



French leader in electrosurgery since 1947

SEAL II



Universal electrosurgical platform with latest generation microprocessors for the providing of energies which are in real time adapted to the evolution of the tissues (Power Feedback).

Reference: V10GMS



Full electrosurgical unit 370 W

Complete electrosurgical units 370 W with a wide range of monopolar and bipolar effects



Endo 1 / Endo 2

Specific waveforms dedicated to endoscopic polypectomy



Argon system

Argon module for a complete solution: Argon Plasma Coagulation for the hepatic and endoscopic surgery



PLASMA EDGE

The gold standard of bipolar plasma resection power dedicated for bipolar TUR and hysteroresection procedures



THERMOCISION

A unique system which can seal, dissect and cut in one instrument, dedicated for Thyroid and delicate procedures



VESSEL SEALING

Safe and efficient up to 7 mm vessel diameter with Validation signal after sealing process



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Special features:

- Friendly user interface digital
- Saving **100 personal programs**.
- 3 High Frequency outputs : 1 monopolar, 1 bipolar and 1 vessel sealing
- Saline cut with PLASMA technology : - TURP/TURV
- Intra-uterine resection TCRE
- Full range of single use Plasma EDGE compatible electrode

PLASMA
EDGE



- Argon capability with the Argon Module System
- Recognition of the vessel sealing instruments
- **Reusable Cutting and Sealing forceps :**
 - * **THERMOCISION** forceps :
 - Completely **reusable**
 - **Dissection, sealing and cutting** in one act
 - * **THERMOCUT** forceps :
 - Completely **reusable** and autoclavable
 - Safe and efficient sealing up to 7 mm Ø vessels
 - Completely dismountable for safer cleaning
 - Single use blade
 - Cable **not** attached
 - * **THERMOCLAMP** forceps:
 - Completely **reusable**
 - open surgery clamps in **16, 22 and 32 cm**



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INPUT FEATURES	
Main supply	220-240 V- 50 or 60 Hz
Safety	Class 1 type CF
Maximum power	1200 VA (600 W)
OUTPUT FEATURES	
Waveform	Pure Sinewave and Pulsed Sinewaves
Frequency emitted	450 KHz
Modulation frequency	21 KHz
MONOPOLAR CUT	
FORCED PURE CUT : 370 W / 450 Ω , forced cut	
BLEND 1 : 340 W / 450 Ω , forced cut with light haemostatic effect	
BLEND 2 : 330 W / 450 Ω , forced cut deep haemostatic effect	
ENDO 1/ ENDO 2 : 200 W / 250 Ω for gastrointestinal endoscopy (polypectomy)	
MONOPOLAR CUT UNDER IRRIGATION (<i>glycine</i>)	
MONOPOLAR RESECTION : 350 W / 450 Ω for transurethral resection of prostate (TURP/ TURB / TCRE)	
MONOPOLAR COAGULATIONS	
SOFT COAG : 170 W / 250 Ω , soft contact coagulation for vascular surgery, pediatric and micro surgery	
DESSICATE : 210 W / 450 Ω , forced contact coagulation for all surgeries	
FULGURATE : 100 W / 900 Ω , spray coagulation for haemostasis of large area	



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Coagulation with ARGON (in option), gasflow : 0 to 10 L/min	
Argon Plasma Coagulation	Coagulation by ionized gas, 100 W / 900 Ω (open surgery)
Pulsed Argon Plasma	Coagulation by ionized gas, 100 W / 900 Ω (gastrointestinal endoscopy)
PLASMA EDGE CUT UNDER SALINE LIQUID (NaCl 0,9%)	
THIN LOOP / Needle	TURB & uterine resection
THICK LOOP	TURP
VAPORIZATION	TURP & uterine resection
BALL	TURP; TURB & TCRE, for coagulation in saline
BIPOLAR COAGULATION	
SOFT Coagulation	100 W / 25 Ω soft coagulation, for neurosurgery and laparoscopic surgery
FORCED Coagulation	170 W / 75 Ω for all tissues (<i>vascularized and adipose tissues</i>)
SALINE plasma coagulation	180 W / 75 Ω for coagulation under saline liquid

VESSEL SEALING SYSTEM
Maximum power: 150 W / 30 Ω Vessel sealing until 7mm of diameter with reusable forceps. Jaws are completely insulated: thermal spread doesn't exceed 2mm. Action reverse mode for Thermocut handle: clamping pressure is superior to 700mmHG. Automatic output power adjustment following forceps connected THERMOCLAMP forceps for open surgery, with a vessel clamping device THERMOCUT 10 mm forceps for open surgery (20cm) and laparoscopy (30cm), with vessel autoclamping system and integrated cut system, straight jaws (10 mm) THERMOCUT (5 mm) forceps for open surgery (20cm), laparoscopy (30cm), with vessel autoclamping system and integrated cut system THERMOCISION forceps for dissection, haemostasis and cutting in one act (thyroidectomy)



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ERGONOMY	
User's interface	KEYBOARD
HF power display	Digital display in maximum Watts
Adjustments	1 W / step
MEMORIZATIONS	Storage of interventions parameters :mode of cut and coagulation, power adjustments.
Automatic bipolar coagulation	Automatic start and stop by impedance contact sensing on forceps.
Personal programs	Memorization of surgeons' adjustments (<i>Possible memorization of several thousand adjustments</i>).
MONOPOLAR OUTPUTS	International plugging for hand switches with a 3 pins in line plug and for cable with one 4mm male plug
BIPOLAR OUTPUTS	Plugging for wire with two 4 mm diameter male plug (interaxial spacing 28.5 mm)
Twin footswitches	1 socket for : Monopolar and bipolar cut Monopolar and bipolar coagulation
Single footswitches	2 sockets for : Bipolar coagulation Vessel sealing system
Hand control	Monopolar cut and coagulation control on handswitch



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SAFETIES	
Neutral Electrode Safety	- Monitoring of skin contact with single use adhesive double plate - Audible and visual alarm in case of contact failure or short circuit, or electrical discontinuity with inhibition of HF power. - Compatible with adult and children plates
Single plates	Monitoring of electrical continuity between unit and neutral electrode.
HF control power	Monitoring of HF power emitted, with automatic power shutdown in case of excessive HF Power (IEC 60601-2-2).
HF leakage	$I_{hf} < 100\text{mA} / 200 \Omega$ ($< 130 \text{ mA} / 200 \Omega$ in fulgurate mode)
Electrical safeties	class 1, CF type ($I < 1\mu\text{A}$ in Normal Conditions) Defibrillation proof device Short circuit protection $> 10 \text{ s}$
Thermal safety	Forced ventilation
HF voltage	Regulated (automatic limitation of maximum voltage)
Limited activation	Automatic stop after 1 minute of continuous activation. Normal working is restored after interruption of the control.
Auto check starting	When power on, the unit is checking all accessories connected and internal circuits