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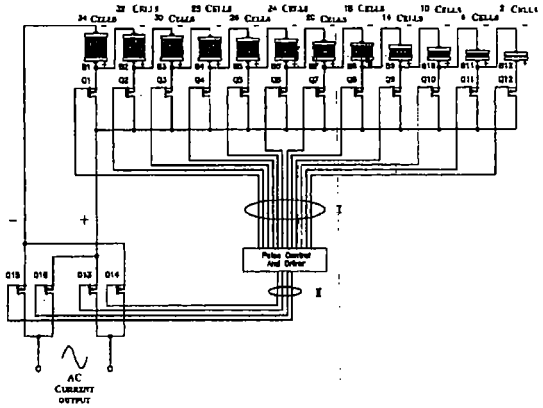
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(54) Title: TRASFORMERLESS STATIC VOLTAGE INVERTER FOR BATTERY SYSTEMS



(57) Abstract: A static inverter for a battery of elementary current sources or cells electrically in series and a number N of intermediate voltage taps along the chain of elementary DC current sources, wherein the number of elementary cells comprised between an intermediate tap and another intermediate tap adjacent to it or an end terminal of said chain is proportionate to the amplitude in the respective phase interval of a number N of discretization phases of the waveform of the AC voltage to be output in a quadrant; is implemented by arranging for: a number N of power switches (Q1-Q12) each connecting a respective intermediate tap and a first end terminal of a first polarity of said chain of elementary cells in series to a common circuit node of said first polarity; an output bridge stage constituted by at least four power switches (Q13-Q16) controlled in pairs for switching the current paths through the bridge stage, and a control circuit sequentially and cyclically turning on, in a continuous manner, one switch at the time of said N switches; each for a phase interval of 1/(4N) times the period of said AC output, and alternately turning on by pairs said four power switches of said output bridge stage at every half a period.

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