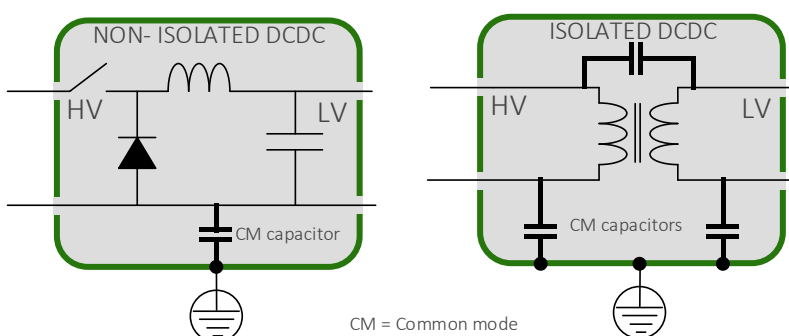


ROLE OF ISOLATION IN CONVERTERS

Isolation should be considered different for safety and functional purpose in DCDC converter.

As voltages upper than 60 VDC are classified to high voltages (HV) (many systems using these voltages shall be handled with care), all low voltages (LV) under this value are considered as non-dangerous. If used in this case, the insulation barriers in DCDC converter guarantee mainly basic protection against HV voltages on LV parts even they can be used to reduce common mode noises between inputs and outputs (functional protection).

In another word, in case of failures inside the DCDC or on power contactors in basic isolation, the LV can be at HV potential. That will be a safety major problem. In case of failures in a HVHV topology, this will lead to a minor fact since HV require global external protection for the users.



If the isolation is to be considered on user's system, Deewex™ proposes to integrate the good methodology at the beginning (or through a maturing process).