



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)
COIMBATORE-35

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Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai



23EET101 / BASICS OF ELECTRICAL AND ELECTRONICS ENGINEERING I YEAR / I SEMESTER

UNIT-I:AC CIRCUITS

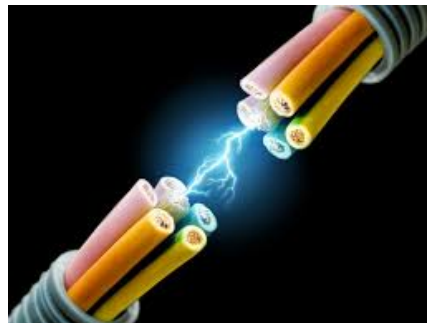




TOPIC OUTLINE



- ✓ Classification of Sources
- ✓ Types
- ✓ Construction
- ✓ Applications

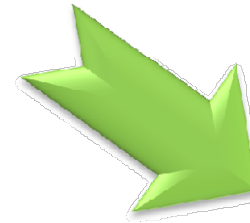




Identify the various forms of Natural Energy sources available



How to convert all these forms of Energy into

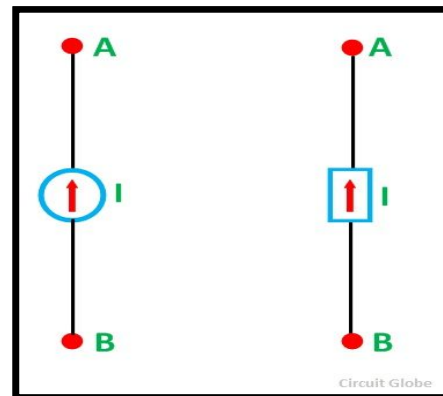




IDEAL CURRENT SOURCE

An Ideal current source is a two-terminal circuit element which supplies the same current to any load resistance connected across its terminals .It is important to keep in mind that the current supplied by the current source is independent of the voltage of source terminals.

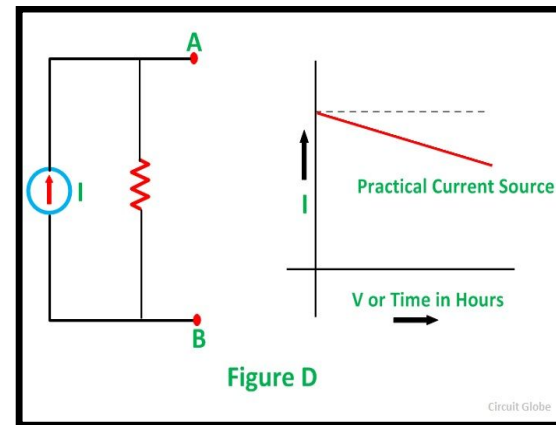
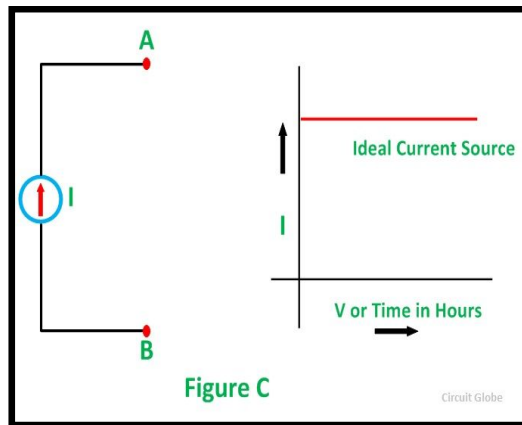
It has infinite resistance.





PRACTICAL CURRENT SOURCE

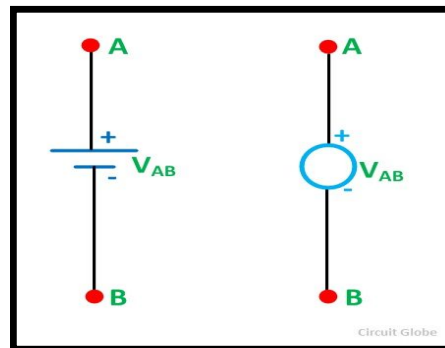
- A **practical current source** is represented as an ideal current source connected with the resistance in parallel. The symbolic representation is shown below



IDEAL VOLTAGE SOURCE

A **voltage source** is a two-terminal device whose voltage at any instant of time is constant and is independent of the current drawn from it. Such a voltage source is called an **Ideal Voltage Source** and have zero internal resistance.

Practically an ideal voltage source cannot be obtained.





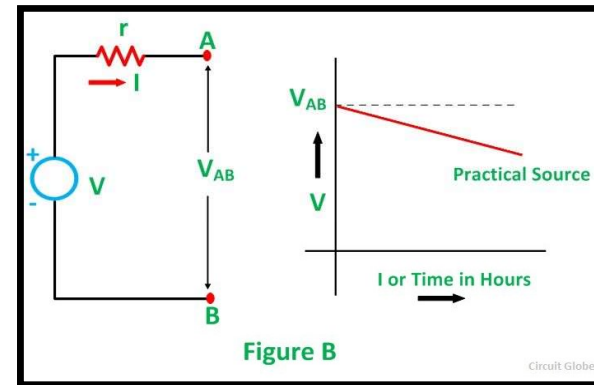
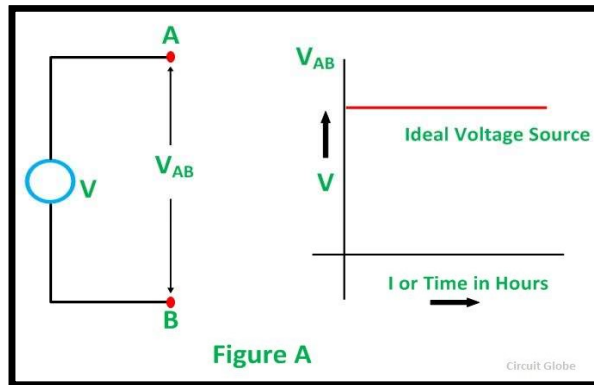
PRACTICAL VOLTAGE SOURCE



- Sources having some amount of internal resistances are known as **Practical Voltage Source**. due to this internal resistance; voltage drop takes place, and it causes the terminal voltage to reduce. The smaller is the internal resistance (r) of a voltage source, the more closer it is to an Ideal Source. The symbolic representation of the ideal and practical voltage source is shown below.

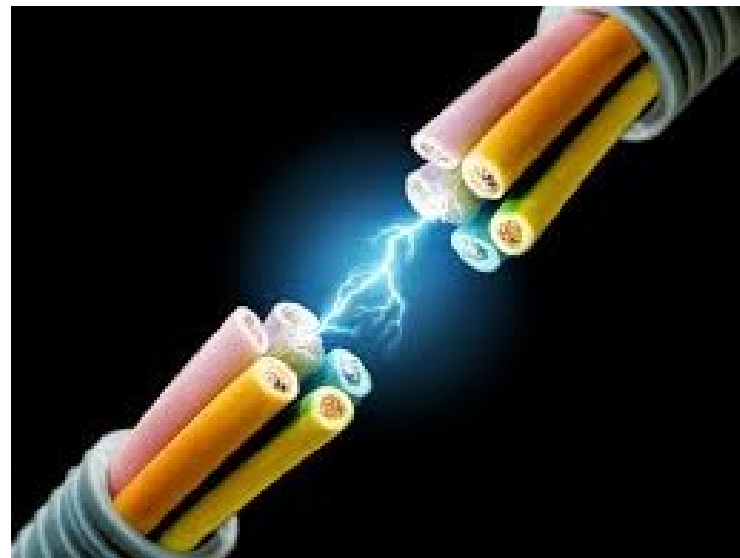


PRACTICAL VOLTAGE SOURCE





RECAP....



...THANK YOU

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