



Name: Electrosurgical unit (ESU)

Purpose

Using high-frequency (HF) electrical currents to coagulate, dissect, fulgurate, ablate and shrink tissue in general surgery. The unit can be used in other surgeries such as gynecology and urology.

General Description/ System Components

Consists of a generator/control unit, handpiece with several electrodes, and a foot switch.

Technical Specifications

Category	Specification	Compliance		If non-compliant, state your specs
		Y	N	
Mobility	Portable, on boom's tray			
	Dimensions (cm) ≤ 40 (w) x 30 (H) x 40 (D) $\pm 10\%$			
Design	Fully microprocessor-controlled, with (POST)			
	Touchscreen-based menu-driven operation			
	Display of all settings and alarms			
	Pre-programmed settings			
Modes	Monopolar & Bipolar			
	Pure cut			
	Pure coagulation			
Modes, cont.	Blended cut			
	Blended Coagulation			
	Spray			
	Bipolar cut			
	Bipolar coagulation			
	Bipolar blended			



Category	Specification	Compliance		If non-compliant, state your specs
		Y	N	
	Endoscopic cutting mode			
Output	Operating frequency: 500 kHz \pm 10%			
	Vp max: Up to 4 KV \pm 10%			
	Duty cycle: cut high - specify			
	Duty cycle: cut low - specify			
	Duty cycle: coagulation - specify			
	Duty cycle: cut blend - specify			
Output power (on human simulated resistance) – larger values are better	All power modes are continuously adjustable			
	Monopolar Pure Cut: up to 400 W			
	Monopolar Blend: up to 250 W			
	Mono Coagulation: Spray/Fulgurate/Desiccate up to 120 W			
	Bipolar Coagulation: up to 120 W			
Safety	Continuous patient impedance monitoring			
	Auto generator deactivation with return electrode fault			
	Return Electrode Contact Quality Monitoring (REM) System			
	Isolated RF Output			
Alarms	All safety breaches: two tone audio-visual alarm			
Disposables	Disposable 2-switch active electrode handles (x100)			
	Disposable return (dispersive/neutral) electrodes: Three sizes: large, medium, and small. (x100)			
Accessories – Reusables (one each)	Ball electrode, straight, \varnothing 2 mm			
	Ball electrode, angled, \varnothing 2 mm			
	Knife electrode straight, 25 mm			
	Lancet electrode straight, 20 mm			

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	Needle electrode, short, 0.7 x 14 mm			
	Wire loop electrode, Ø 5 mm			
	Knife electrode straight, 25 x 3.5 mm			
	Spatula electrode, straight, 2 x 16 mm			
	Upgradeable with Argon module			
Optional	Wrap around pad (neutral) not requiring external gel			
	Built-in circuitry for over-voltage protection			
	Restores last power setting with single button operation			
	Defibrillator-Proof Patient Return electrode			
Similar to:	Erbe VIO 3	This Area is for Technical Evaluation by Consultant		
Typical Photo				