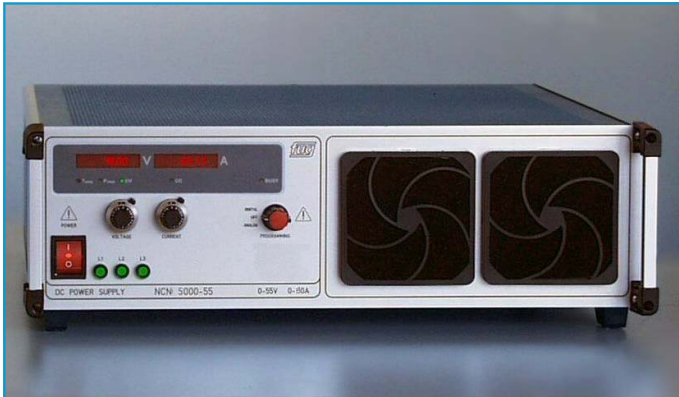


Low voltage power supplies switched

Series NCN 30 V and 55 V / 1250 W to 5000 W



Features:

- floating output
- compact size (19" case)
- light-weight
- high efficiency
- short-circuit proof
- unlimited operation with nominal power (even in short-circuit conditions)
- voltage and current regulation with automatic, sharp transition and additional power limitation
- control mode indicated by LED
- voltage and current setting with 10-turn potentiometers with precision scale; the adjusting knob can be locked
- 4½ digit DVM for voltage and current
- Suitable also for capacitive loads
- Sense connections to compensate voltage drop at the load cables
- Active down control

Function:

In principle, the rectified line voltage drives a square wave generator of variable frequency, whose AC voltage is transformed, rectified and filtered, producing the output voltage. For regulation, the square wave voltage is pulse width modulated. When fitted with the optional computer interface, the MCA/NCA series become versatile programmable power supplies.

Design:

- 19" table-top case (19" rack adapters available)

Output:

- Output isolation:
The output is floating. Either the positive or the negative pole may be connected to earth. Maximum isolation voltage: $\pm 500V$. (Not valid with the option analogue programming. If the floating function should remain, the floating analogue programming must be chosen).

Design example

NCN 5000 - 55
55V / 90A

Output terminals:

Output terminals are 4mm safety connectors at the rear side of the unit. Units from 24A nominal current on have binding posts.

Technical Data:

- Mains connection:
For 1500W nominal power:
230V $\pm 10\%$ 47Hz to 63Hz;
For 2500 and 5000W nominal power:
400V $\pm 10\%$ 47Hz to 63Hz 3-phase
- Ambient temperature:
0°C to +40°C

The following data applies for voltage and current regulation, and refers to the rated value (unless otherwise stated): (For explanations please refer to Definitions and Terms on page 61.)

- Setting range:
from approx. 0,1% to 100%
- Setting resolution:
 $\pm 1 \times 10^{-4}$

- Residual ripple:
 $< 2 \times 10^{-4} \text{pp} + 200\text{mVpp}$
- Recovery time:
Voltage control:
 $< 1\text{ms}$ for load changes from 10% to 100% or from 100% to 10%.
Current control:
 $< 10\text{ms}$ for load changes causing an output change of less than 10% of the rated voltage
- Setting time at nominal load:
 $< 300\text{ms}$ for changes of the output voltage from 10% to 90% or 90% to 10%
- Discharging time for output without load:
approx. 1sec. from 100% to 1% (active down)
- Deviation:
for $\pm 10\%$ mains voltage variation:
 $\pm 1 \times 10^{-5}$
for no load / full load:
 $< 5 \times 10^{-4}$
over 8 h under constant conditions:
 $< \pm 2 \times 10^{-4}$
within the temperature range:
 $< \pm 1 \times 10^{-4} / K$

Possible Options:

- Analogue programming (One of the outputs on "0V" - potential; see also page 52)
- Analogue programming, floating (see page 52)
- Computer interface - IEEE 488, RS 232, RS 422, Profibus DP, USB, LAN (more on request) (see page 54)

More options and special solutions on request. Some options may involve changes to the description of the unit - especially concerning the mechanical design.

Type	Voltage	Current	Width	Height	Depth	Weight
NCN 1250 - 30	0 - 30 V	0 - 40 A	19" / 443 mm	3 U / 133 mm	350 mm	14 kg
NCN 2500 - 30 3)	0 - 30 V	0 - 80 A	19" / 443 mm	3 U / 133 mm	550 mm	20 kg
NCN 5000 - 30 3)	0 - 30 V	0 - 160 A	19" / 443 mm	3 U / 133 mm	650 mm	25 kg
NCN 1250 - 55	0 - 55 V	0 - 22,5 A	19" / 443 mm	3 U / 133 mm	350 mm	14 kg
NCN 2500 - 55 3)	0 - 55 V	0 - 45 A	19" / 443 mm	3 U / 133 mm	550 mm	20 kg
NCN 5000 - 55 3)	0 - 55 V	0 - 90 A	19" / 443 mm	3 U / 133 mm	650 mm	25 kg

3) Three phase mains connection