



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 5 – Cycloconverter

TOPIC –three phase to single phase- Cycloconverter

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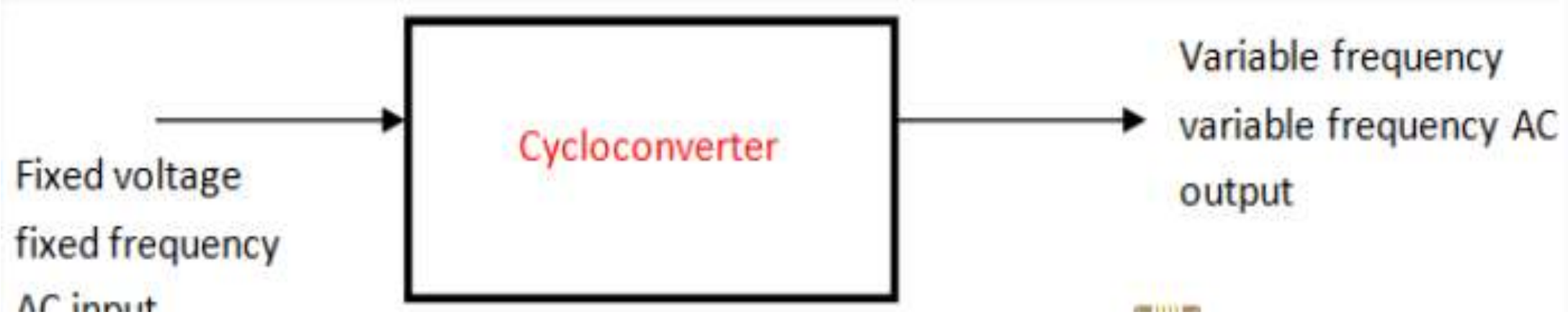
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Introduction





What is Cycloconverter

A cycloconverter (also known as a cycloinverter or CCV) converts a constant voltage, constant frequency AC waveform to another AC waveform of a different frequency. A cycloconverter achieves this through synthesizing the output waveform from segments of the AC supply (without an intermediate DC link).

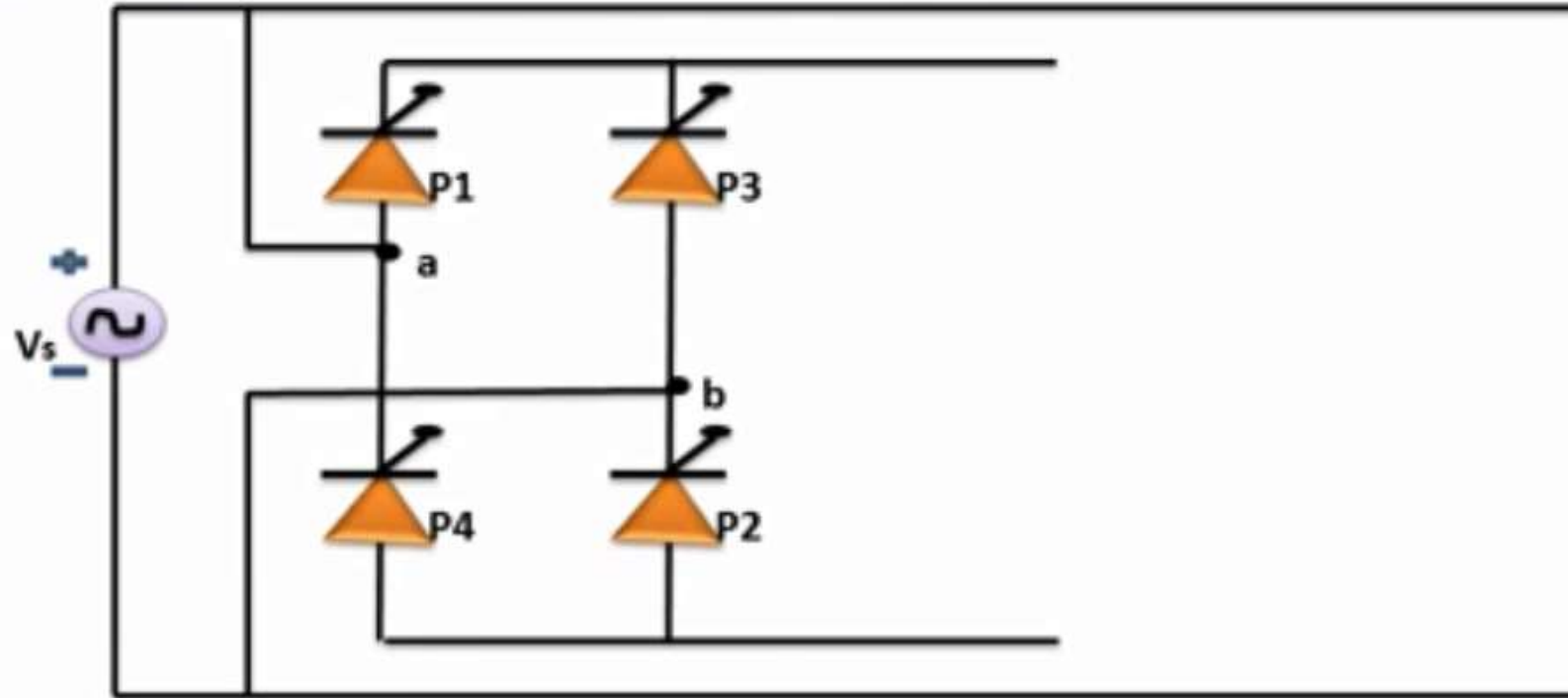


Cycloconverter



LEARN
AND
GROW

STEP UP (BRIDGE TYPE) CYCLOCONVERTER

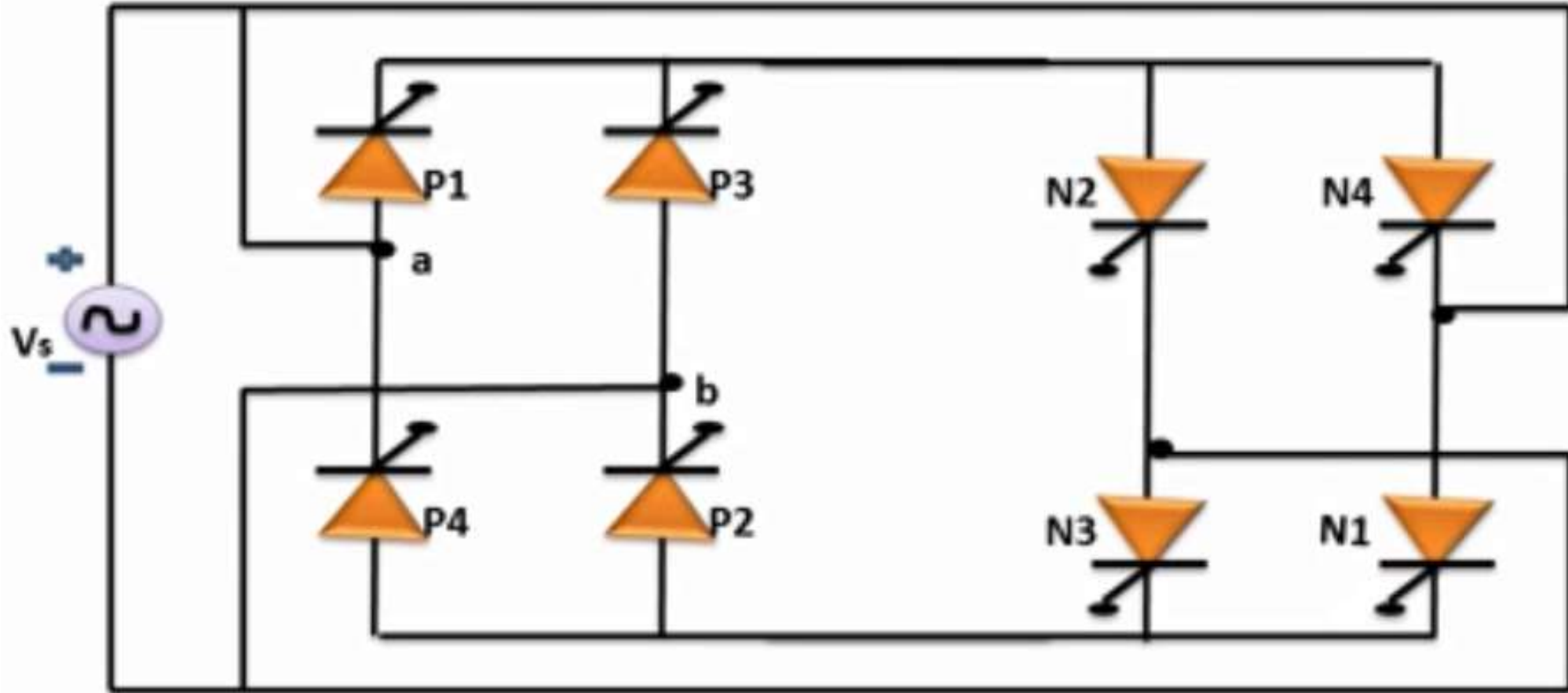




Single Phase Cycloconverter

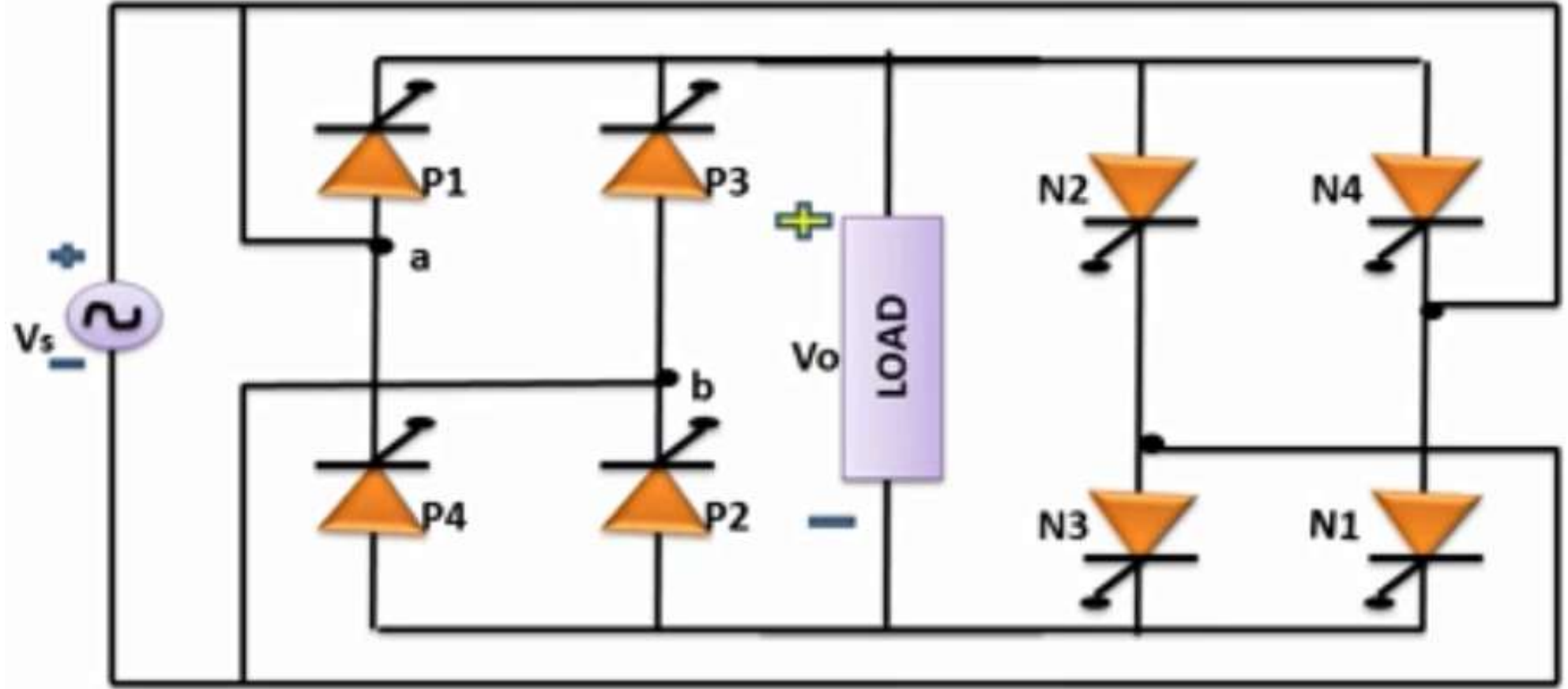


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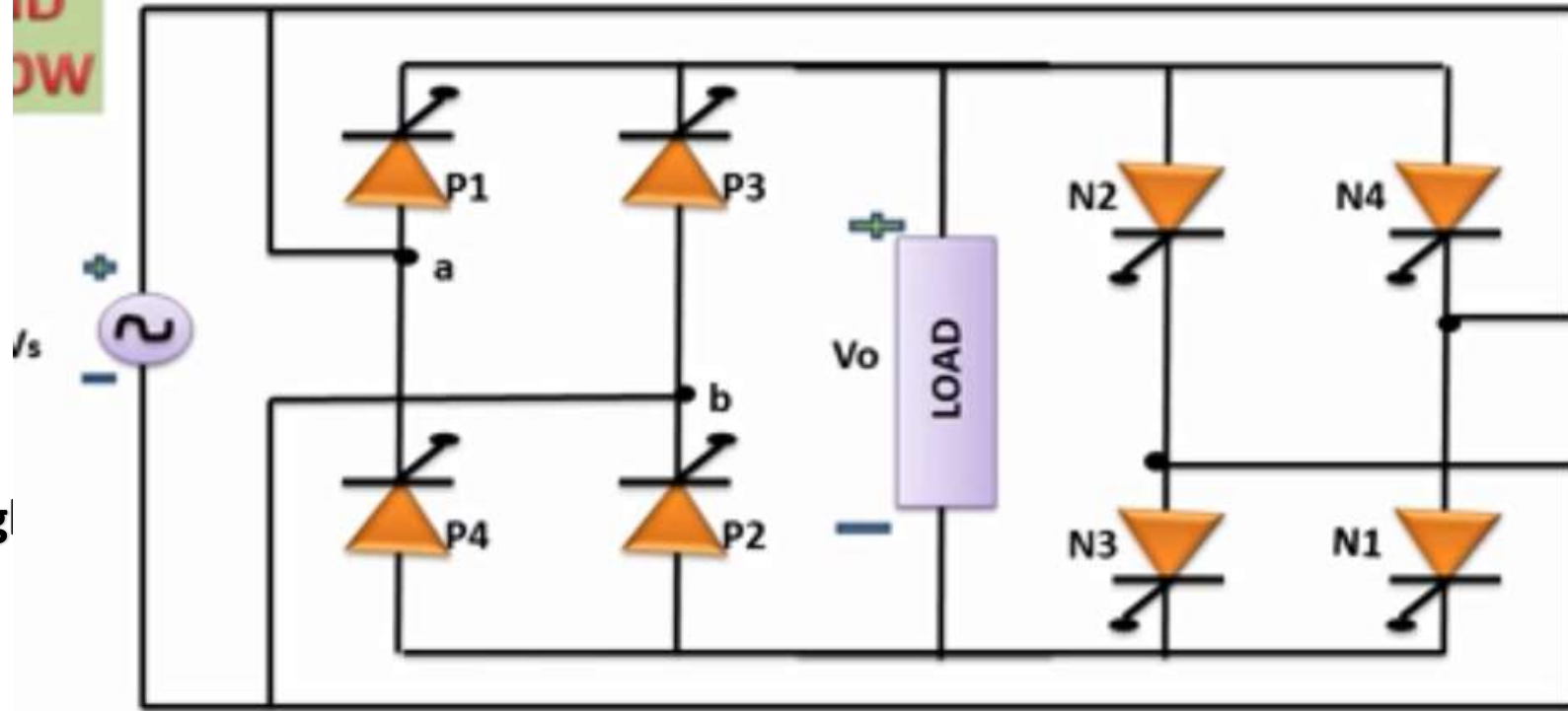


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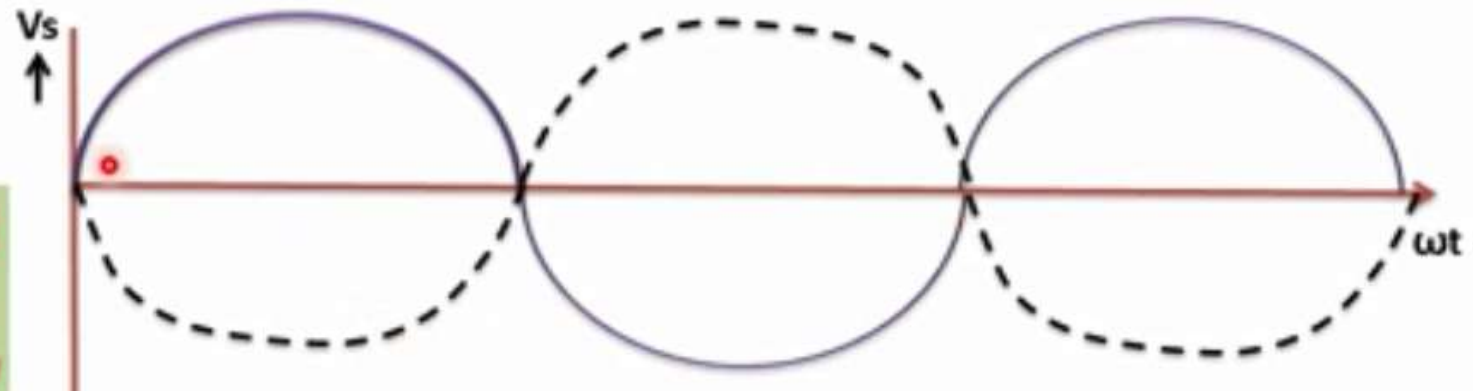




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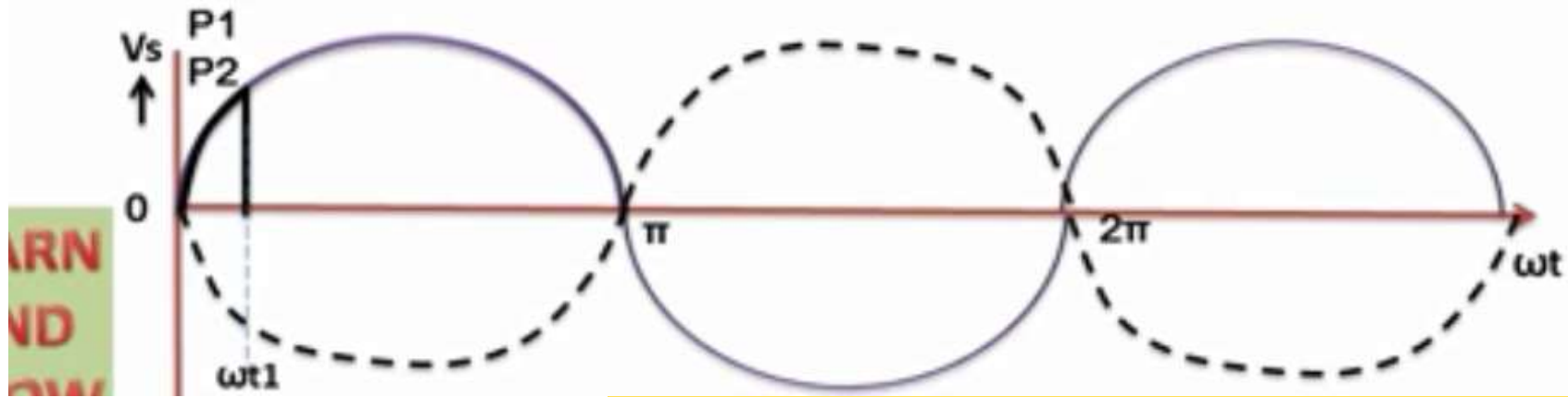
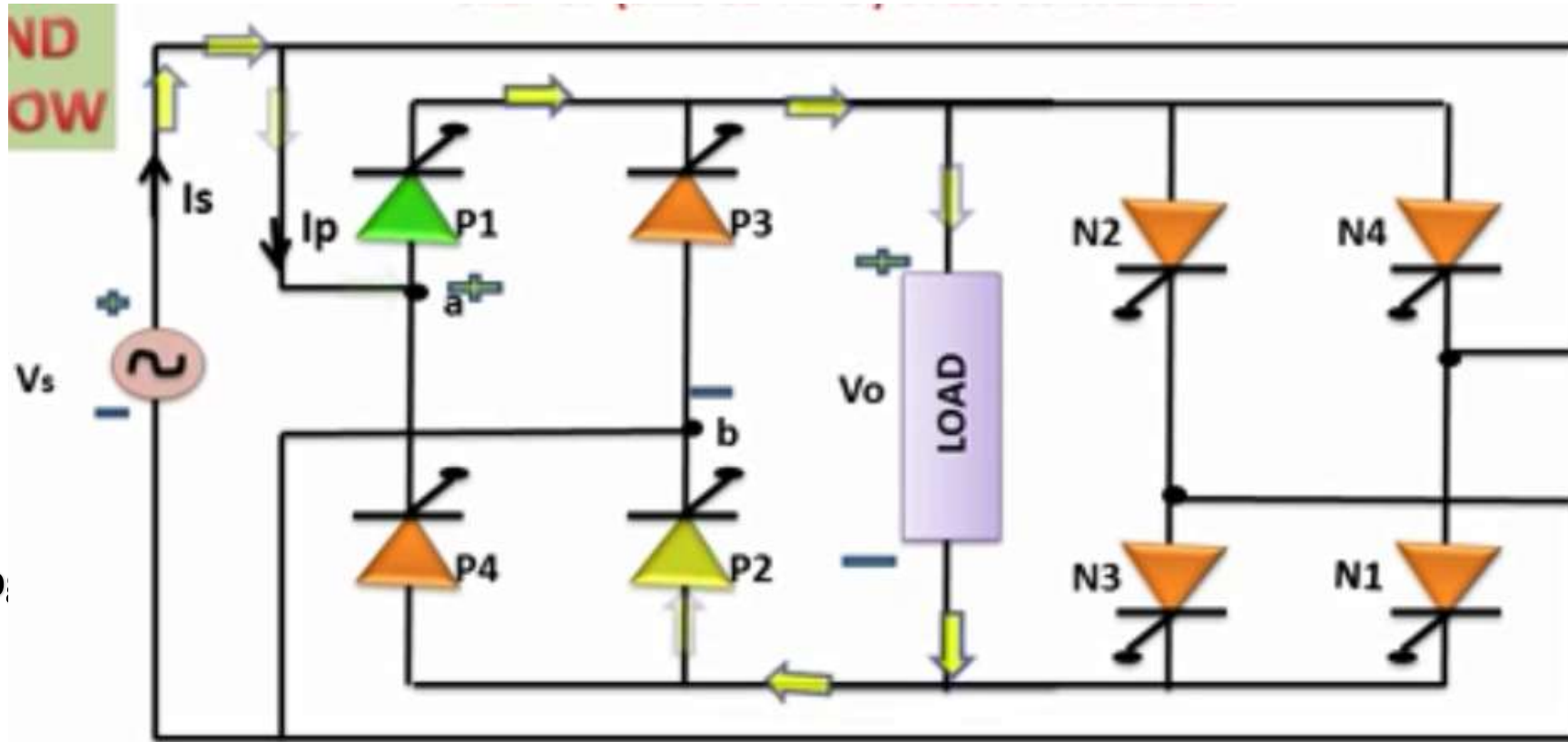


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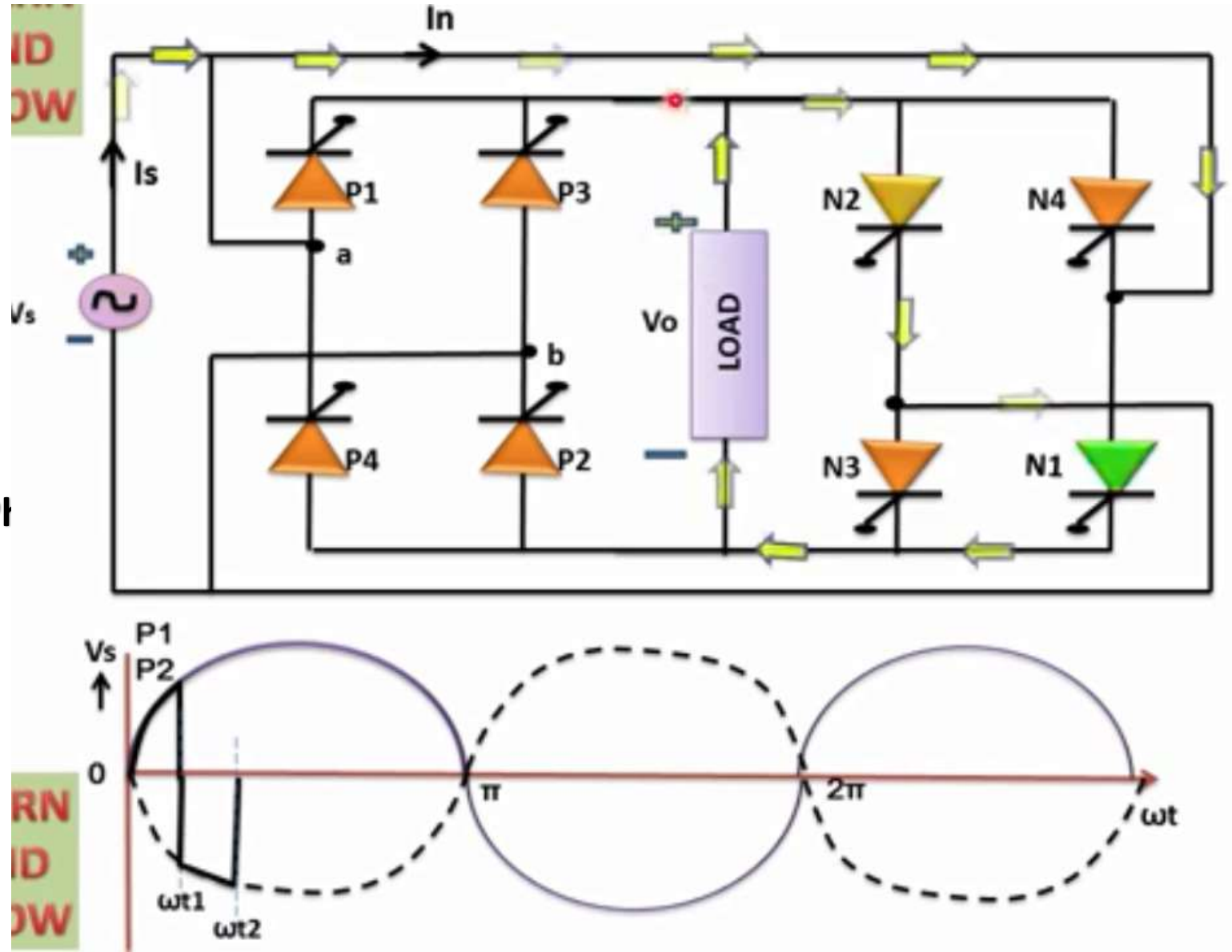


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Single Phase Full Bridge Rectifier





Three phase to Single Phase Cycloconverter



Three Phase to Single Phase Cycloconverters:

The Three Phase to Single Phase CCV is also similar to the Single Phase to Single Phase CCV, but in here the input voltage is a 3 Phase supply and the output voltage is a Single Phase supply with variable frequency. The circuit also looks very similar except we will need 6 SCR in each set of Rectifier since we have to rectify the 3 Phase AC voltage.

