

## SINGLE PHASE CONSTANT VOLTAGE TRANSFORMER (CVT)



**YLIOS** is an ISO 9001:2015 certified company and the company is working as Single Phase Constant Voltage Transformer (CVT) and provides the best Single Phase Constant Voltage Transformer (CVT) in India. Constant Voltage Transformer (CVT) or Ferro resonant Transformer (Ferro) is a non-linear transformer, which passively provides a regulated voltage output through an electromagnetic phenomenon called ferro resonance (where the term ferro resonant transformer was derived). Ferro resonance is associated with the behavior of iron cores while operating near a point of magnetic saturation, wherein the core is so strongly magnetized that further variation in the input voltage results in little or no increase in magnetic flux. Basically, the ferro resonant action is a flux limiter rather than a voltage regulator. Nonetheless, with a fairly constant supply frequency, the CVT can maintain an almost constant output voltage even as the input voltage varies widely. In fact, the output voltage of the ferro varies about 1.2% for every 1% change in supply frequency, such that even with a considerable generator frequency change (2-Hertz), results in an output voltage change of only 4%.

In short, CVTs are basically 1:1 transformers that are excited high on their saturation curves, thereby providing an output voltage which is not significantly affected by input voltage variations. This special characteristic is the foundation of the application of ferro resonant transformers.

**SILENT FEATURES:**

- No moving parts used, hence very high reliability
- Faster voltage correction almost instantaneous
- Intrinsic current limiting and short circuit protection
- Short term over load capability
- Very high line transient/spike rejection capability and excellent input to output isolation characteristics

**APPLICATIONS:**

- Computers & Data Processing
- Telex, Fax, Cash Registers
- Machine Tools, Robotics
- Proto Processing & Biomedical
- Hospitals, Testing Labs
- Control Panels
- Audio/Video Equipment

|  | Technical Specification   | Single Phase Constant Voltage Transformer (CVT) |
|--|---------------------------|---|
|  | Construction              | Indoor Purpose                                  |
|  | Type of CVT               | Ferro-Resonant                                  |
|  | Cooling                   | Air cooled                                      |
|  | Input Voltage Range       | 180 V - 260 V                                   |
|  | Input Frequency           | 50 Hz $\pm$ 0.5%                                |
|  | Output Voltage Range      | 220 V (OR) 230 V                                |
|  | Output Voltage Regulation | 2% at no load to full load                      |
|  | Output Waveform           | Sinusoidal                                      |
|  | Waveform Distortion       | 5% (Approx under full load)                     |
|  | Load Factor               | 0.75% lag to 0.9% lead                          |
|  | Efficiency                | 90% (approx) under full load conditions         |
|  | Input / Output Connection | Input Cable / Output Sockets                    |
|  | Ambient Temperature       | 5° C to 50° C                                   |
|  | Standard kVA Ratings      | 0.5 kVA to 5 kVA                                |

**Single Phase Constant Voltage Transformer (CVT) of other voltage range/ capacity are also available as per customer requirement.**



**Crown Enterprises**