

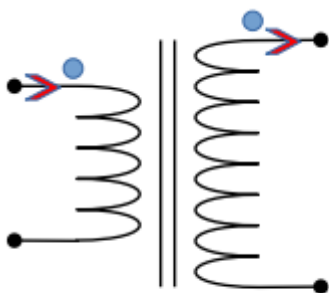
# In & Out Of Phase Inductors

By: Christophe Campain

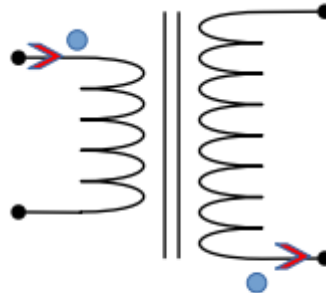
- [Introduction To Inductor Phasing](#)

# Introduction To Inductor Phasing

With the traditional way of representing a transformer, it's pretty easy to figure out the dot convention meaning.



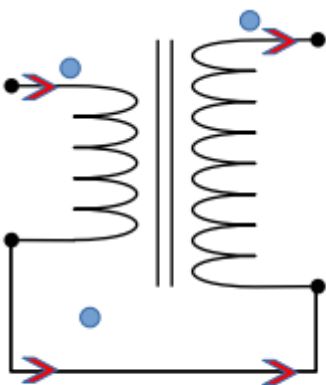
In phase



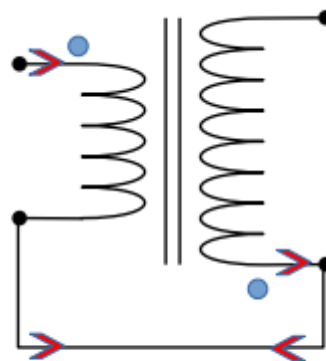
180° out of phase

In the case of inductors **in series** AND **magnetically coupled**, it is not always easy to figure out if the inductors are in phase or out of phase because they are not always represented side by side in the traditional way of transformers.

To help us, simply “connect” the bottom of a usual transformer to follow the current and figure out what would mean in series.



In phase

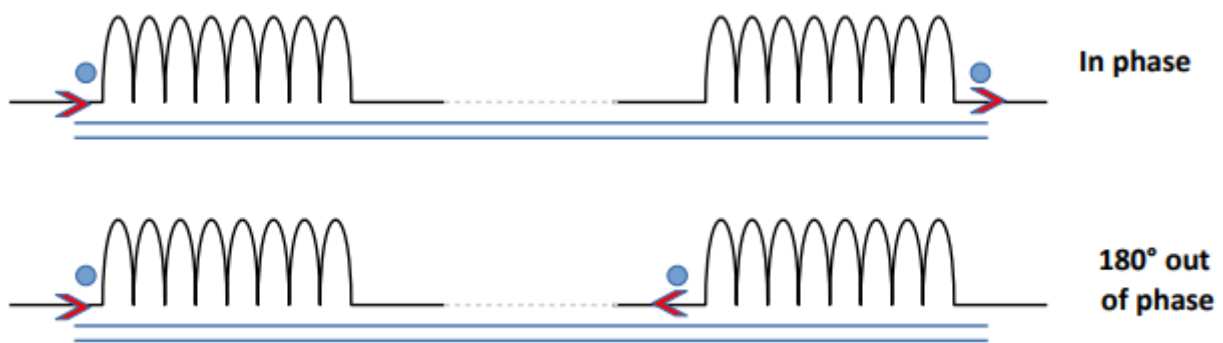


180° out of phase

**In phase** : Current flows in the same direction.

**Out of phase**: Current flows in an opposing direction.

So for 2 inductors **that are magnetically coupled** to each other and **in series**, if their input or output currents go in the same direction, they are **in phase** and if their currents oppose to each other, they are **180° out of phase**.



PDF Version: In phase or out of phase.pdf