

Variable transformer power supplies STAS



Single phase sources

Three phase sources

DC sources

Voltage sources

Current sources

**Powers from 160VA to
several hundred kVA**

Advanced HMI

Remote RS232, RS485, Ethernet



Specifications

The variable transformer power supplies are built based on motorized autotransformers. A regulation system compensates for variations of input voltage and voltage drops due to load changes.

Alternating voltage sources :

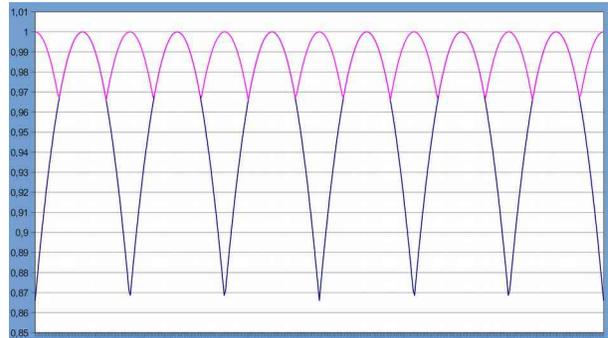
The sources are defined by their setting range and power. The ranges can be set from zero to a maximum value or a minimum value to a maximum value. The three-phase versions are made using 3 autotransformers on the same mechanical axis or 3 one-phase transformers. In the latter case, each phase is adjusted and regulated independently.



*Autotransformateur
triphase motorisé*

DC voltage sources :

View the wave quality from a single-phase network, this solution is rarely adopted. The three-phase versions are the most common, the recovery phase this period by 6 peaks and offers a theoretical ripple rate of 4.2%, which is suitable for most applications. However, it is possible to improve this feature by rectifying a dual 3-phase network and get 12 tops per period for a theoretical ripple rate of 1.01%. In the first case, the waveform will evolve between about 87% and 100% of the signal, whereas in the second case, the lower limit will be approximately 97% of the maximum value.



Compare waves 6 and 12 tops

Constant current source, constant power source :

Constant current source, constant power source are possible applications, as well as regulations on other types of settings. The control system allows the acquisition of all types of parameters and to control the source according to a defined algorithm.

Control system :

The sources are managed by a modular system that offers a wide array of possibilities:

- digital inputs and outputs
- analog inputs and outputs
- RS232, RS485 and EthernetModbus, Profibus protocols ...
- specific automation: complex sequences and managements
- clock synchronization (server or GPS)

Human Machine Interface (IHM)

The control system has an embedded web server. Control is therefore possible by a web browser, both in local and remote connection. The interface can also be in the form of touch screen, mounted directly on the power supply with custom screens for each application type. The multipage principle allows the realization of interfaces on several levels: User - Configurator - Maintenance.



Design: Some examples of achievements.



Control desk



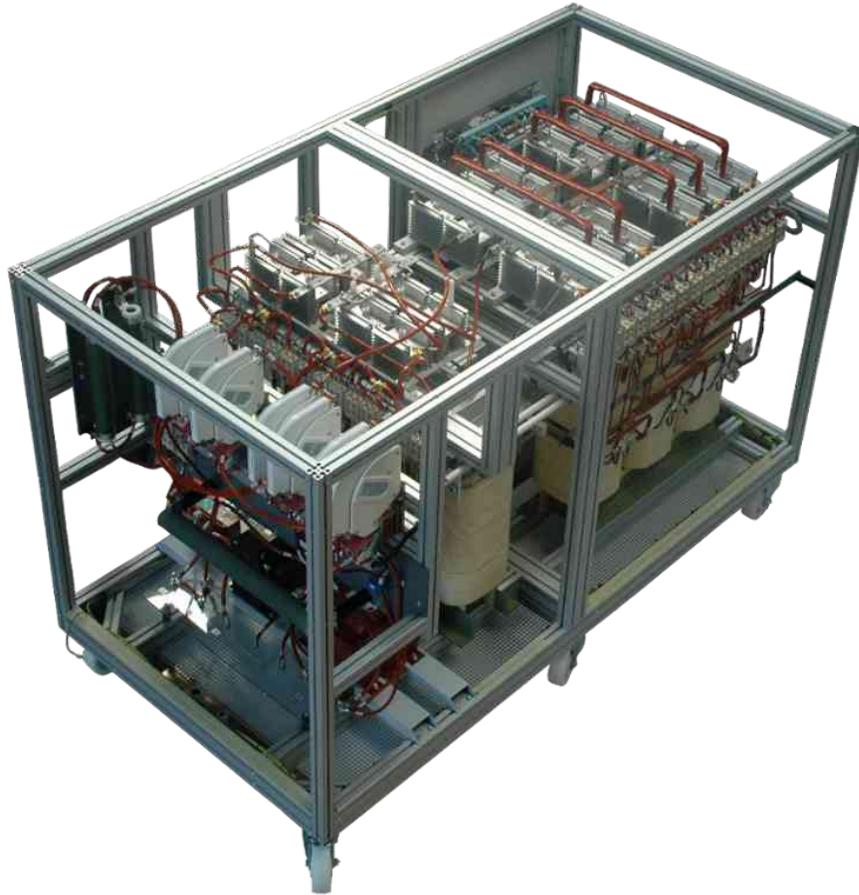
Integrated test bench source



Advanced functions controlled remotely



Transportable version



High power source