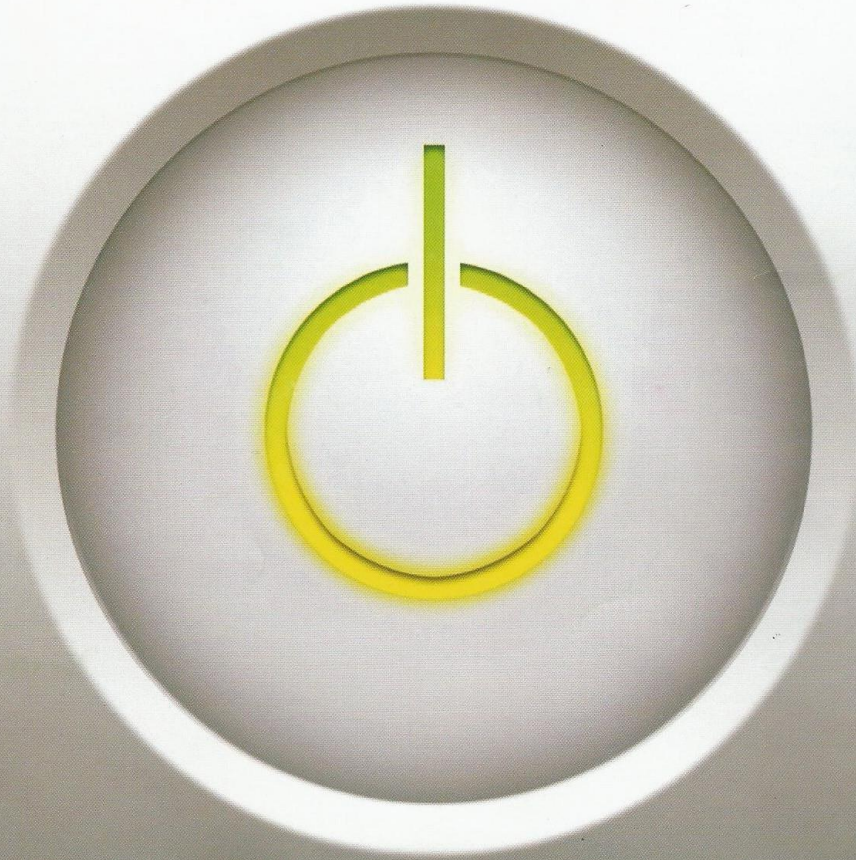




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# Constant Voltage Transformer (CVT)

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## **Introduction**

In our Ferro Resonant type Constant Voltage Transformers - CVT, the AC mains power the input winding, which is widely separated physically from the isolated output winding. The input winding normally runs at very moderate Flux linkage levels. The output winding exhibits an intrinsic energy characteristic and this energy storage operate in conjunction with mains capacitor to produce self-generated AC flux Field which is indirectly extracted from the Input Winding.

These Constant Voltage transformer or CVT use a tank circuit composed of a high-voltage resonant winding and a capacitor to produce a nearly constant average output with a varying input. The Ferro resonant approach is attractive due to its lack of active components, relying on the square loop saturation characteristics of the tank circuit to absorb variations in average input voltage.

The Ferro resonant action is a flux limiter rather than a voltage regulator, but with a fixed supply frequency it can maintain an almost constant average output voltage even as the input voltage varies widely.

All problems related to variation / fluctuation in Voltages are effectively handled because of this principle and a constant voltage output of  $\pm 1\%$  is given.

## **The Result of Constant Voltage Transformer - CVT :**

Instantaneous Voltage regulation. No effect of input Transient and spikes on the output. Sinusoidal output waveform. A perfect answer and remedy for all types of electronic equipment. Our CVT have been designed to give you total protection against power related problems and to condition the power to suit the needs of your microprocessor based equipment. It effectively regulates voltage variation, suppresses transients and bridges short interruptions/dips

## **FIELDS OF APPLICATION :**

Computers, Data Processing equipment, Color Photography Labs., Bio-medical equipment, PA equipment, Telecommunication, TV, VCD/DVD recorders & players, Tele printers, Fax machines and all other sensitive electronic devices.

#### Salient Features

- No Semiconductor or moving part used, hence very high reliability
- No feedback control used.
- Intrinsic current limiting and short circuit protection.
- Energy storage for line loss up to main 3ms at typical load.
- Short term over load capacity.
- Higher input voltage control range for load less than rated low.

## SPECIFICATION TECHNICAL

Input Voltage	180 V – 260 V AC
Line Frequency	50 Hz
Output Voltage	220 – 230 V $\pm$ 1%
Output Step Load Response	2 cycles (30 to 40 milliseconds)
Efficiency	90% (approx.) under full load conditions
Output Wave Form	Sine wave
Wave from Distortion	5% (approx.) under full load conditions
Load power Factor	0.75% lag to 0.9% lead
ambient Temperature	-10°C to 50°C
Transformer Type	Ferro-Resonant

