

- User Friendly
- Enhanced safety
- A New Procedure technology
- Light weight and compact design
- Safe, Precise
- For micro and minor procedure economical

In the uses of surgical diathermy, the technical ability of the unit combined with plain safety is of prime importance-both for the patient and the user. There must be no possibility of accidental, undesirable results in the use of Rajas Electro-Surgical Units been developed.

The Rajas Surge-50 MP is newly developed Electro-Surgical units of particular safety and reliability. The Surge-50 MP as the most refined unit of its kind in the world.

### **Advanced Performance Features**

#### **Monopolar**

Cut Modes:

- Pure Cut: Suitable for Micro and Minor procedure.
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- Blend-I: Preset blend I option for cutting with change in degree of hemostasis suited for Gyne procedures.
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- Blend-II: Preset blend II mode allows for cutting and simultaneous coagulation.

Three Coag Modes:

- Soft Mode: For low voltage coagulation, suitable for laparoscopic and delicate tissue work.
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- Forced Mode: This operating mode covers all the demands of standard coagulation. the surgeon can work quickly and effectively.
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- Spray: For non-contact large tissue area coagulation with minimum depth of necrosis.

#### **Bipolar**

Two Modes:

- Micro: For delicate tissue work by control desiccation without charring, adhesion or blanching of adjacent tissue (ophthalmic & neuro-surgery).
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- Coag: High current low voltage pulsed bipolar output for high-pressure vessel sealing with ligation sure artery forceps. also suitable for bipolar needle ablation.

### **Advanced Safety Features**

- Patient Electrode Monitoring Technology monitors the quality and quantity of contact between the patient and the patient plate. If this contact is not proper the unit deactivates and alarms, thus eliminating risk of passive electrode site burns. It also deactivates the unit and alarms in case of any discontinuity in the patient plate cord.
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- Isolated RF output directs current to return back to the generator to reduce the risk of alternative site burns and to ensure patient safety in the case of any discontinuity in patient plate cord. This current has no reference to ground so it does not cause noticeable interference with the ECG monitor, Cardiac pacemaker etc.
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- Independent activation of unipolar and bipolar output to protect against inadvertent output from an idle accessory lying on or near the patient or surgical staff.
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- Class "2" leakage cancelling, a must for lengthy procedures like Cardiac surgery (CABG) etc.
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- Ergonomically designed trolley to house cautery and accessories.
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- Small and light weight portable unit.
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- Smart Modular Technology for fast and effective after sales support (service).

#### Weight & Dimensions

Width : 475 mm

Height : 145 mm

Depth : 310 mm

Weight : 9 Kgs.

#### Output Waveforms

Bipolar : 330 KHz sinusoid

#### Monopolar Cut

Pure : 330 KHz sinusoid

Blend I : 330 KHz sinusoid

Blend II : 330 KHz sinusoid

#### Monopolar Coag.

Desiccate : 330 KHz Pulse

Fulgurate : 330 KHz Pulse

#### Low Frequency Leakage (50-60 Hz)

Source current, patient leads, all outputs tied together.

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|-------------------------------------------|---------|
| • Normal polarity, intact chassis ground  | < 10 mA |
| • Normal polarity, ground open            | < 50 mA |
| • Reverse polarity, ground open           | < 50 mA |
| • Sink current, 140V, applied, all inputs | < 50 mA |

#### Input Power Requirements

Operating range is 180 – 260 volts. Maximum current is 5 amperes (in cut, 240V nominal).

#### High Frequency Leakage

Bipolar : Less than 50 mA rms

Monopolar : Less than 100 mA rms

#### Power Readouts

Agree with actual power into rated load to within + 15% or 5 watts, whichever is greater. Dosage error monitor.

#### Cooling

Convection, no fan

Audio Volume

The mode indicator tones are adjustable to a minimum level of 45 dB at 1 meter. The alarm tones are not adjustable and are set at 65 dB minimum at 1 meter

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