

# SECULIFE | ES<sub>PRIME</sub> Electrosurgical Analyzer

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## SECULIFE ES<sub>PRIME</sub> for functional testing of Electrosurgical generators

- Capture, Store, Print RF Waveforms
- Industry Standard RF Current Measurement for **multiple pulsed waveforms**
- Automated User-Definable Testing Sequences
- Ultra-fast digitization of the complex RF waveform
- USB- (3), RS232-, and Ethernet communication Ports
- Remote communications capability with ESU Generators
- Embedded Real-Time operating System with 1/4 VGA color touch screen display



Using internal precision non-inductive test loads in the range of 0  $\Omega$  to 6400  $\Omega$  in a previously unavailable 1  $\Omega$  increment the SECULIFE ES<sub>PRIME</sub> offers biomedical engineers, service engineers and manufacturers compatibility. Just in case, we have included the capability to add an external load, guaranteeing 100% test load requirement compatibility for years to come.

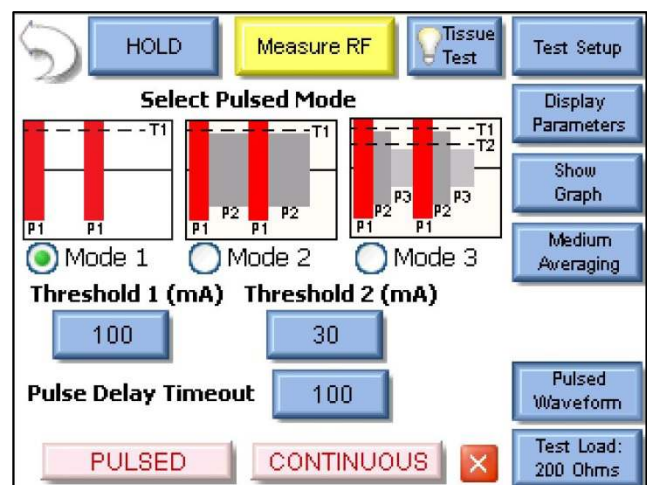
Using a RF current range of 2 mA to 7000 mA RMS (power range of 500 Watts RMS), the SECULIFE ES<sub>PRIME</sub> surpasses all other current and previously available analyzers in measurement range. The calibration quality accuracy of our new analyzer shatters all previous barriers seen with other so-called full-featured analyzers and opens the door for end-users to perform test procedures in the field as well as calibration procedures on even the newest generators from leading manufacturers all with unprecedented precision and accuracy.

Features like automated power load curve tests, with multiple power steps per load setting, and automated user-definable test sequences, with an unlimited quantity of steps, each step having virtually unlimited ASCII text description capability, further set the new SECULIFE ES<sub>PRIME</sub> in a class of its own.

You can even program an automated REM/ARM/CQM and/or RF leakage test report in the SECULIFE ES<sub>PRIME</sub>. The utilization of state-of-the art technology and the strict adherence to the electrosurgery industry's standard of RF current measurement (instead of voltage measurement) helps ensure electrosurgery generator manufacturer acceptance of readings taken with the SECULIFE ES<sub>PRIME</sub>, not only on conventional "continuous output" waveform generators, but also on "pulsed output" waveform generators.

The new SECULIFE ES<sub>PRIME</sub> is in a class of its own, and its real time operating system offers virtually unlimited expansion capabilities in the future that make it the ONLY logical choice for customers looking for a full-featured analyzer.

**The high sampling rate allows the measurement and analysis of pulsed waveforms with up to three different amplitudes.**



### Purchase parts

- 1 Operating Instruction
- 1 Cable set

# SECULIFE | E<sup>S</sup>PRIME Electrosurgical Analyzer

## Technical Data

Device:

Display	14.5 cm QVGA 18 bit color touch screen
Construction	19.8 x 31.8 x 57.2 cm/Aluminum
Weight	31 lbs (14 kg)
Face Plate	Lexan/Back Printed
Operating Range	15 to 40 °C
Storage Range	-20 to 65 °C
Connections	Input: I/O 4 mm Safety Jacks 3x USB, 1x Serial, 1x Ethernet, 1x PS/2 Keyboard/ Mouse Output: 1x BNC Scope / Hypertonics 25-pin Footswitch connector Footswitch connector

### Measurements

A/D Resolution	14 Bits
A/D speed	64 MSPS
Bandwidth	50 kHz – 10 MHz
Measurement Accuracy	1 % Reading
Current Range	2.0 – 700.0 mA RMS [low range] 20 – 7000 mA RMS [high range]
Current Resolution	0,1 mA RMS [low range] 1 mA RMS [high range]
Power (Watts) Range	500 Watts
Power Resolution (Watts)	0.1 Watts
Crest Factor Range	1.4 to 500
Crest Facto Resolution	0.1
Input Voltage Range	0.20 – 70.0 mV RMS [low range] 20 – 700.0 mV RMS [high range]
V - Resolution	0.01mV (Low Range) 0.1mV (High Range)
mV Peak/Peak-to-Peak Range	0.0 to 1.0
mV Peak/Peak-to-Peak Reso- lution	0.1

### LOAD BANK

Internal setup/Load and selection Relays	10 kV, 5 A rated Reed Relays
<b>INTERNAL LOAD SELECTION</b>	
Internal Load Range	0 to 6400 ohms
Internal Load	1% Non-inductive
Internal Load Power Ratings	1 ohm: 25 W 2 ohm: 50 W 4 ohm: 100 W Remaining Loads: 225 W
Load Bank Duty Cycle	10 Seconds on, 30 Seconds off
Load Cooling	Dual 120 mm variable speed DC Fans

## Ordering information

Description	Type	Order number
Electrosurgical Analyzer	SECULIFE E <sup>S</sup> PRIME	M695U

For more information on accessories, see

- [www.gossenmetrawatt.com](http://www.gossenmetrawatt.com)

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