

PENGEMBANGAN FIVE-LEVEL CURRENT-SOURCE INVERTER YANG DILENGKAPI DENGAN BOOST-UP CHOPPER

Title	PENGEMBANGAN FIVE-LEVEL CURRENT-SOURCE INVERTER YANG DILENGKAPI DENGAN BOOST-UP CHOPPER
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Abstract	This paper presents a circuit of the five-level current source inverter equipped with boost-up chopper fo DC-AC power converter. The inverter circuits work generating an AC five-level PWM output current, while the boost-up chopper work to step-up the DC input voltage. In order to obtain a smaller harmonic distortion of the output current, pulse width modulation (PWM) technique is employed which only use two triangular carrier waveform. The boos-up chopper circuits is controlled using proportional-integral controller (PI) to keep a stable DC voltage at the DC capacitor. The circuits is tested using computer simulation with PSIM software. The test results show that the inverter circuits equipped with boos-up chopper works well producing an AC five-level PWM current with small distortionKey words: photovoltaic, inverter, power grid, harmonics
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