

## IEEE Standards Interpretation for IEEE Std C37.30™-1997 IEEE Standard Requirements for High-Voltage Switches

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### Interpretation Request #1

Table 3 of IEEE Std C37.30-1992, Temperature Limitations for Air Switches, lists the temperature values in degrees-C for "(2) Conducting mechanical joints (b) Silver, silver alloy, or equivalent" under columns 1, 2, and 4, to be 104, 53, 43 respectively. The same table in IEEE Std C37.30-1997 is Table 2, Temperature limitations for air switches, and lists the temperature values in degrees-C for "(b) Conducting mechanical joints (2) Silver, silver alloy, or equivalent" under columns 1, 2, and 4 as 125, 67, and 57 respectively.

These temperature limits are associated with switch-part class designation FO6 for non-enclosed switches and TO6 for enclosed switches. The same table, Table 2, in IEEE Std C37.30-1997 lists other FO6 and TO6 components as having temperature limitations of 105, 53, and 43 respectively under columns 1, 2, and 4.

Therefore, it appears that the temperature values in degrees-C listed in Table 2 of IEEE C37.30-1997 for "(b) Conducting mechanical joints (2) Silver, silver alloy, or equivalent" under columns 1, 2, and 4 should be 105, 53, and 43 respectively.

Please provide the correct temperature values in degrees-C for Table 2 of IEEE C37.30-1997 for "(b) Conducting mechanical joints (2) Silver, silver alloy, or equivalent" under columns 1, 2, and 4.

### Interpretation Response

The required behavior of this standard is dependent on the requirements of another Standard, IEEE Std C37.37-1996. The temperature rise limit changes made to Table 2 in IEEE Std C37.30-1997 render it erroneous, in that in each case the change does away

with, and conflicts with, the loadability curves and equations (from IEEE Std C37.37™-1996), and introduces conflict with the Switch-part class designation.

The Temperature limitations in Table 1 of IEEE Std C37.37-1996 must be observed.

Consultation on this matter was held with the members of the Working Group PC37.30.1™. Responses were received from a majority of the Working Group and were unanimous in this position. The Working Group respondents include Manufacturers, Users and Consultants. The sponsors for IEEE Std C37.30-1997 and for IEEE Std C37.37-1996 are the same committee. Both standards are currently being combined into a consolidated standard PC37.30.1, expected to be completed by December 2010. This new standard will correct this conflict as stated.