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THE SIZING OF THE ABSORPTION FILTERS THAT MIGHT BE USED TO IMPROVE THE NON-SINUSOIDAL STATE IN PUBLIC DISTRIBUTION NETWORKS

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Usually, at a distribution network are connected many non-linear devices that determine the working state to be non-sinusoidal. It is unanimously accepted that, strictly interpreting the facts, the appearance of the non-sinusoidal state in the public destribution networks can not be avoided and we must deal with it. Harmonics have been known to exist in the power system for a long time. Very often, the existence of waveform pollution is detected following casualties, like the destruction of power factor capacitors. It is clear that power harmonics are becoming a very serious problem and represents a potential of damaging effects to both the consumer and the power network.

The non-linear devices act as sources of harmonic currents that are injected in the network. In present, the main harmonic sources in public distribution networks are represented by the low power converters used as devices in the TV-sets, computers, public lighting, a.s.o. The non-sinusoidal state can be identified with different meters and can be suggested methods or decisions concerning the optimal development and exploitation of the medium and low voltage distribution networks.