

Method for controlling multi-motor traction electric drive consists of traction converters, traction electric motors, and gearboxes—during partial-load operation in traction and electrodynamic braking modes involves varying the number of active electric motors in the multi-motor traction electric drive. When determining the number of operating electric motors, the control system for the multi-motor traction drive takes into account the efficiency of the traction drive and the wheel-rail adhesion factor. The control system calculates the efficiency of the traction drive for various numbers of electric motors, ranging from the total number of electric motors in the multi-motor traction drive down to the minimum number. The control system determines, taking into account the wheel-rail adhesion factor, the number of electric motors that corresponds to the highest efficiency of the traction drive at a given wheel-rail adhesion factor. It generates control signals to load the selected number of operating electric motors up to the power level determined by the control system. The remaining traction motors of the multi-motor traction drive are deactivated.