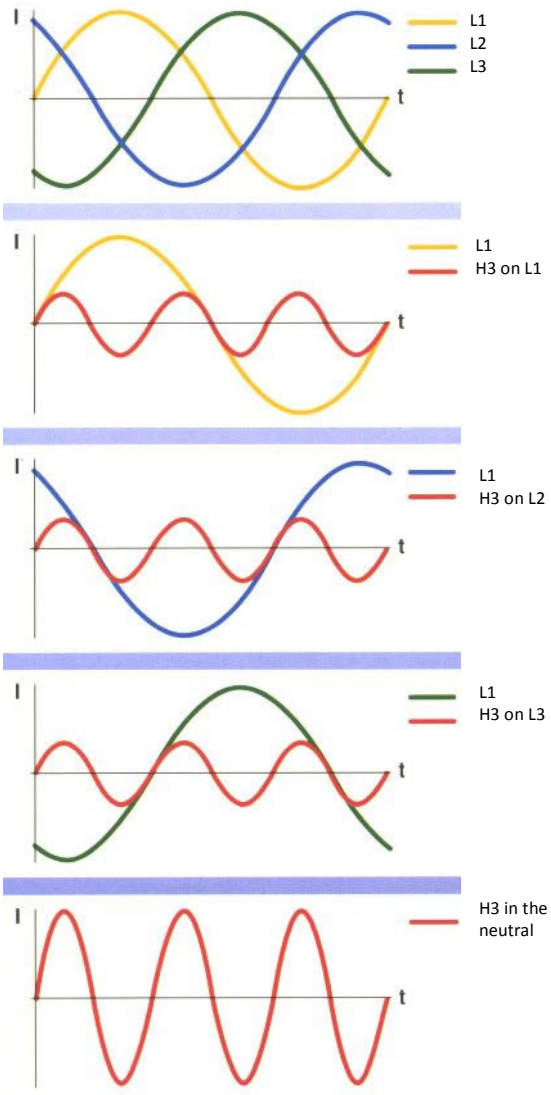
Third harmonic (H3): TERTIAIRE SECTOR

In the tertiary or public sector (offices, hospitals, public buildings,…) the current is provided using an UPS. This UPS supplies monophasic, not linear users. These kind of users (electrical-medical equipment, electronical ballasts, airco's, office equipment,…) generate harmonic currents and more specific the third harmonic (H3). This third harmonic current is added to the current in the neutral. The current in the neutral is higher than the current in the phases. This causes damage in the neutral and even fire. Third harmonic currents cause disturbance in electronical applications.

Disadvantages of harmonic currents are :

- A sudden cutting off of the differential switch
- overheating of the neutral
- flicker of the lighting and screens
- extra loads (up till 15%) of the transformer



Filter Type	HFPS015	HFPS030	HFPS060	HFPS090	HFPS200	HFPS280
Nominal power of the distribution switchboard 400 V	15 kVA	30 kVA	60 kVA	90 kVA	200 kVA	280 kVA
Nominal current per phase of the distribution switchboard (without filtration)	23 A	45 A	81 A	130 A	300 A	400 A
Filter nominal capacity	15 A	27 A	54 A	82 A	180 A	240 A
Max neutral current of the switchboard (without filtration)	45 A	81 A	162 A	245 A	540 A	720 A