

CTL DECISION SHEET

Standard(s)- (year and edition): IEC 60730-2-9	Sub clause(s): 17.16.108	Sheet n°: DSH 613
Subject: The air speed in the test cabinet for testing voltage maintained thermal cut-out	Key words: - voltage maintained thermal cut-out - test cabinet - air speed	Decision approved by the 44th CTL plenary meeting 2007

Question:

In practice, it is found that the test results were dramatically affected by the air speed of the cabinet when conducting the test of clause 17.16.108 of IEC 60730-2-9:2004, Ed. 2.2 in operated condition.

In the operated condition the contacts of the voltage maintained thermal cut-out remain open position by the heat generated by the PTC element. The faster the air speed in the test cabinet, the more heat generated by the PTC taken away by the air flow. This will reduce the temperature of the thermal cut-out which will make the thermal cut-out close.

Decision:

The test should be conducted in a static-air test cabinet or in a box which protects the samples from the air flow.

The required temperature (- 20°C) should be measured 50 mm beside the test samples (similar to the requirements according to clause 14.7 of IEC 60730-1)

During the examination of several samples in the test cabinet or box it is to be observed that the samples don't affect themselves among each other.

Explanatory notes:

To define the air speed is more or less not possible. It depends on the cooling-machines, cabinet size and positions of the measuring sensor.