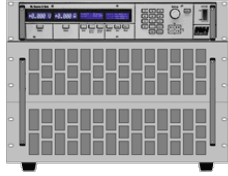


# Datasheet Series NL

<b>Model</b>	<b>NL1V44C40</b>	
<b>Order no.</b>	<b>15-019-000-02</b>	
<b>Max. voltage</b>	44 V	
<b>Max. current I<sub>max</sub></b>	40 A	
<b>Continuous power</b>	1760 W	
<b>Short-time power</b>	1760 W	
<b>Voltage setting</b>	-1 V ... 44 V	
<b>Current setting</b>	-40 A ... 40 A	
<b>Rise/fall time current <sup>1)</sup></b>	200 µs	
<b>Rise/fall time voltage <sup>2)</sup></b>	200 µs	
<b>Load connections <sup>3)</sup></b>	BPK4-60L	
<b>Power consumption</b>	2500 VA	
<b>Mains supply</b>		
<b>Max. noise <sup>4)</sup></b>	75 dB(A)	
<b>Weight ca.</b>	52 kg	
<b>Housing <sup>5)</sup></b>	19" - 8 U	

1. Measured at short-circuited output terminals (current) and open output terminals (voltage). Tolerance +/- 20%
2. Measured at short-circuited output terminals (current) and open output terminals (voltage). Tolerance +/- 20%
3. PK4: 4 mm pole terminals  
PK60: Pole terminals for forked cable lug and 4 mm jack  
BM8: screw fitting  
FK25: Flast copper rail 25x10 mm with 4 mm hole and M10 and M12 bolt
4. Measured on the front from distance of 1 m
5. 1 U = 44.45 mm

Setting accuracy		
	of setting	of corresponding range
Voltage	±0.1 %	±0.05 %
Current	±0.2 %	±0.05 %
Current protection	±0.2 %	±0.05 %
Voltage protection	±0.1 %	±0.05 %
Setting resolution	16 bits	
Ripple	0.05 % RMS of range	
Load Effect 0 ... 100 %	0.1 % of range	
Line Effect ±10 %	0.02 % of range	
Display accuracy		
	of measured value (real value)	of corresponding range
Voltage	±0.1 %	±0.05 % ±1 digit
Current	±0.2 %	±0.05 % ±1 digit
Resistance	calculated of voltage and current	
Power	calculated of voltage and current	
Accuracy of standard measurement, read out via data interface		
	of measured value (real value)	of corresponding range
Voltage	±0.1 %	±0.05 %
Current	±0.2 %	±0.05 %
Resolution	18 bits	
Sampling rate (not synchronized)	330 ms, not triggerable	
Accuracy of measurement with option NL13, read out via data interface		
	of measured value (real value)	of corresponding range
Voltage	±0.15 %	±0.07 %
Current	±0.3 %	±0.07 %
Resolution	13 bits	
Sampling rate (programmable)	minimum 200 µs (to memory) triggerable	
I/O port: accuracy analog control -5 ... 0 ... 5 V / -10 ... 0 ... 10 V		
	of setting	of corresponding range
Voltage	±0.2 %	±0.15 %
Current	±0.4 %	±0.15 %
Current protection <sup>1)</sup>	±0.2 %	±0.15 %
Voltage protection <sup>1)</sup>	±0.4 %	±0.15 %
	Input resistance of analog inputs >10 kΩ	
I/O port: Accuracy of analog monitor outputs 0 ... 10 V		
	of analog signal of real value	offset voltage
Voltage	±0.1 %	±15 mV
Current	±0.2 %	±15 mV
	Minimum load capacity 2 kΩ	
I/O port: further functions		
External control functions	standby operating mode change trigger input and output remote shut-down	

I/O port: permissible potentials		
	standard I/O port	isolated I/O port (option NL06)
GND - neg. output	max. 2 V <sup>2)</sup>	max. 125 V <sup>2)</sup>
GND - PE	max. 125 V <sup>2)</sup>	max. 125 V <sup>2)</sup>
Output		
Output resistance	> 50 kΩ in standby	
Output capacity	ca. 1.5 µF/1,400 W	
Parallel operation	up to 3 devices in Master-Slave mode (hardware-controlled only in current mode)	

Output: permissible potentials		
	standard I/O port	isolated I/O port (option NL06)
neg. output - PE	max. 125 V <sup>2)</sup>	max. 125 V <sup>2)</sup>

Power	
Nominal power	see model overview (at Ta = 21 °C)
Derating	-1.2 %/°C for Ta > 21 °C

Protection and monitoring	
Protective devices	overcurrent protection overtemperature cut-off
Monitoring signals	overvoltage indication

Terminals	
Output	see model overview
Sense	PK4-30L (see starting at page 101)

Operating conditions	
Operating temperature	5 ... 40 °C
Stock temperature	-25 ... 65 °C
Max. operating height	2,000 m above sea level
Pollution degree	1
Max. humidity	80 % at 31 °C, linear decreasing to 50 % at 40 °C
Min. distance rear panel - wall or other objects	70 cm
Cooling	temperature-controlled air cooling
Noise	see model overview
Supply voltage	115/230 V~ ±10 %, 50 ... 60 Hz 230/400 V AC, 16 A CEE <sup>3)</sup>
Power consumption	see model overview

Mechanics	
Dimensions, weight	see model overview
Color	
Front	RAL7032 (pebble grey)
Rear	RAL7032 (pebble grey)
Side panels, top	RAL7037 (dusty grey)

Safety and EMC	
Protection class	1
Protection	IP20
Measuring category	0 (CAT I according to EN 61010:2004)
Electrical safety	DIN EN 61010-1 DIN EN 61010-2-030
EMC	DIN EN 61326-1 DIN EN 55011 DIN EN 61000-3-2 DIN EN 61000-3-3

Calibration, warranty	
FCC-NLxx	Factory Calibration Certificate, twice free of charge
Warranty	2 years

The specified accuracies refer to an ambient temperature of 23 ±5 °C. The specified accuracies are valid when the unit is connected to undisturbed voltages (ripple and noise < 0.1 %). At voltages with higher disturbance values the accuracy can change for the worse.

1. -10 ... 0 ... +10 V only
2. positive or negative DC voltage or RMS value of a sinusoidal AC voltage
3. Class C protective equipment recommended due to high inrush current