

TRANSFORMER WITH EFFECTIVE HIGH TURN RATIO

ABSTRACT

Embodiments of the invention provide a transformer comprising: a first coil element having a transverse axis along a transverse direction, the first coil element having p turns where p is greater than or equal to 1; and a second coil element having a transverse axis generally parallel to the transverse axis of the first coil element, the second coil element having n turns, where n is greater than or equal to $5p$; wherein the first and second coil elements are arranged to provide electromagnetic coupling between the coil elements along a portion of a length of the second coil element in both a transverse direction parallel to the transverse axes and a lateral direction, wherein the lateral direction is a direction normal to the transverse axes.

Figure 1