

Product Details



Asian Energy Saver System



Asian Voltage Control System

ASIAN ENERGY SAVER SYSTEMS

GENERAL DESCRIPTION :

ASIAN CONTROLS & EQUIPMENTS has developed Microprocessor based programmable Energy Saver System. It is a unique concept guaranteed to provide a saving between 20 to 45 % in Electrical Energy Consumption.

Energy conservation is a movement that is compelling the world to take serious steps to avert loss of energy.

The ASIAN ESS is a boon to the modern industrial world in the sense that it helps in saving substantial amount of electrical energy used for the purpose of lighting like Tube Lights, Mercury Vapour Lamps & Sodium Vapour Lamps etc.

ASIAN lighting Controllers feature a unique technology. It operates on the well proven principle that lamps can meet light output design criteria in connection with automatic light level control while consuming less electric power. The exclusive features of ASIAN Lighting Controllers provide automatic power

reduction while maintaining lighting levels. They are designed to reduce lighting energy consumption by as much as 45% in fluorescent and HID (High Intensity Discharge) lighting systems. These lights are found most commonly in offices, commercial and industrial space. ASIAN lighting Controllers are applicable in retrofit as well as new installation. Since control is provided at the panel level, no extensive rewiring of fixtures is required. The units are also very compact, requiring a minimum of space.

The ASIAN lighting Controller was developed by ASIAN CONTROL & EQUIPMENTS. A leading manufacturer of energy saving devices with extensive experience in lighting, demand and power factor control. ASIAN lighting Controller technology was engineered in conjunction with major Lamp and Ballast manufacturers of fluorescent, HID and HPS lamps.

ASIAN systems provide high, medium, and low voltage supply to the lighting panels without the need for individual circuit rewiring. Since the system employs an auto-transformer, it is considered to be the most efficient and safest method of step voltage control. It sustains a perfect sine waveform and does not create any harmonics in the power system.

The savings that can be achieved with ASIAN Lighting Controllers are in addition to those savings that have been obtained using energy efficient lamps and fixtures. In combination with those methods, savings of 40% are possible. Even greater savings are obtainable in lighted and refrigerated environments such as retail, commercial and industrial facilities. The reduction of the lamp operating temperature results in a corresponding reduction in the cooling system requirements. ASIAN Lighting Controllers are designed for diverse types of applications ranging from small commercial sites, consuming as little as 50 KW (65A), to large installation that may use multiple controllers of up to 150 K W (200A) each and consuming several megawatts of power. Typical installed systems have a payback from one to two years.



PRINCIPLE OF WORKING :

The fluorescent tube manufacturers list the rated or nominal wattage on which the tube should dissipate, when operated under prescribed conditions. In practice, this marking of rated wattage on any tube does not indicate the wattage, which the tube will dissipate in any given circuit. The actual wattage is always higher than the manufacturer's rated wattage and depends mainly on the characteristics of the ballast with which the particular lamp is operated and on the mains supply voltage at any given time.

It is well known that, a reduction in the power supplied to discharge lights can be made without proportional drop in light output.

Normally luminous efficiency of gas discharge lamps depends on the operating electrical conditions like discharge current and voltage in relation to the vapor pressure.

Though the tube manufacturer's data gives the light output VS electrical input at the specified voltage, the operating characteristics in a normal operating environment usually drives more current through the discharge than rated conditions. Also,

the efficiency drops faster for I greater than 11 due to multiple excitation at higher currents.

ASIAN ESS effectively presents lossless impedance in series with the lamps to reduce the current.

It has been carefully designed to ensure that any reduction in voltage does not impair the ability of the luminary to strike. It offers four different terminals so that the saving can be adjusted to meet the needs of any individual.

The ASIAN ESS is guaranteed for 1 year conditional on correct application and installation. The expected life is in excess of 15 years without any maintenance being required. It is being widely used throughout the world for the past few years and is now - generally accepted as a major energy conservation Device.

The ASIAN ESS work effectively and efficiently on all discharge lights. It has been successfully installed on high bay mercury and sodium lights.

The ASIAN ESS may also be installed on tungsten lights for removing the glare sometimes associated with intense spot lights giving a pleasing lighting level.

The ASIAN ESS enables you to achieve about 20-50% energy savings, on your lighting energy consumption, in a safe and secure manner.

The Asian ESS will not have any impact on the power factor. However, in some cases there is a slight improvement in power factor after installation of ESS.

There is certain evidence from our users that the ESS prolongs the life of fluorescent and all discharge tubes.



Technical Specifications :

Rated Input Voltage : 3x230V +N, 50-60 Hz 3x415 V+ N, 50-60 Hz 230V, single phase 50-60 Hz

Rated Output Voltage : Configurable 180-230 V

Rated Starting Output Voltage : Configurable 210-230V

Load Variation : 0-100% of rated.

Load power factor : any

Harmonic distortion caused : 0.0%

Efficiency : >98%

Precision of Output Voltage: 1 %(for closed loop microprocessor based)

Lamp warm up time : Configurable 10 to 30 minutes

(For closed loop microprocessor based)

Stabilization speed : < 40ms Nolt

(For closed loop microprocessor based)

Operating temperature : -20 degree C to 60 degree C

Humidity : 0% to 97% non condensing

Cooling Systems : Natural/forced depending upon models

Protection Class: I P55 for outdoor applications

Power Reduction : 20 to 50 %

Lumen Reduction : 20to 50%

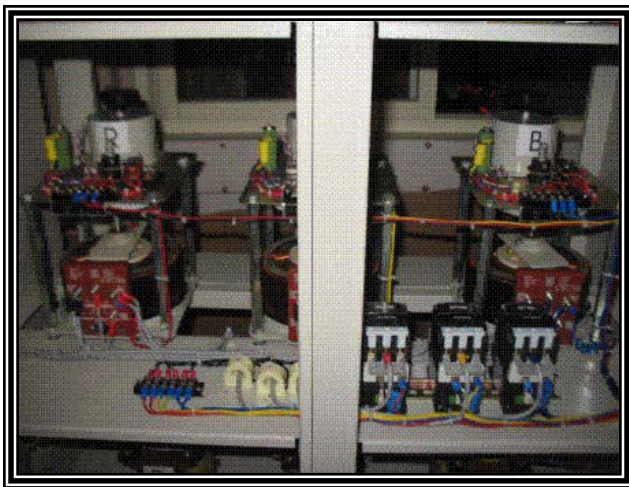
Type & enclosure : Sheet Steel Cabinets.

Operational Features :

- i. Automatic Control and Remote Operation from Central Control Station to be provided with SCADA / Dedicated ASIAN software.
- ii. Remote operation through mobile phones at zonal level.
- iii. Status indication of the operation at central location and to Maintenance Staff on their mobile through SMS message.
- iv. Remote indication of faulty feeders at Central station and power failure message through SMS to zonal staff (alarm message).
- v. Forced operation ON/ OFF from central station and by mobiles through SMS for maintenance purpose.

- vi. Event and alarm logging facility can be customized for analysis of the fault duration and type of faults, etc.
- vii. Security of operation by passwords.
- viii. It is possible to modify / change the authorized mobile phone no. of the zonal staff from Central SCADA by SMS.
- ix. The system communicates with the Energy Saver installed in the panel on RS 485 network with modbus protocol and collects important parameters like 3 phases, Voltages and Currents , KWH, Power Factor etc.
- x. Possible to monitor set Current Limit per phase and Zonal Staff will be informed on their mobile phones in case of current drawn exceeds the limit. Possible to provide such limits on various parameters like voltage, power factor etc.
- xi. Continuous Load current measurement – for analysis of aging factor of the lamps and healthiness of the individual circuits.
- xii. The Systems has an in-built Real Time Clock (RTC)
- xiii. The system can generate an event message, in case it loses communication with the Energy Meter (for what so ever reasons) and generate an SMS to the Mobile Maintenance Crew and Central SCADA.

- xiv. The communication with the SCADA can be through SMS or DSL / Leased line.
- xv. URL based operation possible for remote data access.
- xvi. Report generation – daily consumption report and Exception / Error report for power failures.
- xvii. Supervision, control & logging to be archived district and zone wise.
- xviii. System can be de-fragmented in future for district level operation and control in addition to central control Station.



Enclosure with panel :

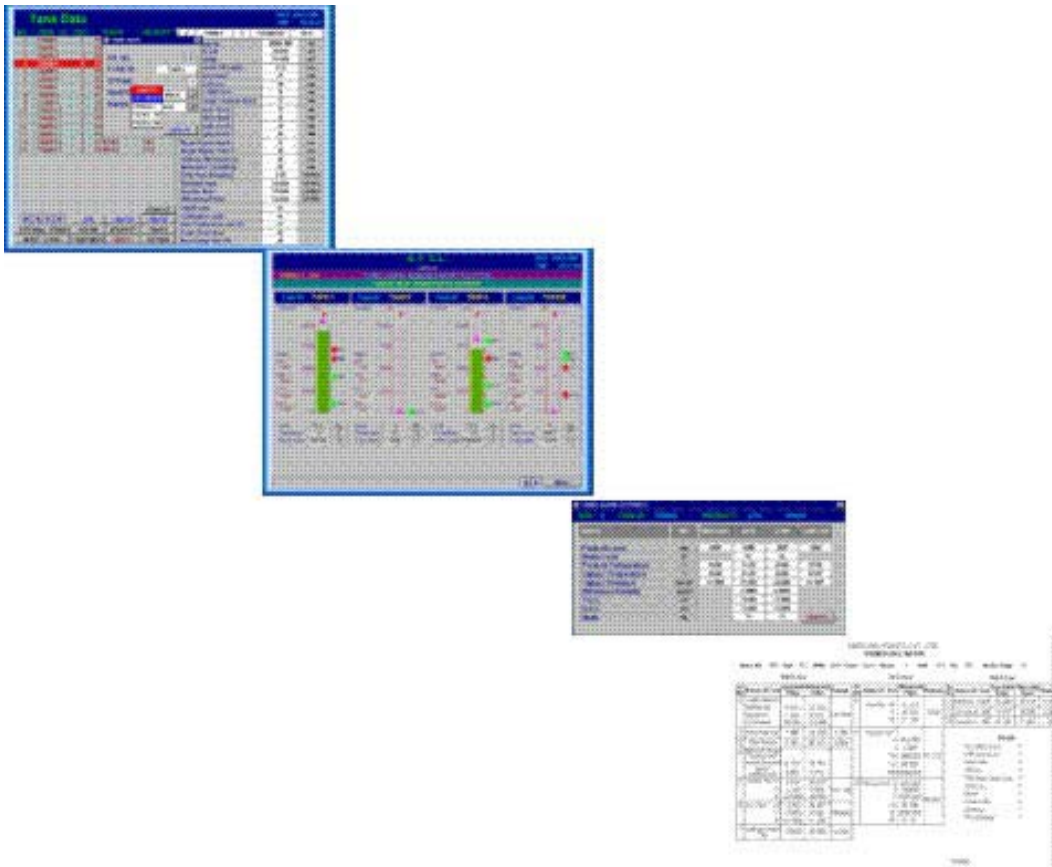
Energy Saver Panel Consists of

- A. Dedicated ASIAN Make Main Controller which has
 - Real Time Clock
 - Communication Facility
 - Current / Voltage Control
- B. GSM Modem
- C. Suitable MCCB with Trip Contact
- D. Contactor Rated Suitably as per panel requirement
- E. By Pass Switch (AUTO / MANUAL) of Suitable rating
- F. Enclosure IP55 Rating for Outdoor application
- G. Current Transformers
- H. Potential Transformers
- I. Power Factor Correction (Optional)



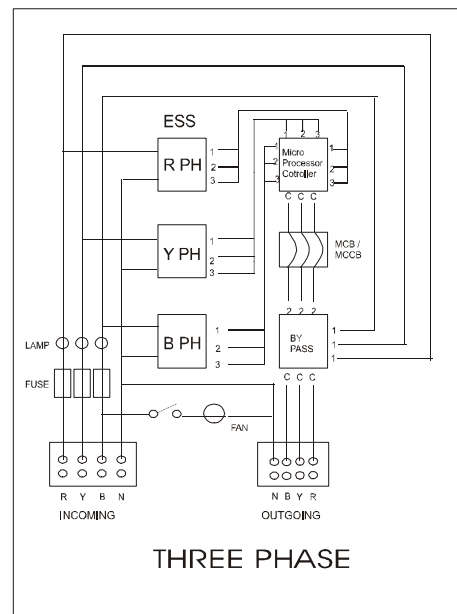
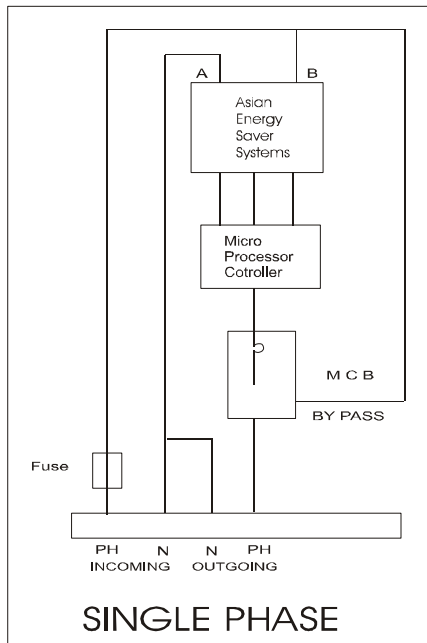
PC CENTRAL CONTROL :

Software: the unit can be connected with central PC using GSM modem.
Facility is provided to log the data like voltage / current / ON – OFF timings
fault & failure of panel.



*Software for Connecting
You to the World*

Block Diagrams :



Application :

Street Lighting -
Industries -
Petrol Pumps -
Refineries -
Parking Lots -



- Houses & Bungalows
- Offices
- Shops
- Bank
- Airports
- Warehouses

Hospitals -
Hotels -
Colonies -
Sugar Factories -
Show Rooms -



Our Other Products :

INDUSTRIAL CONTROL APPLICATIONS

Data Loggers
Temperature PID Controllers
Humidity Controllers
Timers / Counters / Totalisers
Profile Controllers
Real Time Controller
Ramp Soak controllers
RPM Indicators
Stretch indicators
Jigger Controller
Level controllers
Siren Controller / Bell Controller
Weighing and batching controller

PC BASED CONTROL for INDUSTRIAL AUTOMATION

ECOS (Electrical Check Out) System
Test system for Alternator testing
On-line Production Test system

INDUSTRIAL TEST and MEASURING INSTRUMENTS

Ampere Hour Meters
Programmable Ammeters / Indicators
Rate meters / Flow Meters
Transformer Ratio Meters
Load Indicator
Level Indicators

PC BASED SOFTWARE for CONTROL APPLICATIONS

SCADA Software
Data Logging Software

TESTING EQUIPMENTS for TELECOMMUNICATIONS

2MB Digital Link Analyser
R2MF Test System
Various Telephone Applications

MEDICAL TEST EQUIPMENTS

Uroflowmetry System.

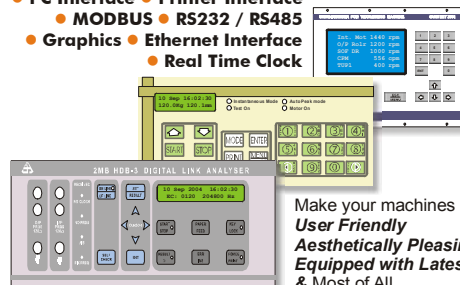
BATTERY related APPLICATION

Charge Discharge Timers
Life Cycle Timers
Programmable Ammeters

PRODUCTION MONITORING EQUIPMENTS

Production Displays
Production Analyser
Event Logger

- PC Interface ● Printer Interface
- MODBUS ● RS232 / RS485
- Graphics ● Ethernet Interface
- Real Time Clock



Make your machines **more**
User Friendly
Aesthetically Pleasing
Equipped with Latest Control
& Most of All
Highly reliable.....