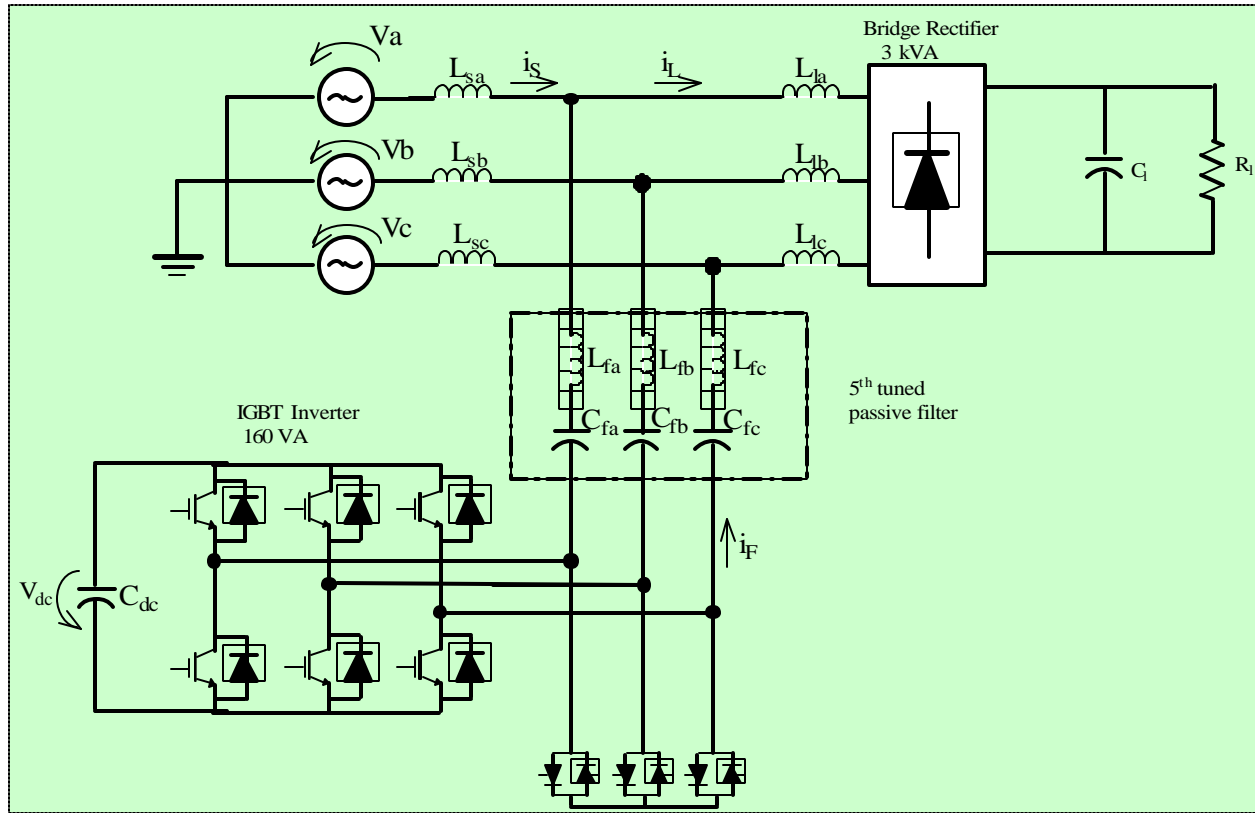


“High Voltage Hybrid Filter with Low Voltage IGBTs”

R. Magureanu; D.B.Doniga; D.G.Stan.

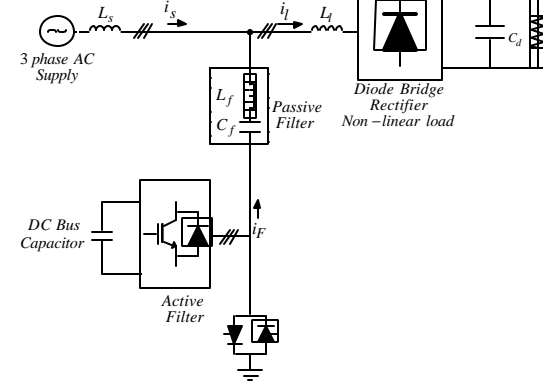
Filtrul hibrid



Componente:

- ✓ filtrul activ
- ✓ filtrul pasiv
- ✓ redresor cu diode

Rezultate experimentale pentru metoda de control d-q

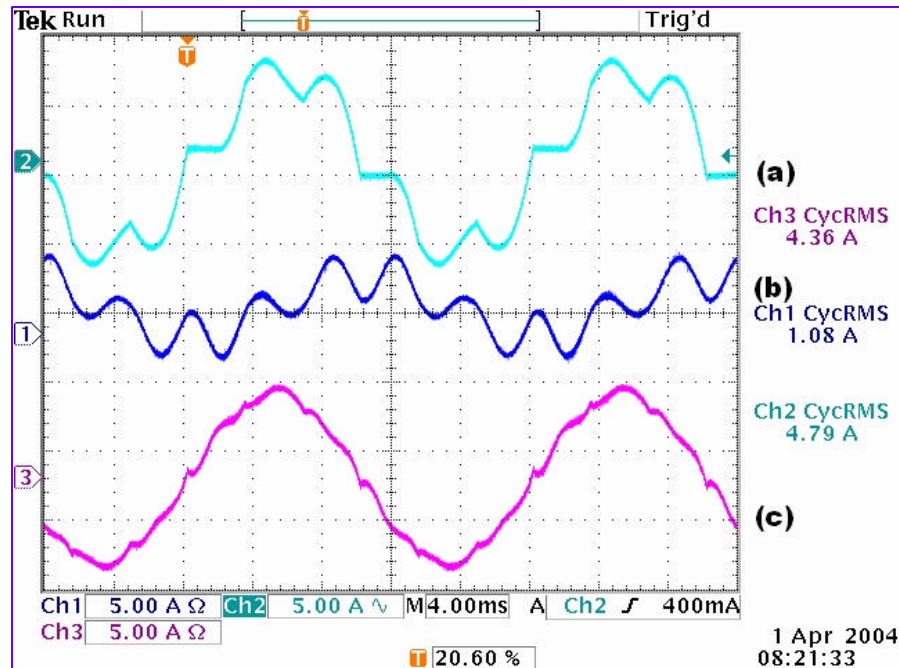


Elementele sistemului folosite in experimente

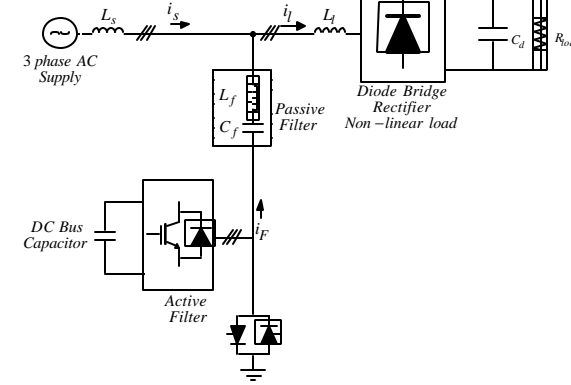
- Diagrama de control a fost implementata pe o placa Texas Instruments F2812 DSP.
- Un invertor Danfoss a fost folosit ca filtru activ.

Principalii trei curenti din sistem:

- a) Curentul prin sarcina
- b) Curentul prin invertor
- c) Curentul prin sursa

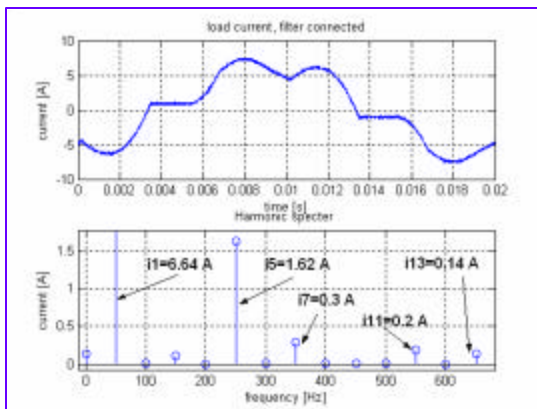


➤ *Comparatie intre continutul de armonici al curentilor prin sarcina, prin filtru si prin sursa.*

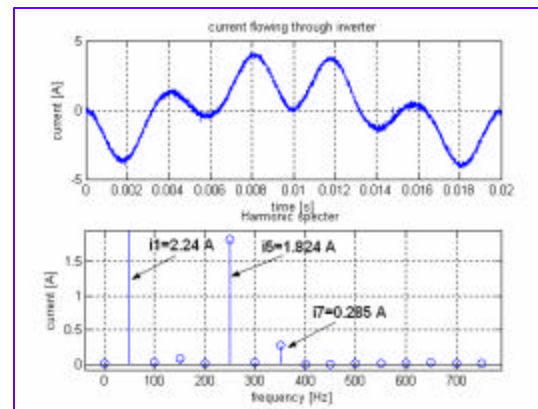


- ✓ Continutul de armonici al curentului prin sarcina este 23.5 %.
- ✓ Filtrul compenseaza in special pentru armonicile a 5-a si a 7-a.

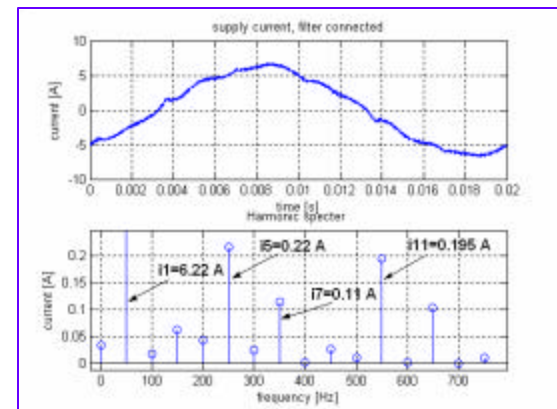
Curentul prin sarcina



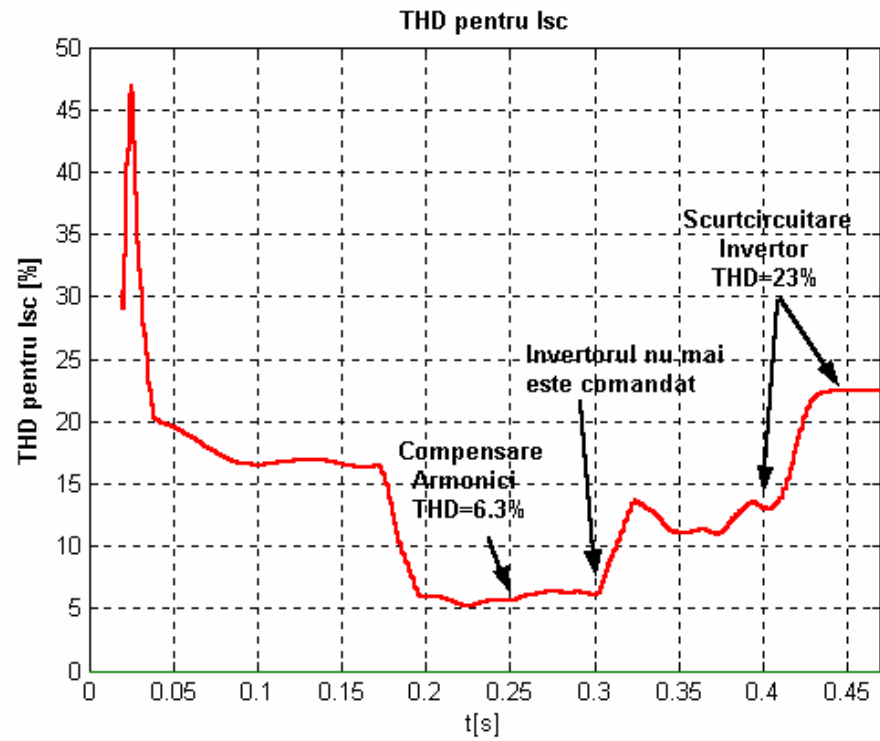
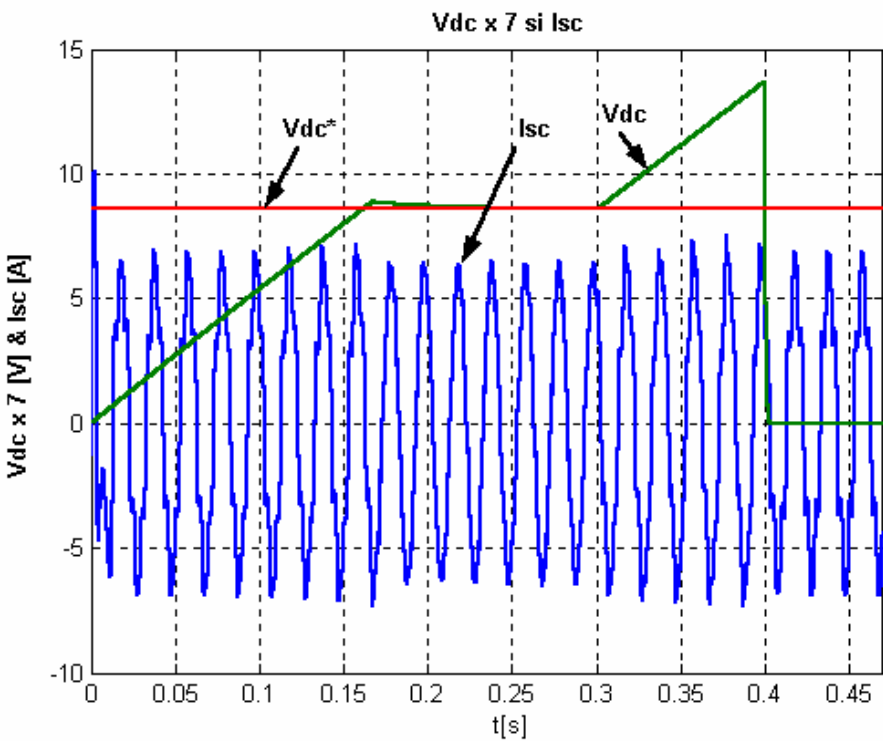
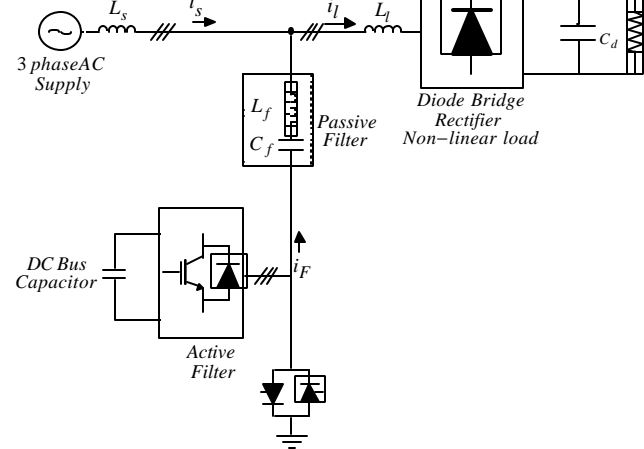
Curentul prin filtru



Curentul prin sursa



Filtrul hibrid pentru V_{abc} de 220 V si $V_{dc}^* = 60V$



Filtrul hibrid pentru tensiunea de $V_{abc}=3500\text{ V}$ si $V_{dc}^* = 1080\text{V}$

