

DUAL POWER SWITCHING SYSTEM AND METHOD OF OPERATING THE SAME

ABSTRACT

A dual power switching system selects a first power source or a second power source to supply power to a load coupled to an inductive device. The dual power switching system includes a first thyristor, a second thyristor, a third thyristor, a fourth thyristor, and a controller. The controller calculates a total magnetic flux according to a current magnetic flux and an expected magnetic flux. When the power-supplying source is switched, the controller turns off the first thyristor and the second thyristor, and determines whether a commutable time is reached according to a power parameter of the first static transfer switch and the second static transfer switch. When the commutable time is reached, the controller correspondingly turns on at least one of the third thyristor and the fourth thyristor according to the total magnetic flux being less than a threshold.