

Technical Information

General

The rated voltage of a cable must not be lower than the nominal voltage of the circuit in which it is used. The ambient temperature during operation should be at least 10 °C lower than the maximum conductor temperature allowed to the insulation material.

Rated Voltage

The rated voltages of cables are expressed as U_0/U_m where

- U_0 the rated voltage between the conductor and earth, or between the conductor and the metal screen for which the cable is designed.
- U the rated voltage between the conductors for which the cable is designed.
- U_m the highest system voltage for which the cables may be used

Installation Temperature

The minimum installation temperature for thermoplastic sheathed cables is -15 °C. If, however, the cables are warmed up prior to installation, they can be installed at lower temperatures. Lowest operation temperature -40 °C

Earthing of Braids

Earthing of braids is to be carried out in accordance with the regulations of the classification society.

Bending Radius

The minimum bending radii according to IEC 60092-352 in the final fixed assembly:

Insulation	Outer covering	Overall diameter of cable (D)	Minimum internal radius of bend
Thermoplastic or thermosetting with circular copper conductors	Unarmoured or unbraided	≤25 mm	4D
		≥25 mm	6D
	Metal braid screened or armoured	Any	6D
	Metal wire armoured Metal tape armoured or metal sheathed	Any	6D
Thermoplastic or thermosetting with shaped copper conductors	Composite polyester/metal laminate screened units or collective tape screening	Any	8D
	Any	Any	8D
Medium voltage cable	Any	single core	12D
		3-core	9D

During installation the recommended radius is 1,5 times the value given in the table.
 Maximum pulling tension $P = 50 \text{ N/mm}^2 \times \text{total conductor cross section mm}^2$ value of the cable.

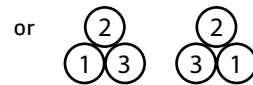
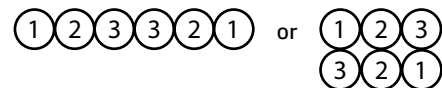
Marine Cables

Special precautions for single core cables for a.c. wiring

Whenever possible, a.c. wiring should be carried out with multicore cables. When it is necessary to use single core cables, they should either be unarmoured or armoured with a non-magnetic material.

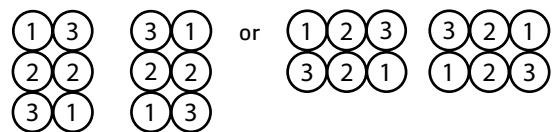
When several multi or single core cables are connected in parallel per phase, they should be of the same type and equal length.

All cables pertaining to the same phase should be alternated with those of the other phases to avoid unequal division of the current. In the case of two cables per phase, for example, the correct dispositions to conform with IEC 60092-352 (phases 1, 2 and 3) are:

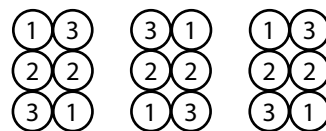


Some other installation examples of single core cables (phases 1, 2 and 3)

Four cables per phase



Six cables per phase



or



Ten cables per phase on the same cable tray

