

Figure 1 Diagram of the grid-connected **PV** system and its control

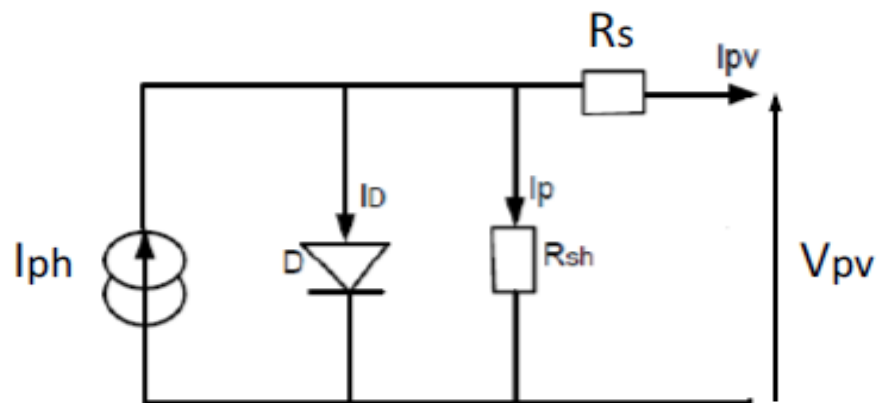


Figure 2. Equivalent diagram of a **PV** cell [1]

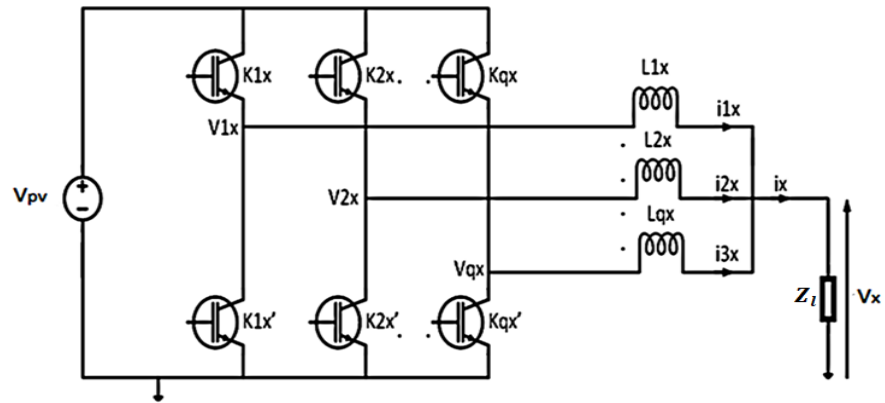


Figure 3. Three-phase **PMI** with q interleaved cells [20]

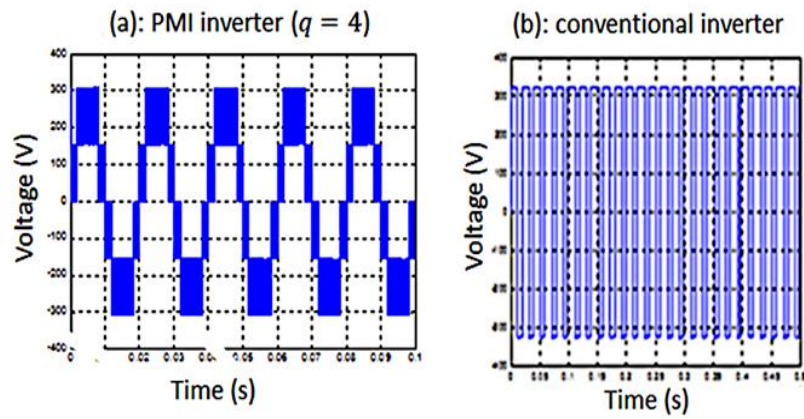


Figure 4. Waveforms of the **PMI** voltage vs time [20]

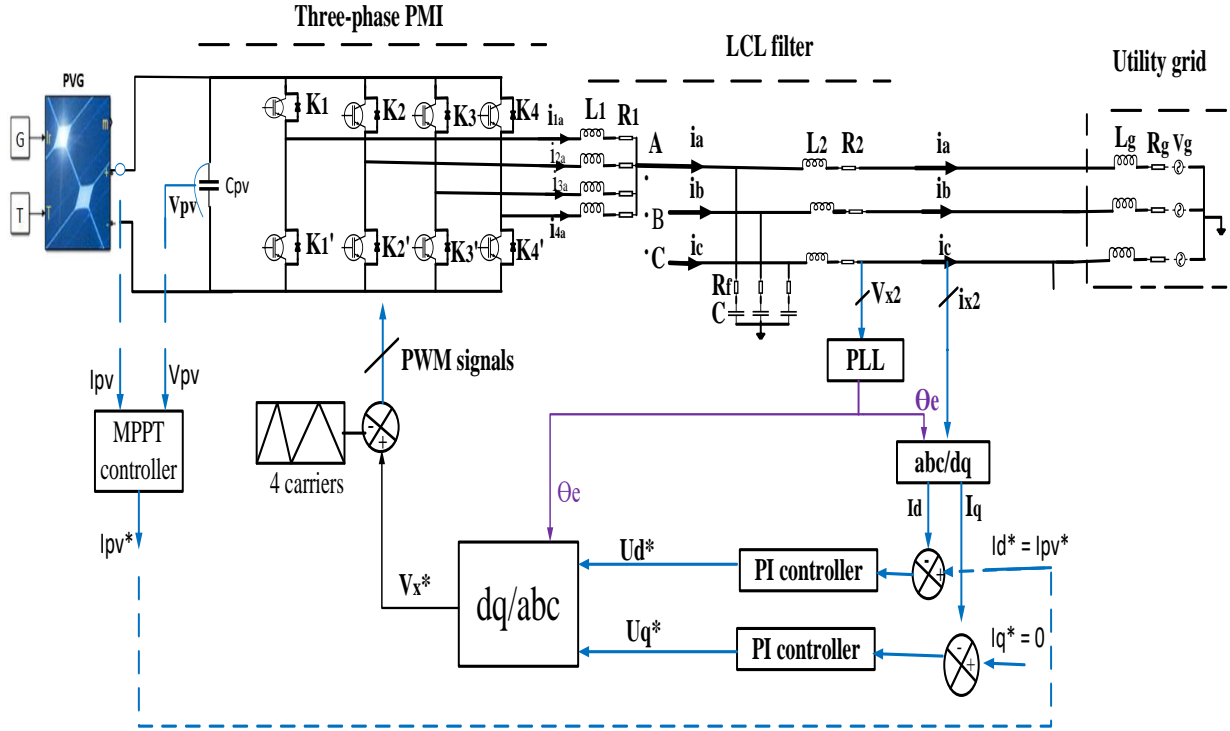


Figure 5. System control

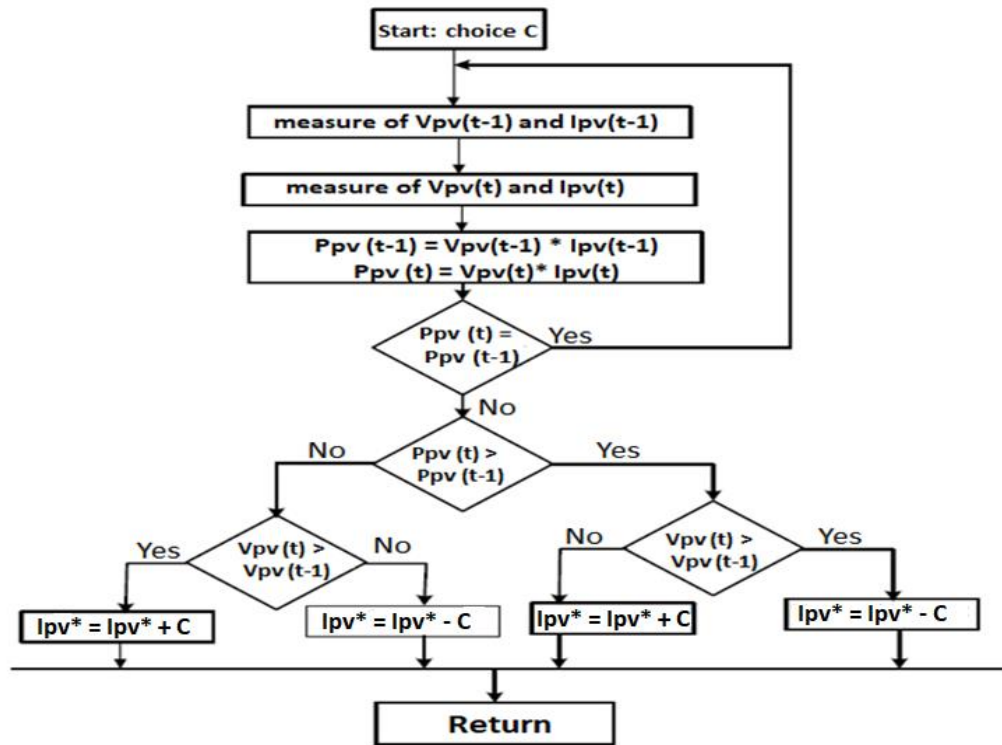


Figure 6. Flowchart of MPPT P&O (based on current)

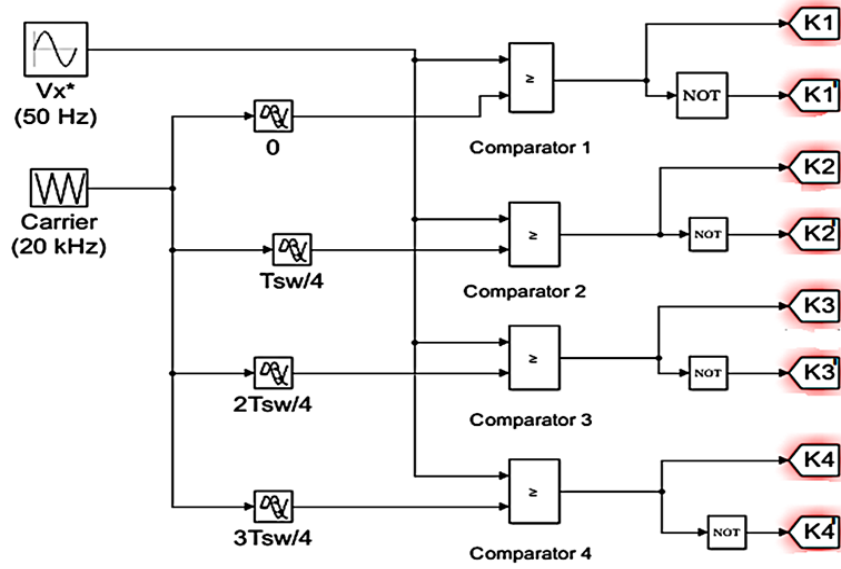


Figure 7. PWM control of one phase of the inverter

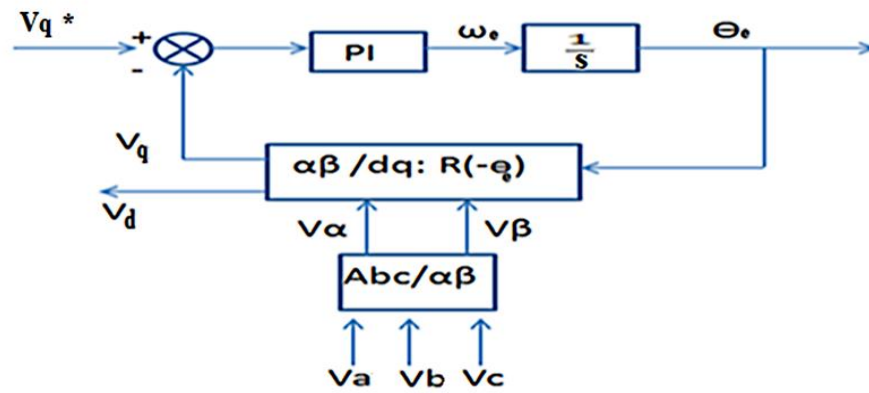


Figure 8. Diagram of the PLL Park [16]

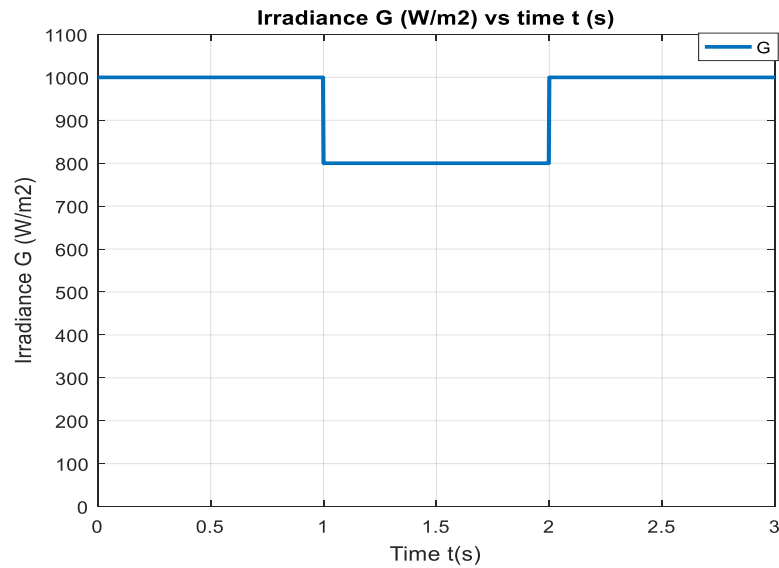


Figure 9. Irradiance (G) variation on time

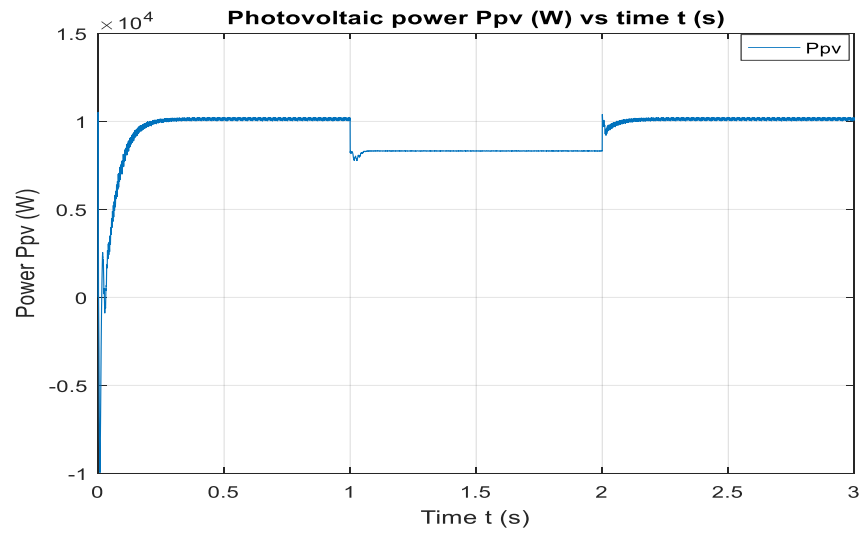


Figure 10. Photovoltaic generator output power (P_{pv}) variation

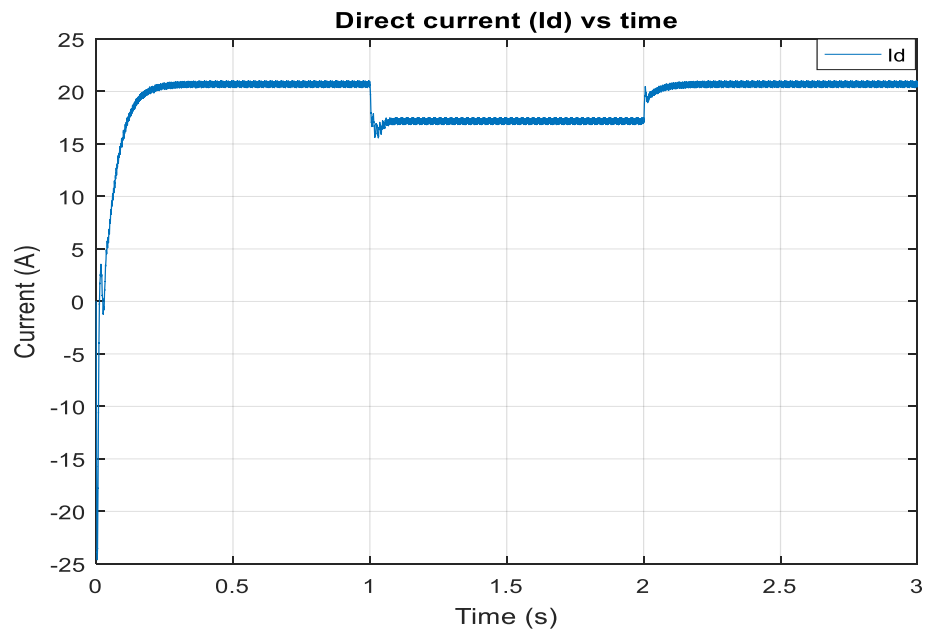


Figure 11. d-axis current (I_d) variation

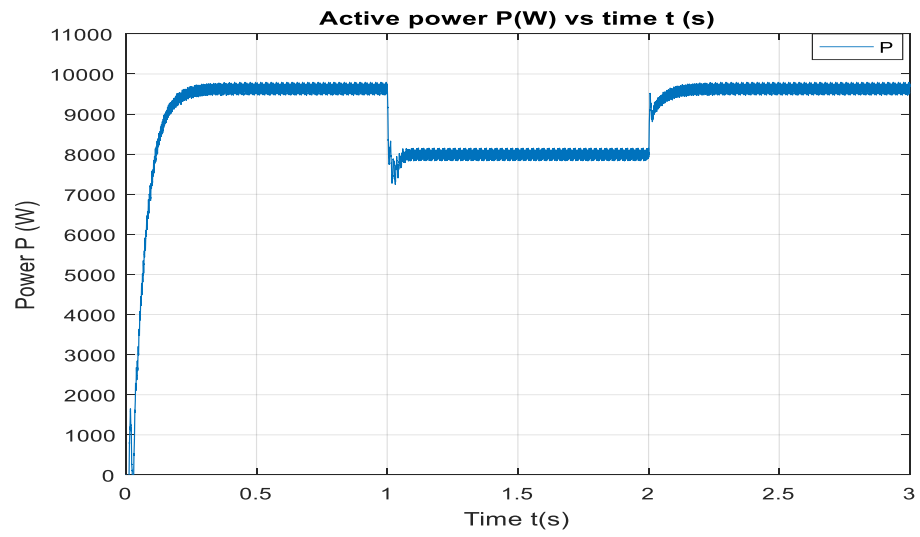


Figure 12. Active power (P) variation

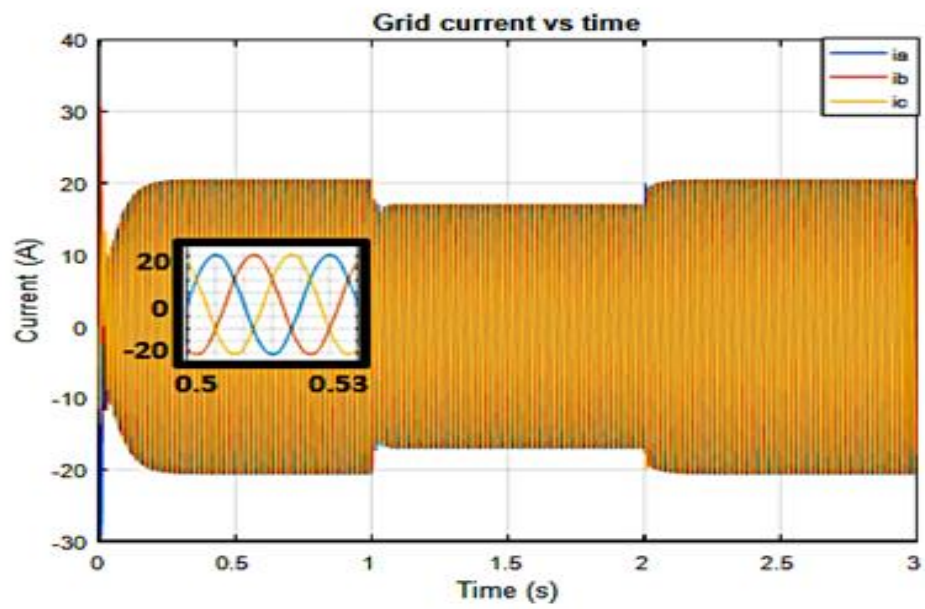


Figure 13. Grid actual current (in the abc frame) variation

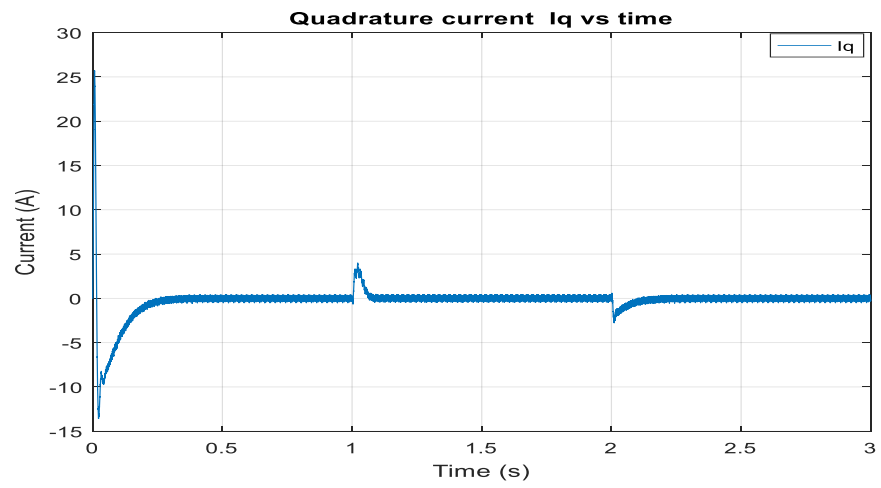


Figure 14. q-axis current (I_q) variation

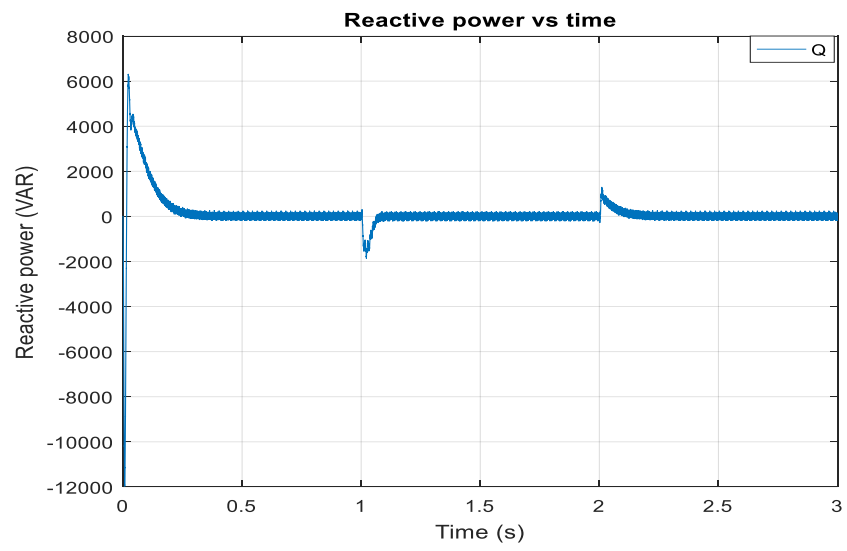
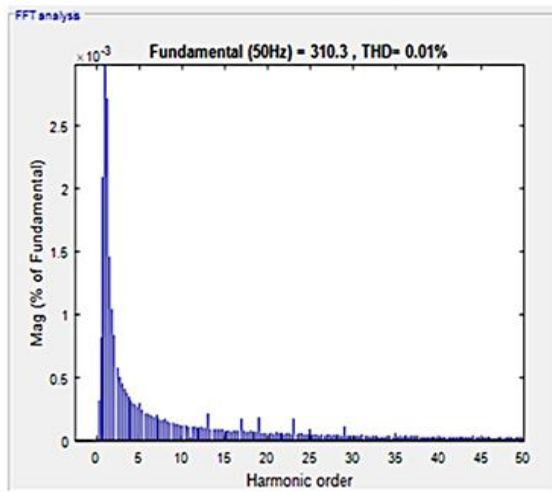


Figure 15. Reactive power (Q) variation

(a): Total harmonic distortion (THD) of grid voltage



(b): Total harmonic distortion (THD) of grid current

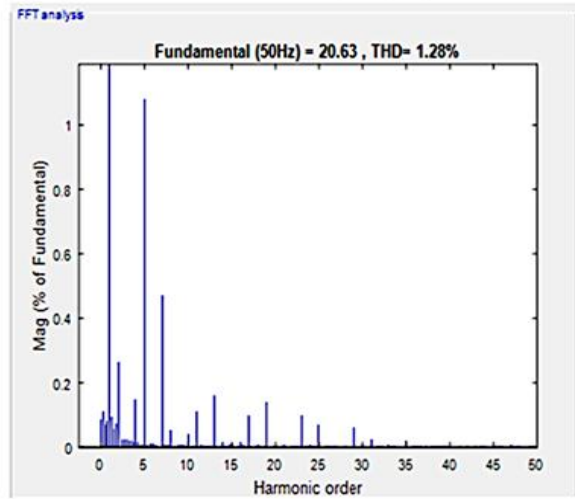


Figure 16. Frequency analysis curves

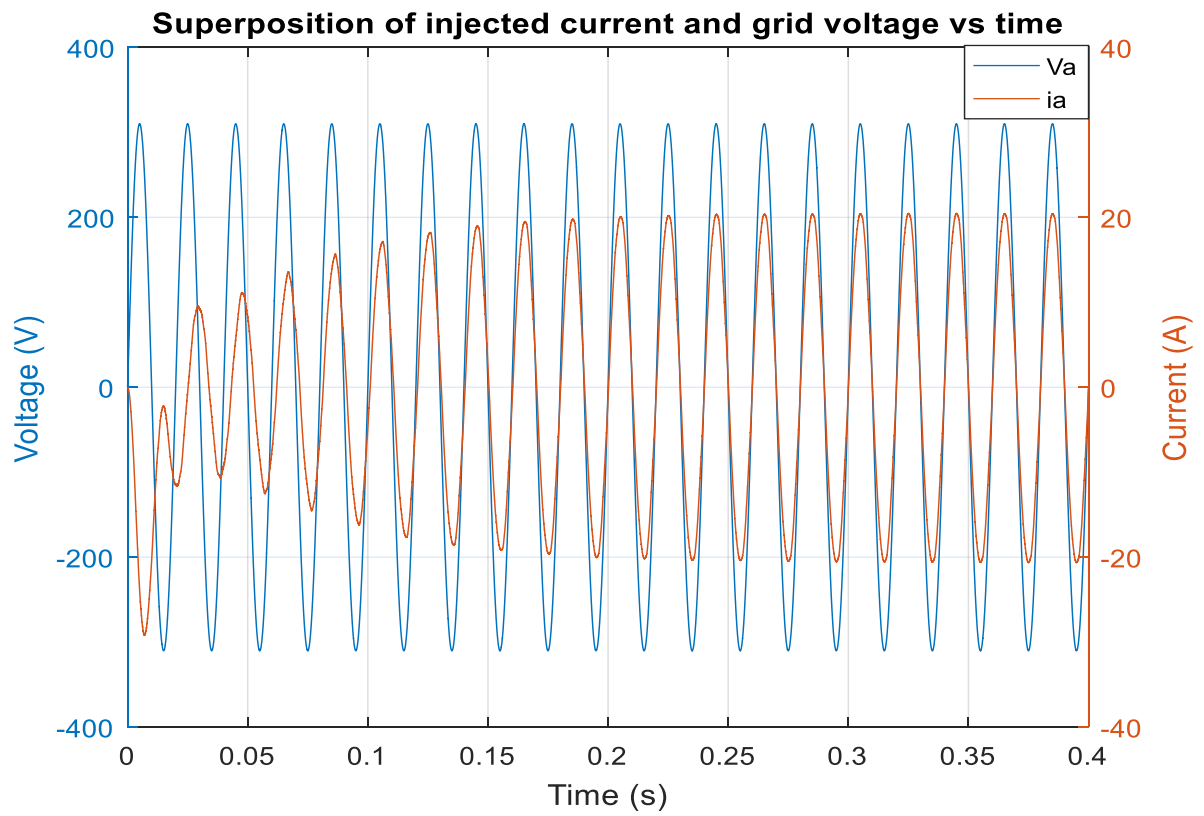


Figure 17. PLL simulation result