CTL DECISION SHEET (DSH)

Standard(s) (incl. year)	Subclause(s)	Tracking No.	Year
IEC 60950-1:2005 +A1:2009 + A2:2013	2.10 Clearances, creepage distances and distance through insulation	DSH 2143	2020
Category			
OFF			
Subject	**Keywords**	**Developed by**	**To be approved**
Insulation requirements across a fuse	Basic/functional insulation	ETF 2	2020 CTL Plenary Meeting

Question

What is the required type of insulation between two PCB pads associated with a fuse to ensure that once operated (due to an overcurrent event), adequate separation exists between the fuse protected circuit and the energised circuit – is it Functional insulation or Basic insulation?

Decision

Figure 2H (giving examples of application of insulation) shows that functional insulation is required between similar circuits – and therefore Functional insulation is adequate.

Note:

This decision relates to the clearance distance on the PCB where the fuse is mounted, not the fuse itself, since the fuse is required to comply with an IEC fuse standard.

This decision impacts the clearance requirement across a fuse, since creepage distances for functional and basic insulation are identical.

Explanatory notes

Functional insulation across a fuse provides adequate separation between the energised circuit and the fuse protected circuit.