



## INTRODUCTION

- ✦ Energy cost contributes to the total product cost.
- ✦ Energy consumption has become National and Global priority.
- ✦ Electrical energy is very important due to global warming and economic destruction.
- ✦ Huge gap between demand and supply.
- ✦ Shortage in electrical energy results in implementation of various Energy Conservation measures.

## NEED FOR ENERGY SAVING

- ✦ kW Reduction
- ✦ National Interest
- ✦ Green Environment

## ROLE OF ES25 IN ENERGY MANAGEMENT

- ✦ Es25 INSTALLATION - 40 MW
- ✦ HOURLY SAVINGS - 8 MW
- ✦ MONTHLY SAVINGS - 0.5 MILLION UNITS
- ✦ YEARLY SAVINGS IN RUPEES - 3,26,000.00
- ✦ EQUIPMENT LIFE TIME SAVINGS - 6.5 MILLION

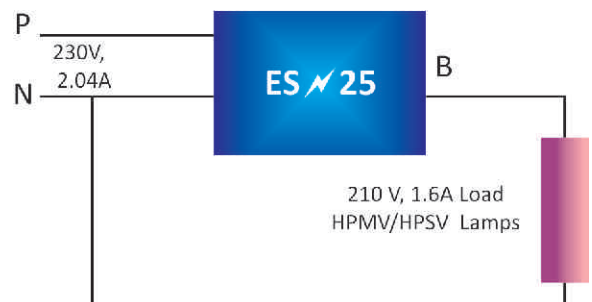
## WORKING PRINCIPLE

### How ES25 works?

- ✦ All electrical equipments draw power and convert them into output energy. In the process of conversion, there will be associated power sources. Most of the equipments draw excess energy than required in the output demand. The excess cannot be used any more.
- ✦ The lesser the wattage loss, the more will be the useful power. Hence it only monitors the condition and feed the equipment the exact power required, we would be able to avoid losses and save energy.
- ✦ ES25 is a high efficiency device, which optimizes the voltage (Static or dynamically) as the energy consumed increases in approximately square of input voltage, hence, the output energy would reach a minimum, beyond which the energy consumed will be wasted.

## BLOCK DIAGRAM

The diagram shows energy saving high efficiency coil system. The main winding A and secondary winding B, which is the inverse, phase energy saving winding. When the supply current passes through winding A, magnetic restriction occurs in winding B as B is connected in series to load, the energy induced by the magnetic restriction from the inverse phase current in coil B is expressed as voltage optimization in the load to reduce the energy to the extent of 20 - 25%.

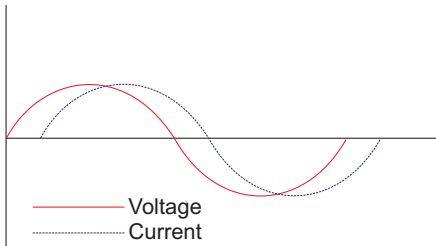


Other Products



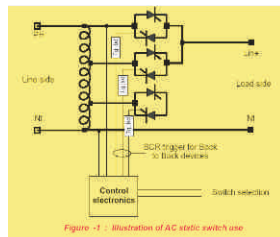
## VOLTAGE vs CURRENT

Es25 optimizes the average effective voltage by optimizing the magnitude of the sine wave which results in proportionate decline in current wave form linearly to reduce the actual power consumption in lighting and mixed loads.

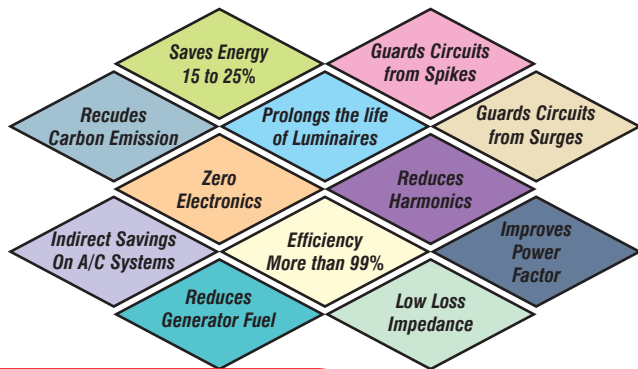


## THYRISTOR / TIME BASED SWITCHING

- ⚡ Electronic Switching
- ⚡ Automatically the Tap
- ⚡ Changes with Reference
- ⚡ To Voltage / Time Base
- ⚡ Close Loop Changing



## Es25 BENEFITS



## COMMERCIAL BENEFITS

- ⚡ Payback Period will be as low as 18 months
- ⚡ Reduces Maintenance Cost
- ⚡ 80% Depreciation in the 1st year of Investment

## TESTED & CERTIFIED BY

- ⚡ Southern Regional Electricity Board (SREB)
- ⚡ Central Power Research Institute (CPRI)

- ⚡ Karnataka Electricity Board (KEB)
- ⚡ Chief Electrical Inspector to Government of Karnataka (CEI)
- ⚡ Electronics Test & Development Centre (ETDC)

## RECOMMENDED BY



Confederation of Indian Industry



The Energy and Resources Institute  
Innovative solutions for a better tomorrow



Projects & Development India Limited



Petroleum Conservation Research Association



Kiloskar Consultants Ltd.  
CONSULTING ENGINEERS

## GLOBAL PRESENCE

- ⚡ Spain ⚡ Jordan ⚡ Saudi Arabia
- ⚡ Sultanate of Oman ⚡ UAE ⚡ Kuwait
- ⚡ Lebanon ⚡ Srilanka ⚡ Mauritius
- ⚡ Malaysia ⚡ Singapore ⚡ Nepal
- ⚡ Philippines ⚡ Czech Republic

## SOME OF INDIAN CUSTOMERS



Authorised Channel Partner for:



## VALLABMAHI ELECTRICAL PRIVATE LIMITED

Reg. Office: Plot No: 66, Sri Meenakshi Nagar,  
Bagalur Road, HOSUR - 635 103, Tamil Nadu, India.

## VALLABMAHI ELECTRICALS

Works: No.34, Spurthi Nagar, Yelachanahalli, Nr. om sakthi temple,  
J.P.Nagar P.O., Kanakpura Main Road, Bangalore - 560 078.

☎ : +91 94894 91106, +91 95385 54573, +91 91080 02714-20, +91 91084 48921/22, +91 73730 70961/63/65/66/70/71

✉ : vallabmahi@gmail.com

🌐 : www.vmepl.com