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A SUPPORT INSULATOR WITH VOLTAGE MEASUREMENT FUNCTION TO MV SWITCHES

ABSTRACT *The article presents construction of a new support insulator with a voltage measurement function for use in indoor switchgears with air insulation, for rated voltage up to 24 kV. Standard requirements for support insulators as well as measuring sensors have been given. The influence of insulating material (epoxy resin) on the measuring sensor accuracy for different voltage frequencies (higher network harmonics) was analyzed. The electric field was analyzed in order to ensure uniform distribution along the low voltage sensor. The newly developed sensor was compared to the sensor but without function of a support insulator.*