



# Tech Power

ISO 9001 - 2015



- SERVO STABILIZER
- STEP DOWN TRANSFORMER
- APFC PANEL
- DEMAND CONTROL PANEL
- AIR COMPRESSOR
- AIR DRYER
- AC DRIVES
- ACTIVE HARMONICS FILTERS
- STATIC VAR GENERATOR
- SURGE PROTECTION DEVICE
- SOLAR PRODUCTS
- INVERTER BATTERY
- TRINITY METERS & SWITCHGEAR
- INDUSTRIAL MOTOR

# SERVO CONTROL VOLTAGE STABILIZER

## *Best Technical Support*

### SPECIAL FEATURES

- ❖ Solid state electronic control circuit
- ❖ Two switching triacs
- ❖ Very low losses 2 - 3% max.
- ❖ 97 to 98.5% efficiency  
( achieved by use of hi-quality laminations and copper )
- ❖ Waveform distortion - Nil
- ❖ Speed of correction upto 60v/sec.
- ❖ Quick response time - less than 20m/sec. (full cycle)
- ❖ Immune to load power factor and frequency variations.
- ❖ Duty cycle continuous
- ❖ Life expectancy 20-25 years
- ❖ Very high reliability, easy and simple maintenance
- ❖ Excellent regulation as high as = 1%
- ❖ Operation auto or manual
- ❖ Every unit is 'soak tested' for 24 hours to ensure trouble free operation



**THREE PHASE OIL COOLED SERVO STABILIZER  
(3KVA TO 1000KVA)**

### Applications



## TECHNICAL SPECIFICATIONS

Cooling	: Air cooled / Oil cooled
Capacity	: 1kva to 1000kva
Input voltage	: 140 - 270v/ 170-270v 1Phase AC : 240-460v / 295-465v / 340 - 460v : 360-460v / 340-480v 3Phase AC
Output voltage	: 230v / 240v $\pm$ 1% 1Phase AC : 380v / 400v / 415 $\pm$ 1% 3Phase AC
System - connections	: 4 wire, RYBN, star
Operating frequency	: 47 - 53 HZ
Output voltage adjustable	: 380v to 415 v AC in 3 Phase : 220 to 240v AC in 1 Phase
Output voltage regulation	: + 1% ( any load)
Correction rate	: 35v/sec-1Phase : 60v / sec - 3Phase
Insulation	: Class 'F' (Transformers)
Operating Temperature	: 0 $^{\circ}$ c to 50 $^{\circ}$ c
Humidity	: upto 95% RH max
Conforms to	: IS 9815 - 1994
Transformer oil	: IS 335,IEC 296

## PROTECTIONS

Low voltage protection  
High voltage protection  
Over load protection  
Short circuit protection  
Single phasing preventer  
MOVs for SPIKE / SURGE protection

## OPTIONAL ACCESSORIES

Frequency meter  
Time - delay circuit  
Phase reversal Protection  
Dimmer protection arrangement

## PANEL INDICATIONS & METERS

Input - on, output-on, output-cut off  
Digital meters to read voltage & amps



INDUSTRIAL MODEL

RESIDENTIAL MODEL

## THREE PHASE AIR COOLED SERVO STABILIZER



SINGLE PHASE AIR COOLED  
SERVO STABILIZER

## APPLICATIONS

CNC machines  
Textile industries  
Garment industries  
Dyeing industries  
Weaving industries  
Residential  
Hospitals  
Printing Machines  
Leather industries  
FMCG industries  
Shopping Complex  
Granite industries  
...And many more

# ISOLATION TRANSFORMER



## Why TECH POWER Isolation transformers?

power generation in our country, is no doubt good and availability of continuous power is certainly better, but the stringent requirements of the sophisticated equipment being used today underlines the necessity of CLEAN POWER

## Special Features :

TECH POWER isolation transformers all type of noises, spikes, surges & transients can be eliminated to a greater extent.  
 Isolates sensitive equipments from noisy power line  
 Complete with electrostatic shielding

## TECHNICAL SPECIFICATIONS

	SINGLE PHASE	THREE PHASE
<b>Rating</b>	1KVA to 50KVA, 50Hz	3KVA to 500 KVA, 50Hz
<b>Input Voltage</b>	230V / 240V AC nominal	400V, 415V AC nominal
<b>Output Voltage</b>	230 / 110V AC	400V, 415V, 220V AC
<b>Mode of Operating Ratios</b>	1:1 and 2:1 isolation transformer	
<b>Common mode Attenuation</b>	Over, 100 dB, over 120dB	
<b>Coupling Capacitance</b>	less than 0.05pF for 100dB	
<b>Leakage current</b>	less than 25μA	Less than 40μA
<b>Regulation</b>	Better than 3%	Better than 3 to 5%
<b>System Connections</b>	Delta/Stat or Star/Delta or Star/ Star	
<b>Di-electric Strength</b>	3KV for 60 Sec	
<b>insulation Resistance</b>	Better than 1000 Mega Ohms	
<b>Construction Standards</b>	AS per IS 2026 Part I & II	
<b>Operating Temperature</b>	0°C to 45 °C	

# APFC PANEL

## Advantages

Reduction in maximum demand  
Low power factor penalty can be avoided  
Extended life for switch gears, capacitors & cables  
Avoid manual disruptions  
Micro processor based automatic controller display  
We provide solutions for improving plant power factor by installing our APFC panel



## Features :

Product range : 20 KVAR to 500KVAR  
All major components of standard make like  
SIEMENS, L&T, and HAVELLS  
TECH POWER provides multiple Stages, like 8, 12, 16,...more  
By using a special designed electronic control circuit

# DEMAND CONTROLLER PANEL



## FEATURES

- Monitors & controls Maximum Demand in kW/kVA (selectable)
- SMS Alerts for:
  - Demand Warning
  - Power Fail / Power Restore
  - Peak Demand Status
- Avoids MD penalty - ensures fast return on investment.
- Six demand settings - selectable integration time
- Supports HT & L.T installations (CT/PT compatible)
- Low Power Factor monitoring & alarm

## BENEFITS

Prevents excess MD charges every month.  
Enables timely corrective action from anywhere.  
Protects machinery through intelligent load shedding.  
Improves energy efficiency & cost savings

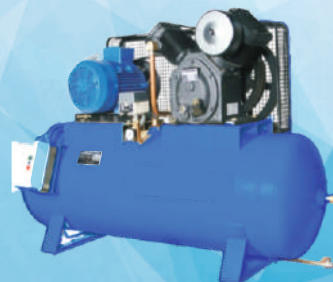
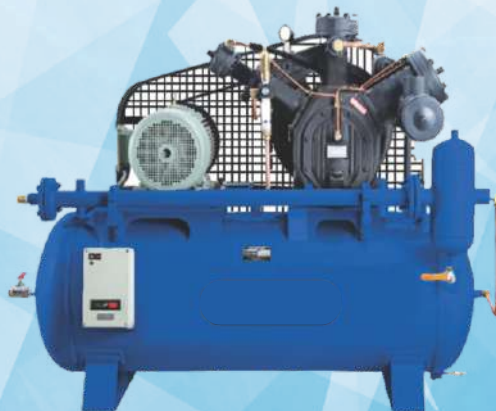
# AIR COMPRESSOR

## INDUSTRIAL SCREW TYPE AIR COMPRESSOR



5.5 - 90 KW / 7.5 - 125 HP.

## INDUSTRIAL PISTON TYPE AIR COMPRESSOR

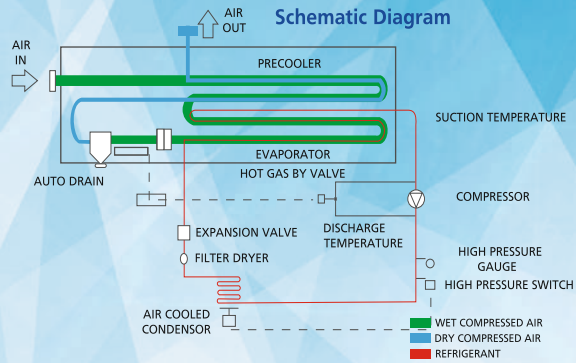


0.75 - 18.5 KW / 1 - 25 HP

*One Stop Solution For All Your Compressed Air Needs*

# AIR DRYER

TechPower Air Technology's refrigerated air dryers ensure the quality and continuity of your production by eliminating the water particles and humidity from your compressed air system. TechPower uses only environment friendly R134a gas in its dryers. Thanks to the thermodynamic properties of R134a, which is ideal for both low and high heat applications.



## PRODUCT FEATURES

### Heat Exchanger

- Our evaporator is a CO-AXIAL Heat Exchanger.
- It Performs as a Pre-cooler and Evaporator
- Our design maximizes exchanger efficiency by using Copper tubes in a coiled TUBE-IN-TUBE arrangement.
- Heat exchangers are fully encapsulated by PUF insulation to prevent the loss of cooling effect.



### Refrigeration Compressor

- Rugged & Reliable hermetically sealed Reciprocating / Scroll compressor
- Suitable for eco friendly gases
- Less noise level
- Low power consumption
- Better COP



### Thermostatic Expansion Device

- Customized selection according to cooling load and operation condition
- Ensures constant dew point on varying load conditions
- Sensible to suction pressure
- Sensible to both suction pressure and temperature



### Temperature Controller

- Dedicated Programmed micro controller, integrated with temperature controllers and sensors to indicate the dew point, inlet & condensing temperature with following alarms
- On delay time to protect the compressor due to sudden failure



### Water Cooled Condenser

- Aluminum plate finned cross flow Heat exchanger Optimized fin density considering Heat transfer and fan power.
- Spigot construction to reduce pressure across condenser and hence reduced compressor power



### Hot Gas Bypass Valve

- It is fitted in between the compressor discharge and the evaporator.
- Evaporator temperature drops below 5 C
- HGV feeds the hot gas from the compressor outlet to the evaporator
- Optional to be provided manually and automatically



# AC DRIVES



## Drive the Next

High Performance Inverter

FRENIC **Ace**



## CONTROL TECHNIQUES

### Fuji & CT Drives Futures

- ▶ 2 Phase To 3 Phase Applications
- ▶ Power Savings Up To 10%
- ▶ 100% Safety Protection Provide to Motors
- ▶ Multi Step Speed Variation
- ▶ Fully Adjustable Speed
- ▶ Dynamic Torque Control



## NE200 & NE300

220/380VAC 0.4-900KW 0-550Hz

220/380 VAC.  
0.4-900KW 0-550Hz

HIGH PERFORMANCE VECTOR CONTROL LOW VOLTAGE DRIVES

# INDUSTRIAL MOTORS



Foot Mount



Flange Mount



Foot Cum Flange Mount



## - SPECIAL PURPOSE MOTORS -

Brake Motors



Crane Duty Motors



Inverter Duty Motors



## - NEW ARRIVALS -

FIRE FIGHTING MOTORS



GEARBOX APPLICATION MOTORS



Spine Shaft Aerator Motors



Flame Proof Motors







## - SINGLE PHASE MOTORS -

IEC - Cast Iron Body Motors



Sheet Metal Body



 Induction motors |  Gearboxes |  Pumps |  Accessories

# SURGE PROTECTION DEVICE



SWITCH SURGE PROTECTION UNIT



SURGE WITH LIGHTENING PROTECTION UNIT

## Surge Protection Device.

### SPD

Surge Protection Device (SPD) is intended to limit it transient Over-Voltages and Divert Surge Current. It contains at least one Non-linear component Viz., Spark Gap, Gas Discharge tube (GDT), Metal Oxide Varistor (MOV), Silicon Avalanche Diode (SAD) or Surge Diode of Transzorb.

### Other names of SPD

TVSS; Transient Voltage Surges Suppressor (IEEE used earlier, but has changed to SPD from 2009)

LPU : Lightning Protection Unit Decades old names still followed by some consultants Lightning barrier / Surge barrier : Name given by some Manufacturers



### Need for SPD

Mainly it is to avoid increasing cost of failures of Electrical & Electronics System caused by Electromagnetic effect of lightning. Of Particulars important are Electronic System used in data processing, process control and safety for plants of considerable capital cost, Size and complexity for which plant outages are very undesirable for cost and Safety reasons.

### Difference between SPDs & Fuse, MCB, RFI Filter, Isolation Transformer, Stabilizers, UPS, Under / Over Voltage relays

All the above products are meant for problems from STEADY STATE ERROR, which are present for long duration. SPD is meant for TRANSIENT ERROR, which is micro second duration. SPD is a VOLTAGE OPERATED DEVICE, Which has to be connected in parallel to the Load.



# TRINITY METERS

- Digital Panel & Energy Meters
- Multifunction Meters
- Load Manager / Maximum Demand Controller
- Power Quality Analyzer
- APFC Relays (Three Phase sensing)
- APFC Relays (Single Phase sensing)
- Portable Power Analyzers, Revenue Meters
- Earth Leakage relay
- E-MON (Energy Monitoring Software)
- Capacitors (Normal duty, Heavy Duty-APP type, MPP type)
- CT Coil (Tape wound and resin cast)
- Automatic Mains Failure Relay (AMF) Accessories
- Harmonic Filter,
- Reactors (Cu And Al)
- Thyristor Switching Modules



# ALL KINDS OF SWITCH GEARS



**CHINT**  
CHINT ELECTRIC

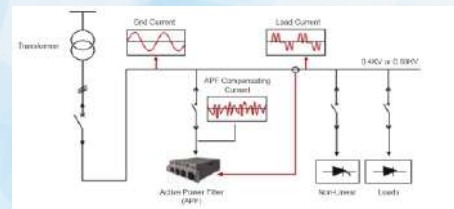


# STATIC VAR GENERATOR / CONTROLLER (SVG/SVC)



MAKE IN INDIA

# ACTIVE HARMONIC FILTER



MAKE IN INDIA

Active harmonic filters are parallel filters (which means the Load current doesn't go through the filter) that are used to reduce, or mitigate, harmonics to tolerable levels as defined by IEEE-519. These are Active Front End IGBT based topologies connected to the mains, to filter (or clean) the current wave by injecting inverse currents to cancel out the undesired harmonic components. Depending on the harmonic content, the load variation and budget it might be better to go in for a Hybrid Filter.

Active filters can be parallel to achieve the compensation required. Trinity active harmonic filters provide a solution for real-time cancellation of harmonic distortions created by non-linear loads to ensure compliance with IEEE 519, G5/4 and other power quality standards and recommendations. Trinity active harmonic filters are a versatile solution, easily tailored to deliver power factor improvement, voltage variation control, flicker mitigation and load balancing functionality.

# SOLAR PRODUCTS



MPPT PCU | PWM PCU | PANEL | GRID-TIED INVERTER | SOLAR CONVERSION KIT | BATTERY | CABLE



## Our Services

- MINI-GRID PROJECTS DESIGNS, DEVELOPMENT, DEPLOYMENT & MANAGEMENT
- ROOFTOP/STANDALONE SOLAR SYSTEMS, PUBLIC, COMMERCIAL & INDUSTRIAL SOLAR INSTALLATION

## We also render the following Services

- After Sales services
- Sales of energy saving appliances e.g. Solar flood light, energy saving freezer, LED bulbs
- Construction of Solar-powered Energy Cabin for SMEs and Rural Communities
- Sales and Distribution of Solar panels.e.t.c



## ONLINE UPS



TECH POWER UPS is a 3ph - 1ph, 3ph - 3ph, online ups for industrial application with regenerative load bank. Designed for customer oriented, Harsh electrical and environmental conditions. Tech power ups is a long life model.

Uninterrupted power is the prime infrastructure of any business process and a basic need of any successful sustaining operations. Tech Power ups designed by IGBT & isolation transformer models. tech power providing wide range of capacities in 1ph & 3ph.

The overall efficiency generally mentioned is on full load which is typically 90% - 93% But in actual condition the load would be around 75% and the overall efficiency falls to around 75% - 80%

# INVERTER & LITHIUM BATTERIES

MAKE THE SWITCH TO  
**LITHIUM BATTERIES FOR  
COST-EFFECTIVE POWER!**

## PERFORMANCE



**Power Up:** Lithium batteries offer 2-3 times more cycles than lead-acid batteries!



**Efficiency Unlocked:** Lithium batteries have 90%+ efficiency vs lead-acid's 50-60%!



**Fast Charging:** Lithium batteries charge 5x faster than lead-acid batteries!

## LONGEVITY

- ▶ **Long-Lasting Power:** Lithium batteries last 10-15 years, lead-acid batteries last 5-7!
- ▶ **Durable and Reliable:** Lithium batteries withstand 3000+ cycles, lead-acid batteries only 500!
- ▶ **No Maintenance:** Lithium batteries require no maintenance lead-acid batteries need regular checks!



**10-15 Years Life**



**No Maintenance**



**3X Lesser Weight**



**Eco-Friendly**



**30% EBCost Savings**



**3X Fast Charging**



**100% DoD**



**Suitable for  
Inverter/Solar  
Applications**



**TORQUE**

**MICROTEK**  
TECHNOLOGY WE LIVE



## APPLICATION

- CRANES AND HOISTS
- RENEWABLE ENERGY RESEARCH AND DEVELOPMENT
- MATERIALS HANDLING
- MINING, CEMENT & AGGREGATE
- METALS
- AGRICULTURE
- FOOD AND BEVERAGES
- SPECIAL PURPOSE MACHINES
- WIRE FORMING MACHINE
- RUBBER AND PLASTICS
- HVACR-HEATING, VENTILATION, AIR CONDITIONING, REFRIGERATION
- PRINTING & PACKAGING MACHINERY
- WIRE AND CABLE
- WATER AND WASTEWATER
- LIFTS AND ELEVATORS
- CRUSHER
- TEXTILES & GARMENTS
- CNC

**ALL PRODUCTS  
SERVICE ALSO AVAILABLE**

## OFFICE ADDRESS

14/B1, Kurinji Nagar,  
Samanthapuram, Rajapalayam - 626 117.

☎: +91 88700 10448, 98428 13942

✉: techpower2014@gmail.com

## BRANCH OFFICE :

724G, Gnanagiri Road,  
Sivakasi - 626122.

☎ : +91 88832 22259, 95975 55815

🌐 : [techpowerservo.com](http://techpowerservo.com)

## BRANCH OFFICE :

No.173, Main Road, Perumalpuram,  
Tirunelveli - 627 007.

☎ : +91 96980 04000, 98421 51539

✉: techpower2014@gmail.com