

## ABSTRACT

LIGHTNING ARRESTER AND A POWER TRANSMISSION LINE  
PROVIDED WITH SUCH AN ARRESTER

A lightning arrester for protecting elements of electrical facilities or a power transmission line comprises an insulating body which is made of a solid dielectric, preferably in the form of a bar, a strip or a cylinder, two main electrodes that are mechanically coupled to the insulating body and two or more intermediate electrodes. The intermediate electrodes, preferably made in the form of bars or cylinders, are arranged between the main electrodes so that said intermediate electrodes are mutually shifted along the longitudinal axis of the insulating body or along a spiral line. Such design makes it possible to form a discharge channel between the adjacent electrodes. Furthermore, said electrodes are located inside the insulating body and are separated from the surface of the body by an insulation layer. Discharge chambers formed as cavities or through bores opened to the surface of the insulating body are arranged between the pairs of the adjacent electrodes. Dimensions of the chambers are selected such that a discharge is easily blown out from the chambers to the surface of the insulating body, thereby increasing the efficiency of the discharge current quenching. In the preferred embodiments, the arrester is provided with an additional electrode for reducing a flashover voltage. Various embodiments of a power transmission line using the arrester of the invention are also disclosed.

Fig. 1