

### <u>AMF PANEL</u>





Auto mains failure (AMF) Panels is meant for controlling DG START / STOP sequence in accordance to the availability of utility power supply. We design & manufacture the AMF panels for various capacity & different make of Diesel EA set.

#### AMF control system provides:-

- Consistent power supply to the load in absence of main supply.
- DG set protections.
- Smooth Start/Stop Sequence.
- Audio Visual indications of various fault conditions.
- Protects the load from voltage fluctuations.
- Auto/Manual modes of operations.
- Mains failure voltage fluctuations detection.
- User friendly.
- Remote Monitoring.
- Alarm Visualization

Product Can Be Customize

# Servo Voltage Stabilizer

# V S ELECTRONICS



Servo voltage stabilizer is a closed loop control mechanism which serves to maintain balanced 3 or single phase voltage output in spite of fluctuations at the input owing to unbalanced conditions. Most of the industrial loads are 3 phase induction motor loads and in real factory environment, voltage in 3 phases is rarely balanced. Say for example if the measured voltages are 420, 430 and 440V, the average is 430V and the deviation is 10V.

#### Types of Servo Stabilizer :-

- Oil Cooled Servo Stabilizer
- Air Cooled Servo Stabilizer
- Single Phase Servo Stabilizer

<b>Applications of SEF</b>	RVO Voltage Stabilizer	Specifications	Single Phase	Three Phase		
CNC Machines	Air Conditioning Plants	Input Volts*	160-260V	300-440/360-500		
Telecommunication	Motor Loads	Output Volts*	230 +/- 1%	380/400/415 +/-1%		
Networks		Efficiency	>95%	>97%		
Data Processing Equipment	Bio Medical Equipment	Frequency	48-52 Hz	48-52 Hz		
Drives, PLC's	Induction Heating	Wave-Form Distortion	Nil	Nil		
DRDO/BEL/HAL	Defensce Application	Distortion				
Industrial Units	Lighting Loads	Temperature	Depends on type of cooling and IS Specifications	Nil		
Residential/ Offices	Farm Houses		Specifications			
R & D Institutions	2 & D Institutions Sophisticated Laboratories		Designed for indoor tropical use	Nil		

Range Of Stabilizer 1 KVA Upto 500 KVA

# Servo Voltage Monitor Panel



Servo Stabilizer Voltage Monitor with Three Phase Input and Output Voltage Monitoring with Scrolling and LED Indication with Hotter as an alarm

- A voltage regulator is a system designed to automatically maintain a constant voltage level.
- Depending on the design, it may be used to regulate one or more AC or DC voltages.
- Alarm Visualisation on remote monitoring

# Three Phase Shift Detector & Corrector



These products find varied application in preventing damages at the time of phase change or reverse. Moreover, these are safe to use panels that are ideal for single phasing and voltage imbalance.

A Models & Amps/ KVA Rates: 30 Amps, 40A, 60A, 100A, 125A, 150A, 200A, 250A, 300A, 400A, 450A, Up to 630 Amps.

# Surge Protection Device (RF/AC/DC)

# V S ELECTRONICS



The terms surge protection device (SPD) and transient voltage surge suppressor (TVSS) are used to describe electrical devices ypically installed in power distribution panels, process control systems, communications systems, and other heavy-duty industrial systems, for the purpose of protecting against electrical surges and spikes, including those caused by lightning.

#### Low Voltage SPD

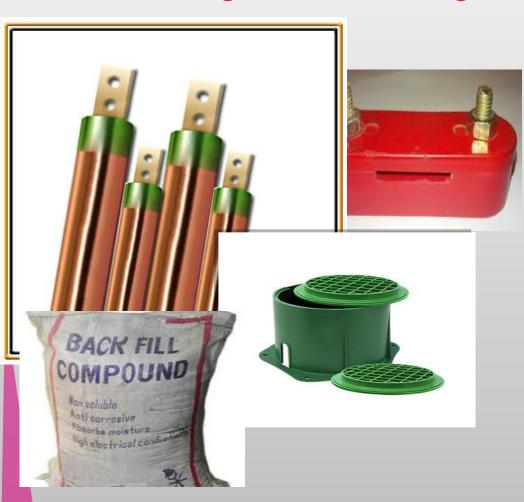
Very different devices, from both a technological and usage viewpoint, are designated by this term. Low voltage SPDs are modular to be easily installed inside LV switchboards. There are also SPDs adaptable to power sockets, but these devices have a low discharge capacity.

#### SPD for communication networks

These devices protect telephone networks, switched networks and automatic control networks (bus) against overvoltages coming from outside (lightning) and those internal to the power supply network (polluting equipment, switchgear operation, etc.).

### Earthing :-Gel Earthing & Chemical Earthing

# V S ELECTRONICS



The Earthing Electrode diameter and the thickness of the strip depends on the soil conditions as well as the application load .It will be of 2mtrs and 3mtrs in length depending upon the soil condition and application load.

#### **Feature:**

- Reliable & long average life up to 20 to 25 years.
- Reduces soil resistivity &Less maintenance.
- Eliminates the need for salt and charcoal around electrode.
- Enables dissipation of fault current faster.
- Reliable and efficient
- Helpful and beneficial
- Easily affordable prices

# External Lightning arrester

### V S ELECTRONICS

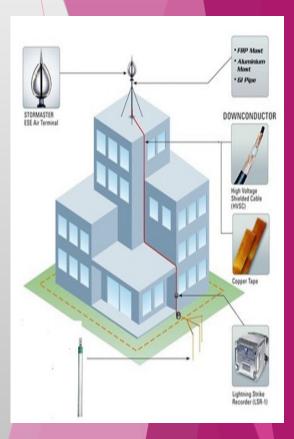


#### **Introduction:**

- E.S.E. lightning arrestor for Earthing system, which protects structures such as high rise buildings from damage by intercepting flashes of lightning and transmitting their current to the ground.
  - The E.S.E. lightening arrestors are made from best quality material that assure not only safety and improved performance.

### **Working Principle:**

- The voltage between the cloud and the ground increases until an ionized path is created emanating from the cloud.
- As the leader nears the earth the atmospheric potential increases above the ground and the air terminal is electrically charged.
- When the extremity of the leader arrives at a critical position, the ese air terminal reaches its maximum electrical charge.
- The link between the earth and the cloud is formed and the lightning current passes along the ionized path.
- The voltages between the cloud and ground are equalized and electrical discharges cease.



Product Can Be Customize

### **Elements used to install the ESE lightning arrester**

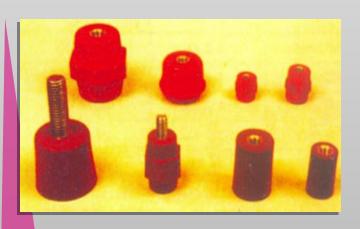
#### V S ELECTRONICS

#### 1) Down Conductor:



The Down Conductor Is the Connectivity between the Lightening arrestor and the Chemical Earthing .It is the Pure Copper Strip of 550 mm wide and 5 mm Thick with 100 meter length equivalent to the height of the tower

#### 2) Insulators:



Cat. No.	Top Dia-D1			Brass Bush Sizes							
Mini hex w	ith bolt on on	e side and ins	ert on the oth	er							
MHB630	15	18	30	M6 & M6×30 Bolt							
	М	ini Hex									
MH415	13	14	15	M4							
Mini Drum											
MD620	15	16	20	M6							
	Mini/Th	in Cylindrical		M6 & M6×30 Bolt M4							
MCL 625	15	17	25	M6							
MCL 630	20	22	30	M6							
MCLB420	11	11	20	M4							

#### Application:-

- Lightning protection testing would make sure that all structures, key electrical and electronic installations are safe from the effect of lightning strike.
- Less Maintenance
- Reliable
- Helpful and beneficial

### Earth Pit Monitoring Panel





- Minimum 15 pits are monitored.
- Software is able to have duplex communication with Earth Pit monitoring system and can monitor the health of the pit using advanced algorithms to calculate the earth resistances-by proprietary methodology
  - Software must be able to read/write registers on the Earth pit monitoring controller and synch events in a centralized database.
- Earth pit resistance must be linked with real time clock and software must be able to detect alterations/tampering of the wiring infrastructure via sophisticated algorithms.

### **Battery Health Monitor Panel**





- Software is able to communicate and gather health status of each and every connected cell of the UPS and report any abnormalities. There will not be any limitations to the number of cells that can be monitored via the software.
- To measure Each battery cell level voltage.
- If battery voltage level is decreases then it has show to critical alarm.
- ➤ If battery is damages then show alarm







### Feature:-

Product Can Be Customize

Full DSF control
Remote meehring
SMMP Code (Optional)
High power factor
Wake input adaptabley
Optional of human angument
Sering overfaced capability
Obline dashib convention
User China(I) serious of human appropriate
Chine China(I) serious dashibay
Chine dashib convention
User China(I) serious dashibay
Chine (Santa) serious dashibay
Copunity (XVAXW)(SMX) / 54W
Optimiting (August range; 200 of 404151).6

### Specification of UPS



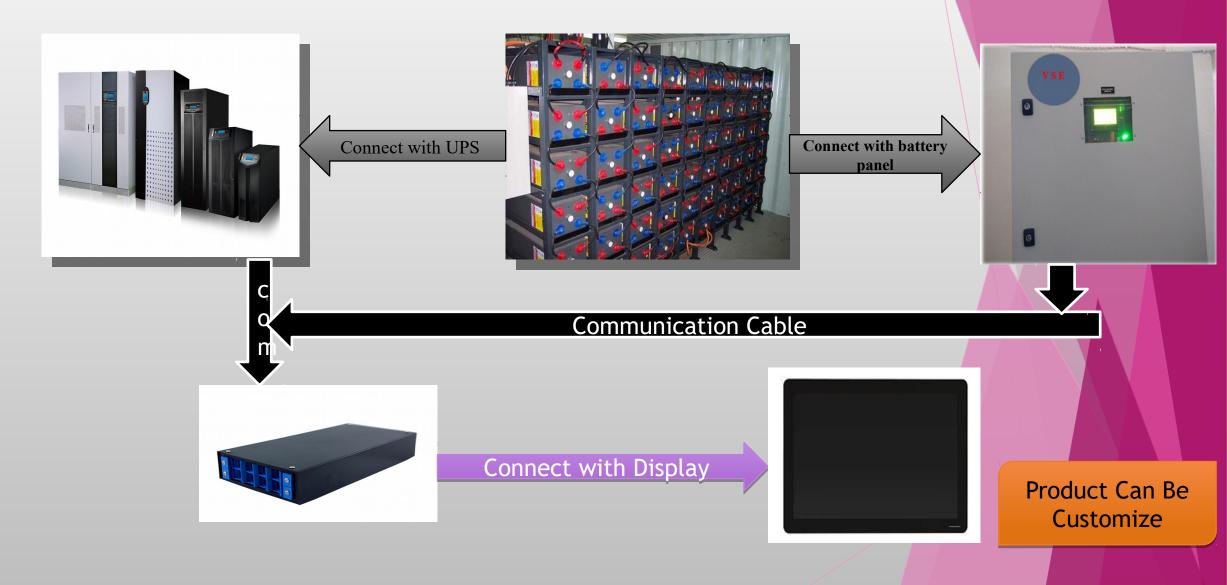
#### IGBT On Line UPS System - 3 KVA to 80 KVA - 3 Phase I/P - 3 Phase O/P

MODELS	8	3303	3305	3310	3315	3320	3325	3330	3340	3350	3360	3380	
CAPACITY		3 KVA	5 KVA	10 KVA	15 KVA	20 KVA	25 KVA	30 KVA	40 KVA	50 KVA	60 KVA	80 KV	
AC INPUT													
PARAMETERS	AC Input Voltage	a) 415V.	-20% +15%		4 W	re Three Pho	ase or any Vo	oltage Range	as per Custo	mer Requir	rement		
	Frequency	a) 50 Hz +/- 10% Can also work on Good Quality Generators											
100000		a) Output Voltage 415V AC Three Phase											
		b) Voltage Regulation +/- 1%											
		c) Frequency 50 Hz +/- 0.01% (Crystal Controlled)											
		d) Waveform Sinewave											
AC OUTPUT		e) Harmonic Distortion Less than 3%											
PARAMETERS		f) Efficiency >93% for 180V DC											
		g) Power Factor 0.8 lagging (0.9 optional on request)											
		h) Overload 110% for 10 Minutes 200% for 5 Cycles											
		i) Crestor Factor >4:1											
		j) Output Distortion <3%											
		k) Transient Recovery Within 3 Cycles											
PROTECTIONS		An Electronics Circuit with Digital Logics Continuously Searches for the Following faults & Trips the system with Audio - Visual Indication.											
		a) Battery Over Voltage b) Ba				Battery Und	attery Under Voltage						
		c) Output AC Over Voltage d) O				Output Ove	hutput Overload / Short Circuit						
INDICATIONS			" Mains ON " Load on Batteries " Load On Mains " Battery Boost			* Battery Low * Battery Level Graph			* Inverter Overload * Load Level Graph				
METERING		Digital Metering Available for Output Voltage / Battery Voltage / Output Current / Output Frequency (Customised Metering Option Available)											
AMBIENT CONDITIONS		a) Operating - 0 Deg. C - 50 Deg. C			, b)	b) Storage - 0 Deg. C - 60 Deg. C							
		c) Relative Humidity - 95% RH				d	d) Operating Altitude - upto 2000 Meters						
		e) Audible Noise				<	<50db at 1 Meter upto 10 KVA						
						<	<60db at I Meter above I0 KVA						
ISOLATION		Full inbuilt isolation between I/P & O/P by transformer at the output											
OPTIONAL		* Static Bypass Switch * Rem			note On / Off Panel * Remote Indicator Panel								
FEATURES		* SNMP Interface / RS 232											
		ISO 9001 / 14001 / 18001 / RoHS / CE / EMC Safety											
	* The above system are based on normal standards and can be customised as per specifica ons.												

V S ELECTRONICS

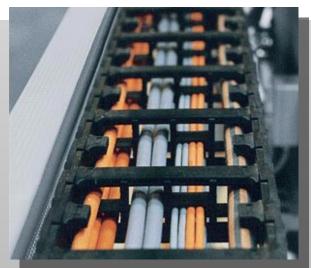
### **UPS And Battery With Remote Monitoring**

#### V S ELECTRONICS



# Cable Separation :-





Separation of Control, Data and Power Cables on separate cable trays along with the cable trays .all the cables are kept aside from each other.

#### **Unique Advantages of Cable Tray Systems**

- •Cost Efficiency. The initial cost of a **tray cable** installation can be as much as 60% less than a conduit wiring system. ...
- •Reliability. ...
- •Adaptability. ...
- •Maintenance. ...
- •Safety Rating. ...
- •Flat Elbow. ...
- •Variable Risers. ...
- •Equal and Unequal Tees.

# Air Conditioning Monitoring





- Air-con controller unit configurable with the software is able to centrally monitor and control a minimum of 9 aircon via single hardware
- AC type and number of rooms are configurable through setting properties. So the system is deployable at various sites is completely configurable.
- Visualization of the Rooms and AC is marked with color codes.

  There must be no limitation of the no. of rooms that can be monitored
- Temperature is read from temperature Sensor and/or Device Register of Aircon controller unit .which is configurable.
- Temperature Alarm threshold is configurable.
- Temperature limits and Aircon operational logic is configurable.
- > 7 Alarms and warnings limits for the monitoring each room is defined and configurable.
- > Auto ON & OFF

# **Telephone Line Protection**



These installation instructions apply to telephone line surge protectors .

It provides protection for termination systems and is suitable for all twisted pair telecommunication services. The unique I Switch technology offers the ultimate in protection against induced transients and AC induction by totally isolating the load from the incoming line during the disturbance.

After Installation Check the installation by testing that the equipment is still operating correctly.

Telephone line surge protectors are extremely robust require very little maintenance.

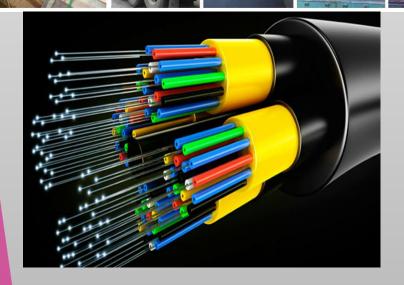
# <u>Cable</u>

### V S ELECTRONICS



The can supplier all types of cable inderground, Armoured, submarine ables and systems for power transmission and distribution, as well as medium and low oltage cables for the construction and frastructure sectors. We also produce a symprehensive range of optical fibres, copperables and connectivity systems for voice,

video and data transmission for





Product Can Be Customize

# Aviation lamp

### V S ELECTRONICS





V S ELECTRONICS is a high-tech company engaged in LED outdoor light R&D, Supplier and marketing. Our business scope mainly covers led aviation obstruction lights, led solar marine navigation lights, led flood lights, led high bay lights and led street lights design and other fields.

Our vision is to be the most reliable global provider of innovative solar and LED outdoor products, services and solution.

Strictly abide by the principles of product design: easy operation, compact, endless reliability and durability.

Product Can Be Customize

# Distribution panel





The meter is connected to a **distribution panel**, also known as the breaker panel. This apparatus has a main breaker, which can cut power to the entire house, and as many circuit breakers as there are circuits in the house.

Breakers are switches that automatically cut off electric current when an overload or some other anomaly occurs. They prevent circuits from overheating, for instance because of a wiring problem or a defective appliance. Each breaker is linked by three wires to a series of outlets or connection boxes along a circuit.

The live or "hot" wire delivers electric current. The neutral, or "return," and the ground have a safety function. The neutral and the ground are hooked up to the same breaker terminal, which is connected to the grounding system of the distribution panel.

Some dedicated circuits have only a single outlet or connection box—for example, the refrigerator and the water heater. Other circuits are wired to outlets with ground fault circuit interrupters, such as bathroom outlets, to provide added protection against electricity-related accidents in the home.

### **APFC PANEL**



We can supplied Automatic Power Factor Control or APFC Panels are mainly used for the improvement of Power Factor. Power Factor is the ratio of active power to apparent power and it is a major component measuring electrical consumption. APFC is an automatic power factor control panel which is used to improve the power factor, whenever required, by switching ON and OFF the required capacitor bank units automatically.

Product Can Be Customize

### DG SYNCRONIZATION PANEL

### V S ELECTRONICS



Synchronizing panels is used for synchronizing two or more DGs to share the total load of the system by matching all the parameter of the DG sets like voltage, frequency, speed, phase sequence and phase angle.

### Power and Renewable





The **diesel generator** is an equipment whose **use** is indicated for applications that require more power and for continuous operation. They convert the fuel into electrical energy, through the combustion of **diesel**.

**Diesel** engine is used as power to drive **generator** to generate electricity. ... The **diesel** oil sprayed into the cylinder self-burns, produce high temperature and high pressure gas. The fuel gas expansion forces the piston to **work**, the heat energy is converted into mechanical energy.

**Solar water heating** (SWH) is the conversion of sunlight into **heat** for **water heating** using a **solar** thermal collector. ... A sun-facing collector heats a working fluid that passes into a storage **system** for later use.

V S ELECTRONICS

### Resistive Load tester



The incandescent light bulb is a commonly-used resistive load. Resistive loads are typically used to convert current into forms of energy such as heat. Unlike inductive loads, resistive loads generate no magnetic fields. Common examples include most electrical heaters, and traditional incandescent lighting loads.

Resistive. A Resistive load bank, the most common type, proves equivalent loading of both generator and prime mover. That is, for each kilowatt (or horsepower) of load applied to the generator by the load bank, an equal amount of load is applied to the prime mover by the generator.

The most common type of load bank is resistive. A resistive load bank loads the power source and the engine or motor equally. It removes energy from the complete generating system. It generated the load by converting the systems electrical energy to heat using power resistors.

#### V S ELECTRONICS

RANGE 1KW UPTO 100KW