

# STATIC VOLTAGE REGULATOR



Energy  
Power  
Conversion

*Tailors of the Industry*



Static  
Voltage  
Stabilizer  
Series  
VES

**STATIC VOLTAGE STABILIZER**  
**(Single Phase 1-200KVA)**  
**(Three Phase 10KVA-2000KVA)**



# STATIC VOLTAGE REGULATOR

TELECOM

MARINE

ITS TRAFFIC

MILITARY

POWER PLANTS

OIL & GAS

RAILWAY

ALTERNATIVE



## WHY US?

### RELIABLE & LOW MTBF

+20 years of design life and over 200000 hrs. MTBF

### EASY MAINTENANCE AND REPAIR

Modular board structure and front access with smart component locating topology for the easiest repair and maintenance.

### SMART VOLTAGE REGULATING

provides smooth and regulated AC voltage for the load, especially in environments where the voltage rating is too low or too high. Working with DSP (Digital Signal Processor) control and takes full advantage of it.

### RAIN TO DUST ENVIRONMENT

Its high grade protection level up to IP66 ensure it works on every harsh condition. Coating and plating ensures the resistance of system.

## FEATURES

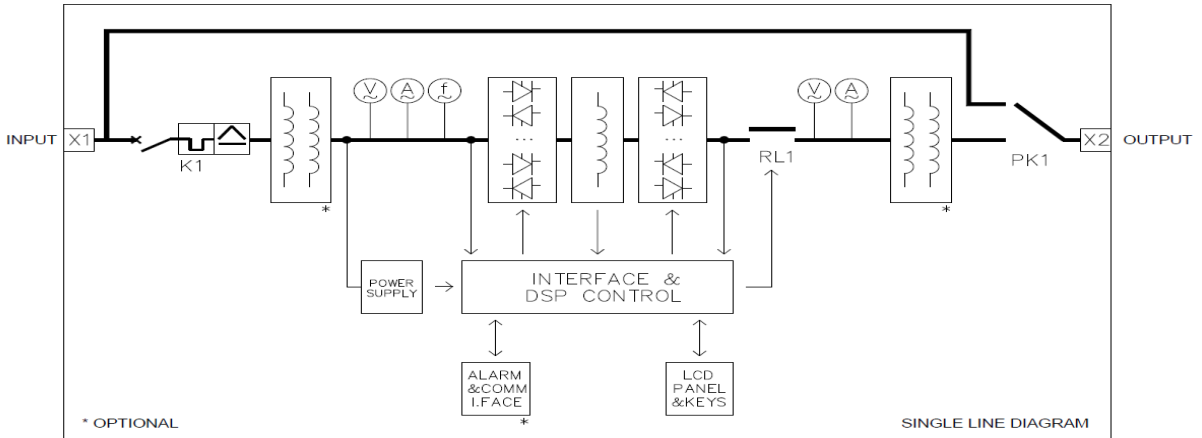
- Single Phase, 3kVA - 50kVA, Three Phase, 10kVA - 2000kVA
- DSP (Digital Signal Processor, 16-bit) with intelligent control
- Normal and wide bandwidth
- Static (thyristor) switching due to the quick response
- and regulation time (500V/s)
- Up to 25 levels of voltage regulation
- Network / Regulator selection switch
- Static and manual bypass
- High efficiency
- Optional built-in output isolation transformer
- Measurement, 2x16 character LCD display
- Electronic and electromechanical protections thermal-magnetic protection and extinguishing input voltage (which suppresses sudden voltage Pulse).
- Output safety contactors
- LED indicators can easily monitor the status of the regulator Audible alarm.
- Ability to program all study variables (password protected)
- The possibility to calibrate the measurements from the front panel
- Language selection from the front panel
- (English, German, Turkish, Dutch, Portuguese, Spanish, Arabic) Automatic self-test mode
- Up to 200 dates and times for event recording Permanent 1 general alarm for relay contact output Easy maintenance
- Making the network performance analysis Programmable alarm relay output
- RS232 ability to monitor Modbus communications, 1 year Warranty

## OPTIONALS

- Programmable alarm relay output (up to 16). SNMP and RS485
- Input / Output Voltage / Current Transducers. (4-20mA and 0-10V simultaneously)
- Easy monitoring with Analog meters
- Interior cabinet light, cabinet heater, dust filter etc.
- Internal input and output isolation transformer

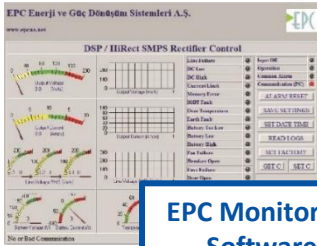
# STATIC VOLTAGE REGULATOR

## SINGLE LINE DIAGRAM



tCon Series Static Voltage Regulator Single Line Diagram (includes optional hardware)

## COMMUNICATION INTERFACES



EPC Monitoring Software



RS485 Converter

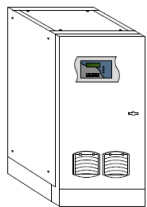


LCD + LED Panel

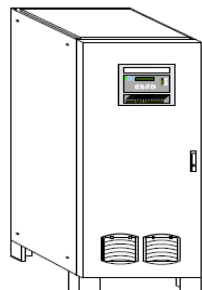


SNMP

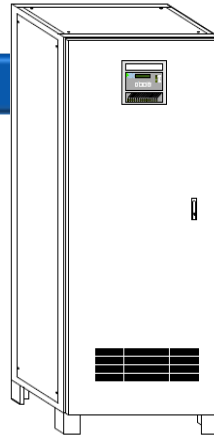
## STANDARD CABINET SIZES



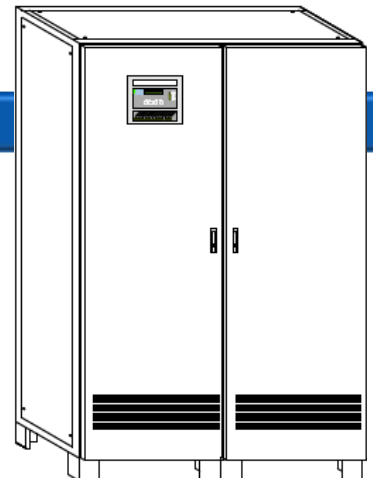
500\*450\*1000mm



600\*600\*1300mm



600\*600\*1900mm



1200\*800\*2100mm

# STATIC VOLTAGE REGULATOR

## TECHNICAL SPECIFICATION:

PHASE	SINGLE PHASE	THREE PHASE
Power (kVA)	1kVA - 200kVA	10kVA - 2000kVA
<b>INPUT</b>		
Input Voltage	120/127 VAC Single Phase + Neutral	3*208/3*220 VAC Three Phase + Neutral
Input Voltage Tolerance	95≤120≤145; 100≤127≤152	166≤208≤250; 176≤220≤264
Input Frequency	50 - 60 Hz ± 5%	
<b>OUTPUT</b>		
Output Voltage	120/127 VAC Single Phase + Neutral	3*208/3*220VAC Three Phase + Neutral
Output Voltage Tolerance	±3% ( ±2% Optional)	
Over Load	115% @ load 10mins; 125% @ load 1mins; 150% @ load 10 Sec; >150% @ load Output Off	
Output Frequency	50-60 Hz. ± % 5	
Regulation Speed	~ 500 V/s	
Power Factor	0.8	
Efficiency	0,92%	0,94%
Output Connection	Suitable terminal With 4x16 Character LCD Display	
Measurements	Input Power; Input Voltage; Output Voltage; Output Load; Output Frequency	
Alarms	Overload; Over Temperature; Input Fault; Output Fault etc.	
Communication	RS232(Standard), Dry Contacts (Standard), RS485(Optional), TCP(Optional), SNMP(Optional), GSM(Optional)	
<b>PROTECTION</b>		
Output Voltage Protection	When output voltage out of adjusted tolerance values, Output off with contactor	
Current Protection	Thermic Magnetic Breakers	
Maintenance	Maintenance Bypass Line (15kVA and above)	
<b>OPTIONS</b>		
Phase Protection	In any phase failure turns off the device	
RFI / Harmonic Filter	Protects from input surges and drops	
Harmonic Filter	RFI / HARMONIC filter decreases high frequency noise and harmonic	
Isolation Transformer	Input and output Isolation Transformer for special usage	
<b>SYSTEM PROPERTIES</b>		
System Design Life	20 years	
Protection Class	IP20(Standard) to IP54(Optional), (consult to EPC for IP54 to IP65)	
Storage Temperature	(-20°C) to (+70°C)	
Operating Temperature	(-10°C) to (+50°C)	
Cooling	Fan Forced Cooling(Standard), Natural Cooling(Optional)	
Altitude	1000m (-1% Power for every 100m after 1000m) Max. 4000m	
Relative Humidity	0 - 95% (Non-condensing)	
Noise (1m away)	<40 - 55 dB (depends on capacity)	<45 - 65 dB (depends on capacity)
Color	RAL7035, RAL7032 (Standard), others (Optional)	
Cable Entry	Front Bottom (Top entry optional)	
<b>STANDARDS</b>		
Standards	ISO9001, ISO14001	
NOTE: All above technical specifications subject to change without notice. All specifications are just simple guidelines. Refer to the EPC for special applications. All trade names mentioned above are registered trademarks of their respective owners.		