



**NANTECH POWER SYSTEMS PVT LTD**

An ISO 9001 : 2015 Certified Company

# ULTIMATE POWER SOLUTIONS



## Company Profile

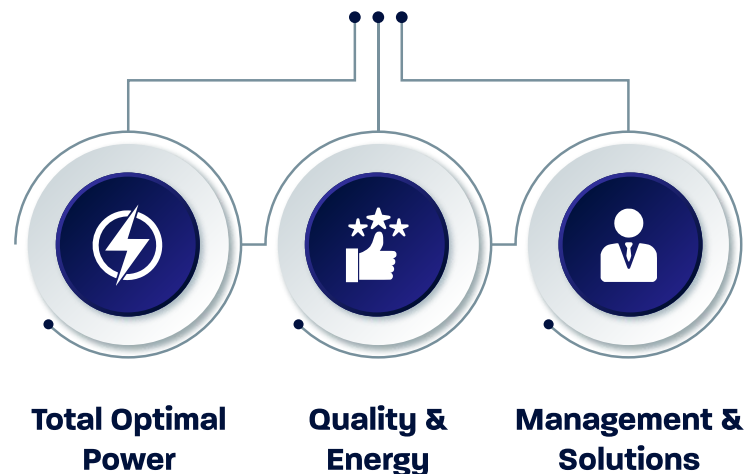
NANTECH POWER SYSTEMS is an UPS & stabilizer manufacturing company with a mission to offer the customer quality, cost effective product and time bound solutions meeting their short term and long term power requirements. Nantech Power Systems is promoted by well-experienced professionals who are qualified engineers from reputed institutions. The company boasts of a well-equipped UPS Manufacturing facility & development center. The company conforms with ISO 9001 : 2015 standards.

## About Us

We at NANTECH take great care of "After Sales Service". We have a team of service professionals across various destinations to take care of our customers. These service professionals are in regular touch with our customers by way of routine maintenance minimizing incidence of breakdowns. We have service centers at Madurai, Trichy, Tirunelveli, Pondy, Coimbatore & Bengaluru.

## Our Vision

To provide

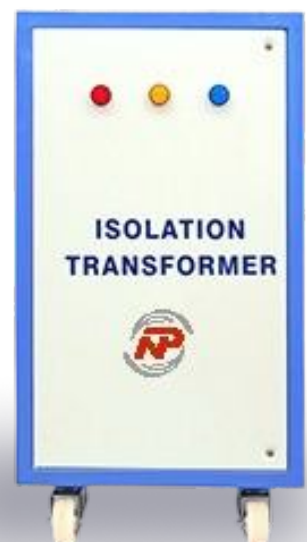


## Quality Policy

To achieve customer satisfaction by direct interaction with end user and meeting the product specific needs and expectations of the customer, which shall also include on time delivery and continuous improvement.

## Product Ranges

<b>Online UPS</b>	1KVA – 21MVA
<b>Line Interactive UPS</b>	600VA – 1KVA
<b>Servo Voltage Stabilizer (Air Cooled/Oil Cooled)</b>	1KVA – 500KVA
<b>Active Harmonic Filters</b>	30A – 1200A
<b>Ultra Isolation Transformer (Air Cooled/Oil Cooled)</b>	1KVA – 1000KVA
<b>Solar Power Plant</b>	1KW – 10MW
<b>CVT</b>	500VA – 5KVA





## Online UPS System

### The Smartest Way To Tackle Power Failure

True on-line double conversion micro-controller based UPS system for high end servers, workstations, CAD/CAM... sensitive to AC power irregularities and black-out. The high switching frequency of the UPS enables fast response to dynamic loads like CNCs textile and printing equipment, glass processing, medical equipment, resulting in good transient response for non-linear loads. The UPS is designed to support advanced electronic equipment with high crest factor demand and provides unmatched performance.



### Applications

- All Industries
- BPO/ IT Sector
- Hospitals
- Logistics
- Defense
- Educational Institutions
- SME Used of all Sophisticated
- Banking Sector
- Medical Instruments

### Features

- True Double Conversion UPS
- Micro Processor Control
- Isolation Transformer
- Active Power factor Correction
- High Efficiency
- Generator Compatible
- Supports USB/ RS232
- Optional: SNMP / Modbus
- In-built Battery Model upto 3kVA



<b>Input</b>	Voltage	230 VAC, (+15% -20%) Single Phase 415 Volts, (+15% -20%) Three Phase
	Frequency	47 To 53 Hz
<b>Output</b>	Rating	1/2/3/7.5/15/20 KVA, Single Phase 10/20/30/40/50/60/75/100/120/150/ 200/250/300/400/500 KVA, 3 Phase
	Voltage	220/230/240 Single Phase 380/400/415 V, 3 Ø
	Regulation	±1% For Unbalanced Load
	Phase Displacement	120± 1 Deg For 100% Unbalanced Load
	Power Factor	0.8
	Crest Factor	3:1
	Frequency	50Hz ±0.1%
	Wave Form	Sine Wave
	Harmonic	<3% THD For Linear Load
	Distortion	<5% THD For Non-Linear Load
	OverLoad	110% For 30 Minutes 125% For 10 Minutes 150% For 60 Seconds
	Transient Response	±5% For 100% Step Load Change
	Response Time	Recover To ±1% Within 5 Msec

<b>Efficiency</b>	Inverter Efficiency	Better Than 95%
	Overall Efficiency	Better Than 92%
<b>Protections</b>	Rectifier	I/P AC Over/Under Voltage DC Over Voltage Battery Charging Over Current Single Phase Failure Reverse Phase Sequence
	Inverter	O/P Over Voltage / Under Voltage O/P Overload O/P Short Circuit DC Under Voltage Over Temperature
<b>Metering</b>	LCD/LED Display To Read Following Parameters With User Friendly Mimic Diagram	
	<ul style="list-style-type: none"> <li>• I/P Voltage</li> <li>• O/P Voltage</li> <li>• Battery Voltage</li> </ul>	<ul style="list-style-type: none"> <li>• I/P Current</li> <li>• O/P Current</li> </ul>
	<ul style="list-style-type: none"> <li>• Battery Charge</li> <li>• I/P Frequency</li> <li>• O/P Frequency</li> </ul>	

<b>Controls</b>	Input on/off MCB/MCCB, By-pass on/off switch, Output on/off switch, Manual by-pass switch, Inverters on/off	
<b>Physical</b>	Ecnlosure	IP 31 (IP 42-Optional)
	Cable Entry	Bottom (Top-Optional)
	Colour	Broken White/Siemens Grey (Optional As Per Req.)
<b>Environment</b>	0 To 45°C Max, Up To 95% RH	Forced Air-Cooling
	(Non-Condensing) Cooling	
	Audible Noise	<60dB Upto 100KVA, <75 DB Upto 500KVA
	Altirade	<300 Mtr. Above MSL
<b>Reference Standards</b>	IEC 146-(IV), EN 50091-1, EN 50091-2	
<b>Optional Features</b>	Remote Start/Stop, RS232/485 Interface NC Machine Interlock	



## VERTIV (EMERSON) PRODUCTS

Emerson Liebert Online UPS systems with fully IGBT Double Conversion technology, it can be fully adapted to meet diverse requirements in terms of battery backup time, power redundancy and configuration and also at the same time delivers the best protection for your equipment.



### Liebert ITA 2: 6kVA – 20kVA

The Liebert ITA 2 is a fully-digital, highly reliable, double conversion UPS solution that delivers clean and consistent power. This highly efficient solution is ideal for various deployments, whether it's IT racks, network closets, automation control systems, and precision instruments to small-sized control rooms among other edge applications.

### Liebert Power Bank 600: 6kVA

Liebert Powerbank 600 is ideal at the edge of networks, light industrial applications and data centers, blending easily into any virtualized environment and providing comprehensive power protection at lower operating costs. It offers best-in-class efficiency of up to 89% over a wide range of load conditions, resulting in significant OPEX cost savings. Liebert Powerbank 600's integrated Smart Sleep technology in ECO mode provides a superlative efficiency of up to 94%.



### Liebert S600D : 10kVA – 20kVA

Liebert S600 offers best-in-class efficiency of up to 91% over a wide range of load conditions, resulting in significant OPEX cost savings. S600D's integrated Smart Sleep technology in ECO mode provides a superlative efficiency of up to 94%. S600 is ideal at the edge of networks, light industrial applications and data centers, blending easily into any virtualized environment and providing comprehensive power protection at lower operating costs. Protects UPS and load from high voltage fluctuations.



## The Vertiv™ Liebert® APM Plus

The Vertiv™ Liebert® APM Plus (50-500 kW) revolutionizes critical power protection with industry-leading efficiency up to 97% in double conversion mode and 98.8% in Dynamic online mode, dramatically reducing operational costs. This next-generation modular UPS features hot-swappable 50 kW power modules in a compact footprint (0.6 m<sup>2</sup> for 500 kVA), saving up to 50% floor space while enabling seamless capacity expansion. Engineered for maximum reliability with conformal-coated PCBs, high temperature tolerance up to 50°C, and intelligent paralleling up to 2 MW, the system delivers uncompromising performance for data centers and mission-critical facilities. With unitary output power factor, Lithium-ion compatibility, and comprehensive monitoring through a user-friendly 9-inch touchscreen and Vertiv™ LIFE™ Services, the Liebert® APM Plus ensures complete power protection and management for today's demanding applications.



## The Vertiv™ Liebert® EXM2

The Vertiv™ Liebert® EXM2 (100-250 kW) delivers premium power protection with industry-leading efficiency—up to 98.8% in Dynamic online mode and 97% in Double conversion mode—dramatically reducing operational costs. This mid-size UPS features a space-saving design with flexible installation options and operates reliably in temperatures up to 50°C with auto-derating. Designed for mission-critical environments, it offers parallel scaling to 1.5 MW, symmetrical power factor capabilities, and Lithium-ion battery compatibility, all protected by conformal-coated PCBs for enhanced reliability. Ideal for healthcare facilities, data centers, railway systems, and industrial applications requiring uncompromising power protection.





# Servo Voltage Stabilizer

## Single Phase & Three Phase

The purpose of a voltage stabilizer is to receive a fluctuating AC voltage of low or high amplitude & deliver an almost constant voltage, at the output. The voltage variations, which have become a common phenomenon in power supply systems, cause havoc in modern advanced electronic equipment. The voltage stabilizers are meant to take care of this problem. They avoid breakdown, ensure longer life of the equipments & save in energy during high incoming voltages



## Why Nantech

The use of variable speed servo motors along with proportional type of control circuit ensure that the original fluctuations are corrected quickly without any oscillations at the output so as to protect the end equipment. Hunting, oscillation, and noise generation is eliminated.

## Technical Specifications

Output Voltage	230 VAC For 1 Phase 2 Wire 415 VAC For 3 Phase 4 Wire
Regulation	$\pm 1\%$ Or $0.5\%$
Supply Frequency	47-53 Hz
Waveform Distortion	Nil
Effect Of Load Power Factor	Nil
Ambient	0-50°C Max. Relative Humidity Up To 90%
Environment	Designed For Indoor Tropical Use
Enclosure	IP 21



## Servo Voltage Stabilizer Features:

- Trouble free operation
- Auto-manual operation
- Excellent customer service
- Overload capacity
- Adhering to regulations
- Environment friendly
- Low running cost
- Superior and innovative energy saving design
- Suitable for highly demanding industrial environment
- Highly efficient output

## Applications You Can Use

- Printing machines
- Cold storage
- CNC machines
- Leather units
- Textile
- Telecom and data centres
- Cement plants
- Flour mills
- Medical equipment
- Food processing units
- Mall & Multiplexes
- Equipment loaded with sensitive microprocessor



## Supply System Input Voltage Rating

	Range*	
Single-Phase	170*-270*V	1*KVA - 25*KVA Air Cooled
	140*-270*V	
Three-Phase	360*-460*V	3*KVA - 150*KVA Air Cooled 6*KVA - 500*KVA Oil Cooled
	340*-460*V	
	295*-465*V	
	245*-465*V	

## Static Voltage Stabilizer

### Precision Voltage Control For Uninterrupted Performance

Nantech Power Systems' Static Voltage Stabilizer is an advanced solution that provides precise voltage regulation without moving parts. Engineered with state-of-the-art solid-state technology, it ensures a consistent and stable output voltage, protecting sensitive equipment from voltage fluctuations, surges, and under/over-voltage conditions. Whether for industrial, commercial, or residential applications, our stabilizers ensure reliability, efficiency, and extended equipment lifespans.



## Technical Specifications

Specification	Details
Capacity	3KVA - 1000KVA
Available Configurations	Single-Phase And Three-Phase
Input Voltage Ranges	170V - 270V   240V - 465V   300V - 465V   330V - 465V   360V - 465V
Output Voltage	230V $\pm$ 1% (Single-Phase)   400V $\pm$ 1% (Three-Phase)

## ULTRA ISOLATION TRANSFORMER

**ULTRA ISOLATION TRANSFORMER** With very special construction all types of electrical noise predominantly common mode noise is eliminated by this UIT. Since it isolates primary and secondary and separates neutral to ground bond on the secondary side it can be used to create separately derived sources to combat current loops. High isolating materials with special shielding techniques attenuate common mode noise as well minimize trans- verse mode noise.





## Features

- Free standing
- Floor mounting model high efficiency
- High reliability and accuracy
- High insulation values
- Suitable for use with modern sophisticated micro processor based equipment CNC Machines
- Compact rugged in construction computers and other industrial processing
- Housed in sturdy metal casing with sufficient ventilations

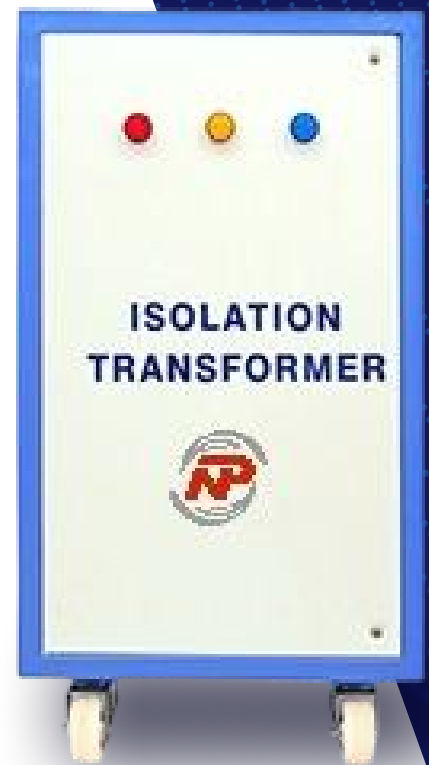
**Rating Available :** 1KVA to 1000KVA

An isolation transformer is often built with special insulation between and secondary, and is tested, specified and marked to withstand a high voltage between windings, typically in the 1000 to 4000 volt range.



## Uses

- Protect Computers, CNC Machines and Telecommunication equipment from damage due to electrical noises, spikes etc.
- If ground potential of system units are different from each other and are exposed to the effects of instability at high frequencies.
- If the ground of the equipment cannot be earthed.
- To shield large numbers of electronic equipment which individually are producing different types of electrical noise at a common busbar typically CNC machines, Drives, Hardening equipment etc. The use of NCT, being bidirectional, prevents damage due to circulating noise interference within them.
- To Protect against strong lightening, impulse noise, bus short-circuit, accidental discharge of capacitors
- When multiple Noise Cut-off transformers are used, the suppression effects increase in proportion. Therefore, the effects of cascading Noise Cut-off Transformers are remarkable.



## Active Harmonic Filter

### Harmonic Pollution

Harmonic Pollution active harmonic filter Harmonic pollution is an increasing problem which affects all power distribution networks in industrial, commercial, telecom and medical applications. Most of the power converting equipment or facilities can generate harmonic current.

## Effect Of Harmonics:

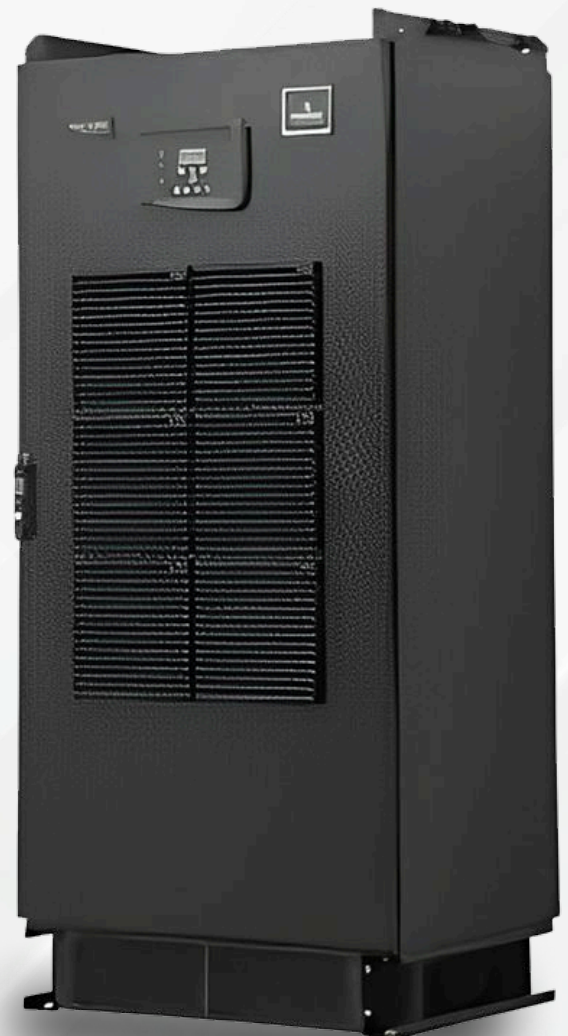
- Overheating of Generator, motor, transformer
- Overvoltage conditions on the supply system
- Increased transformer losses (need to over-size)
- Nuisance tripping of circuit breakers
- Improper operation of microprocessor- based equipment
- Overheating and possible resonance with capacitors
- Re-injection of harmonic currents into the utility network
- Decreasing Distribution Capacity due to hot cables
- Insulation breakdown
- Neutral burnout

## User Friendly Control Panel

Nantech AHF is equipped with a user-friendly control panel. It is simple to turn the unit on or off and features buzzer silence and system status from 4 LEDS including power On, Filtering, Full Correction and Error. The optional LCD panel with special blue back lights offers access to all parameters, waveforms and spectrums for management of both AHF and system power quality.

## True Harmonic Solution

- Active Harmonic Compensation
- Improve Power Quality
- Instantaneous Dynamic Response
- Flexible Up-grading/Redundancy
- Various Capacity Ranges 25A to 1200A





## Applications

- Industries
- Banking Sector
- Commercial Buildings
- Machine Loads
- BPO / IT Sector

## Features

- Synchronous Rotating Reference Frame principle
- 32 bit, DSP control
- PF compensation, leading as well as lagging
- Load Balancing
- Employees high speed IGBTs in power circuit
- Internal CAN Communication
- Closed loop active filter with source current sensing
- High attenuation up to 96 % of individual harmonics
- Programmable selective harmonic elimination
- Required PF can be set from 0.7 to unity
- Selection between PF and harmonic compensation
- Automatic current limit modification with respect to ambient temperature
- Remote monitoring and diagnosis
- Self current limiting, under overloading condition
- User friendly PC Interface
- Alarm log with date and time stamp for fault diagnosis
- CE Marking



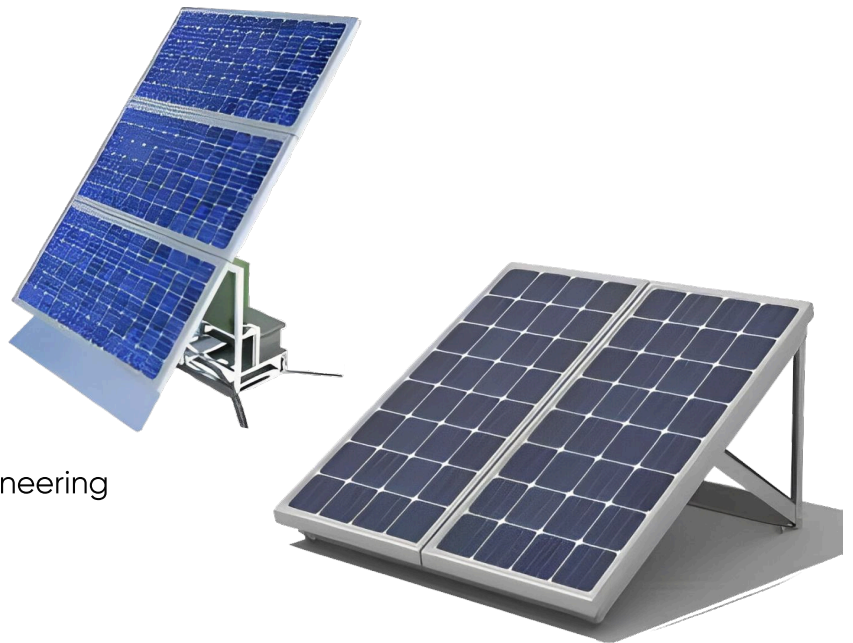
# Solar Power Plants

## Energize The Future With Solar Power

It is the time when everyone is talking about global warming and the detrimental effects fossil fuel has on the environment. In today's demanding power situation relying on a renewable source of energy is a wise decision. Solar power contains a carbon footprint with zero emission of greenhouse gases. This environment-friendly option makes it desirable for both residential and commercial energy operations.

## Construction

- Site Inspection
- System Design
- Civil Works
- Procurement & Supply
- Installation, Testing & Commissioning
- Structural & Electrical Design and Engineering
- Plant Operation & Maintenance



## On Grid Solar Plant

Nantech Power Systems , now ventures into On Grid type PV system, an electricity generating solar PV System that is connected to the utility grid. A grid-connected photovoltaic power system has solar panels with one or more inverters, a power conditioning unit and grid connection equipment.

- Installation of mechanical equipment
- Supply/transportation of material at site
- Engineering work
- Distribution boards, junction boxes & cables
- Storage at site
- Piping, cabling, Instrumentation & Electrical system
- Solar photovoltaic panel & inverter selection
- Design
- Procurement
- Project Management
- Unloading of materials at site

## Benefits From The Grid Connected Solar Systems:

- Low Gestation Period
- Lower Transmission and distribution losses
- Improvement in the tail-end grid
- Voltages and reduction of system
- Long term energy and ecological security by reduction in carbon emission
- Better Management of daytime peak loads by utility
- Abatement of about 60 million tons of CO2 per year over its life cycle
- Utilization of available vacant roof space

### *Applications - Domestic, Commercial And Industrial*

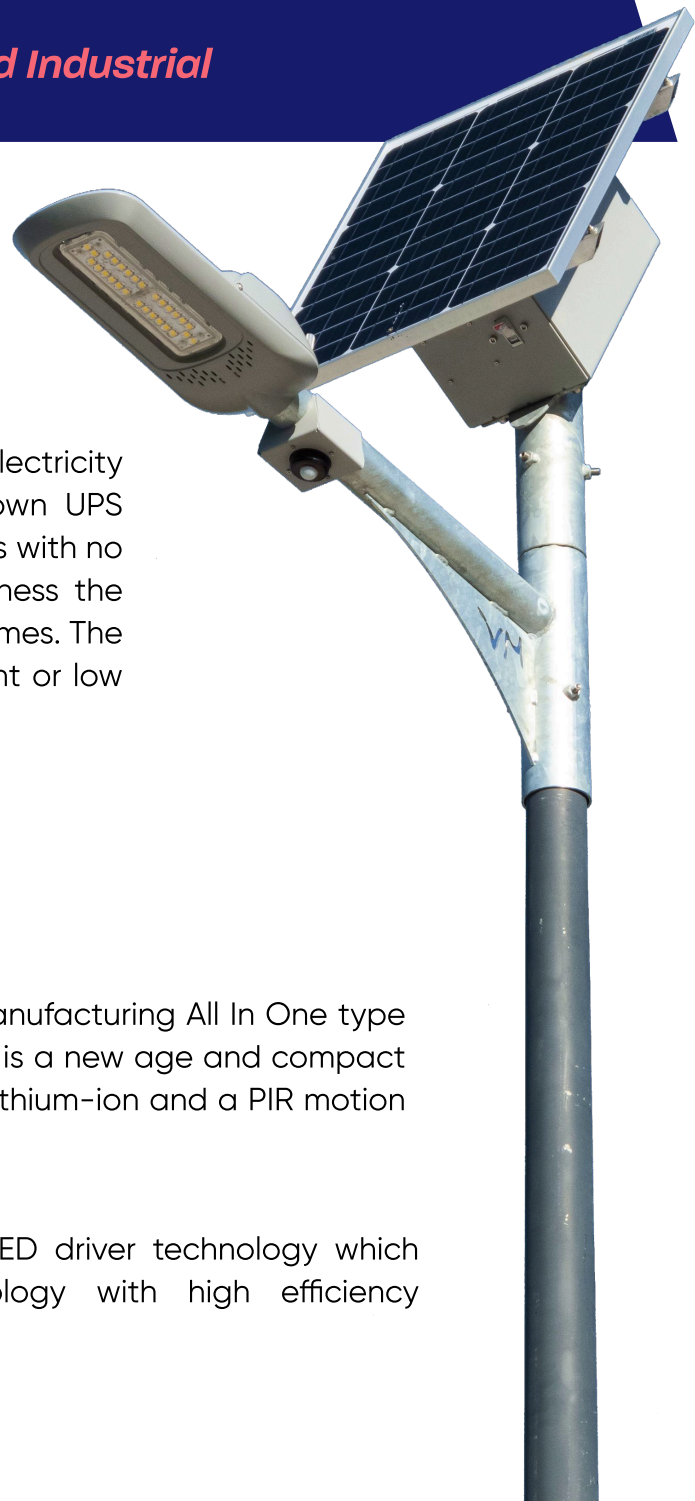
## Off Grid Solar Plant

Nantech Power Systems, experts in off-grid solar electricity solutions offer Off-grid solar systems. The well known UPS manufacturer sells Off Grid Solar panels for the homes with no access to grid electricity. Rooftop solar panels harness the sun's energy and save it in the battery to light your homes. The batteries allow you to store electricity for use at night or low production days such as cloudy days.

## Solar Street Lights

Nantech Solar Innovations is the first major brand manufacturing All In One type Solar Street lights in India. All in one Solar street light is a new age and compact lighting solution integrating Solar panels, LED light, Lithium-ion and a PIR motion sensor.

This light incorporates proprietary Nantech Solar LED driver technology which combines world class battery charging technology with high efficiency microprocessor based electronics.



# Types Of Solar Street Light

## 1. Integrated Solar Light

### 9w - 60w RANGE

- In-built battery & panel
- High number of charge cycles
- Easy to Install



### INTEGRATED SOLAR STREET LIGHT

LED WATT	BATTERY CAPACITY 12.8 V LIFEPO <sub>4</sub>	RECOMMENDED SOLAR PANEL
9W	6 AH	40W
15W	12 AH	40W
20W	18 AH	50W
24W	24 AH	60W
30W	30 AH	60W
40W	30 AH	80W
60W	36 AH	80W



## Product Specification

LED Lumen Output	130 LM/W
Solar Panel	Polycrystalline
Motion Sensor	PIR Motion Sensor (10m Range)
Solar Charge Controller Rating	10 A
Dusk To Dawn	Yes
Dimming	Dimming To 1/3 Intensity On Detecting No Movement For More Than 30 Seconds
Led Dispersion Angle	120°
Led Life (TA=25°C)	50000 Hrs
Color Temperature	2700K - 6500K
CRI	70 - 82
Led Driver Efficiency	>95%
Operating Temp	-40°C To 60°C
Light Backup Time	Full Night With Dimming



## 2. Semi-Integrated Solar Light

### 9w - 40w RANGE

- In-built battery with controller
- High number of charge cycles
- Less manual work



LED WATT	BATTERY CAPACITY 12.8 V LIFEPO <sub>4</sub>	RECOMMENDED SOLAR PANEL
9W	6 AH	40W
15W	12 AH	50W
20W	18 AH	60W
24W	24 AH	80W
30W	30 AH	110W
40W	36 AH	165W

### Product Specification

LED Lumen Output	150 LM/W	Operating Temp	-40°C To 60°C
Optics	NA	Input Voltage	12 - 24v
Housing	Aluminium PDC	Lifespan	50000 Hours
Frame Colour	Black And Gray	Power Factor	>0.95
IP Rating	IP66		

## Vertiv Thermal Products



### ***Small Room Equipment Cooling***

Liebert® SRC is Designed for High air quantity to match equipment Sensible Load application. It is coupled with high energy efficient components and advanced control system which helps in maximum energy efficiency and guarantees proper environmental conditions inside Critical Technological rooms. It is compact in size and being wall mounted type split AC it does not require any floor space too. Liebert® SRC is preconfigured for 24 X 7 operation with metallic body construction, inbuilt sequencing and monitoring features which makes a fully featured Product to cater Critical technology room cooling needs.

## **LIEBERT® DM™**

### ***High Performance Cooling For Small Technological Room***

Liebert® DM™ delivers enterprise level thermal management to small computer rooms and network closets. It is designed for year-round temperature and humidity control for IT applications across the critical infrastructure. Equipped with an air-filtration feature.

The Liebert® DM™ is ideal for areas where people and IT equipment occupy the same space. It provides enough flexibility in the critical infrastructure as it occupies minimum floor space which suits small and medium-sized computer rooms. The Liebert® DM o\_ers a selection of variants to fit your infrastructure's requirements and conditions. It also features communication capabilities to the critical infrastructure manager for easy monitoring of the temperature across the IT infrastructure.

## **LIEBERT® PeX**

### ***Next Generation Environmental Control For Critical IT&T System***

Discover the next generation of environmental control with Liebert® PeX, an advanced solution engineered specifically for critical IT&T systems. Featuring energy-efficient EC fan technology that delivers up to 30% lower power consumption and seamless speed control, this state-of-the-art system offers comprehensive monitoring capabilities and intelligent communication for optimal performance. Liebert® PeX provides superior environmental control for diverse applications including data centers, telecommunication facilities, and network operation centers. This solution ensures reliable, efficient, and cost-effective operation while maintaining precise environmental conditions for your mission-critical facilities.

# Vertiv SmartRow™

## *An Integrated Data Centre Designed For The Dynamic Digital Environment*

The SmartRow™ infrastructure from Vertiv is a simplified, standardized and quickly deployable data center environment with significant CAPEX and OPEX savings over conventional designs. No other solution on the market provides such ease of deployment and integration. This complete data center infrastructure solution allows you to easily deploy and effectively manage an integrated IT infrastructure without being limited by building systems such as fire suppression and cooling. SmartRow is available in two to eight -rack configurations for up to 40kVA. The solution allows the flexibility of starting small and expanding over time.



- Cuts room upgrade/ modification costs
- Maximizes space efficiency
- Lowers cooling power consumption via contained airflow and efficient tech
- Boosts IT control and productivity
- Enables deployment in weeks instead of months

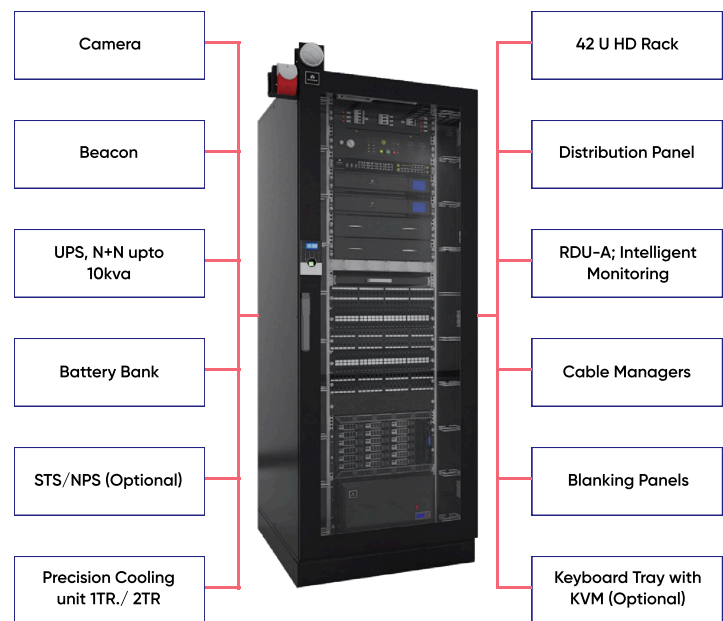
<b>Capacity</b>	10-40kVA
<b>Rack</b>	2-8 Racks
<b>Floor</b>	Primarily non raised
<b>Key Application</b>	Datacenter, Disaster recovery sites

# Vertiv SmartCabinet™

## Intelligent, Integrated Infrastructure For The Data Center

The SmartCabinet™ enables Enterprise Class IT Infrastructure through the provision of integrated enclosure, power, cooling and service. Critically it also enables the most vital element – namely 360° visibility of all system components. This enables review, real time monitoring as well as insight into system performance going ahead so SmartCabinet™ customers can most effectively manage and plan their IT Infrastructure. Continuous availability in turn rests on the power and cooling infrastructure that supports these systems and is comprised of the following:

- Power Quality
- Cooling
- Enclosure and Physical Infrastructure
- Monitoring and Management



Capacity	1-10kVA
Rack	1-2 Racks
Floor	Primarily Non Raised
Key Application	Server Room And Small Data Centers

# POWER QUALITY AUDIT & HARMONIC ANALYSIS

Most electrical problems like tripping of switchgear, blowing of fuses, failure of electronic equipment, flicker, high energy costs etc. are because of disturbances in the electrical network.

Nantech, specializes in the field of Power Quality Solutions for the last 30 years. Using modern state of the art equipment, we are actively conducting Power Quality Audits and Power monitoring at various Automobile, Engineering, Aerospace, Pharmaceutical, IT Data centers, Printing, Textiles, Defence & Railway establishments at an all India level.

Our design exposure to drives, automation, PLCs, Motors etc. and close associations with designers and foreign principals have provided us valuable insights and knowledge in this field to provide detailed analysis and solutions.

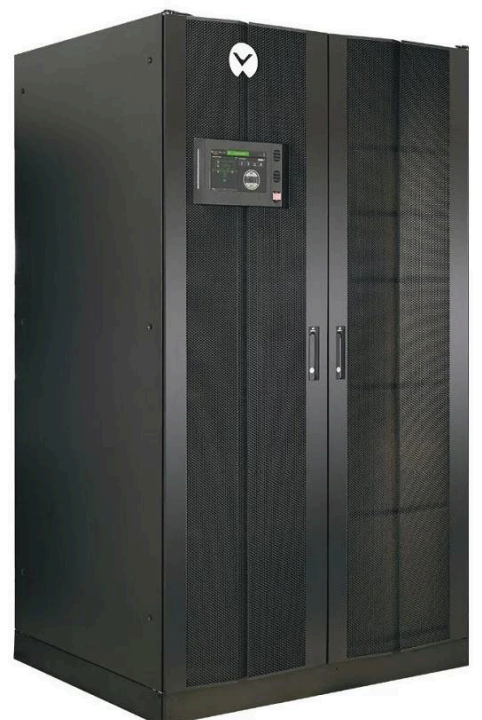


## ***We Can Provide A Comprehensive Range Of On-Site Services Which Includes:***

- Power Quality Audit
- Compliance monitoring
- Transient and Flicker analysis
- Power monitoring and Load analysis
- Harmonic and Reactive power analysis

We also provide recommendations and solutions to rectify the problem with their cost benefit analysis. The typical power quality disturbances observed at various sites are: Voltage fluctuation, Harmonics, Frequency variation, Earth leakage, Transients, Surge, Sag, High frequency noise, Glitch, Notches etc. Some sample reports and graphs from monitoring at various client sites are shown.







PONDICHERRY

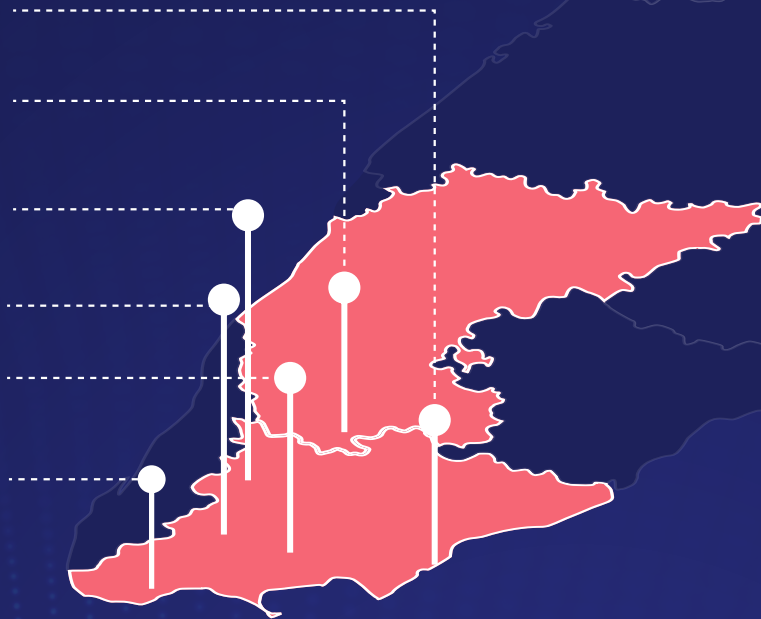
BENGALURU

COIMBATORE

MADURAI

TRICHY

TIRUNELVELI



**NANTECH POWER SYSTEMS PVT LTD**

An ISO 9001 : 2015 Certified Company



17a, 2nd Cross Street, Sastha Nagar,  
Valasaravakkam, Chennai – 600087,  
TamilNadu, India



+91 44 2486 2247 / 2486 1994  
+91 99623 98222 / 90030 23333



[sales@nantech.in](mailto:sales@nantech.in)  
[wesley@nantech.in](mailto:wesley@nantech.in)

[www.nantech.in](http://www.nantech.in)