



# SNS COLLEGE OF TECHNOLOGY

Coimbatore-35  
An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A+' Grade  
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

## DEPARTMENT OF MECHATRONICS

### **19MCB302– INDUSTRIAL ELECTRONICS & APPLICATION** III YEAR V SEM

#### UNIT 2 – PHASE CONTROLLED CONVERTER

#### TOPIC –Three phase controlled Rectifier

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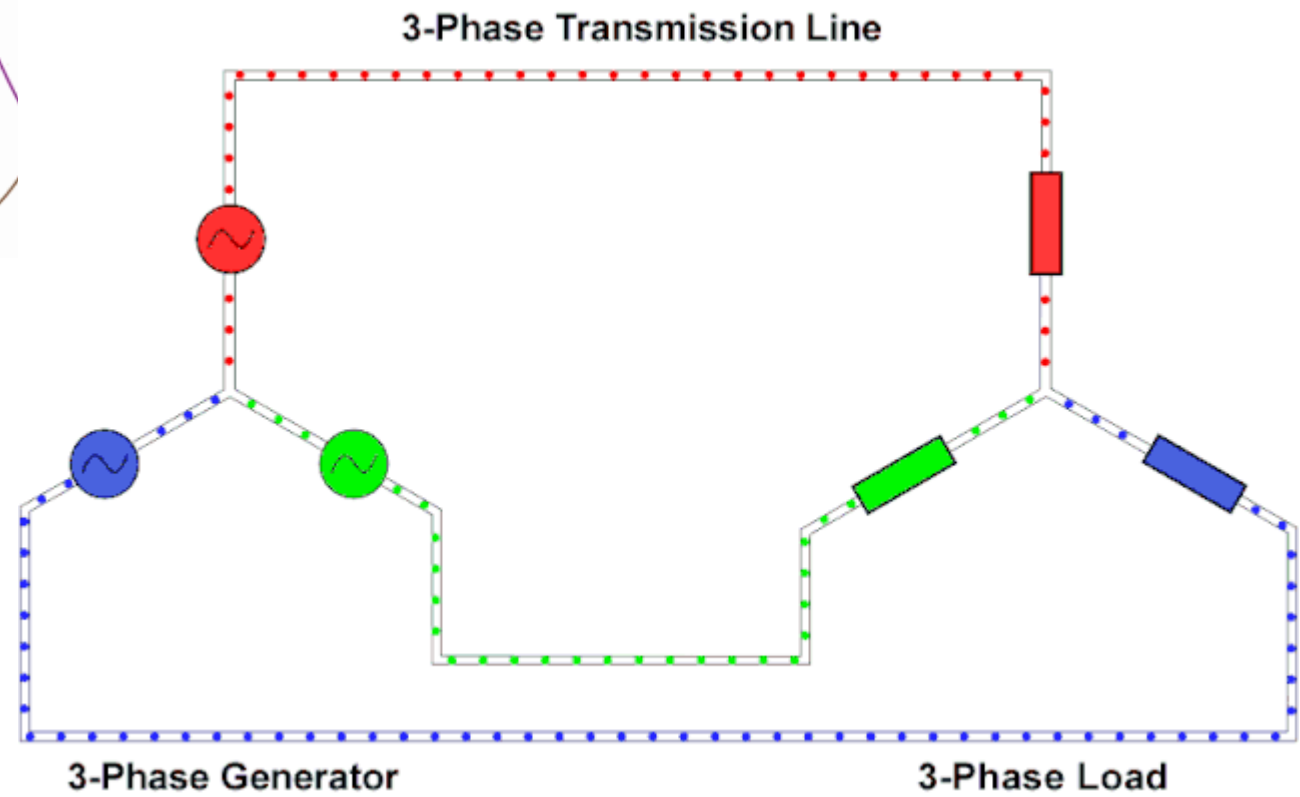
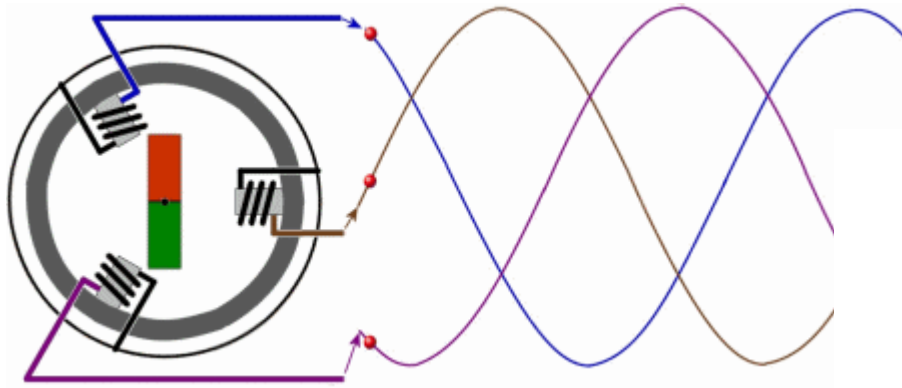
## APPLICATION



Three Phase Controlled Converter/19MCB302-Industrial Electronics & Application -  
M.Anand/AP/MCT/SNSCT

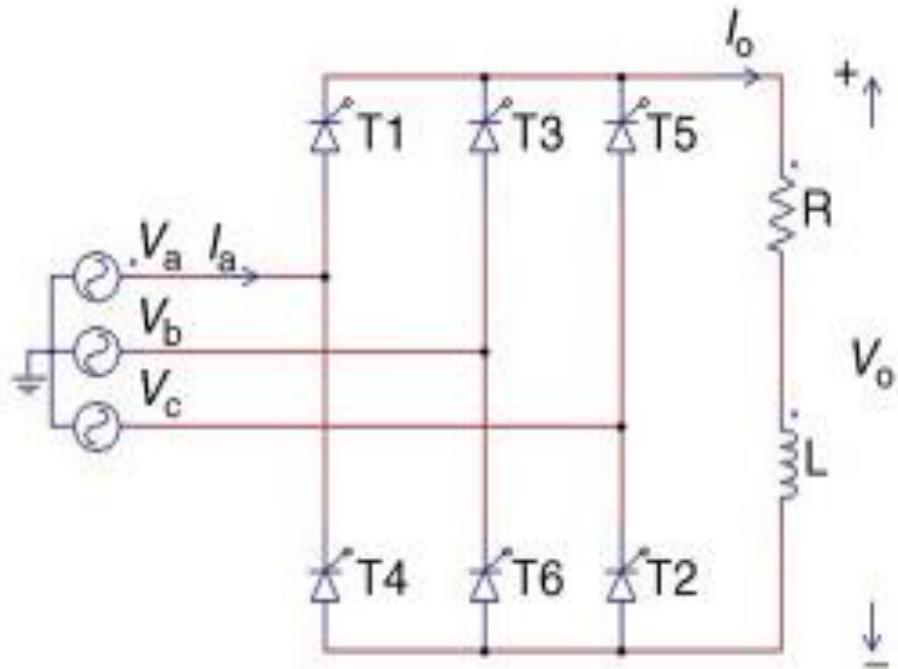


## Intro-Three Phase





# Single phase controlled Converter



6 SCR



controlled converter

Input

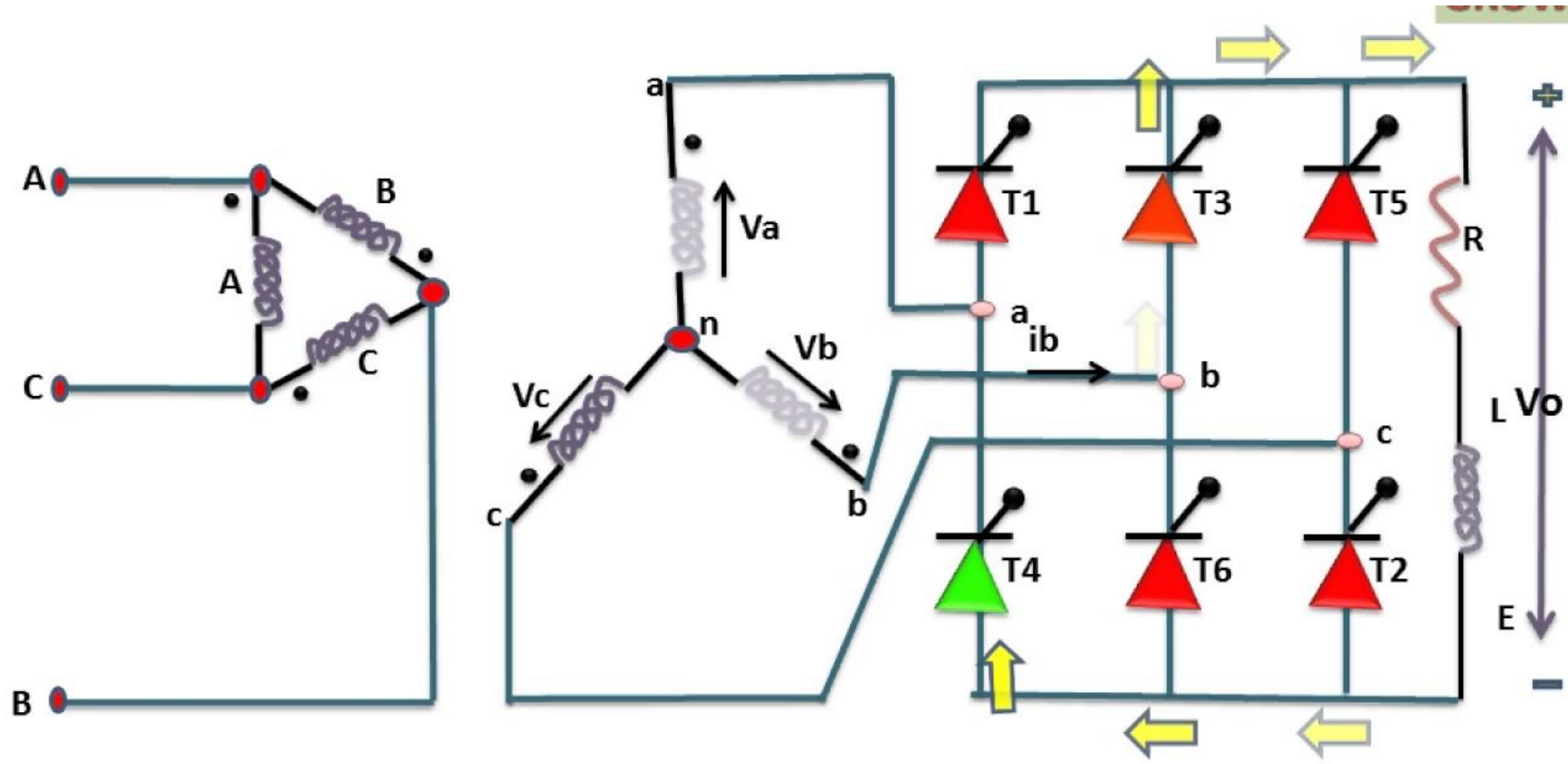


Three phase AC

Output



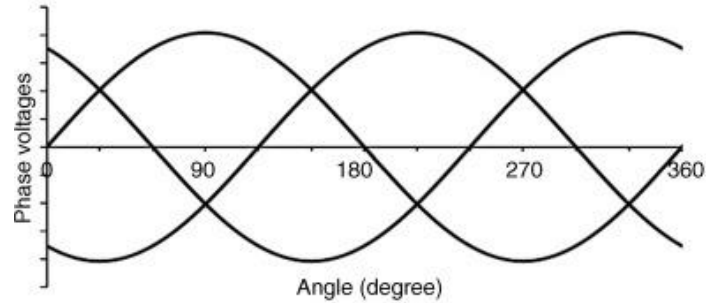
controlled DC



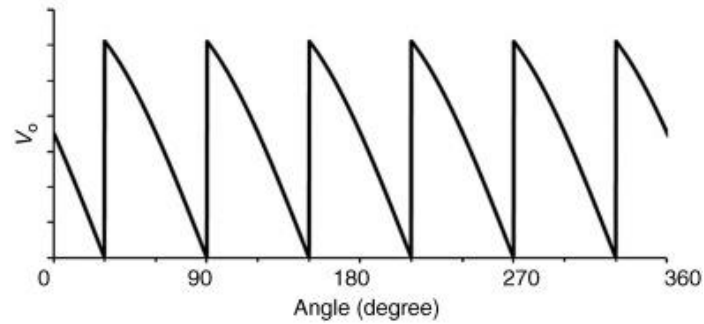
**T1, T2 = Vac**



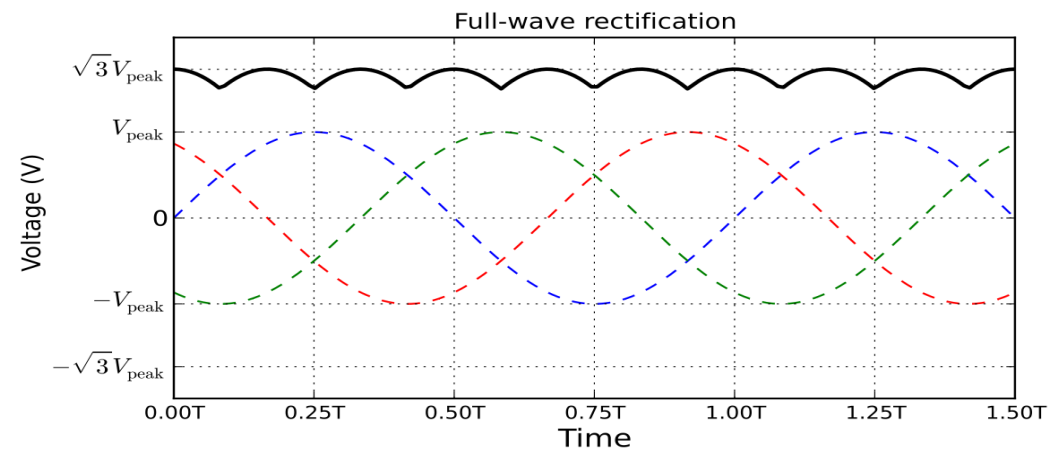
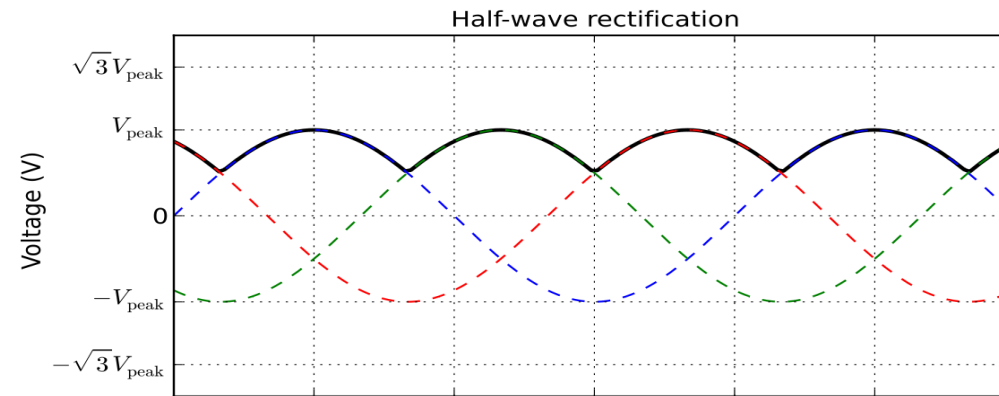
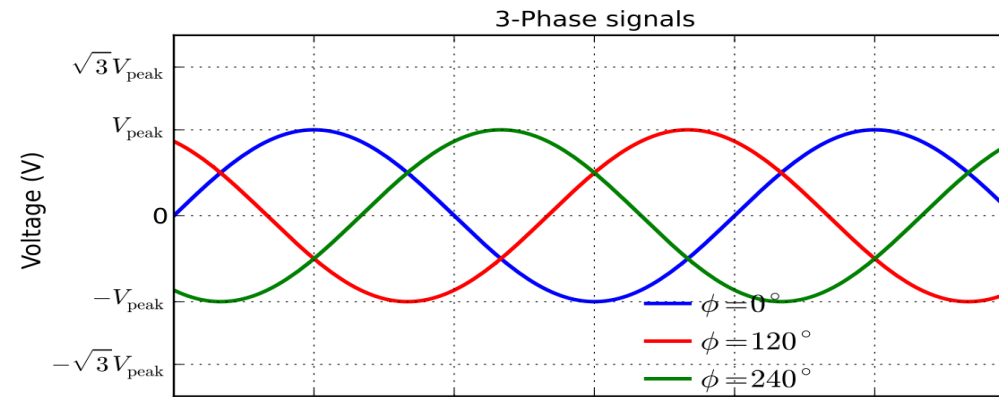
## Output Waveform



(a)

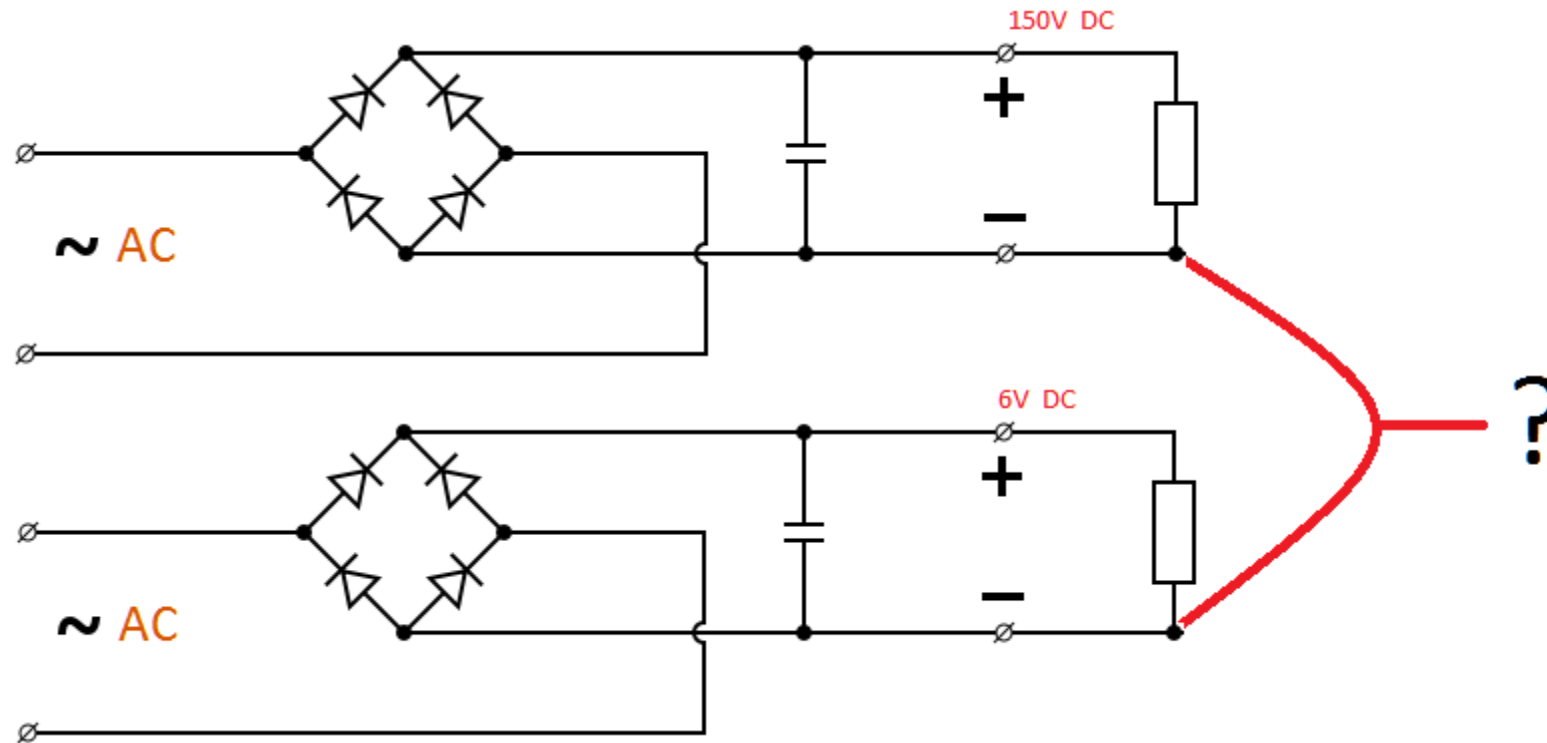


(b)





## Assessment - If connect two negative in following circuit, what will happen? Why?





## References

1. <https://www.electronics-tutorials.ws/power/single-phase-rectification.html>
2. [https://www.tutorialspoint.com/power\\_electronics/power\\_electronics\\_introduction.htm#:~:text=Power%20Electronics%20refers%20to%20the,efficiency%20and%20reliability%20is%20100%25.](https://www.tutorialspoint.com/power_electronics/power_electronics_introduction.htm#:~:text=Power%20Electronics%20refers%20to%20the,efficiency%20and%20reliability%20is%20100%25.)
3. <http://www.egr.unlv.edu/~eebag/EE-442-642%20Introduction%20F1>
4. <https://www.youtube.com/watch?v=djbJm-xWo2w>
5. <https://www.youtube.com/watch?v=jx5l2Fbil8U>

