

ABSTRACT

The present invention refers to a system and a control method especially applied to electric motors designed to drive cyclical loads. The present system comprises an electric motor (10), at least an electronic control unit (20) and at least an electronic power unit (30), the electric motor (10) is electrically driven by the electronic power unit (30), the electronic power unit (30) being electrically commanded by the electronic control unit (20), the system comprising an average speed controller implemented by the electronic control unit (20), the average speed controller being arranged to monitor an instantaneous speed (V_i) of the electric motor (10) and provide an average speed value of the motor (10), the electronic control unit (20) being arranged to calculate an average voltage (V_m) based on the average speed obtained, the electronic power unit (30) being arranged to electrically drive the electric motor (10) by an instantaneous voltage value (V_{ins}), this instantaneous voltage value (V_{ins}) being calculated by multiplying the average voltage (V_m) by the result of the division between the instantaneous speed (V_i) and the average speed.