

Safety Requirements in the Use of Cables and Insulated Wires

Compatibility

The following points shall be considered in the selection and installation of cables:

- The avoidance of interference mechanical and electrical influences between adjacent circuits.
- Dissipation of heat from cables, or the chemical/physical influences from the materials used for the cables on bordering materials, such as for example, constructional and decorative materials, insulation tubes, supports, etc.
- Mutual interference by adjacent materials and the materials used for the cables. This applies for instance, for an absorption of plasticiser from PVC-sheathed cables by certain materials that are used for thermal insulation purposes, for strapping materials or for the equipment.

Dynamic stress

The possibility should be taken into consideration of damage to cables and fastenings for these, by the dynamic forces that can be caused by any current including short-circuit currents.

Storage/Handling/Transportation

Cables that are not intended for outdoor applications should be stored in dry indoor environments. A number of constructional types of flexible cables are particularly susceptible to moisture, such as screened cables for example.

The ends of the cables should be sealed for the application and the expected duration of outdoor storage in order to prevent the penetration of moisture. The temperatures given in the tables in HD 516 S2 for storage shall be taken into account.

If the temperature of the cable falls below recommended values, then all types of mechanical stresses, in particular vibrations, shock, impact, bending and torsional twist shall be avoided.

