

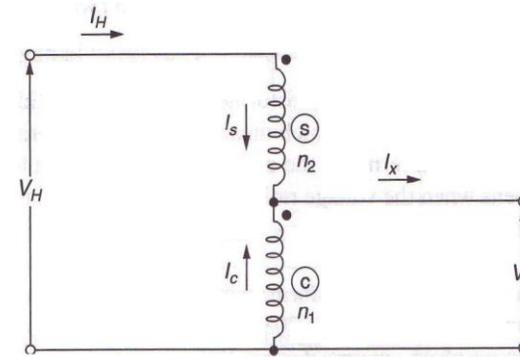
Autotransformer - Part 2

Dot Convention

Proper understanding of dot convention is necessary for autotransformer design and calculations such as:
 Subtractive and additive connections in order to obtain desired voltage ratings
 Establishing correct direction of currents
 Determining kVA ratings.

What is dot convention?

Terminals having dots are considered positive.
 If current enters the dot in one winding, it must leave from the dot in the other winding.



Additive Connections

Autotransformer additive or subtractive connections can be established and analyzed using following steps:
 Dotted terminals shall be connected to undotted terminals for 4 possible additive connections
 Mark dotted terminals as positive
 Connect source and load to positive terminals
 Establish direction of current in series and common windings
 Determine unknown ratings by means of KCL.

