

Energy efficiency system for domestic users.

A one of a kind permanent energy efficiency system that reduces household consumption by 10% to 30%. It is contained in a small box, easily installed, without any modification to the electrical system, by an electrician in line to the meter to protect all utilities.

the problem

Electric-electronic appliances etc. (in compliance with the IEC 60038 standard) are designed to work at a nominal three-phase voltage 400 V (between 360 and 440 V). In reality, the input voltage varies continuously and often exceeds 440. This means that electrical-electronic devices consume more than necessary and are inefficient. In addition to external disturbances and the electrical network, the use of devices that combine the work of resistance and inductive loads (for example electric motors, discharge lamps, etc.) generate peaks and "harmonics" on the network which further pollute the voltage and internal frequency.

how to save

Bee is a mains stabilizer / conditioner based on an autotransformer and an "L-C" filter. The autotransformer regulates the voltage at a constant value of 380 v (optimal voltage value for all users); the "L" filter attenuates harmonic and spurious frequency disturbances generated by switching equipment, so that the mains frequency is perfectly at 50Hz. The "C" filter lowers the reactive currents absorbed by the inductive loads making the supply of energy to the equipment constant and stable. Therefore, thanks to the constant voltage, 50Hz sinusoidal frequency and almost zero reactive current, users work more efficiently by saving on absorbed power.

From tests carried out in the laboratory and on customer systems, the use of Bee can generate energy savings of up to 30%. Bee in addition to reducing consumption, increases the efficiency and average life of users. Bee does much more than a phase plug, in fact it filters the current, regulates the frequency, regulates the voltage.





- 1. Reduction of energy consumed from 10% to 30%
- 2. The longevity of users increases
- 3. Users are at optimum voltage and work more efficiently
- 4. The consumers are protected from damage caused by overvoltages
- 5. No direct investment, it re pays off immediately with the savings generated in the bill
- 6. The cost of the box is 100% deductible
- 7. The current is filtered by disturbances coming from the external network and generated by the internal one
- 8. Installation by a qualified electrician (in 20 minutes)
- 9. No modification of the existing electrical system
- 10. 5 year guarantee

Technical features

| Rated input voltage | 190 – 270V |
|-------------------------------------|----------------------|
| Nominal frequency | 49÷51Hz |
| Nominal single-phase output voltage | 230-240V |
| Adjustment accuracy | +/-5% |
| Variation of the load | 0% to 100% |
| Power factor of the load | Not decisive |
| Waveform at the output | Perfectly sinusoidal |
| Full load | 98% |
| Working environment temperature | -25°C ÷ +45°C |
| Cooling down | Not decisive |
| Relative humidity | ≤95% |
| Degree of protection | IP45 |
| Dimensions 4 Kva single-phase | 240x190x90 |
| Dimensions 7 Kva single-phase | 300x220x180 |

To guarantee the safety of the device, it is recommended to place it in the part of the system protected by the appropriate switches, in accordance with the dedicated CEI standards. It is recommended not to obstruct the aforementioned openings and not to place other objects at a distance of less than 50 cm from them, to ensure proper ventilation and consequent stabilization of the internal temperature of the device.



energy efficiency division



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