Abstract

A motor control controller system and methods

The present disclosure relates to an energy management system for a motor controller system for optimising power signals for different operating voltages of electrically commutated motors. The energy management system comprises a bi-directional energy converter comprising a first input/output terminal and a second input/output terminal, a first waveform controller, and a second waveform controller. The bi-directional energy converter is coupled to the first waveform controller and to the second waveform controller. The first waveform controller is coupled to the second input/output terminal and the second waveform controller is coupled to the first input/output terminal. The bi-directional energy converter is configured to receive a first input voltage at the first input/output terminal and generate a first output voltage in a first operating direction and receive a second input voltage at the second input/output terminal and generate a second output voltage in a second operating direction.

Figure 1