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COMPENSATION OF THE REACTION MOMENT IN ELECTRIC DRIVE OF SATELLITE ON BOARD SYSTEMS

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Abstract

The peculiarities of the construction of an electric drive stabilized by speed, which operates as part of an autonomous spacecraft, are considered. To prevent the negative action of the reaction torque of the engine rotating which rotates the satellite in the opposite direction the satellite it is proposed coaxial with the drive motor to install an adjustable compensating motor, which creates a torque of the opposite sign. An algorithm for controlling the drive and compensating motors is proposed. The possible change in the bearing's resistance moment is

considered, which in the conditions of space is the only source of the torque of the engine. References 8, figures 7, table 1.

Key words: the satellite, the electric drive, the torque, the reaction torque.

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