# Ethicon Endo-Surgery Generator Biomed Technical Information Sheet



### **Device Information**

The EES Generator for HARMONIC® and ENSEAL®

- Universal connector and automatic instrument recognition
- Touchscreen for easy setup and operation
- High-resolution display with wider viewing angles
- Compact design takes up less space in the OR
- Software updates available via USB memory stick

#### **Recommended Maintenance**

- Periodic calibration is not required
- Electrical safety testing is per facility guidelines for an advanced bipolar or ultrasonic device
- Output verification is per facility guidelines for an advanced
- bipolar or ultrasonic device
  - Output can be measured for both modalities by means of an available verification key and a standard electrosurgical analyzer

#### **Available Support**

- 24/7 technical support offered through 1-877-ETHICON (384-4266) at no charge
  - Experienced biomedical technicians available to provide information on troubleshooting, repair and maintenance

#### **Warranty Information**

- Manufacturer's warranty
  - Repair and loaner costs are covered for one year
  - Preventative maintenance and output verification are not covered by the manufacturer's warranty
- Extended warranty
  - Is available to cover the device after the manufacturer's warranty period



# **Biomed Technical Information Sheet**

### **Technical Specifications**

Main fuses	T5AL 250 V (Time-delay, 5 Amp, glass body, 5x20mm package size, quantity: 2)
Degree of protection against electric shock	Type CF applied part consisting of the HARMONIC® or ENSEAL® instruments
Class of protection against electric shock	Class 1
Ingress protection G11 enclosure	IP21
Ingress protection G11 footswitch	IP68
Main input	100-240 V, 50/60 Hz, 500 VA
Output	<ul> <li>HARMONIC® Output: 150 VAC RMS maximum 35 watts continuous, 30–80 kHz (55.5 kHz unless otherwise marked in instrument IFU)</li> <li>ENSEAL® Output: Bipolar, no neutral electrode required, 100 VAC RMS maximum, 135 watts maximum, 300–490 kHZ (330 kHz unless otherwise marked in instrument IFU)</li> </ul>
Ambient operating conditions	Temperature: 15°C-27°C Humidity: 30%-75% non-condensing Atmospheric Pressure Range: 700 hPa-1060 hPa
Transport and storage conditions	Temperature: -35°C-54°C Humidity: 10%-95% non-condensing Atmospheric Pressure Range: 700 hPa-1060 hPa
Weight	Generator: 13 lbs (5.9 kg) Cart: 37 lbs (16.8 kg) Footswitch: 8 lbs (3.6 kg)
Overall dimensions	Generator: 35.0cm x 35.5cm x 13.6cm Cart: 18.88" (48.0cm) x 22.11" (56.2cm) x 37.53" (95.3cm) Footswitch: 13.45" (34.2cm) x 7.50" (19.0cm) x 4.10" (10.4cm)





CRT11





HGA11





GEN11

FSW11

EGA11

GEN11VK

