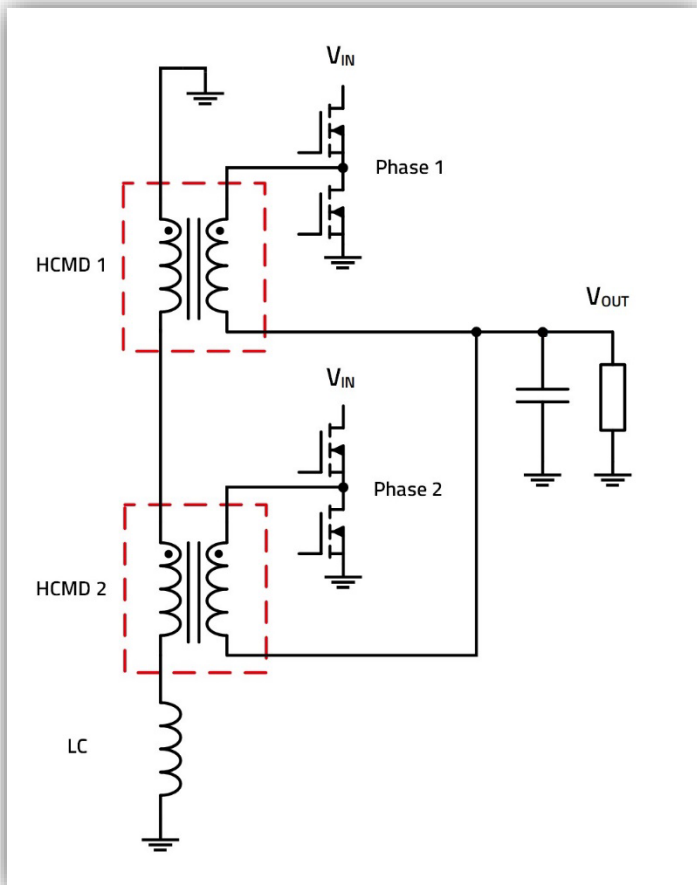


WE-TLVR:

TRANS INDUCTOR LOW VOLTAGE REGULATOR



TLVR Topology

The trans-inductor voltage regulator (TLVR) topology offers fast transient response, power density and solution cost in applications where sudden load changes occur.

The primary side of each coupled inductor (**WE-HCMD 1** and **WE-HCMD 2**) is connected between the switch node of each phase and the converter output voltage.

The added secondary windings are connected in a series loop, with an additional inductor known as the compensating inductor (LC).

Load Transient

The different phases sum up to the current I_{SUM} which is used from the load. The peak-to-peak ripple current is reduced. This results in a faster transient response and lower voltage drop during load transients so that frequencies can be increased. Each phases current strain is reduced, enabling the use of smaller inductors.

