

VERTEX



Innovation, Quality & Service.. Par Excellence



Solutions In Power Conditioning

CONSTANT VOLTAGE TRANSFORMER (CVT) 0.5 kVA – 5 kVA SINGLE PHASE



Constant Voltage Transformer (CVT) or Ferroresonant Transformer (Ferro) is a non-linear transformer, which passively provides a regulated voltage output through an electromagnetic phenomenon called ferroresonance (where the term ferroresonant transformer was derived). Ferroresonance 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 ferroresonant 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 ferroresonant transformers

SALIENT 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

SPECIFICATIONS— SINGLE PHASE CONSTANT VOLTAGE TRANSFORMER (CVT)

Product	Single Phase Constant Voltage Transformer (CVT)
Construction	Indoor Purpose
Type of CVT	Ferro-Resonant
Type Of Cooling	Aircooled
Input Voltage Range	180 V - 260 V
Input Frequency	50 Hz \pm 0.5%
Output Voltage	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

- *Specifications are subject to change without notice, on account of development in product design.*

PRODUCT RANGE

- ◆ SERVO VOLTAGE STABILISERS
- ◆ STATIC VOLTAGE STABILISERS
- ◆ ULTRA ISOLATION TRANSFORMERS
- ◆ K-RATED TRANSFORMERS
- ◆ CONSTANT VOLTAGE TRANSFORMERS
- ◆ UN-INTERRUPTED POWER SUPPLIES
- ◆ SURGE PROTECTION DEVICES
- ◆ EMI/RFI FILTERS

Founded in 2001 in Chennai, India, VERTEX is involved in manufacturing Electrical Power Protection Systems. Over the years, the company has earned a reputation for excellence and professionalism for continuously striving to meet and even exceed the standards thereby setting the environment for a sustainable business relationship with its clients.

Today we are one of the leading manufacturers of Servo Voltage Stabilisers and Isolation Transformers in India with **over 1 lakh installations.**

VERTEX employs technically skilled, qualified and highly dedicated personnel working cohesively to promote value-added solutions at competitive pricing to suit distinct clientele needs.

SOME OF OUR VALUED CUSTOMERS

Textiles: Veejay Lakshmi, TVS (textile division), LMW, Lakshmi Mills, Premier Mills, KPR Group, Loyal textiles, SCM textiles, GTN Group, GMR Spintex, Bharat Silks, Raymond Mills, Ambika Mills, Paramount Group, Indian Rayon, Gopalakrishna Mills, Mangrool Mills, Mount Exports, etc

Petroleum: HPCL, Petro Araldite.

Cellular/Telecom: IDEA Cellular, Reliance.

Educational /Research Institute: Indian Institute of Science (**IISC**), Sri Venkateshwara University, SKBR Group, and Good Shepherd School of Education, etc

Government & Public Sector: ETDC, South Central Railways, LIC of India, State bank Of India, Bharat Electronics (BEL), BHEL, HIAL, NAL, CWSSSES, CONCOR, CSIR-SERC, IRCTC, IGCAR, etc

Pharma /Analytical: Dr.Reddy's Lab, Nicholas Piramal, NATCO Pharma, VIRCHOW Labs, AIMIL, Helppanel System, etc

Engineering: Veejay Lakshmi Engineering Pvt Ltd, Pride Machine Tools, Rane Madras group, Madras Engineering Industries P. Ltd., Alfa Laval, Yuken India, Deccan Hydraulics, Rolastar Group, Maini Precision, Ashok Leyland, Sundaram Clayton, Associated commercial, Nash Industries, Solidus Hitech, Indo Shell Cast, Virpan Precision, Kirby Building systems Pvt Ltd, Fenesta Building system, Gokul Industries, Dream Valley Castle Services Pvt Ltd, Myung Sung India Precision Pvt Ltd, SL Lumax Ltd., etc

Others: ITC Bhadrachalam Paper & board Ltd., The Andhra Sugars Ltd., L & T - ECC Div, ECLAT Auto pack, Ascents Circuits, AT & S (India), Reliance Fresh, India Cements, Ingersoll-Rand India, TUV Suddeutschland India, SKOL Breweries Ltd, Mission Hospital, Kotak Mahindra Bank Ltd, Hindustan Liver Ltd., Whirl pool of India Ltd., Vieston Automotive, Standard Chartered bank, Aachi Masala Pvt Ltd., Uniply Industries, Thirumala Milk products Pvt Ltd, APC Consultants Pvt Ltd, Sidra Foot Wear Pvt Ltd, Imaan Shoes Pvt Ltd., Harshal Printing, Wingtech Mobile, Amararaja Batteries, etc.

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