**Asymmetrical triple bridge converter based power electronic transformer**

The invention discloses an asymmetrical triple bridge (ATB) converter based power electronic transformer (PET).

**The Technology**

- The ATB converter includes two H-bridge inverters, two high frequency transformers, and a full bridge converter containing two active legs and one passive leg.
- The primary windings of these transformers are linked with each H-bridge converter. The secondary windings of both transformers include two terminals: first and second. The first terminals of both secondary windings are electrically connected to the mid-point of the passive leg consisting of two diodes.
- The second terminal of the first secondary winding and the second terminal of the second secondary winding are connected across the first and second active legs respectively.
- Both active legs include a pair of power electronic switches. The passive leg is placed between these two active legs. Further, various ATB converter based PET topologies are also provided.

*Asymmetrical Triple Bridge Converter based Power Electronic Transformer (ATB-PET)*