

# NCE HIGH VOLTAGE POWER SUPPLY

## Output Voltage up to 30,000 Volts



### High Voltage Power Supplies up to 30,000 V

High Voltage Modules up to 30,000 V,  
as AC/DC or DC/DC power supplies

The Heinzinger NCE high voltage cassettes provide high voltage of up to 30,000 Volts as a primary switched mode power supply. depending on the type and design, in a current range between 1 and 600 mA. These precise HV power supplies are designed as 19" cassette units and can be controlled via a 0..10 V analog interface.

Thanks to their compact dimensions and robust design, the NCE series high voltage modules are ideal for applications requiring a reliable high voltage supply up to 30 kV.

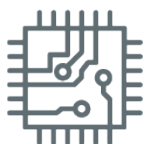
The various control and readout options via analog interface allow easy adaptation to the specific application and are often used as reliable HV sources in systems and machines.

Heinzinger NCE modules are available in different voltage ranges as well as in different power ratings of 30 and 60 Watts and can be supplied with positive or negative polarity. For units with more than 10 kV, the high voltage part is sealed to ensure the best possible long-term stability and compact dimensions. The units are built in robust 19" cassettes, depending on power and output voltage between 14 and 28HP width at 3U.

### NCE-Series Highlights

- Output voltages up to 30,000 V
- Output power up to 30 and 60 W
- Output currents up to 600 mA
- Input voltage 24 V DC
- 19" cartridge, 3U
- Low ripple
- Continuous short circuit proof
- Automatic transition from voltage to current source mode
- Remote controllable and extendable via integrated analog interface, for voltage and current setup as well as acknowledgement

### Typical Applications



Semiconductor tests /  
manufacturing



HV tests



Quality tests



Equipment  
tests



Electrostatic  
applications

# NCE HIGH VOLTAGE POWER SUPPLY

## Technical Data

### General

Function	switch mode power supply
Input voltage	230 V $\pm$ 10 % other on request
Input frequency	47 ... 63 Hz
Input current	type-dependent (max. 1.5 A)
Ambient temp.	0 °C ... 40 °C

### Output

Discharge time (without load)	<60 s (type-dependent)
Output voltage	positive or negative connected to earth
HV Output	$\leq$ 1200 V via connector pin 22 >1200 V via Heinzinger HV cable 0.5 m

### Analog Interface for remote control

Voltage adjustment	0...10 V
Current adjustment	0...10 V
Voltage monitor	0...10 V
Current monitor	0...10 V
Voltage control (CV-mode)	signal
Current control (CC-mode)	signal
Output on/off	contact NO = on
Connector	multipoint connector 24+7 pol. (DIN 41612)

### Enclosure

3U cassette, depth 169 mm, width is type dependent

### Voltage stabilization

Setting range	approx. 1 % to 100 % $U_{nom}$
Setting accuracy	$\leq$ 0.1 % $U_{nom}$
Reproducibility	$\leq$ 0.5 % $U_{nom}$
Line regulation (at $\pm$ 10% mains voltage change due to load change)	$<$ 0.01 % $U_{nom}$
Load regulation (on load step from 0 to 100%)	$\leq$ 0.1 % $U_{nom}$
Response time (on load current change from 0 to 100%)	typ. 2 ms (max. 5 ms)
Stability: (under constant conditions)	$\leq$ 0.1 % $U_{nom}$ over 8 h
Temperature coefficient	$\leq$ 0.05 % $U_{nom}$ /K
Ripple	$\leq$ 0.1 % pp $U_{nom}$

### Current stabilization

Setting range	approx. 1 % to 100 % $I_{nom}$
Setting accuracy	$\leq$ 0.1 % $I_{nom}$
Reproducibility	$\leq$ 0.5 % $I_{nom}$
Line regulation (at $\pm$ 10% mains voltage change due to load change)	$<$ $\pm$ 0.01 % $I_{nom}$
Load regulation (on output voltage change of around $\pm$ 10% due to load change)	$<$ 0.1 % $I_{nom}$
Response time (on output voltage change of around $\pm$ 10% due to load change)	typ. 2 ms (max. 5 ms)
Stability (under constant conditions)	$\leq$ 0.1 % $I_{nom}$ over 8 h
Temperature coefficient	$\leq$ 0.1 % $I_{nom}$ /K
Ripple	0.1 % pp $I_{nom}$

### Scope of supply

- Heinzinger NCE unit according to type description
- Plug for multipoint connector
- User manual (German/English)

## Product Summary NCE

Type	Voltage (V DC)	Current (mA)	Power (W)	Height (U)	Rack Depth (mm)	Part number*
NCE 100 - 300	0 ... 100	0 ... 300	30	3	169	00.220.680.x
NCE 100 - 600		0 ... 600	60	3	169	00.220.681.x
NCE 300 - 100	0 ... 300	0 ... 100	30	3	169	00.220.682.x
NCE 300 - 200		0 ... 200	60	3	169	00.220.683.x
NCE 600 - 50	0 ... 600	0 ... 50	30	3	169	00.220.684.x
NCE 600 - 100		0 ... 100	60	3	169	00.220.685.x
NCE 1200 - 25	0 ... 1,200	0 ... 25	30	3	169	00.220.686.x
NCE 1200 - 50		0 ... 50	60	3	169	00.220.687.x
NCE 3000 - 10	0 ... 3,000	0 ... 10	30	3	169	00.220.688.x
NCE 3000 - 20		0 ... 20	60	3	169	00.220.689.x
NCE 6000 - 5	0 ... 6,000	0 ... 5	30	3	169	00.220.690.x
NCE 6000 - 10		0 ... 10	60	3	169	00.220.691.x
NCE 10000 - 3	0 ... 10,000	0 ... 3	30	3	169	00.220.692.x
NCE 10000 - 6		0 ... 6	60	3	169	00.220.693.x
NCE 20000 - 1,5	0 ... 20,000	0 ... 1.5	30	3	169	00.220.694.x
NCE 20000 - 3		0 ... 3	60	3	169	00.220.695.x
NCE 30000 - 1	0 ... 30,000	0 ... 1	30	3	169	00.220.696.x

\*All devices are available with positive x = 1 or negative x = 9 polarity

## Other High Voltage Power Supplies

### LNCE - High Voltage Power Supplies



The LNCE series high voltage modules are ideal for applications that require a reliable high voltage power supply of up to 30 Watts thanks to their compact size and robust design.

#### Features

- Voltage up to 20,000 Volts
- Output power up to 30 Watts
- Input voltage 24 V DC
- 19" cartridge, 3U, 14 slots
- Low residual ripple, up to 100 ppm
- Continuous short circuit proof
- Setting of the output values via 10-turn potentiometers, separately for voltage and current
- Remotely controllable and extendable by means analog interface



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