

# Power Signal Generator – PSG-300

acc. to IEC/EN 61000-4-16, DC – 300kHz and IEC/EN 61543, 1kHz – 150kHz



Option: PSG-E300

## Description

The PSG-300 contains a linear precision power amplifier with a wide bandwidth (DC-300 kHz), suitable for all applications concerning fast alternating signals at high output power. The built in generator provides sine, square and triangle waves. Communication between PSG-300 and PC is via USB connection. The application software is suited for general power generator applications and for immunity tests according to IEC/EN 61000-4-16 as well as to IEC/EN 61543. Short term tests are enabled by phase controlled switching of an external power source (optional). The PSG-300 is equipped with a silent, temperature-controlled fan. Internal safeguards protect the amplifier from overheating and high power dissipation. They also assure protection against short-circuits and overload.

### The number one choice for all applications with the need for fast and powerful signals, e.g.:

- Simulation of DC/AC supply lines
- Generation of magnetic fields with Helmholtz or similar coils
- Control of piezo actors
- Immunity testing according to IEC/EN 61000-4-16
- Calibration devices etc.

### Features:

- Short circuit and overload protection
- Completely linear and low noise design
- Outstanding DC stability
- Over temperature switch off
- Protection / Ready LED
- EUT-fail input
- EUT-monitor input

### Options

PSG-E300	External power source for short term test 300 V @ DC, 16 2/3 Hz, 50 Hz, 60 Hz
PSG-EXT	Input connector for phase controlled switching of external power source

Technical specifications	PSG-300	PSG-300A
<b>Amplifier</b>		
Frequency range	DC – 1 MHz (small signal -3 dB)	
Power bandwidth	DC – 200 kHz	
Slew rate	100 V/μs	
Offset	±1 mV (±0.1 mV/°C)	
Gain	10 ±0.1 % (±0.01 %/°C)	
Output voltage	50 V <sub>eff</sub> / ±75 V <sub>peak</sub>	
Output current	5 A <sub>eff</sub> / ±7.5 A <sub>peak</sub>	16 A <sub>eff</sub> / ±23 A <sub>peak</sub>
Power output	250 W	800 W
Distortion (DC – 100 kHz, load ≥ 4 Ω)	< 0.10%	
Input impedance	100 kΩ	
Max. input voltage	80 V (cont.), 100 V (< 1 min)	
Noise (10 Hz – 1 MHz, input: 50 Ω)	0.5 mV <sub>eff</sub>	
Output connector	4 mm MC	
Output connector 50 Ω	BNC	
<b>Generator</b>		
Frequency range	DC, 0.05 Hz – 300 kHz	
Frequency resolution	0.05 Hz	
Frequency accuracy	± 20 ppm	
Waveform	Sine, square, triangle	
External generator input	BNC	
<b>General data</b>		
Remote control	USB connector	
Dimension (L x W x D)	448,9x132,55x435,50 mm	448,90 x 177 x 585,50 mm
Weight	approx. 14 kg	approx. 30 kg