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(57) Abstract :

TITLE: A SINGLE DC SOURCE BASED POWER CONVERSION BY EMPLOYING SINGLE PHASE TRANSFORMERS FOR PV POWER SYSTEMS ABSTRACT A transformer-based multilevel inverter 100 comprising: a pair of transformers maintained in equal ratios of 1:1 to change an output voltage to a desired level and to gives inbuilt galvanic isolation among load and a DC source with decreased leakage current and also their secondary terminals are arranged in series to obtain an optimum number of levels; a four bidirectional switches S1, S2, S5 and S6 and six unidirectional switches S3, S4, S7, S8, S9 and S10 where S7, S8, S9 and S10 are H-bridge standard module and S3 and S4 are a half bridge module cascaded with the help of transformers; and a single DC source to achieve 13 levels in the output voltage, wherein the transformer-based multilevel inverter 100 with single DC source and minimum number of switching components due to leakage inductance of transformers a higher-order harmonics of load voltage are filtered manually and to match that AC utility also boosts low input voltage. FIG. 1A

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