

## Session 9 – Low Voltage Directive



## LV Directive – Examples of Products

As stated before, the LV directive is not a standard... However, most standard general purpose electrical equipment falls within this EN standard. Products such as lighting, panelboards, wiring devices, plugs and sockets need to meet this requirement. LV equipment may need to meet a combination of various IEC standards, which will typically all fall under the umbrella of the EN60439-1 standard. You will find country specific deviations to the EN 60439-1 standard, but all will meet the LV Directive.



# LV Directive

## Low Voltage Directive - 73/23/EEC 93/68/EEC

The Low Voltage Directive is applicable to **all** low-voltage electrical equipment, i.e. equipment operating at voltages from 50 - 1000V a.c. or 75 - 1500V d.c. It sets out a number of key demands. For example, it requires that LV equipment may be placed on the European market only if it satisfies certain basic ("essential") safety requirements. This must include protection against hazards such as:

- direct and indirect shock hazard;
- hazards arising from dangerous temperatures, arcs or radiation;
- hazards arising from overloading;
- hazards arising from insulation failures;
- hazards arising from mechanical failures;
- hazards arising from the expected environmental conditions;
- hazards arising from non-electrical dangers.

The Directive itself does not go into any more detail of how these requirements are actually to be met but states that equipment must be deemed to comply if it satisfies the safety provisions of European harmonized standards. Furthermore, the Low Voltage Directive states that, if an assembly satisfies these safety requirements, then its free movement within the European market must not be impeded for reasons of safety.

