Research of melting operations aimed at removing a glaze from fiber-optic ground wire cable

© K.S. Egorov, S.I. Kaskov

Bauman Moscow State Technical University, Moscow, 105005, Russia

The paper presents physical and mathematical models of melting a glaze on a fiber-optic ground wire cable due to electric heating. A thermal behavior of the fiber-optic ground wire cable is of particular interest. The authors introduce an analytic formula for calculating temperature of the fiber-optic ground wire cable along with determining a period required to remove the glaze.

Keywords: a glaze, fiber-optic ground wire cable, melting glaze.

Egorov K.S. (b. 1977) graduated from Bauman Moscow State Technical University in 2001. Assoc. Professor of the Thermal Physics Department of Bauman Moscow State Technical University. Author of more than 10 publications in high-compactness surface of heat exchange, supersonic heat transfer. e-mail: egorovks@power.bmstu.ru

Kaskov S.I. (b. 1964) graduated from Bauman Moscow Higher Technical School in 1987. Researcher of the Power Engineering Research Institute at Bauman Moscow State Technical University. Author of more than 10 publications in the field of research and design heat exchangers. e-mail: kaskov@power.bmstu.ru