

Programmable Power Supply NGPE 40/40

Brief description

Programmable Power Supply NGPE is suitable for use in test systems and for general laboratory applications. The relatively small output capacitance, the short setting time even for down programming (thanks to built-in current sinking) as well as the voltage and current monitoring outputs are significant benefits in system use.



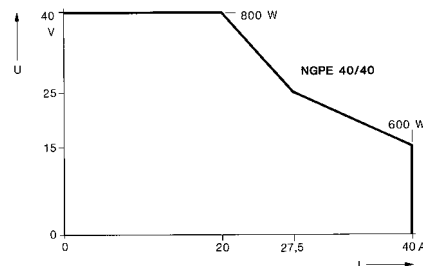
Photo 43554

Main features

- 0 to 40 V/0 to max. 40 A
- Primary-switched regulator with high efficiency and low heat dissipation
- Low PARD, excellent EMC, RFI suppression grade B
- Good regulation characteristics even with partial loading thanks to push-push converter configuration using power FETs
- Wide AC supply regulation range: 190 to 265 V/95 to 135 V
- Manual setting or via IEC/IEEE bus
- Clear front-panel layout and LED

- display for voltage and current as well as IEC/IEEE-bus commands
- Separate panel meters for voltage and current, each with two switch-selected ranges
- High resolution and reproducibility due to decade setting
- High setting speed (for up programming independent of preset current limit, for down programming due to current sinking)
- Current monitoring output (two ranges)
- Voltage monitoring output

- Overvoltage protection (OVP)
- Thermostat-controlled cooling fan
- Remote sensing similar to NGPV
- 19" system unit



The autoranging output characteristic shows that higher currents are available at lower voltages. At 15 V and 40 A the output power is still 600 W

Specifications in brief

Voltage setting, in 4 digits	0 to 39.99 V
Resolution	10 mV (4000 steps)
Deviation	<10 ⁻³ of full scale
Current setting, in 3 digits	0 to 39.9 A
Resolution	100 mA (400 steps)
Deviation	<2 x 10 ⁻³ of full scale

Constant-voltage source

Deviation of output voltage	<10 ⁻⁴
with ±10% AC supply variation	<2 x 10 ⁻⁵ /°C
between 0 and 45°C	<10 ⁻⁴
with 10 to 90% nominal current	<10 ⁻⁴

Transient recovery time at 40 V,	2.0 ms (to 150 mV)
from 2 to 18 A or conversely	0.2 ms (to 50 mV)
from 2 to 4 A or conversely	0.2 ms (to 50 mV)
from 16 to 18 A or conversely	0.2 ms (to 50 mV)

Setting time	without load	with load
from 0 to 39 V	50 ms	60 ms
from 39 to 0.4 V	100 ms	30 ms
from 39 to 0.1 V	120 ms	40 ms
PARD, V _{rms} /V _p	2 mV/20 mV	

Constant-current source

Deviation of output current	<10 ⁻⁴
with ±10% AC supply variation	<10 ⁻⁴

between 0 and 45°C	<10 ⁻⁴ /°C
with 10 to 90% nominal current	<10 ⁻⁴
PARD, I _{rms}	<40 mA

Remote control

Functions	IEC 625-1 (IEEE 488)
Remote sensing	SH0, AH1, T0, TE0, L1, LEO, SRO, RL1, PP1, DC1, DT1, C0 compensation for 0.5 V per lead

Panel meters

Voltmeter (2 ranges)	10/40 V ±2.5% of full scale
Ammeter (2 ranges)	4/40 A ±2.5% of full scale
Monitoring output for current	400 mV corresp. to 4 A, 2% of fs
for voltage	400 mV corresp. to 40 A, 0.2% of fs
for current	0 to 40 V, 0.2% of fs

Overvoltage protection (OVP)	4.5 to 50 V
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General data

AC supply, selectable	95 to 135 V or 190 to 265 V, 47 to 63 Hz, 1600 VA
Dimensions (W x H x D); weight	492 mm x 161 mm x 420 mm; 14 kg

Ordering information

Programmable Power Supply	NGPE 40/40	0192.0332.41
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