Engineering . Industry, transport of Energy, Connections

## Mastering high currents

## Free bumpers

Our free bumpers ensure a maximum protection of the cable water hose, without altering its mechanical properties.

These bumpers are rubber rings made of antiabrasive auto-extinguishable rubber, installed freely along the length of the cable. They can turn around the cable axis, which allows:

- to have random wearing points, instead of the wearing line we find in the case of clamped bumpers or without bumpers;
- to make the cable movement smoother during roof swiveling (and avoid bumper sliding)

Because of their limited length (200mm) and because they are not clamped, they have no negative influence on the bending radius of the water hose.

Only the first and last bumpers are clamped, so as to reduce the longitudinal movement of the other bumpers. This possibility of movement must however exist in order to allow the rubbing points to change over time.


## Rotating terminals



## Reinforcing sleeves



Mainly used when there are 4 cables / phase, and when the distance between upper and lower cables > 400mm, they allow to strengthen the end of the cable and avoid conductor breaking or hose bursting next to the terminal.

Using a rotating terminal at one end of the cable reduces the stress on the hose during roof swiveling.
It also make installation easier (the non-rotating terminal should be fitted first)
Rotating terminals are used systematically when rotation is above $12^{\circ} / \mathrm{m}$

The operation is perfectly safe and without risk.


