



SNS COLLEGE OF ENGINEERING

Coimbatore-35
An Autonomous Institution



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

DEPARTMENT OF MECHATRONICS

19MO504 – INDUSTRIAL ELECTRONICS

III YEAR V SEM

UNIT 2 – PHASE CONTROLLED CONVERTERS

TOPIC –Inversion Mode of Converter

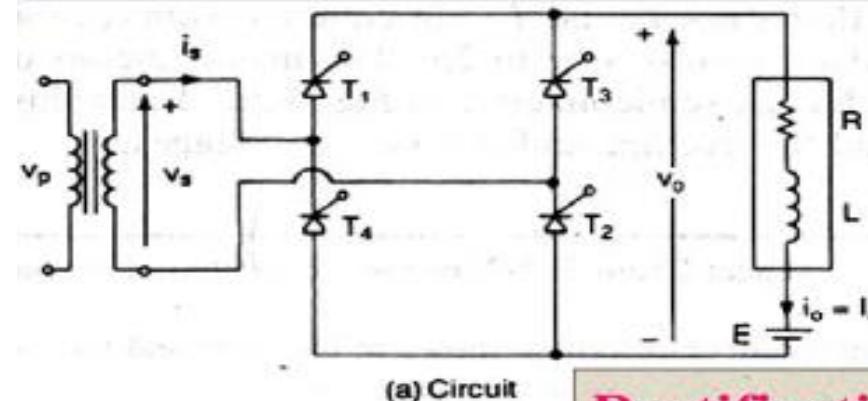
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DEPARTMENT OF EEE,

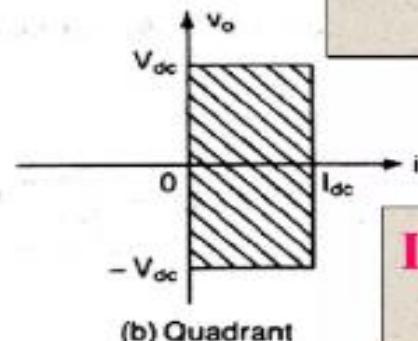
SNSCE, Coimbatore.

Inversion Mode



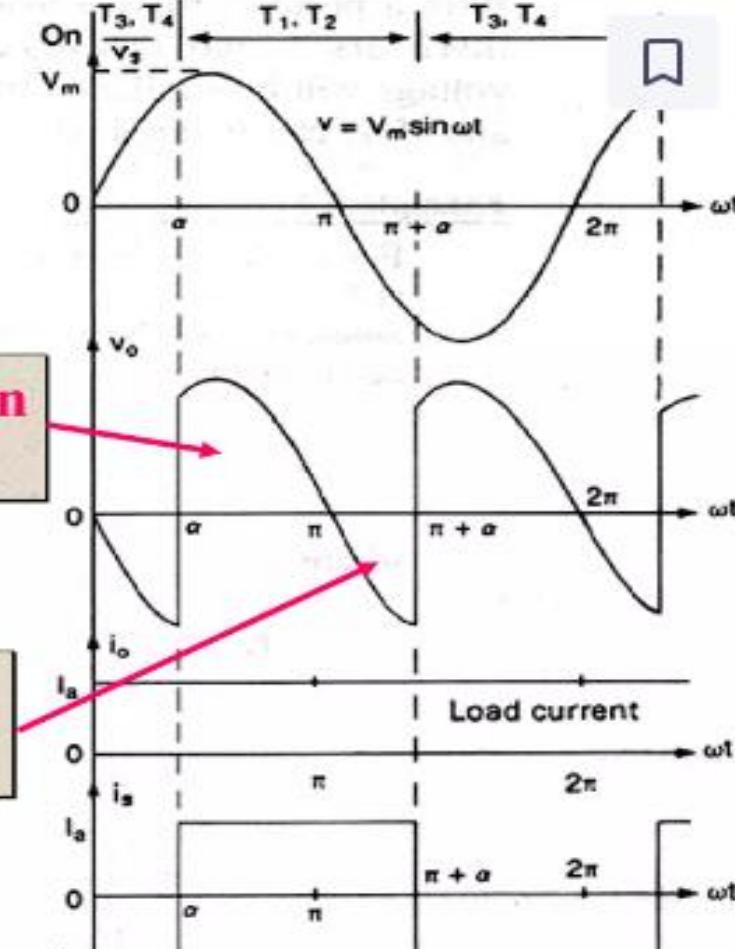
(a) Circuit

Rectification Mode



(b) Quadrant

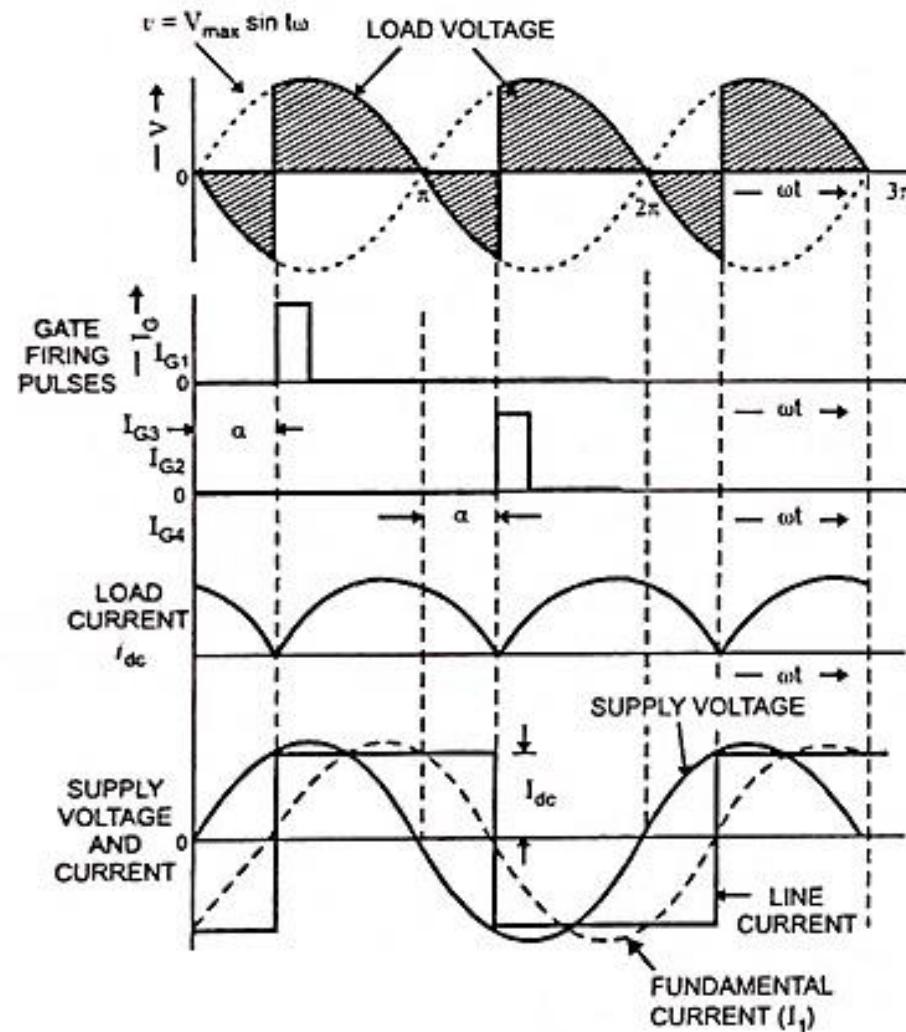
Inversion Mode



(c) Waveforms

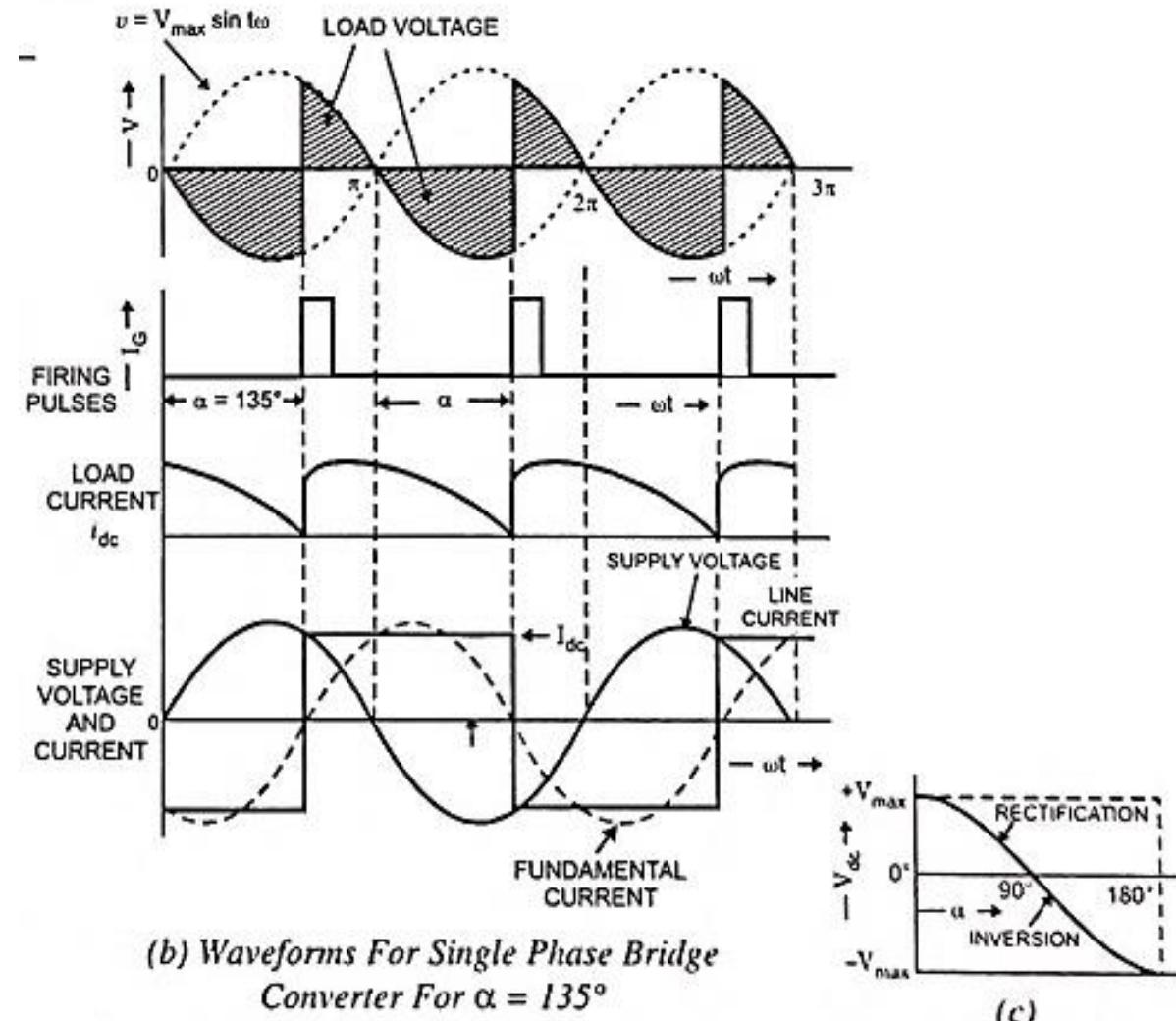
**Single-Phase
Full Converter**

Firing angle after 60 degree, at 135 degree



(a) Waveforms For Single-Phase Bridge Converter
For $\alpha = 60^\circ$

Firing angle after 90 degree, at 135 degree





ASSESSMENT

Q1. In the inversion mode of a converter, the power flow is:

- A) From AC to DC
- B) From DC to AC
- C) Unidirectional from the load to the source
- D) Not applicable

Answer: B) From DC to AC

Q2. In an inversion mode, the firing angle of the converter is typically:

- A) 0° to 90°
- B) 90° to 180°
- C) 180° to 270°
- D) 270° to 360°

Answer: B) 90° to 180°





References

1. <https://www.youtube.com/watch?v=HnEM8OISWNY>
2. https://en.wikipedia.org/wiki/Phase_converter
3. <https://www.youtube.com/watch?v=3-9YBY9Xzfs>



**Thank
You!!!**