

## DECISION SHEET

<b>Standard(s)- (year and edition):</b> IEC 60601-1:1988 Am1+Am2	<b>Sub clause(s):</b> 57.6	<b>Sheet n°:</b> <b>DSH-433</b>
<b>Subject:</b> Components between primary and secondary	<b>Key words:</b> Reinforced, insulation, bridging	<b>Confirmed by CTL at its 39<sup>th</sup> meeting, in Cologne</b>
<p><b>Question:</b>          :</p> <p>DOUBLE INSULATION and REINFORCED INSULATION are defined in subclasses 2.3.4 and 2.3.7. Relevant requirements are in sub-clause 20 (Dielectric strength) and sub-clause 57.10 (CREEPAGE DISTANCES and AIR CLEARANCES). Sometimes it is necessary to bridge the insulation by components (e.g. opto-couplers, capacitors). What are the requirements for these components?</p> <p><b>Decision:</b>          Capacitors according to IEC 60384-14 type Y1 can be used to bridge DOUBLE or REINFORCED INSULATION.</p> <p>Step by step a list with references to standards for components with requirements concerning reliability shall be established.</p> <p><b>Explanatory notes:</b>          Most of the components used to bridge DOUBLE or REINFORCED INSULATION withstand relevant dielectric strength tests. As dielectric strength is a type test no evidence is given concerning reliability of the components.</p> <p>Reliability of components is important to prevent break down of insulations during lifetime of EQUIPMENT. Just a few of the standards addressing requirements for components relate to reliability. Only components on the basis of such standards can be used to bridge DOUBLE or REINFORCED INSULATION.</p>		