

Method of Force Limitation for Automatic Elevator Doors

Summary:

This system for the operation of an automatic elevator door consists of a reference value generator (1) for the speed, a sensor (2) for the actual value of the speed/door position, a movement controller (3), a speed generator (4) in the form of a door drive, and a sensor (5) for the actual value of the driving force generated. A driving force model (6) for the driving force calculates on the basis of a mathematical model and the parameters calculated for the door the driving force needed for operation in the absence of disruptive forces. A limiting value generator (7) uses the value derived from the driving force model and a permissible disruptive force to calculate a limiting value of force which is compared with the actual value of the driving force by means of a comparator (8). If the limiting value of force is exceeded, the door is stopped and/or a reversing operation is initiated.

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Fig. 1



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