



## **ME** 102

The compact Electrosurgical Unit  
with high Capacity



The KLS Martin ME 102 is a 100-W class, universally applicable HF electrocautery unit with excellent cutting and coagulation characteristics. It has been designed to satisfy the special demands of clinical and outpatient applications.

## **ME** 102

### The compact Electrosurgical Unit with high Capacity

#### **Features at a glance**

- Smooth or scabbed cut thanks to 100-W power generator
- 80-W bipolar output power
- Automatic power adaptation to different cutting speeds and tissue impedances
- Contact coagulation for fast hemostasis
- HF activation via manual switch or foot switch
- High-precision dosage thanks to stepless output power regulation for any mode of operation
- Easy and safe handling
- Clear front panel layout
- MICRO switch for high-precision and micro-surgery
- Neutral-electrode (NE) monitoring
- Bipolar „Auto-Coag-Start“ function
- CF-type connection for utmost patient safety
- Memory function

## KLS Martin **ME** 102 HF Surgical Unit



### 1 MICRO function

The MICRO function key of the KLS Martin ME 102 reduces output power to about one third. This allows high-precision power dosage by means of the 270-degree rotary switch. The MICRO function is available for all operating modes.

### 2 "Monopolar CUT" function

The KLS Martin ME 102 provides two different cutting currents:

- Monopolar cutting 1 for a smooth, scab-free cut
- Monopolar cutting 2 for a smooth cut with some scab formation

### 3 High degree of patient safety thanks to neutral-electrode (NE) monitoring

The integrated KLS Martin NE monitoring system automatically recognizes whether a single or a split neutral electrode is connected. In the latter case (using for instance KLS Martin Twin-Pad), the ME 102 ensures continuous NE monitoring. Whenever there is insufficient contact between the electrode and the patient, an optical and acoustical alarm signal is triggered and HF power output is blocked immediately.



#### 4 Individual power setting

The large, 270-degree rotary switches allow straightforward and easy-to reproduce output power setting.

#### 5 Socket for monopolar handles or instruments

The ME 102 allows connection of monopolar handles and instruments fitted with either the KLS Martin coaxial connector or a US 3-pin connector. The KLS Martin range of accessories provides a comprehensive selection of instruments for different indications.

#### 6 Bipolar „automatic start“ function

The KLS Martin ME 102 allows bipolar coagulation to be started automatically as soon as the two branches of the instrument get into contact with the tissue. Alternatively, the HF current may be activated via the foot switch.

#### 7 Socket for the bipolar instrument

In many fields, bipolar coagulation is the method of choice. With its 80-W generator, the KLS Martin ME 102 is well suited to any bipolar application.

## Ordering Data and Technical Data



### Ordering Data

|                     |   |                     |   |
|---------------------|---|---------------------|---|
| <b>80-010-02-04</b> | <b>Electrosurgical unit KLS Martin ME 102 with mains cable, without accessories</b>         | <b>80-108-01-04</b> | <b>Accessory set monopolar for ME 102 for foot switch operation, large, consisting of:</b>  |
|                     |   | 80-220-02-04        | 1 smartPen electrode handle without pushbuttons, for 4-mm electrodes, with KLS Martin plug  |
|                     |   | 80-332-03-04        | 1 Rubber neutral electrode, 8 x 16 cm, with connection cable of 4 m                         |
|                     |   | 80-370-50-04        | 1 Rubber band, with holes, 50 cm  |
|                     |   | 80-371-01-04        | 1 Button for rubber band  |
|                     |   | 80-408-00-01        | 1 Electrode box for 8 electrodes  |
|                     |   | 80-505-00-04        | 1 Cleaning pad for electrodes, sterile packed, SU = 100/pack                                |
|                     |   | 80-510-04-04        | 1 Lancet electrode, straight  |
|                     |   | 80-515-04-04        | 1 Knife electrode   |
|                     |   | 80-520-04-04        | 1 Needle electrode  |
|                     |   | 80-540-04-04        | 1 Wire loop electrode, Ø 5 mm   |
|                     |   | 80-542-04-04        | 1 Wire loop electrode, Ø 10 mm  |
|                     |   | 80-560-04-04        | 1 Ball electrode, Ø 2 mm  |
|                     |   | 80-562-04-04        | 1 Ball electrode, Ø 4 mm  |
|                     |   | 80-823-02-04        | 1 Double-pedal foot switch, with connection cable of 5 m                                    |
|                     |   | <b>80-108-02-04</b> | <b>Accessory set monopolar for ME 102 for hand switch operation, small, consisting of:</b>  |
|                     |   | 80-217-13-04        | 1 smartPen electrode handle with two pushbuttons, for 4-mm electrodes, with KLS Martin plug |
|                     |   | 80-332-03-04        | 1 Rubber neutral electrode, 8 x 16 cm, 4 m cable  |
|                     |   | 80-372-00-04        | 1 Textile band with velcro strap, 90 cm   |
|                     |   | 80-505-00-04        | 1 Cleaning pad for electrodes, sterile packed, SU = 100/pack                                |
|                     |   | 80-511-04-04        | 1 Lancet electrode, angled  |
|                     |   | 80-515-04-04        | 1 Knife electrode   |
|                     |   | 80-520-04-04        | 1 Needle electrode  |
|                     |   | 80-562-04-04        | 1 Ball electrode, Ø 4 mm  |
| <b>80-108-00-04</b> | <b>Accessory set monopolar for ME 102 for hand switch operation, large, consisting of:</b>  |                     |   |
| 80-217-13-04        | 1 smartPen electrode handle with two pushbuttons, for 4-mm electrodes, with KLS Martin plug |                     |   |
| 80-332-03-04        | 1 Rubber neutral electrode, 8 x 16 cm, with connection cable of 4 m                         |                     |   |
| 80-370-50-04        | 1 Rubber band, with holes, 50 cm  |                     |   |
| 80-371-01-04        | 1 Button for rubber band  |                     |   |
| 80-408-00-01        | 1 Electrode box for 8 electrodes  |                     |   |
| 80-505-00-04        | 1 Cleaning pad for electrodes, sterile packed, SU = 100/pack                                |                     |   |
| 80-510-04-04        | 1 Lancet electrode, straight  |                     |   |
| 80-515-04-04        | 1 Knife electrode   |                     |   |
| 80-520-04-04        | 1 Needle electrode  |                     |   |
| 80-540-04-04        | 1 Wire loop electrode, Ø 5 mm   |                     |   |
| 80-542-04-04        | 1 Wire loop electrode, Ø 10 mm  |                     |   |
| 80-560-04-04        | 1 Ball electrode, Ø 2 mm  |                     |   |
| 80-562-04-04        | 1 Ball electrode, Ø 4 mm  |                     |   |



**Our Accessories Catalog contains KLS Martin's entire range of electrocautery instruments. Just contact us to get your personal copy!**

| Technical Data       |  |
|----------------------|--|
| Power requirements   | 115 V/230 V; 50/60 Hz  |
| Line fuses           | 115 V: T 2,0 A<br>230 V: T 1,0 A                                     |
| Power input          | without HF output approx. 16 VA, at max. power output approx. 180 VA |
| Class of protection  | I  |
| Nominal frequency    | 500 kHz  |
| Modulation frequency | 30 kHz   |
| Mode of operation    | intermittent INT 10 s/30 s; corresponds to a duty factor of 25%      |

| HF output values    |                     |
|---------------------|---------------------|
| Type of current:    |                     |
| Macro Mode          | Power               |
| Cut 1               | max. 100 W at 600 Ω |
| Cut 2               | max. 90 W at 600 Ω  |
| Contact coagulation | max. 70 W at 600 Ω  |
| Bipolar coagulation | max. 80 W at 100 Ω  |
| Type of current:    |                     |
| Micro Mode          | Power               |
| Cut 1               | max. 30 W at 600 Ω  |
| Cut 2               | max. 30 W at 600 Ω  |
| Contact coagulation | max. 25 W at 600 Ω  |
| Bipolar coagulation | max. 25 W at 100 Ω  |

|                            |  |
|----------------------------|--|
| Interference suppression   | Limit values as per EN 55011 and IEC 60601-2-2 |
| Interference immunity      | as per IEC 801                                 |
| Classification as per MDD  | II b   |
| LF and HF leakage currents | as per IEC 60601-2-2                           |
| Type of equipment          | CF; defibrillator-proof                        |
| Dimensions                 | Width 256 mm                                   |
|                            | Height 97 mm                                   |
|                            | Depth 320 mm                                   |
| Weight                     | approx. 4.6 kg                                 |
| CE Marked                  | in conformity with 93/42/EEC                   |

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