

PN 300 – Programmable Power Supply Unit

digimess® expert

Order no.: H.UC 40-00



The programmable power supply unit PN 300 is yet another addition to Grundig range of innovative service measuring instruments. Like the others in the range, PN 300 is based on a sophisticated microprocessor-controlled operating concept. Operation takes place over an LCD.

All the settings are carried out using only a few keys. This operating concept is in line with Grundig objective of allowing the user to work with the instrument after just a few minutes without having to refer to written documentation.

Despite its compact dimensions, the instrument supplies two variable DC voltages of 0 - 30 V/0 - 2.3 A and a fixed voltage of 5 V/2 A. The variable output voltages can be adjusted separately in tracking mode or in parallel. In parallel operation, a maximum of 30 V and 4.6 A is

possible. The basic setting accuracies for voltages and currents are 0.05% and 0.5% respectively. The operating modes Constant voltage (CV) and Constant current (CC) are possible.

The minimum increments for voltage and current settings are 10 mV and 1 mA respectively.

All the functions of the instrument can be controlled over the combined RS-232 C/IEEE 488.2 interface.

Up to 5 sets of instrument settings can be saved and loaded as required.

PN 300 is suitable for a wide range of applications in the fields of research, production, training and service on the basis of its performance data and its unbeatable price/performance ratio.

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Operating modes for sources A, B

Independent, Parallel, Tracking, Constant voltage (CV), Constant current (CC), optional protection by current limiting or output disabling.

Sources A, B

Output voltage	0 V - 30 V
Output current	0 A - 2.3 A
Setting accuracy:	
Voltage	$\pm (0.05\% + 15 \text{ mV})$
Current	$\pm (0.5\% + 10 \text{ mA})$
Interference voltage at output	1 mV _{rms} in the bandwidth 15 Hz to 15 MHz
Measuring accuracy:	
Voltage	$\pm (0.5\% + 100 \text{ mV})$
Current	$\pm (0.5\% + 10 \text{ mA})$
Stability of output voltage on mains fluctuations	$\pm (0.01\% + 3 \text{ mV})$
Stability of output voltage on load change	$\pm (0.02\% + 6 \text{ mV})$
Setting increments:	
Voltage	10 mV
Current	1 mA
Maximum output voltage to ground	250 V _{rms}
Control response	$\leq 300 \mu\text{s}$ damping time for the adjusted voltage in the range $\pm 15 \text{ mV}$
Indication on display:	
Voltage	max. 30,00 V
Current	max. 2,300 A

Parallel operation of sources A and B

Output current	0.3 A - 4.6 A
Setting accuracy:	
Current	$\pm (1\% + 20 \text{ mA})$
Measuring accuracy:	
Current	$\pm (1\% + 20 \text{ mA})$
Indication on display:	
Current	max. 4,600 A

Source 5 V/2 A

Output voltage	5 V $\pm 5\%$
Output current	max. 2 A
Interference voltage at output	2 mV _{rms}

General

Interfaces	RS 232 C (1200, 2400, 4800, 9600 Bd), IEEE 488,2
Nominal temperature	+23 °C ± 2 °C
Operating temperature	+5 °C... +40 °C
Operating voltage	230 V/115 V (+10%/-15%)
Mains frequency	50 - 60 Hz
Power consumption	450 VA
Protection class	I according to EN 61010/DIN VDE 0411, Part 1 1993
Interference suppression	Vfg. 1046, 1984; VDE 0871 Category B
Dimensions (in mm)	291 x 120 x 259 (W x H x D)
Weight	6.8 kg
Weight incl. packaging and accessories	8.4 kg
Accessories supplied with the package	Mains cable, operating instructions, various miniature fuses

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