

**STG3008 – FA**  
**Technical Specifications**

European Standards: EN 55011, EN 61000-6-1

**General Characteristics**

Operating temperature	10 °C to 50 °C
Storage temperature	0 °C to 70 °C
Dimensions (W x D x H)	220 x 170 x 60 mm
Weight	1050 g
Fuse	internal, 3.15 A slow blow
Supply voltage (external power supply)	100 - 240 VAC @ 47 to 63 Hz

**Stimulus Generator**

Number of stimulus generators	8
Output voltage range	-8 V to +8 V @ max. $\pm$ 20 mA
Output voltage resolution	1 mV
Rise time (10 % - 90 %) voltage	1.7 $\mu$ s @ $\Delta U = 8$ V
Time lag between Sync Out and voltage output	15 $\pm$ 2 $\mu$ s for continuous pulses 40 $\pm$ 5 $\mu$ s for a first or a single pulse
Output current range	-1.6 mA to +1.6 mA @ max. $\pm$ 120 V compliance voltage (between +I and -I)
Output current resolution	200 nA
Output current slope	600 $\mu$ A/ $\mu$ s @ $R_L = 10$ k $\Omega$
Rise time (10 % - 90 %) current, 0 - 100 $\mu$ A	1.4 $\mu$ s @ $R_L = 10$ k $\Omega$
Time lag between Sync Out and current output, 0 - 100 $\mu$ A	15 $\pm$ 2 $\mu$ s @ $R_L = 10$ k $\Omega$
Resolution	14 bit
Time resolution	20 $\mu$ s
Output signals	Freely programmable (rectangular, ramp, sinus, arbitrary)
Maximum frequency (rectangular waveform)	25 kHz
Memory capacity for stored waveforms	64 MB

**Timing on external trigger**

Minimum time length of trigger input (TTL)	40 ± 10 µs
Time lag between trigger input and Sync Out	30 ± 10 µs
Maximum trigger input frequency	10 kHz

**Interface and connectors**

Sync Out for synchronization with following devices	1 Lemo connector
Trigger In for synchronization with preceding devices	1 Lemo connector
Analog out for analog channels	8 Lemo connectors
Interface (connection to computer)	USB 2.0 High Speed
Download rate	max. 480 Mb per second

**Filter Amplifier**

Number of amplifiers	8
Input voltage range	± 500 mV
Input impedance	> 10 <sup>9</sup> Ω parallel to 10 pF
Input noise	< 1 µV RMS (full bandwidth, inputs short circuited)
Noise density	$e_n = 9 \text{ nV} / \sqrt{\text{Hz}}$
Output voltage range	± 5 V
Output current	10 mA
Bandwidth	1 Hz to 2200 Hz
Gain options	100, 200, 500, or 1000

**Software**

MC_Stimulus II	Version 3.4.0 and higher
Operating system	Microsoft Windows ® 7, Vista or XP with NTFS; English and German versions supported
Data import / export	ASCII file format