

CTL Provisional DECISION SHEET (PDSH)

Standard(s) (incl. year)	Subclause(s)	Tracking No.	Publication date
IEC 60335-1:2020	16.3	2242	2024
Category			
HOUS			
Subject	Keywords	Developed by	To be approved
Electric Strength test	Filter disconnection	ETF 1	2024 CTL Plenary Meeting

Question

There are cases where a washing machine which subjected to the high voltage test according to clause 16.3 of IEC 60335-1: 2020 does not withstand the test with the prescribed AC test voltage for basic insulation, which may occur due to several Y-capacitors connected to earth in the RFI-filter. (Disconnection of such capacitors during the test of clause 16 are not allowed which they are during the test of clause 13.) However, the product may comply with clause 16.3 if instead a DC voltage of 1,5 times the prescribed value is used.

Can this DC voltage be used alternatively to the AC voltage required by clause 16.3? One reason for using DC voltage may be that clause 16.3 states that "care shall be taken to avoid overstressing the components of electronic circuits".

Decision

DC voltage shall not be used instead of the AC voltage required by clause 16.3.

Explanatory notes

Based on the result in clause 16.2, if the current rise would be linear with the voltage, it will automatically be far below 100 mA the tripping current required in the tests of clause 16.3, so the DC test proposed is not to be considered as equivalent.