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Single-phase inverter for small voltage supplies for use in distributed measurement systems (Conference Paper)

Shahid, Z., Khan, S., Alam, A.Z., Ahmed, M.M., Mizanur, R.

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Abstract

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This paper presents the simulation details of a single-phase 50Hz inverter that could be used for obtaining small-voltage AC or DC supply source needed for powering small electronic devices that could be employed for distributed measurement in monitoring systems. Energy harvesting from solar presents a source that may prove viable alternative to conventional battery sources. It provides high power density in outdoor applications. This work obtains 220V 50Hz AC using 12V DC supply voltage using appropriately configured switching devices operated by 1KHz to 10KHz sampling frequency. The output is normalized by a low pass filter (LPF) made from 500 micro-H inductance with 10 micro-F capacitance. © 2014 IEEE.

Author keywords

harmonic component inverter Low-pass filter Solar-source DC supply

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