

High current damped oscillatory wave generator

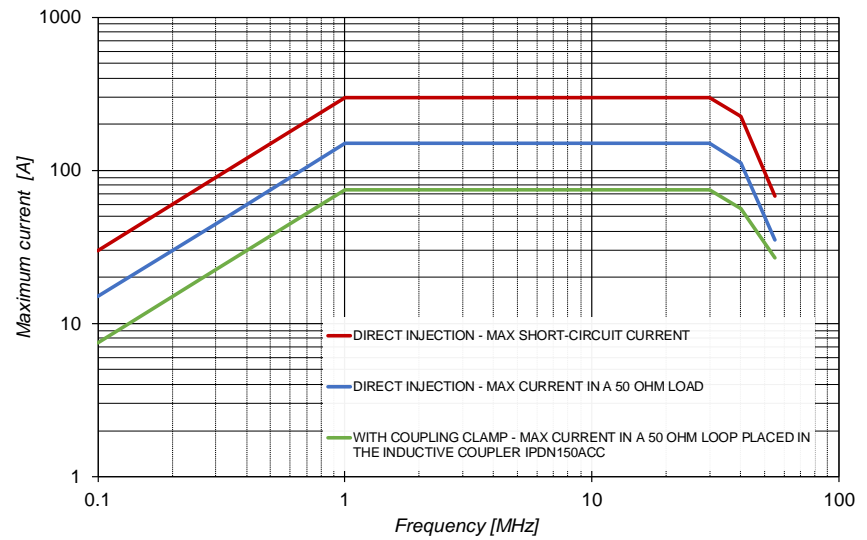


This unique high voltage / high current test system is used for damped oscillatory wave testing up to 300 A. The test method with the optional coupling clamp is similar to the one described in MIL-STD-461 CS116 except that this new series of generators can produce much higher current levels. The generator can be fully controlled by a computer. The calibration as well as the measurement process is entirely automated. All settings and levels are recorded for the measurement and for the generation of a test report. The system can produce up to 12 distinct frequencies between 10 kHz and 100 MHz. It has only one output and does therefore not require any change of connection during the test. That feature greatly reduces the test duration. A set of accessories such as a special coupling clamp, a high voltage attenuator ..etc, are proposed as an option.

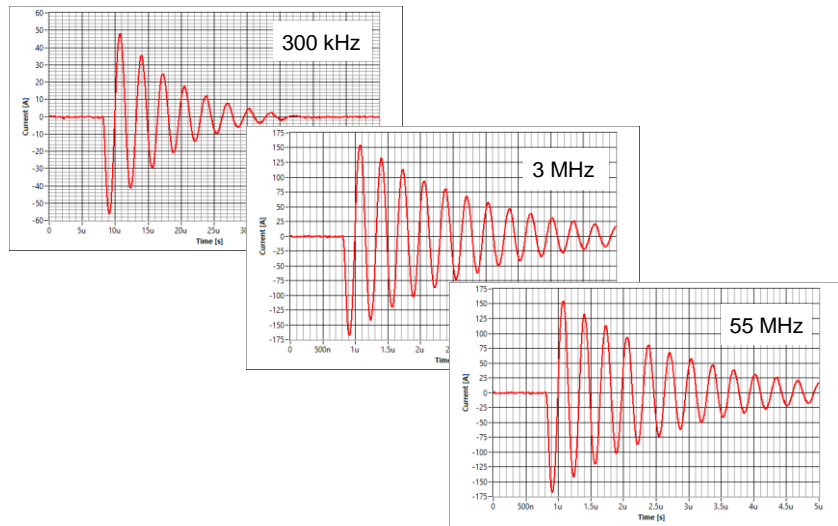
SPECIFICATIONS	
Type	PG-C201
Output waveform	damped oscillatory wave
Frequency range	100 kHz to 55 MHz, 10 frequencies (10 kHz to 100 MHz and up to 12 frequencies on request)
Source impedance	50 ohm
Maximum current	up to 300 A (direct injection, in a short-circuit) up to 150 A (direct injection, in a 50 Ω load) up to 75 A (with the optional coupling clamp, with a 50 Ω loop placed in the coupler)
Damping factor	between 5 and 20 (on a 50 Ω load)
Maximum stored energy	6.4 J
Repetition rate	5 s to 120 s
Test time (repetitive mode)	0 to 10 min.
Maximum sequence duration	10 min.
Mechanical life of the high voltage actuator, for each frequency	0.5 million impulses in load 1 million impulses in open circuit
Output signal connection	Montena HVM50K female
Power rating	230 VAC / 50-60 Hz / 100 VA
Electrical safety	complies with EN 61010-1
EMC	complies with EN 61326-1
Other interfaces	RS 232 (Sub-D female 9-pins) USB (type A)
Storage temperature	-10 to 60 $^{\circ}$ C
Operating temperature	5 to 40 $^{\circ}$ C
Relative humidity	maximum 60%
Electrical insulation	oil
Total weight	about 170 kg
Dimensions (cabinet with caster wheels)	height : 130 cm width : 57 cm depth : 84 cm

Global performances

Max current vs. frequency



Examples of direct current injections in a 50 ohm load



All designs can be adapted to the customer's requirements, to fulfil specific frequencies and/or standards.

Ordering information

TYPE	DESCRIPTION
PG-C201	damped oscillatory wave generator, frequency range : 0.1 - 55 MHz, 10 discrete frequencies, up to 300 A

Related products / accessories



TYPE	DESCRIPTION
IPDN150ACC	high current coupling clamp, frequency range : 10 kHz - 400 MHz, max 75 A for $f \geq 1\text{MHz}$, internal diameter : 43.8 mm, 5 m coaxial cable, HVM50K(m) connector
HVAT50K	high voltage coaxial attenuator 40 dB, connectors: 1 x HVM50K female, 1 x Type-N female, max. voltage 75 kV for 1ns pulse