
Voltage and current dual loop inverter

A dual-loop (inner current loop and outer voltage loop) control scheme for micro electric source inverters in microgrid is improved in this paper. In order to make dual-loop control analysis ...

Aiming at the resonance peak problem existing in the LCL type three-phase photovoltaic inverter grid-connected system, this paper proposes a dual current control ...

Currently, either single-loop voltage or single-loop current control is generally employed for parallel inverters systems [6,7]. Although simple, single-loop control could not ...

Voltage-current double closed loop control for grid-connected inverter consists of grid-connected current inner loop and grid voltage outer loop. Because the control principle is ...

A common approach comprises an outer control loop for capacitor voltage control [2] and an inner control loop for the inverter current. The drawback of this strategy is that the ...

Here, the close-loop bandwidth of the DC voltage controller is set at 500 Hz, and the bandwidth of the current response is set at 1/10 times the switching frequency, which is 1.8 ...

A dual closed-loop feedforward control strategy is proposed for the current inner loop and voltage outer loop in the rotating coordinate system. The correctness of the inverter ...

Abstract: To improve the voltage tracking and anti-disturbance performance of the LC inverter, a novel voltage-current dual-loop control strategy is proposed. First, the voltage ...

This paper analyzes the stability of digitally dual-loop voltage-controlled inverters with consideration of grid impedance. It is revealed that both the digital delay and controller ...

This paper presents an evaluation for the voltage regulators adopted in the digital dual-loop voltage-controlled, LC-filtered voltage-source converters. Given the proportional ...

The implementation of multisampling techniques for inverter voltage can enhance dynamic performance. However, it may introduce high-frequency ripples in the control loop, ...

Multiple feedback consists of two control-loops; one for capacitor voltage and other for inductor current-control. Output voltage and load current-feedforward-control is used. This technique ...

Abstract Considering that parallel inverters systems often face with various disturbances, this study proposes a new adaptive robust control strategy for a voltage-current ...

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