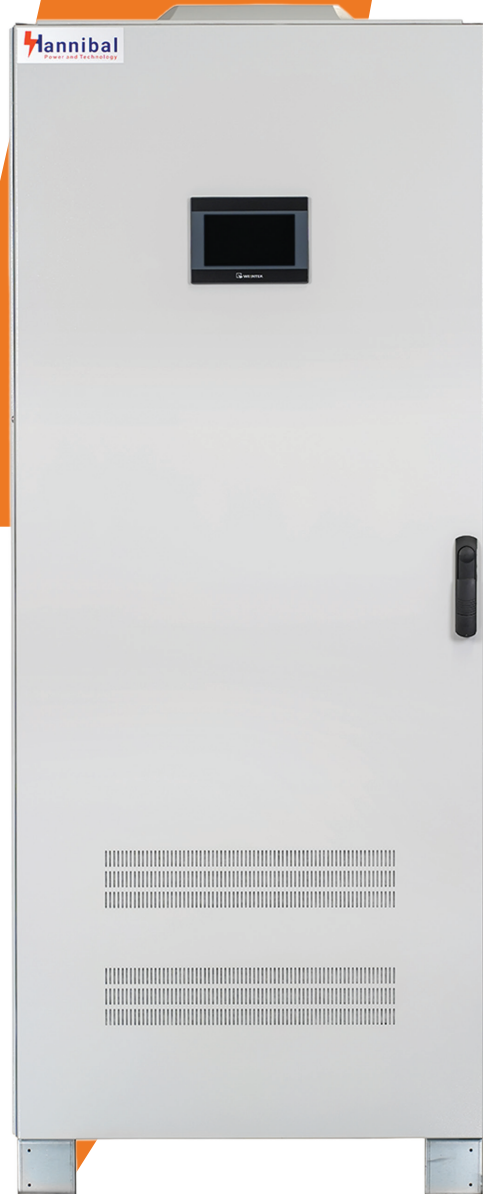


Static Voltage Regulator TCON SERIES



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.

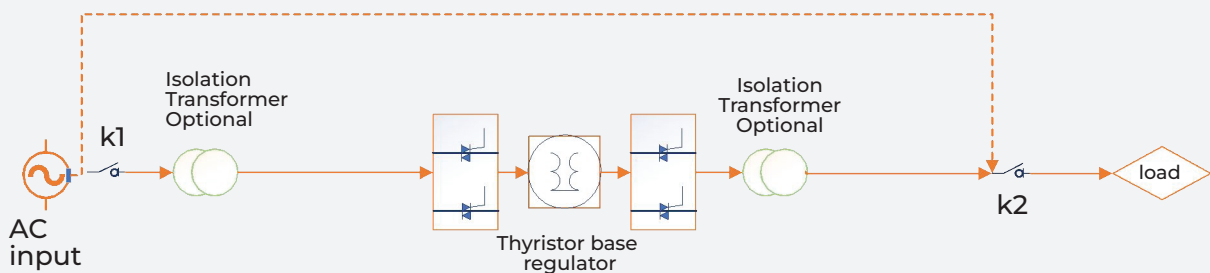
Static Voltage Regulator TCON SERIES

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.
- Quiet 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	5S 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(1)
Touch Panel " HMI"	Optional
Communication	RTU RS232-Standard RTU RS485 -TCP/ IP - Optional
Dimensions	Varying according to ratings and options

(1) Other option available on request

Standards

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

