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Heat Resistance Class Selection for the Stator Winding Insulation in the Circulation Pumps Induction Motors

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Abstract

this article gives a mathematical justification for the heat resistance class selection of the stator winding insulation when manufacturing the stator winding rods for the induction motor VAZ 215/109-6AM05, which is the drive for the main circulation pump GTsN-195M in the nuclear reactor first cooling circuit VVER-1000. The topic of the article under consideration is important, since the main circulation pumps are designed to create forced circulation of the coolant in the primary circuit of the reactor plant. © 2023 IEEE.

Author keywords

high-voltage insulation systems; large electrical machines; thermal insulation class

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Engineering controlled terms

Heat resistance; Nuclear reactors; Pumps; Specific heat; Stators; Thermal insulation; Winding

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Engineering main heading

Induction motors

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