



Unreeeling and dereeling of cables

Cables must be selected according to the laying and operating conditions involved. They must be protected against mechanical, thermal, or chemical effects, and against penetration of moisture from the cable ends.

Insulated power cables must not be laid underground. Temporary covering of tough rubber sheathed cable NSS-HÖU or cable runs with earth, sand or similar, for example on construction sites, is not deemed to constitute underground laying.

Cables ties or supports must not cause any damage to fixed wiring and cables. If cables or wires running horizontally along walls or ceilings are fastened with clips the following reference figures apply for the clip spacing:

For non-reinforced cables and wiring, 20 x cable diameter.

These spacings also apply for mounting positions where installation is on cable trays and staging. For vertical installation the clip spacings can be widened, depending on the type of cable or clip involved.

Flexible cables (e.g. ÖLFLEX® cables, UNITRONIC® cables) must be installed with stack when connected to mobile equipment and must be protected against twisting and buckling. The outer sheathing of cables must not

be damaged at the feed points, or by the strain relief devices. Flexible PVC cables in the standard versions are not designed for open air use.

Flexible rubber-sheathed cables (e.g. ÖLFLEX® CRANE cables) are only suitable for permanent use in the open air if the outer sheathing is based generally on a compound of polychloroprene (NEOPRENE®). Special cables must be used for permanent underwater use.

Thermal stresses

The temperature limits for the respective types of cables are listed in the relevant Technical Data. The upper temperature limits must not be exceeded as a result of heat built-up in the cables or the ambient thermal conditions. The lower limits denote the lowest permissible ambient temperature.

Tensile stresses

The tensile stress imposed on the conductor should be as low as possible. The following tensile stresses for the conductor must not be exceeded in the case of cables:

- Flexible cables 15 N/mm² during installation of cables, subjected for flexible use only. Screening, concentric conductors and divided protective conductors not being included in the above figures. In the case of cables subjected to dynamic stresses in

- operation, e.g. in crane installations involving high rates of acceleration of power chain systems subject to frequent movement, suitable measures must be taken, e.g. increased bending radii in the individual case. Due account must be taken of the possibility of service life being reduced.
- Cables for static usage. When laying permanent cables 50 N per mm² of conductor cross-section.

- Fibre optical, BUS, LAN and Industrial Ethernet cables Please take into consideration its individual tensile strengths limitations. These values are given at products datasheet, or on demand.

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