



ELECTRICAL ANALYSES TECPOWERGEN

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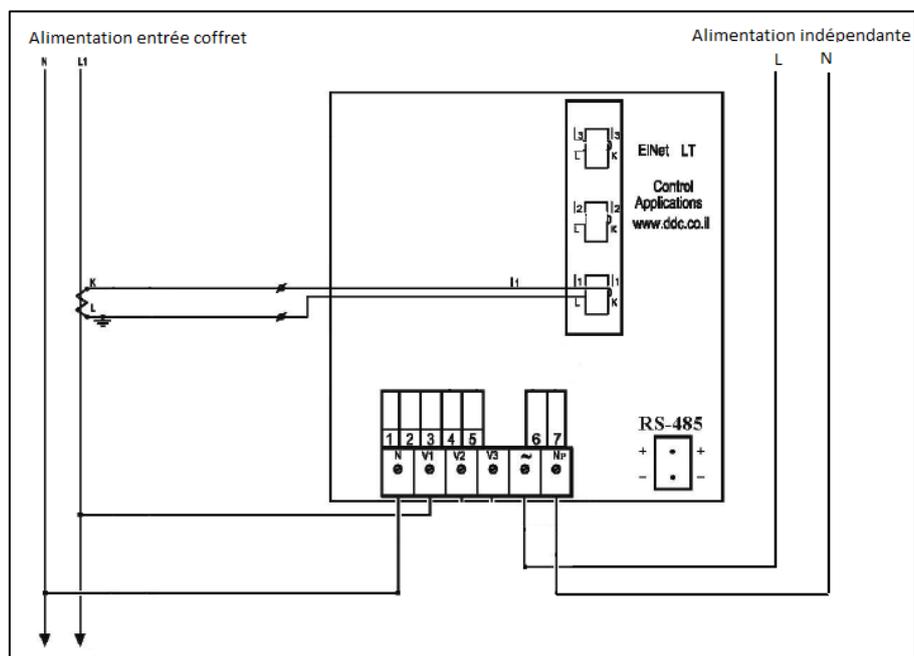
1. TEST CONDITIONS AND MATERIAL USED

The following tests were performed in our laboratory with the following products :

- Tecpowergen30
- Wattmètre Elnet LT-TCP-IP
- 3KW asynchronous motor inductive load and 1500W resistive load

2. BOX INPUT MEASUREMENTS (SINGLE PHASE 230V POWER SUPPLY)

2.1. WATTMETER CABLE



2.2. MEASUREMENT OF POWER CONSUMPTION

Combined Table			
	L1	L2	L3
V-LN	234.8	0.0	0.0
V-LL	234.8	0.0	234.8
Amp	0.0	0.0	0.0
KW	0.0	0.0	0.0
KVAR	0.0	0.0	0.0
KVA	0.0	0.0	0.0
PF	1.000	1.000	1.000
Hz	49.98	49.98	49.98

Buttons: Back, F1, F2, F3, F4, Enter

Figure 1 : Without load

Combined Table			
	L1	L2	L3
V-LN	232.5	0.0	0.0
V-LL	232.5	0.0	232.4
Amp	10.4	0.0	0.0
KW	1.1	0.0	0.0
KVAR	-2.2	0.0	0.0
KVA	2.4	0.0	0.0
PF	0.441	1.000	1.000
Hz	49.94	49.94	49.94

Buttons: Back, F1, F2, F3, F4, Enter

Figure 2 : With load

2.3. MEASUREMENT OF HDR (HARMONIC DISTORTION RATE)

THD Table				
	L1	L2	L3	ALL
Volt-%	1.18	0.00	0.00	1.18
Volt-V	2.75	0.00	0.00	2.75
Cur-%	0.00	0.00	0.00	0.00
Cur-A	0.00	0.00	0.00	0.00

Buttons: Back, F1, F2, F3, F4, Enter

Figure 3 : Without load: Current/Voltage

THD Table				
	L1	L2	L3	ALL
Volt-%	2.02	0.00	0.00	2.02
Volt-V	4.70	0.00	0.00	4.70
Cur-%	122.00	0.00	0.00	122.00
Cur-A	11.45	0.00	0.00	11.45

Buttons: Back, F1, F2, F3, F4, Enter

Figure 4 : With load : Current/Voltage

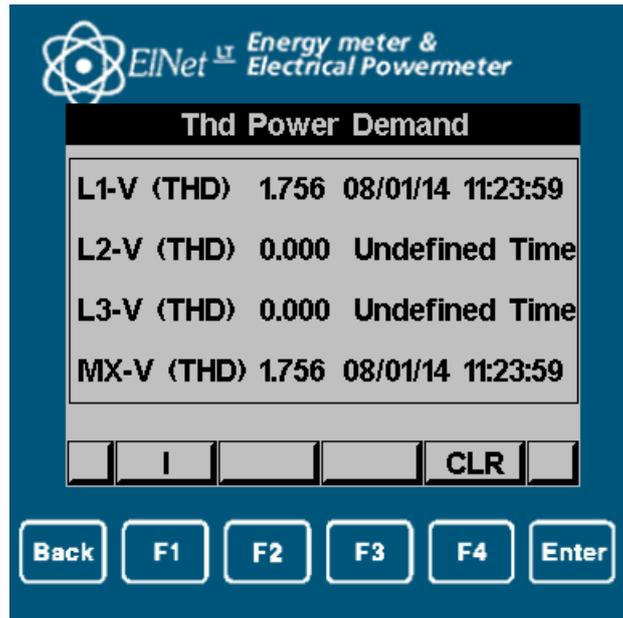
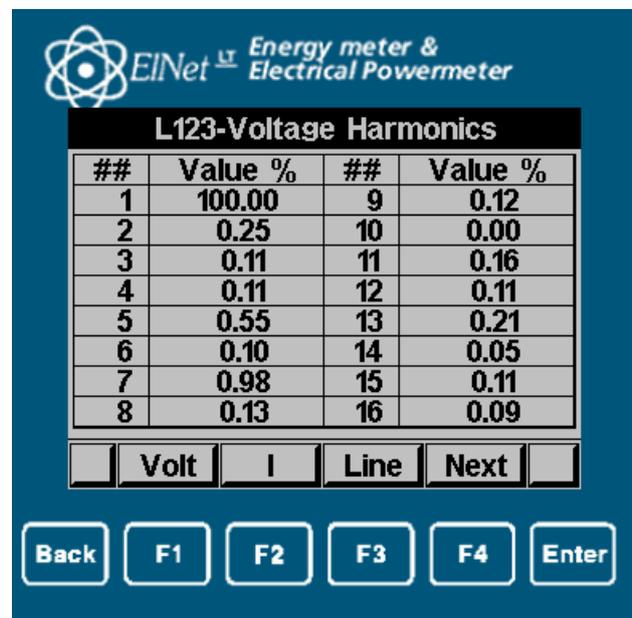
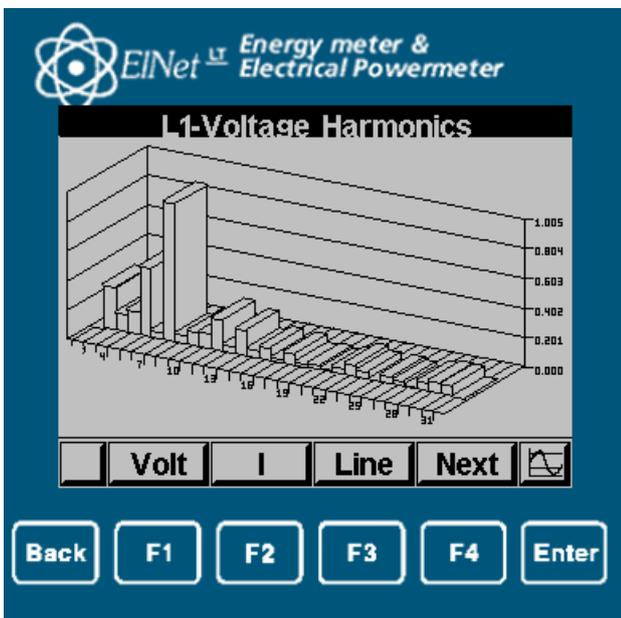
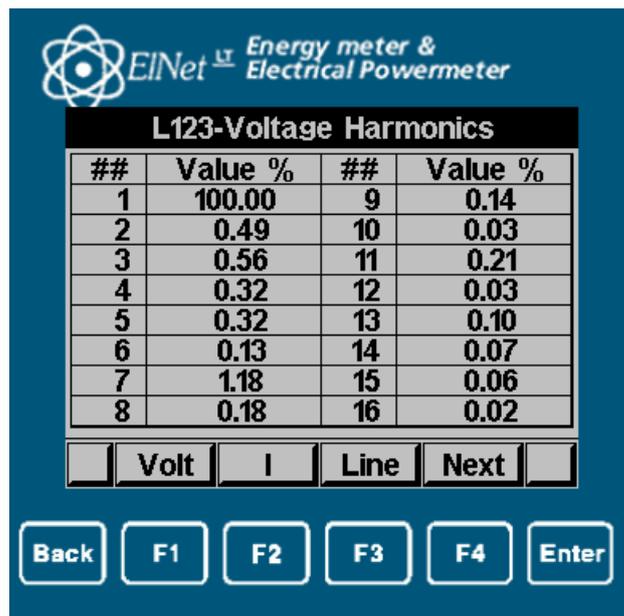
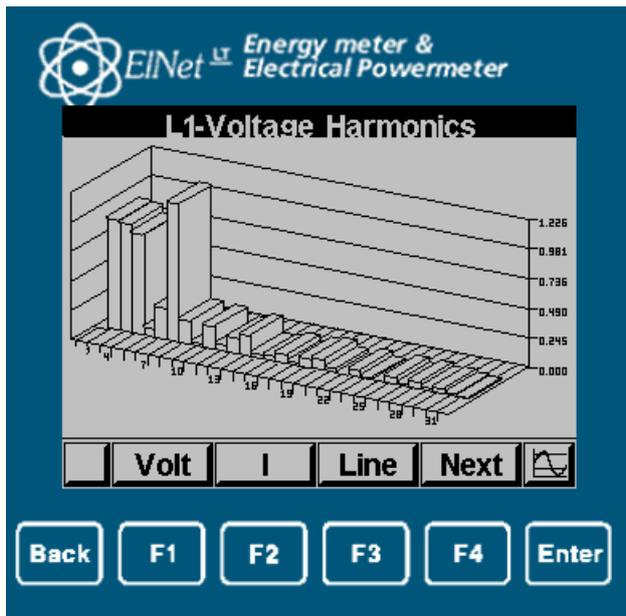


Figure 5 : With charge : Power

2.4. HARMONICS MEASUREMENT



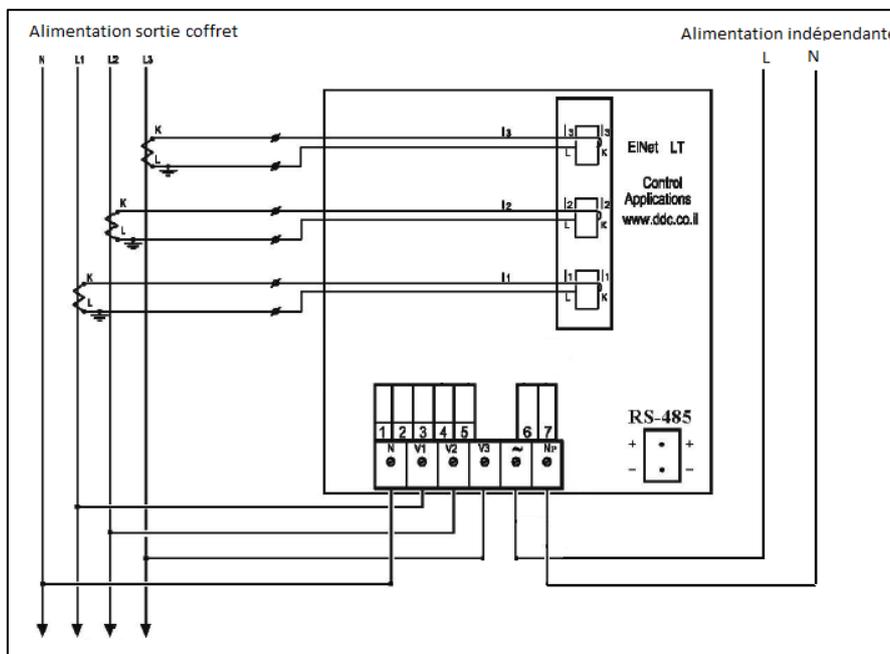
Figures 6 et 7 : Without load



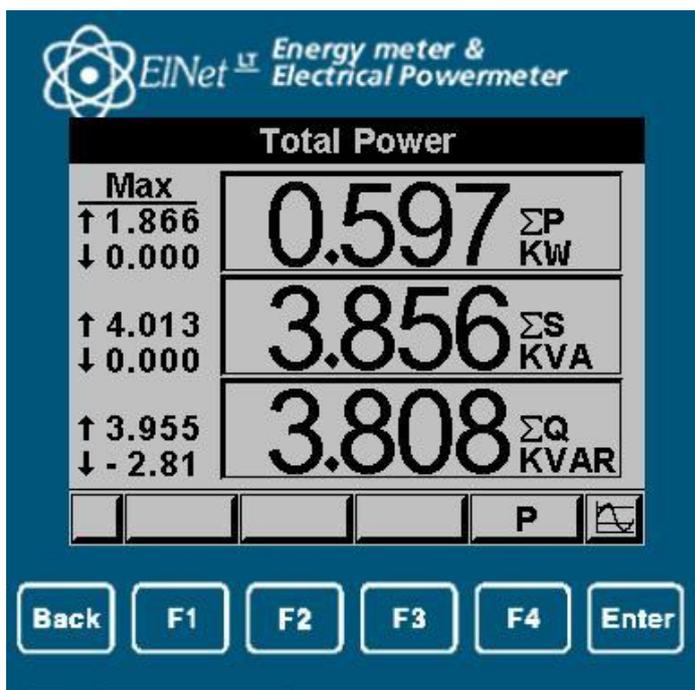
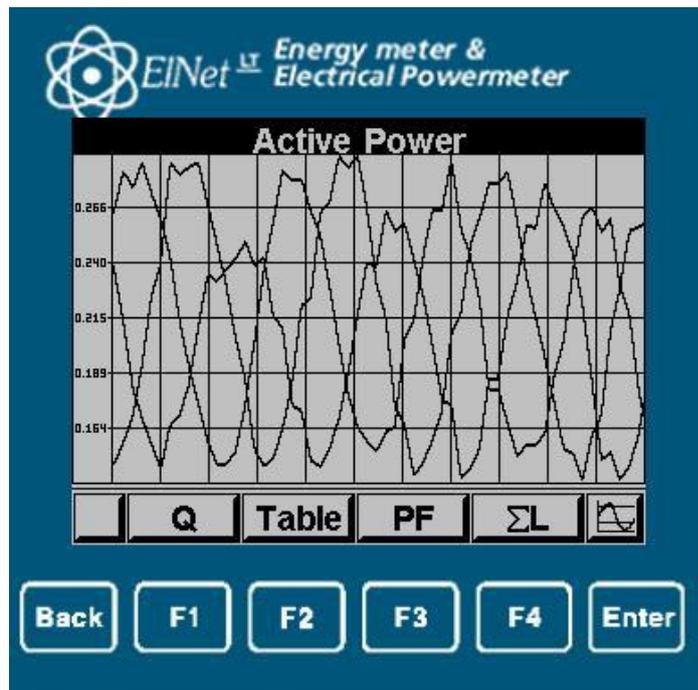
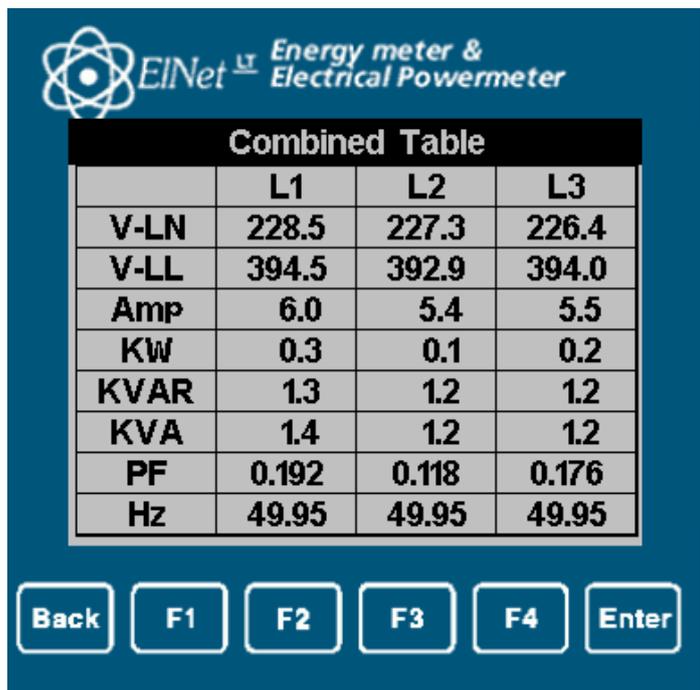
Figures 8 et 9 : With charge

3. THREE-PHASE 400V ENCLOSURE OUTPUT MEASUREMENTS

3.1. WATTMETER CABLE

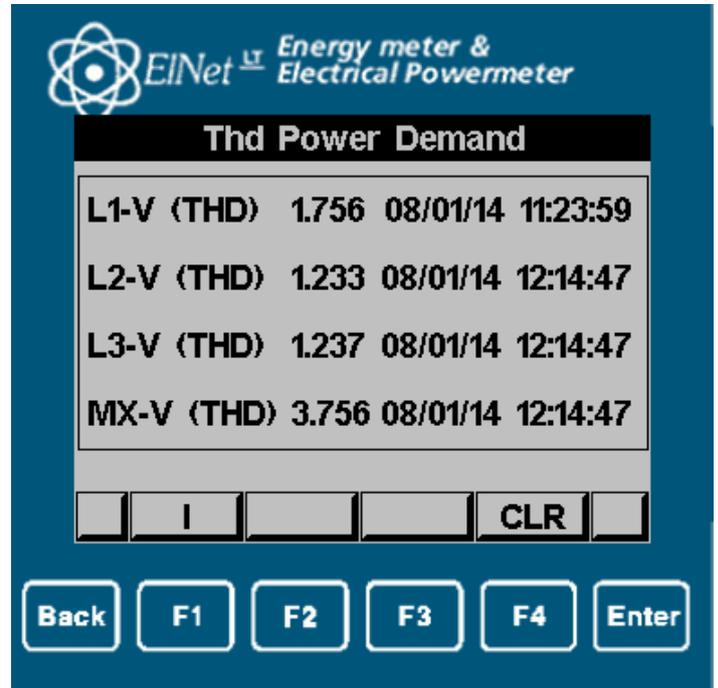
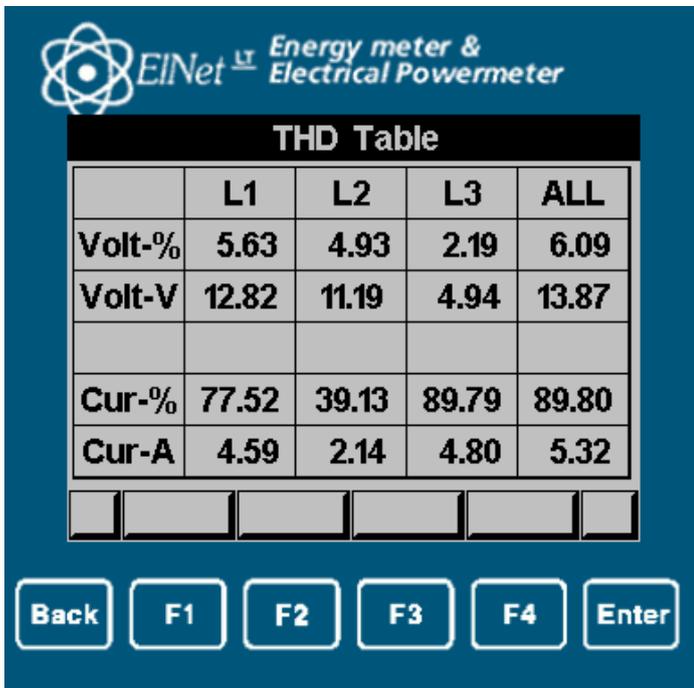


3.2. POWER MEASUREMENT



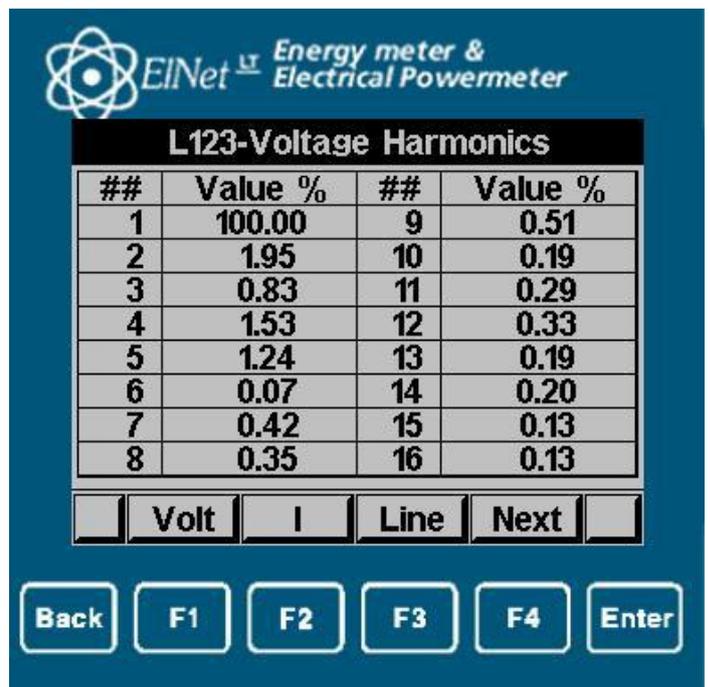
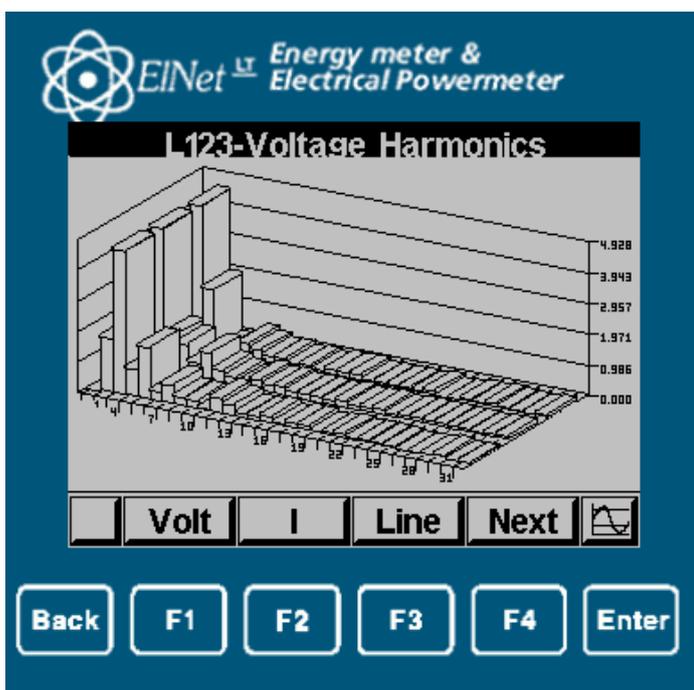
Figures 10, 11 et 12 : With load

3.3. MEASUREMENT OF HDR (HARMONIC DISTORTION RATE)



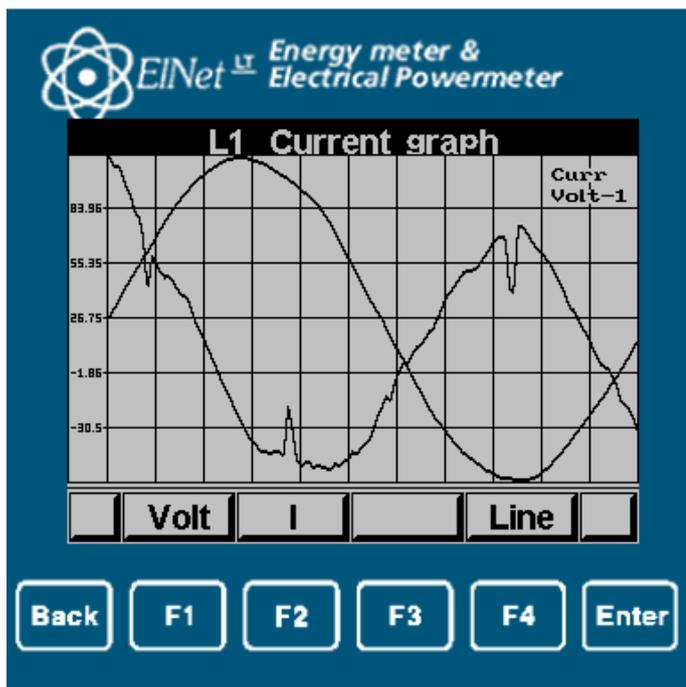
Figures 13 et 14 : With load

3.4. MESURE DES HARMONIQUES

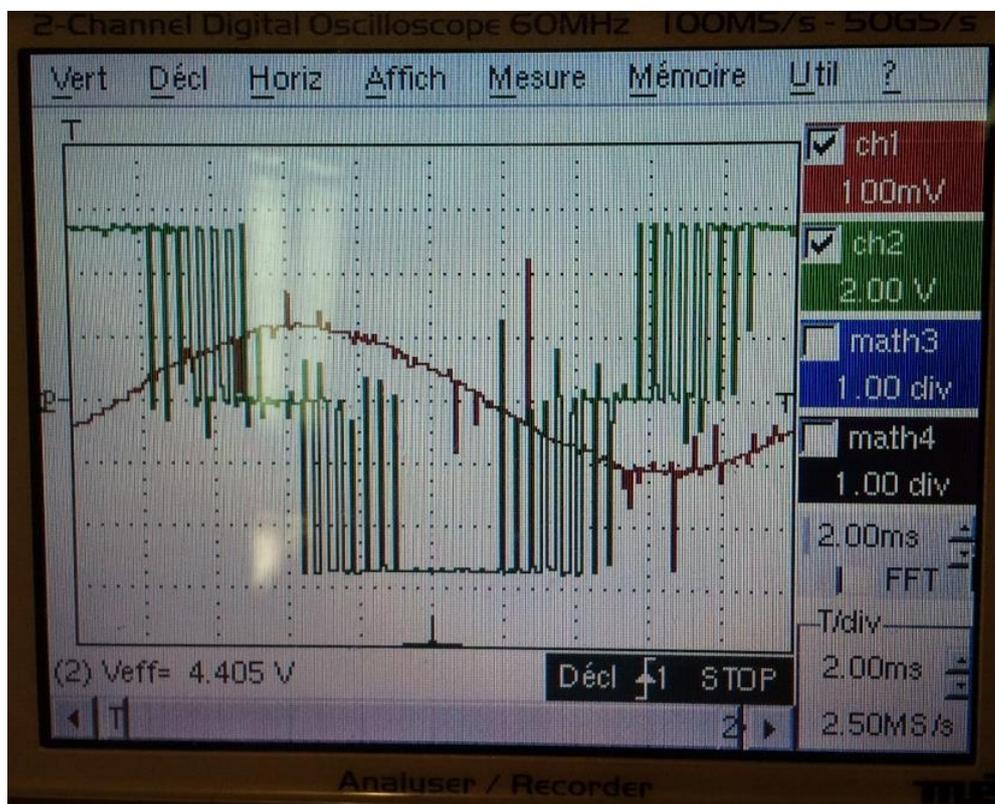


Figures 15 et 16 : With load

3.5. CURRENT IN RELATION TO VOLTAGE



3.6. OSCILLOGRAPH



In green : Voltage at the terminals of the inductive load

In red : current