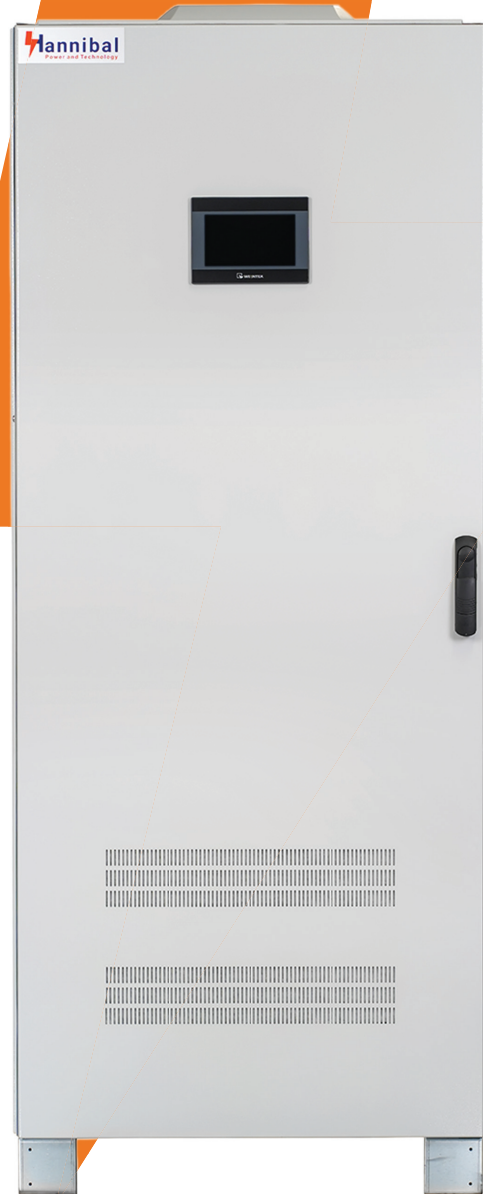


# Static Voltage Regulator TCON SERIES



Hannibal Static Voltage Stabilizer regulates grid fluctuations in the best way possible. With adequate regulation speed (500 V/sec.) and full protection, by compensating the difference between phases as well as voltage fluctuations, it ensures the connected systems operate reliably. Since the output voltage tolerance is  $\pm 1\%$ , the electronic stabilizer is an ideal solution to secure the electronic load. In cases of the network voltage changes momentarily and frequently, an Electronic Stabilizer could be the solution.

# Static Voltage Regulator TCON SERIES

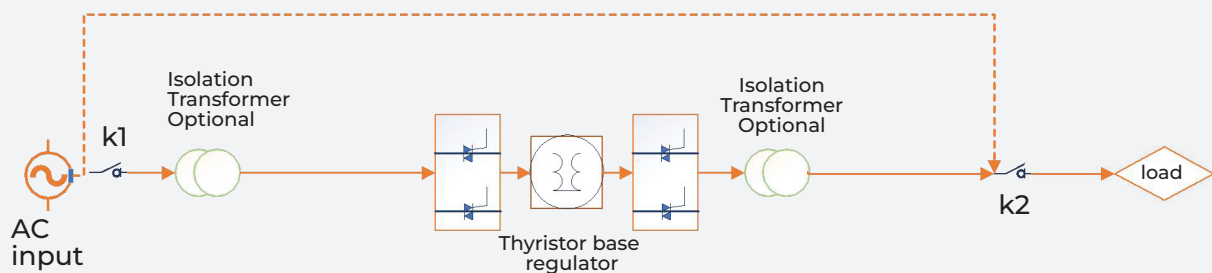
## General specifications

- Wide Input Voltage Range.
- Precise Output Voltage Accuracy  $\pm 1\%$  to  $\pm 5\%$
- Ultra Fast Voltage Regulation (500V/s).
- True 32-bit Microcontroller Controlled.
- High Efficiency  $> 97\%$ .
- Independent Phase Regulation to Correct Voltage and Load Imbalance.
- Electronic Protection Against Over Load, Low Voltage, High Voltage, Over Temperature, Over Current and Short Circuit.
- Overload Protection up to 150%.
- Fast Responsive to Voltage Surges.
- Auto Restart when Mains Available.
- Full Electronic Static Structure with No Moving Parts, Delivering a 'Maintenance Free' Voltage Regulation Solution.
- Fully CE Compliant and Labelled



## Add on Options

- Bypass line.
- Fusible Surge Suppression.
- Redundant Fans.
- Natural Cooling + Smart Fan System.
- Cabinet color can be chosen from RAL codes.
- Cable Entry (Top/side/bottom/rear).
- Ingress Protection: up to IP66.
- Touch Panel with Mimic Diagram.
- Auxiliary Trip Contact.
- Earth Fault Protection (adjustable).
- Phase Voltage/Sequence protection.
- 500 Real-Time Event Log with Detailed Parameters.
- User Friendly Multilingual 320x240 Graphic Display Provided.
- Operation Information.
- Monitoring and Shutdown Software.
- RS232 Serial and RS485 Ports.
- Modbus RTU (Optional).
- 2 Communication Slots.
- Remote Emergency Power Off (Optional).
- Remote Display Panel (Optional).
- Dry Contact (Optional).
- SNMP (Optional).



# Static Voltage Regulator TCON SERIES

## Key Features

- Power Range, Single phase up to 200 kva and Three phase up to 2000 kva.
- High Speed regulation up to 500 V/s.
- Stable operation in event of load or voltage variation.
- Quite Operation.
- Suitable for regenerative loads.

## Technical Data

Input	
AVR Topology	Thyristor
Control System	Micro processor
Input Voltage -Single Phase	110/120/200/220/240/277 V
Input Voltage -Three Phase	208/220/240/380/400/415/480 V
Voltage tolerance	+/- 15 %
Frequency	50 Hz (60 Hz)
Frequency tolerance	+/- 5 %
Efficiency	94%
Power Factor	0.8

Output	
AC Voltage	
- Single phase	1 x 230 V (220, 240) ; 1 x 110 V (115, 120)
- Three phase	3 x 400 V (380, 415) ; 3 x 220 V (200, 208, 230)
AC Voltage Tolerance	3%
Frequency	50 Hz (60 Hz)
Frequency Tolerance	+/- 0.05 %
Regulation speed	500 V/s
Overload capability	
- 1 minute	125% of nominal power
- 10 minutes	110 % of nominal power
Harmonic voltage distortion	
- With 100 % linear load	< 3 %
- With 100 % non-linear load	SS as per IEC/EN 62040-3
Power Factor	0.8
Efficiency	90%

## General Data

Title	
Operating temperature	0 to 40 °C
Storage temperature	-20 to +70 °C
Relative humidity	< 95 % non condensing
Operating altitude	1000 m max without derating
Cooling	Fan Forced, free cooling -Optional
MTBF	<150,000 h
External protection	IP 20(4) according to IEC 60529
Internal protection	Protection against unintentional direct contacts as per IEC 60950-1/62477-1
Noise (at 1m in front of the unit)	60 – 75 dB according to rating
Cabinet colour	RAL 7035(4)
Touch Panel " HMI"	Optional
Communication	RTU RS232-Standard RTU RS485 -TCP/ IP - Optional
Dimensions	Varying according to ratings and options

## Standards

Standards	
IEC61558-2-2014	Safety requirements
IEC62041-2:2016	Electromagnetic compatibility (EMC) requirements
ISO 9001, ISO 14001,	Certificate

