

CTL DECISION SHEET (DSH)

Standard(s) (incl. year)	Subclause(s)	Tracking No.	Year
IEC 60335-1:2010/A1:2013 /A2:2016	11.8	2131	2019
Category			
HOUS			
Subject	Keywords	Developed by	Approved at
Temperature rise limits for external accessible surfaces	<ul style="list-style-type: none"> - Temperature - Accessible surface - Enclosure 	ETF 1	2020 CTL Plenary Meeting
Question			
<p>More and more part 2 standards of IEC 60335-1 are specifying temperature rise limits for externally accessible surfaces, typically in “Table 101”, or in “Table 102” if there already exists a Table 101.</p> <p>However, Table 3 of IEC 60335-1 also provides temperature rise limits for “external enclosure of motor-operated appliances except handles held in normal use”, which results in some surfaces having multiple limits of allowable temperature rise.</p> <p>For motor-operated appliances, which limits apply, Table 3 or Table 101?</p>			
Decision			
<p>Both limits shall apply. The more stringent requirement from Table 3 and Table 101 applies for any accessible enclosure surface.</p> <p>It is important to note that surfaces that are exempted from measurement and limits in Table 101 may not be exempted from measurement and limits in Table 3.</p>			
Explanatory notes			
<p>Motor-operated appliances have had temperature rise limits since the first edition of IEC 60335-1 (then called IEC 335-1). At the time, the entry in what is now called Table 3 was, “external enclosure of appliances without heating elements, except handles held in normal use.”</p> <p>The introduction of temperature rise limits for externally accessible surfaces was intended to bring the part 2 standards into alignment with IEC Guide 117, but it was not intended that some surfaces that were previously monitored and limited according to Table 3 would become exempted and no longer monitored.</p> <p>When the part 2 standards in the IEC 60335 series introduced temperature rise limits for externally accessible surfaces, some surfaces were intentionally exempted from measurement. An example of this for motor-operated appliances is surfaces that are inaccessible to a 75 mm diameter probe with a hemispherical end. Such surfaces do not have</p>			

a temperature rise limit in the part 2's due to the notes in Table 101, but are subjected to a temperature rise limit in the part 1.

Note: IEC 60335-2-2 Edition 6.2 includes text that is not in alignment with the explanation above. Readers may wish to consider the anticipated Edition 7 changes by referring to 61/5574/CDV and 61/5684A/RVC.