

### **Technical Specification for Electrosurgery unit cum Vessel sealing**

1. The unit Should be a Microprocessor controlled 350 KHz output, up to 400 Watts class Electrosurgery unit with TFT single display having Touch Screen(Key Touch).
2. The unit should have fixed sockets for monopolar ( 2 nos.) and Bipolar (2 /3 nos.) available. They are positioned of two different sides with proper labeling and different connector shapes, to avoid any error.
3. The Unit should have heat dissipation without external air passing inside the unit i.e. Internal Cooling system or Cooling with temperature controlled fan .
4. The Unit should have precise Monopolar and bipolar modes for fine  $\mu$ -surgery applications.
5. The unit should have facility to use very less voltage from 40 Volts for precise applications. Possible to use as low wattage as 0.1 W for precise neuro applications
6. The unit should have the facility to upgrade with twin coagulation for simultaneous activation of 2 electrodes. available as a standard function
7. The unit should have Bipolar Auto start functions.
8. Automatic control of output power according to all currently available electrosurgical regulative technologies.
11. Should have the facility for preview function to shows the expected target tissue effect on display even prior to activation.
12. Should have the facility to be up to date with the upgradable feature on site.
13. Should have facility to program more than 300 with procedure or surgeon's name.& locations
14. Should have facility of self check of the unit after every On & Off of the unit.
15. Should have facility to upgrade with optional Bipolar cut & coagulation up gradation as a standard function
16. . Possibility for Upgrading to APC, irrigation system, smoke evacuation system.
17. Unit should have Type: Protection Class CF, Class 1, IIb,
18. Should have continuous patient monitoring with return electrode (neutral electrode).
19. Neo-Natal safety system and neutral electrode safety system for the pediatric applications .
20. Reusable Vessel Sealing instruments for Open Surgery- FDA/European CE approved instruments for 7mm Vessel Sealing with 150 mm -160mm length. .
20. The unit should have special solution for changing the power settings without touching the equipment through footswitch or handswitch
21. The unit should be supplied with nonstick bayonet bipolar forceps of 1mm blunt & 0.4 mm fine top having length of 170mm – 200mm with guide pin maintains parallel.

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*(at the bottom)*

22. The unit should be supplied with all standard accessories to make the system to work full functional includes (All accessories should be from same manufacturer):

- a). Two pedal and Single pedal foot switch-1 No.
- b). Non Stick Bipolar forceps & cable – 3 Nos.
- c). Reusable Monopolar Pencil with cable- 2Nos.
- c). Disposable Monopolar Pencil – 10 Nos.
- d). Reusable Patient plate with cable - 5 Nos.
- e). Disposable Patient Plate with cable – 50 pics
- e). Reusable vessel sealing for open – 1 No.

*(Muzha Sengul)*  
*Zengul*  
*(with Sengul)*