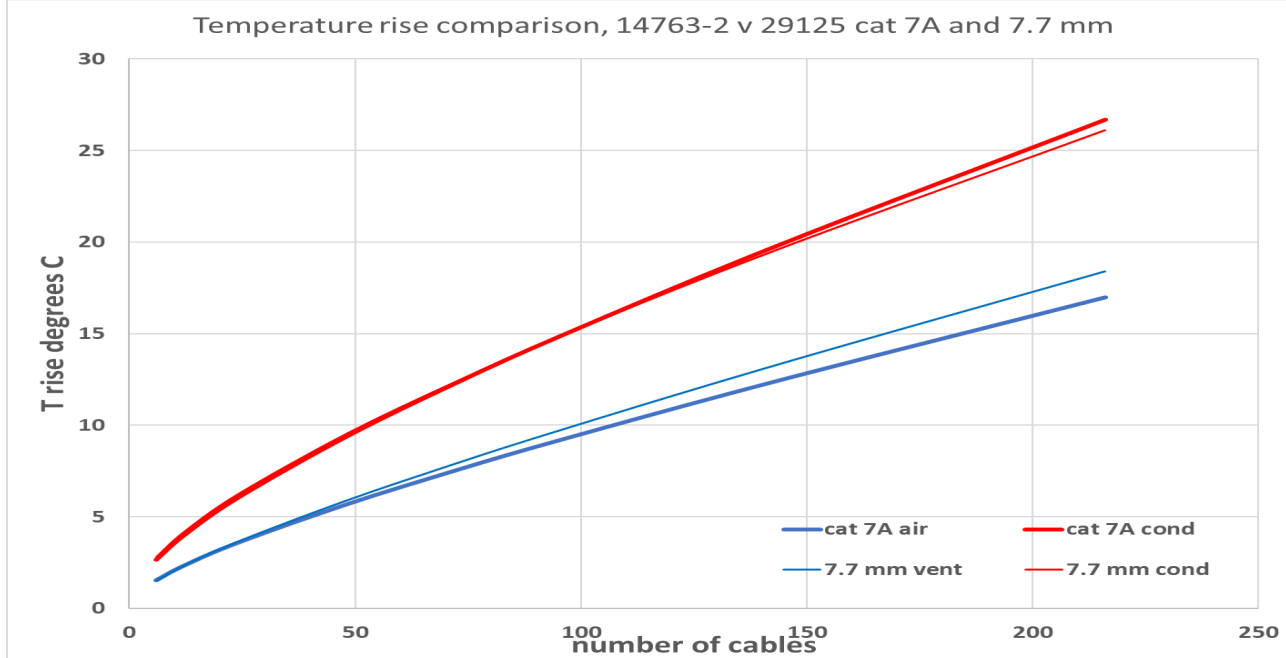
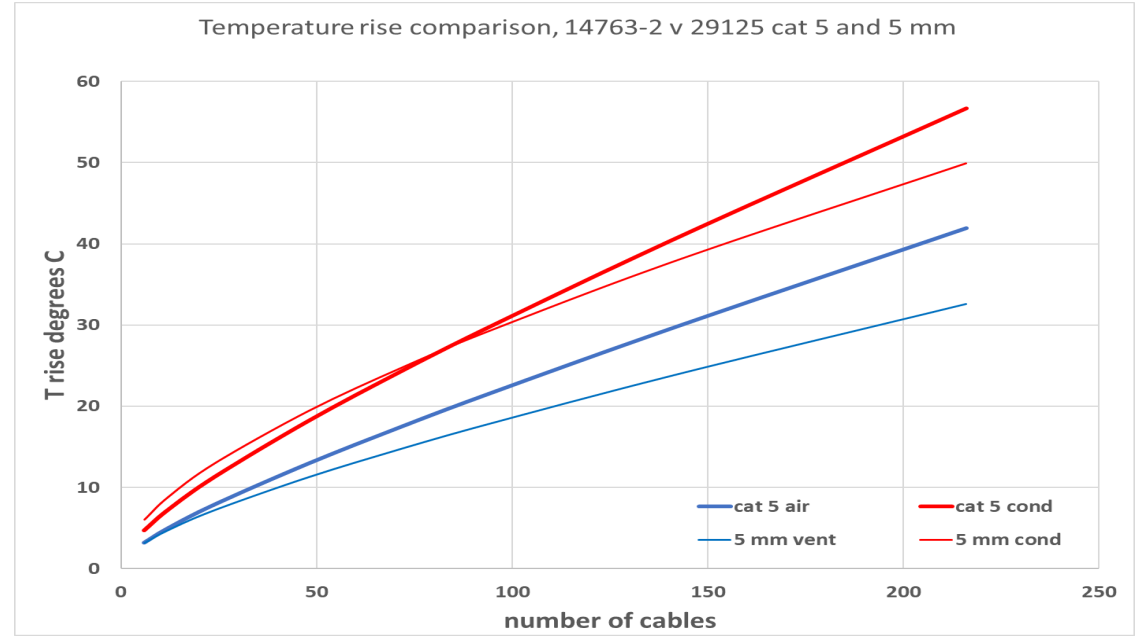


Heating and installation for 1-pr in 14763-2

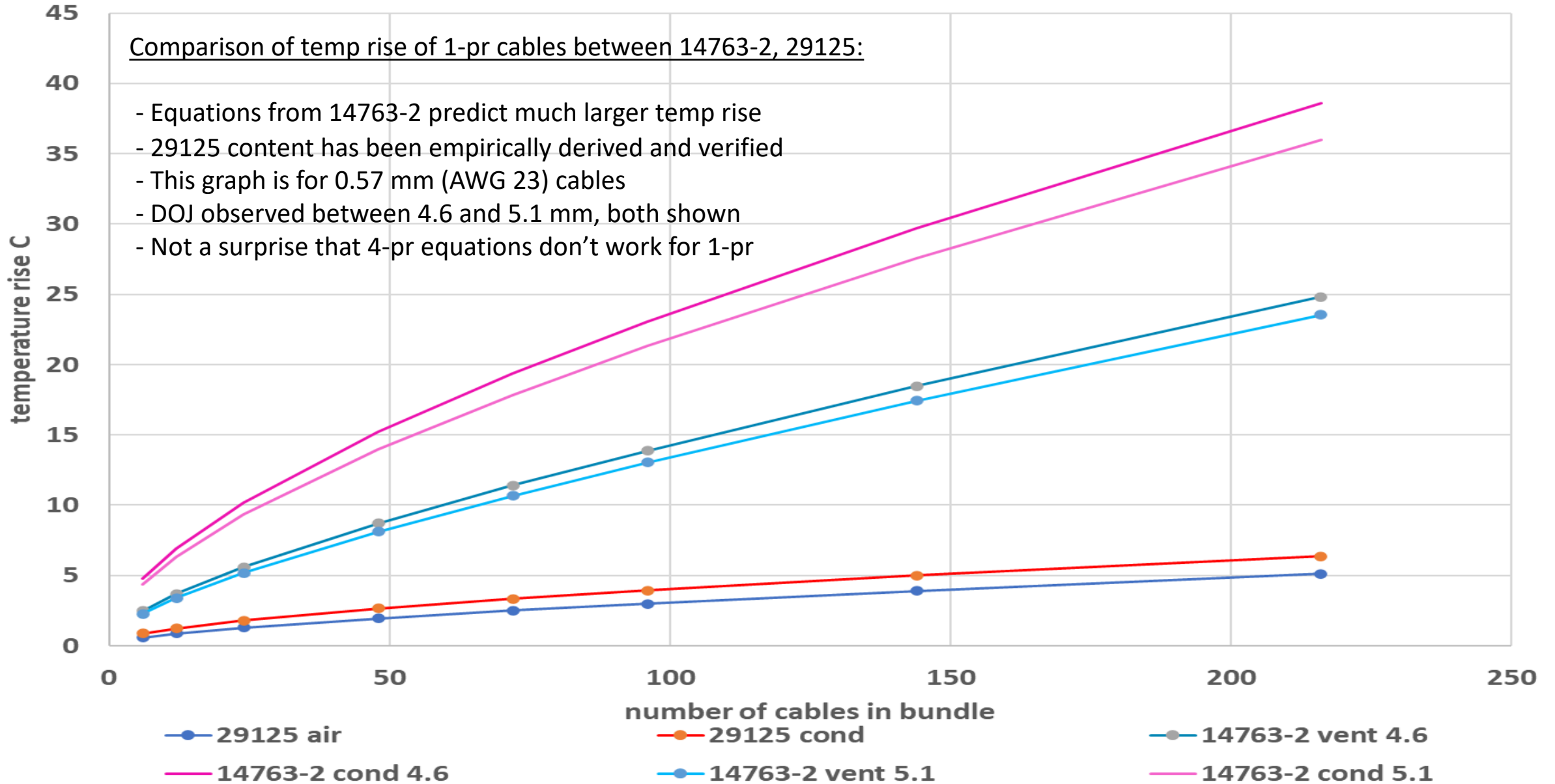
Wayne Larsen

Comparison of temp rise of 4-pr cables between 14763-2, 29125:

- 29125 is based on category, 14763-2 on resistance and outer dia
- 3 examples given in 14763-2 roughly correspond to 3 categories
- The temperature rise predictions roughly track on another
- Different manufacturers will have somewhat different results



Heating predicted by 29125 and 14763-2 for a 1-pr AWG 23 cable



A new model is needed for
1-pr heating in 14763-2

Other issues with 14763-2

- Line 1025 states “For 1 pair balanced cabling in accordance with the ISO/IEC 11801 series, remote powering equipment shall not supply more than 2000 mA per conductor” and should instead state “1 pair balanced cabling as installed shall be capable of supporting 2000 mA per conductor”
 - (Write as a requirement for the cabling system, in this standard, the existing wording is appropriate for powering equipment standards)
- Lines 1026 – 1083: The lower current capacity options for 4-pr cabling were for legacy installations. Since there are no legacy 1 pair installations, the only category needed is the one that supports 2000 mA.
- Look at line 5106 figure I.1A, installation like this, embedded in insulation, should not be allowed, document should say so and remove references to it