Specifications in brief

Voltage setting

	NGRU 35	NGRU 50	NGRU 100
in 5 digits	<1 mV to 35 V	<1 mV to 50 V	<1 mV to 100 V
Resolution	1 mV	1 mV	1 mV
Max. error at 20°C	$\pm 10^{-4}$ of set value ± 20 mV		
analog (continuously)	$\pm 25\%$ with $\pm 0.5\%$ setting error of scale		
Resolution	0.25%	0.25%	0.25%

Current setting

(2 ranges in 4 digits)	NGRU 35	NGRU 50	NGRU 100
High range	<1 mA to 10 A	<1 mA to 5 A	>12 mA to 3 A
Resolution	1 mA	1 mA	1 mA
Max. error at 20°C	$\pm 2 \times 10^{-3}$ of set value ± 10 mA		
Low range		<10 µA to 100 mA	
Resolution	10 µA	10 µA	10 µA
Max. error at 20°C	$\pm 2 \times 10^{-3}$ of set value ± 0.2 mA		

Max. constant current

(150 W)	NGRU 35	NGRU 50	NGRU 100
	up to 15 V: 10 A	up to 30 V: 5 A	up to 50 V: 3 A
	20 V: 7.5 A	40 V: 3.8 A	75 V: 2 A
	35 V: 4.3 A	50 V: 3 A	100 V: 1.5 A

Constant-voltage source

Deviation of output voltage with

$\pm 10\%$ AC supply variation	$< \pm 10^{-5}$		
between 0 and 40°C	$< \pm 10^{-4}/K$		
with 10 to 90% load	$< 10^{-4}$		
PARD (V_{rms})	<0.3 mV	<0.5 mV	<1 mV

Transient recovery time   <75 µs   <75 µs   <75 µs

Constant-current source

Deviation of output current with

$\pm 10\%$ AC supply variation	$< \pm 2 \times 10^{-5}$		
between 0 and 40°C	$< \pm 2 \times 10^{-4}/K$		
from 10 to 90% load	$< 2 \times 10^{-4}$		
PARD			
in high range (I_{rms})	<2 mA	<1 mA	<0.3 mA
in low range (I_{rms})	<20 µA	<20 µA	<20 µA
Sensing sockets			
Max. voltage compens.	<0.5 V	<1 V	<1.5 V

Common data

Modulation of output voltage
(BNC female, floating) $V_{pp} = 10$ V for 10 V modulation, 50 Hz to 1 kHz ± 3 dB

Input impedance   approx. 3.5 kΩ

Overvoltage protection
Setting range   1 to 99 V (response threshold approx. 5% higher)

Programming (external, analog)

for output voltage	
0 to 100%´	0 to 10 V
for output current 0 to 100%	0 to 10 V
Setting time	<3 ms (to within $\pm 1\%$)
Connector	5-contact Tuchel female
Input impedance	approx. 10 kΩ
Reference potential	positive terminal