



Shalya Sigma Touch Series

Complete Electrosurgical Solutions

Technical Specifications of Shalya Sigma 400W Electrosurgery Unit

MONOPOLAR CUT : Pure Sine wave 390 kHz
 Low - Continues, 300 W at 300 Ω, CF 1.5, Low Volt
 Pure - Continues, 400 W at 300 Ω, CF 1.5, High Volt
 Blend - Bursts 29 kHz, 250 W at 300 Ω, CF 2.5
 Endo Cut - Pulse, 400 W at 300 Ω, CF 1.5

BIPOLAR CUT : Pure Sine wave 390 kHz
 Macro - Precise bipolar cutting with hemostasis, 100 W at 100 Ω, CF 1.5
 BiCut - High voltage clean bipolar cutting, 100 W at 100 Ω, CF 1.5

LEAKAGE CURRENTS

- RF leakage current • Monopolar : < 150 mA rms
 - Bipolar : < 60 mA rms
- Low Frequency leakage currents
 - Normal polarity, intact ground : < 10 μA
 - Normal polarity, ground open : < 50 μA

FEEDBACK SYSTEM

- 3 Microprocessor Controlled 6SENSE Technology with sampling rate above 4000 sense/second
- Maximum output power deviation < 15% or 5 watts, whichever is greater at any setting with PER-98

INPUT POWER (other ratings available on request)

Operating Voltage : 180-265 Volt AC, 50-60 Hz
 Max. Power input : 1000 VA, Fuse : 6 A, UPS Backup : 1.2KVA

MONOPOLAR COAG : Damped Sine wave 460 kHz
 Soft - Continues at 84 kHz, 150 W at 500 Ω, CF 4.0,
 Swift - Repetition Frequency 42 kHz, 120 W at 500 Ω, CF 6.2
 Fulgurate - Repetition Frequency 30 kHz, 120 W at 500 Ω, CF 7.0
 Spray - Randomized Repetition 30 kHz<f<50kHz, 120W at 500 Ω, CF 8.0

BIPOLAR COAG : Pure Sine wave 390 kHz
 Micro - Lower voltage, 100 W at 100 Ω, CF 1.5
 Standard - Medium voltage, 100 W at 100 Ω, CF 1.5
 Force - Higher voltage, 100 W at 100 Ω, CF 1.5

PREM SYSTEM

Measuring Frequency : 80 kHz ± 10 kHz.
 Measuring current : < 10 μA
 Acceptable Resistance Range
 Dual Area PREM Patient Return Electrode : 5-135 Ω (Adaptive)
 Single Area Patient Return Electrode : < 10 Ω

DESIGN STANDARD

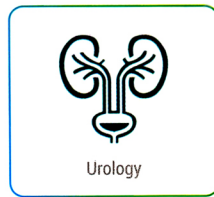
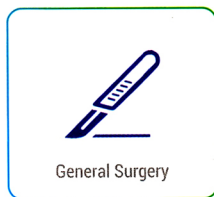
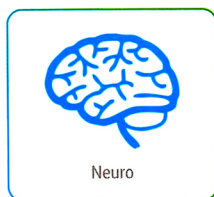
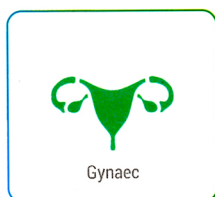
Classification according to the EC- Directive 93/ 42/ EEC: Class IIb
 General Safety Standards: IEC 60601-1-1, IEC 60601-2-2
 EMI/EMC Compatibility Standard: IEC 60601-1-2
 IS Safety Standard: IS 7583

DIMENSIONS

L x W x H in cm - 38 x 31 x 12, Weight in kg < 6

Surgical Applications :

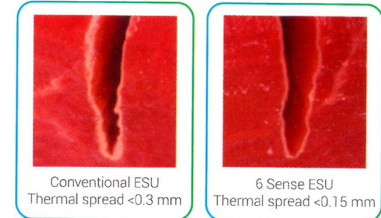
Useful for wide range of surgical application as : Plastic, Neuro, ENT, Spine, Ophthal, Laparo Surgery, Ortho, Open & General Surgery, Pediatric, Onco, Gynecology, Hernia, GI Endocut, Papillotomy, Polypectomy, Under Water Urology, TCRE, Hysteroscopy, Thoracotomy, Thoracic and Cardiac Surgery, Open, Endoscopic, Laparoscopic and Minimally Invasive Surgery.



Features of Sigma Touch Series

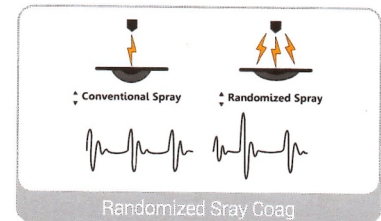
1 6SENSE Technology- more and more sensible...

This is a recent innovation in field of advance feedback controlled Electrosurgical Technology. System maintains the set power over wider range of tissue by sensing -voltage, current, power, tissue density, patient return electrode monitoring and leakage RF current- at "2000 TIMES" per second.



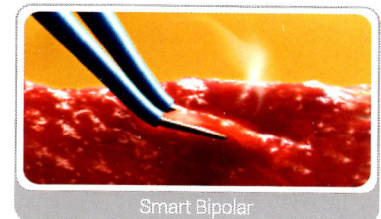
2 Randomized Spray Coag

In conventional spray coag, beam tends to follow the same path left by previous spark resulting in non uniform coagulation over larger area. By randomizing spray frequency & amplitude, spark tends to take multiple paths resulting coverage of larger area.



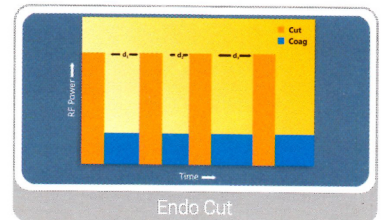
3 Smart Bipolar

Auto bipolar & bicoag alarm for modern bipolar tools.. BiCoag Alarm : Audio feedback after completion of Bipolar Coag, reduces charring and sticking. AutoBip : Automatic Start & Stop of Bipolar current by tissue sensing without foot switch activation.



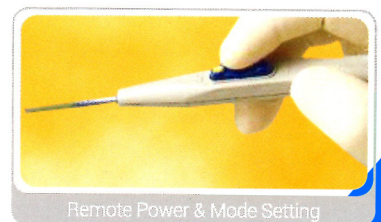
4 Pulse Cut

For polypectomy & papillotomy, cutting is smartly divided in cut & pause, so that coagulation occurs in each pause. The system is intelligent to change the pause interval as tissue density changes, hence produces fine cutting with coagulation effect.



5 Remote Power & Mode Settings

Surgeon can change power and mode settings of ESU directly from sterile surgical field using conventional hand switching electro-surgical pencil.



6 Argon Upgradable

Argon delivery along with electro-surgical RF current allows efficient non-contact, uniform superficial and faster coagulation for better clinical results. Very effective for superficial & high impedance tissue and reduces collateral tissue damage, hence suitable to use with delicate tissue. Argon enhancement reduces smoke during open and endoscopic surgeries.

