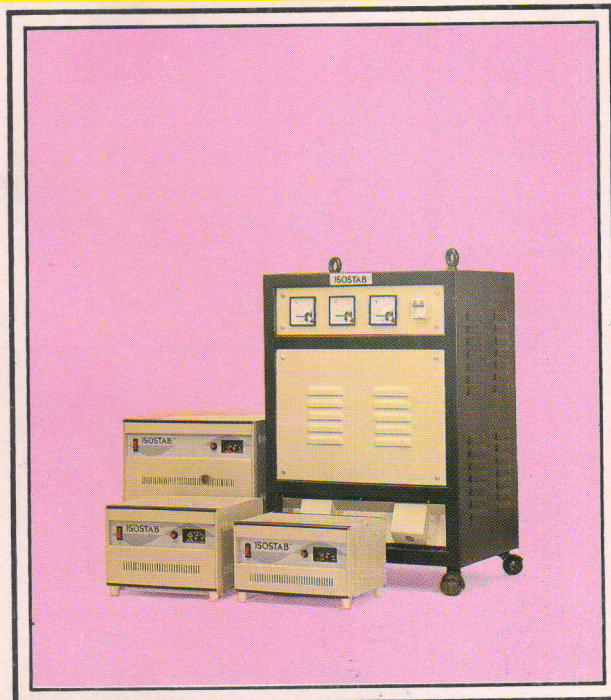


# ISOSTAB<sup>CVT</sup>

## CONSTANT VOLTAGE A.C. STABILIZER



### INTRODUCTION

The Constant Voltage Transformer type ferro-resonant A.C. Voltage regulator is a low cost static device that has a simple and rugged construction and hence is very reliable. It has from the input side inherent transient and electrical noise suppression to limit the effects of lightning strikes and other noisy disturbances. Very little noise is fed back into the source by a C.V.T. Hence it is found uniquely suitable for protection of Computers & other electronic equipments and electrical system loads.

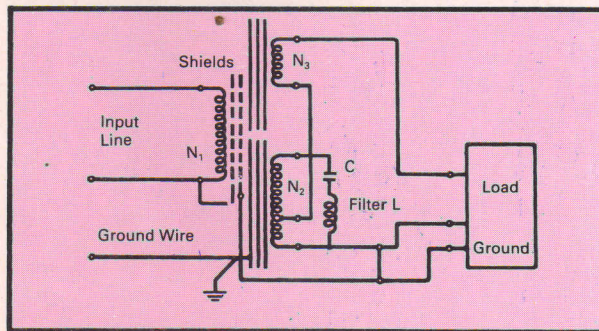
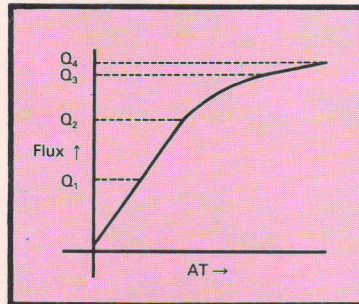
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GUARANTEE : OUR UNITS CARRY A GUARANTEE OF TWO YEARS SUBJECT TO THE CONDITIONS STATED IN GUARANTEE CARD.

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## OPERATING PRINCIPLE

The secondary portion is operated in the saturation region of magcurve ( $Q_3 - Q_4$ ) and primary in the linear portion ( $Q_1 - Q_2$ ) for good input power-factor. Secondary saturation is achieved with the help of capacitor 'C' which forms a 'ferro-resonant' circuit with the windings. For sine-wave output 'L' is included in the circuit.

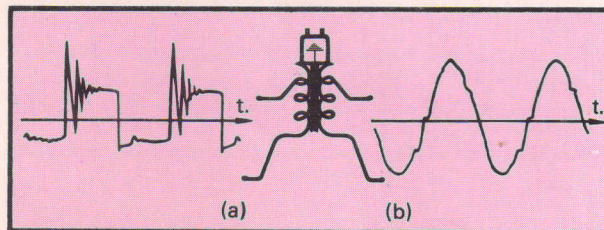


Schematic diagram of ferro-resonant transformer with shields.

## ADVANTAGES

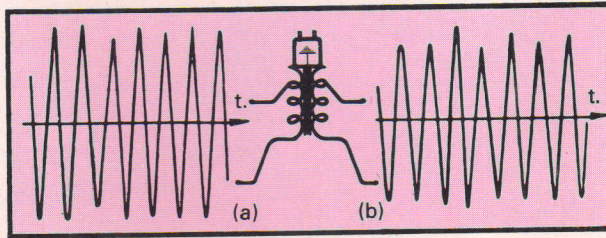
The F.I.T. (1 Failure /  $10^9$  device hours) rate of the magnetic components is in order of '30' which gives, together with a good capacitor, a regulator with long life expectancy and reliability having no moving parts and hence no servicing.

### ★ THE FILTERING EFFECT



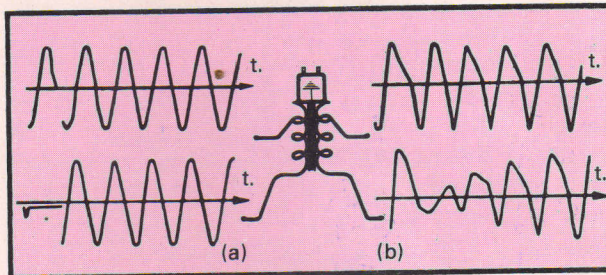
Filtering effect of 2.5 kVA, 50 Hz ferro-resonant transformer. Response of output voltage at full load PF = 1.0 to square-wave input voltage with super-imposed 1000 Hz ringing. (a) trace-input Voltage.(b) trace output Voltage.

★ LOAD CHANGE



Effect of load switching on output Voltage of 2.5 kVA, 50 Hz ferro-resonant transformer. (a) Full load PF=1.0 applied. (b) Full Load PF=1.0 removed.

★ ENERGY STORAGE



Effect of input Voltage interruption on output voltage of 2.5 kVA, 50 Hz ferro-resonant transformer operating at full load PF = 1.0 upper trace input Voltage. Lower trace output Voltage. (a) Interruption time of 4 ms (1/4 cycle). (b) Interruption time of 20 ms (1 Cycle)

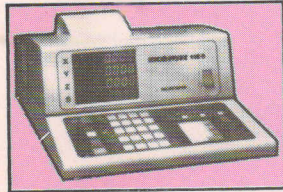
**PRECAUTIONS**

★ Switch off when not in use. ★ Keep away from mag-flux sensitive objects. ★ Not to be used for high inductive loads unless & until specifically ordered for. ★ To use, switch on C.V.T. first and then the loads, to switch off, the loads first & then the C.V.T. ★ Not to use for greater than  $\pm 2$  Hz.(e.g. generator source.)

**RANGE**

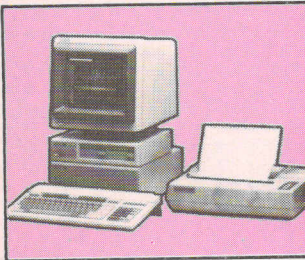
From 50 VA to 25 kVA in single and three-phase configurations. Other variations as per order.

## APPLICATIONS

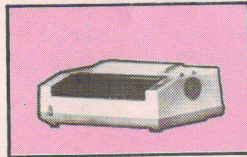


Tele-printers, Fax Machines  
& Biomedical,  
Data Processing,

For Computers, Telex, T.V.  
V.C.R., Electronic -  
Typewriters &



P.A., Telecom & Micro Processor  
or P.C. based equipments.



## SPECIFICATIONS

INPUT VOLTAGE RANGE	: 180 V - 260 V (Usable) : Other variations on request.
INPUT FREQUENCY	: 50 Hz $\pm$ 2 Hz
OUTPUT VOLTAGE SETTING	: 220 / 230 $\pm$ 1 %
OUTPUT VOLTAGE REGULATION	: $\pm$ 1% for I/P 240 $\pm$ 15% : Further $\pm$ 1% for I/P 240 (-15% to -25%)
O/P STEPLEAD RESPONSE:	Typically 10 - 40 m Sec.
EFFICIENCY	From 80% to 90% for 50 VA to 5 kVA.
LOAD POWER FACTOR	: 0.75 lag to 0.9 lead
OUTPUT VOLTAGE VARIATION AGAINST INPUT FREQ.	: 1.6% for every 1% change in frequency.
AMBIENT TEMP.	: 0-50° C ambient & class 'F' insulation.

MFG. BY **SANE ELECTRIC PVT. LTD.**

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SATARA ROAD, PUNE 411 009. Ph.: 440109

Dealer's Stamp

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