

ALSATOM SU MPC

SU 50 MPC
SU 100 MPC
SU 140 MPC
SU 140/D MPC
SU 140/BD MPC

ELECTROSURGICAL UNITS FOR
MONOPOLAR AND BIPOLAR SURGERY



Quality System Certification



ISO 9001/EN 46001



CE 0051

The ALSATOM MPC system are a new generation of electro-surgical units developed using the digital technology with control system by microprocessor, the latest today available for this kind of devices and the only one able to guarantee both performances really suitable to the actual surgical needs and the very high levels of safety, today compulsory according to the latest safety rule for this type of devices (IEC 60601-2-2 III ed., today already European Standard EN).

ALSATOM line is available with 5 models, 4 for monopolar/bipolar use, 1 for bipolar use only.

ALSATOM SU50-MPC is the basic model for monopolar/bipolar use, has a max output power of 80W, can be used only by setting single foot-switch and it is suitable for general surgery, ORL, dermatology, dental surgery and etc.

ALSATOM SU100-MPC is the same to the model SU50-MPC but, having a max output power of 140W, it is able to meet better every surgical need, including gynaecology, veterinary and etc. This model is also suitable for fulguration in the bladder under liquid.

ALSATOM SU 140-MPC has the same output power of the model SU100-MPC, but it is more complete as regarding its usage function. In fact it has 2 separate controls, complete of specific display, for the independent setting of cutting and coagulating power and it can be used not only by the foot-switch but also by the hand-switch (cutting/coagulating) pencil.

ALSATOM SU140/D-MPC is the most complete model of series . It is the same to the model SU140MPC, can be used with handswitch pencil, but it has a technical feature not in common with the units for minor surgery. In fact it is equipped with a double foot-switch for the activation of cutting and coagulation and therefore it results not only the most complete and functional answer for all the above-mentioned needs but even the ideal solution for the first aid, the gastroenterology and etc.

ALSATOM SU 140/BD-MPC is the model for bipolar use for cutting or coagulation with a max output power of 100W. It is the same to the model SU 140 MPC with double foot-switch and 2 separate controls, complete of specific display, for the setting of cutting and coagulation powers.

CONSTRUCTIONAL TECHNOLOGY

- **Microprocessor control – MPC system**

MPC system is a advanced control system of the functioning parameters able to grant a level of performances and safety otherwise unobtainable. The system which performs a complete autodiagnosis switching on the unit and check it in real-time during the use, allows an extremely safe and easy-to-use because, in case of faults, blocks automatically the output power informing the users through specific error codes.

- **Automatic adjustment of output powers with dynamic control and stop in case of faults-ADC system with OUTPUT ERROR CONTROL**

The output powers are controlled by the microprocessor that ensures an automatic very efficient and dynamic optimisation in every surgical field, carrying out 7000 tests/second thus granting the best surgical results always using the lowest possible power.

This system grants also the maximum safety because, as nowadays it is compulsory according to the latest safety rule, stops in real time the output

power, in case of internal faults, and therefore prevents from a sudden and potentially dangerous output power exceeding the selected value.

This system checks also the HF leakage currents and, if there are any load unmatching impedances (patient tissue) reduces automatically the RMS voltage to safety levels.

- **Power setting “*Micro Type*” with control display**

Control display for models SU140, SU140/D, SU140/BD

- **Neutral plate safety circuit and activation signals “sounds and lights”**

In compliance with IEC Standard 60601-2-2 III ed. (see technical features)

- **Pneumatic foot-switches**

All the foot switches are “*high safety type*” water proof and explosion proof being pneumatic without electrical connection.

PERFORMANCE

The Alsatom have 5 currents, 3 in the mod. 140/BD (bipolar only), to meet every need and all the currents have a starting impulse electronically controlled to get the best results by using the lowest possible output power. The currents are:

- CUT:** without modulation for pure cut without haemostasis;
- BLEND:** modulated combination of currents for cut and haemostasis for coagulating cut
- COAG:** a high voltage “*fulguration*” for coagulation without contact and with strong superficial effect. It is indispensable for many surgical needs
- MICRO:** a low voltage “*pin-point, soft*”, extremely precise with excellent depth effect (ex. for depilation in dermatology);
- BIPOLAR:** without modulation and extremely precise “*micro*” coagulation.

The model Alsatom SU140/BD-MPC has in addition to bipolar coagulation 2 currents for bipolar cut mode:

- CUT:** without modulation, for cutting;
- BLEND:** modulated for coagulating cut;



THE UNIT, THE STANDARD SET OF ACCESSORIES

- B700 - ALSATOM SU 50-MPC, without accessories
- B710 - ALSATOM SU 100-MPC, without accessories
- B720 - ALSATOM SU 140-MPC, without accessories
- B700/A - SET OF STANDARD ACCESSORIES for ALSATOM SU 50-MPC, SU 100-MPC, SU 140-MPC as follows:
 - 1 STOP/PN - single footswitch, pneumatic type, waterproof, explosion-proof
 - 1 MPE/F - autoclavable electrode-holder with m 2,5 cable
 - 2 E1 - straight knife electrode (blade)
 - 2 E5 - thick needle electrode
 - 1 E7 - thin needle electrode
 - 1 E12 - ball electrode diam.mm.2,5 – straight type
 - 1 E14 - ditto, diam.mm.4
 - 1 EIP/9 - stainless steel neutral electrode with m 2,5 cable
 - 1 FFE - fixing belt for neutral electrodes
- B700/B - ditto ditto, but with a made of flexible conductive rubber NP/GP
- B700/D - ditto ditto, for dental use, without EIP/9 and SEL/VI, but with EIP/M – manual neutral electrode with m 2,5 cable
SEL/D – set composed by 8 dental electrodes

Information about handswitch used with mod. SU 140-MPC, see: MPE/CMS, MP/CM

- B730 - ALSATOM SU 140/D-MPC, without accessories
- B730/A - SET OF STANDARD ACCESSORIES FOR MOD. ALSATOM SU 140/D-MPC
Same to B700/A set, but with double footswitch D-STOP/P
- B730/B - ditto ditto, but flexible conductive rubber NP/GP
- B730/D - ditto ditto, for dental uses, without EIP/9 and SEL/VI, but with EIP/M – manual neutral electrode with m 2,5 cable
SEL/D – set composed by 8 dental electrodes

Information about handswitch used with mod. SU 140/D-MPC, see: MPE/CMS, MP/CM

- B740 - ALSATOM SU 140/BD-MPC, as follows:
double footswitch D-STOP/P

For further accessories see:

"ACCESSORIES AND CABLES FOR BICOAGULATION, MICROBICOAGULATION, BICOAGULATION OF TURBINAL OR OF LARINX"

To connect bi polar accessories (for cut and coagulation and endoscopy as well) made by other manufacturers, see:
"ADAPTERS FOR MONOPOLAR CONNECTING CABLES (i.e. units for endoscopy) AND OF BIPOLAR ACCESSORIES"

GENERAL DETAIL OF ACCESSORIES

PENCILS

- MPE/F - Autoclavable pencil, cable m 2,5
- MPE/CMS - hand-switch pencil (CUT/COAG) 100 times sterilizable with cable m 3
- MP/CM - Ditto, disposable type (with knife, needle or ball electrode)

Reusable NEUTRAL ELECTRODES

- EIP/9 - Stainless steel neutral electrode, with cable m 2,5
- NP/GP - ditto, flexible conductive silicone neutral electrode
- EIP/M - Ditto, hand cylinder

Disposable NEUTRAL ELECTRODES

- CMS/E - reusable connecting cable, m 2,5
- EIP/DA - adhesive electrode for adults (50 pcs each pack.)
- EIP/DP - Ditto, paediatric type

TROLLEYS AND FOOT -SWITCHES

- H10 - two-shelves trolley (LxDxH cm 41x36x35)
- H10/F - Dittowith arm for the tubing of smoke aspirating unit
- STOP/PN - Pneumatic, waterproof, explosion-proof single foot -switch
- D-STOP/P - Ditto, double

SMOKE ASPIRATING UNITS

- CSU - smoke aspirating unit, complete with filter
- CSU/FILTER - Complete filtering set

PENCILS AND NEEDLES FOR MICRO SURGERY

- MLD/F - Autoclavable Light pencil, cable m 2,5
- MID - Needle-holder adapter (for pencil MPE/F, MPE/CMS series)
- AID - Insulated needle- Ø mm 0,10 for depilation
- SAD - Set of long and not -insulated needle Ø mm10 for fine cut
- SAD/1 - Ditto, Ø mm 15 for fine cut, teleangiectasia, etc.
- SAD/2 - Ditto, Ø mm 20, for fine cut, body depilation, peeling, teleangiectasia, lower limbs, etc.
- SAD/3 - Ditto, Ø mm 40, for fine cut, microcoagulation, etc.

ACCESSORIES AND CABLES FOR BICOAGULATION, MICROBICOAGULATION, BICOAGULATION OF TURBINAL OR OF LARINX

See: Alsa catalogue "Accessories for bicoagulation"

ELECTRODES FOR ELECTROSURGERY, GYNAECOLOGY and CONIZATION


Reusable or disposable, FOR DENTAL USE etc.

See: Alsa catalogue "Monopolar electrodes"

ADAPTERS FOR MONOPOLAR CONNECTING CABLES (i.e. units for endoscopy) AND OF BIPOLAR ACCESSORIES (made by other manufacturers)

See: Alsa catalogue "ADAPTERS"

TECHNICAL FEATURES

Electronic generator	According to IEC 601-1 e IEC 60601-2-2/III ed. –CE marking 0051 (93/42 CEE – Class II B)				
Classification and type / Output circuit	I – CF Floating  - protected against the use of defibrillator (HF leakage <150 mA)				
Monopolar/bipolar working frequency	475 kHz				
Mains and absorption	Volt 230/110 ~ 50/60 Hz – 260 VA (175 VA mod. SU-50/MPC)				
Cooling system	By convection without fan				
Control system – MPC System	By microprocessor with selftest and stop in case of fault (<i>Error Code Notification</i>)				
Output power system - ADC System	Real-time Automatic Dynamic Control by means microprocessor and stop in case of fault - (<i>Output error</i>)				
Neutral plate safety circuit	Connection check with automatic output power block and alarm (int ermittent sound, red light)				
Acoustic and luminous signals	According to IEC 60601-2-2/III ed. – Cut section (low sound, yellow light), Coag.section (high sound, blue light)				
Dimensions and weight (LxDxH)	Alsatom SU 50-MPC, SU 100-MPC: cm 21x24x10– kg 4.5 Alsatom SU 140-MPC, SU 140/D-MPC, SU 140/BD-MPC: cm 23x24x10 – kg 4.75				
Activation mode	SU 50-MPC	SU 100-MPC	SU 140-MPC	SU 140/D-MPC	SU 140/BD-MPC
Single footswitch	•	•	•		
Double footswitch <i>Cut/Coag.</i>				•	•
Pushbutton handswitch <i>Cut/Coag.</i>			•	•	

OUTPUT POWERS, OPEN CIRCUIT PEAK TO PEAK VOLTAGES AND CREST FACTORS

Monopolar mode		SU 50-MPC	SU 100-MPC	SU 140-MPC	SU 140/D-MPC	SU 140/BD-MPC
Cut	Pure Cut	80 W – 500 ohm Vpp 1000 – CF 1.7	140 W – 500 ohm Vpp 1200 – CF 1.7	140 W – 500 ohm Vpp 1200 – CF 1.7	140 W – 500 ohm Vpp 1200 – CF 1.7	
Blend	Blend Cut	80 W – 500 ohm Vpp 1420 – CF 2.8	120 W – 500 ohm Vpp 1450 – CF 2.8	120 W – 500 ohm Vpp 1450 – CF 2.8	120 W – 500 ohm Vpp 1450 – CF 2.8	
Coag	Fulguration Coag	80 W – 500 ohm Vpp 1950 – CF 6.9	120 W – 500 ohm Vpp 2770 – CF 6.9	120 W – 500 ohm Vpp 2770 – CF 6.9	120 W – 500 ohm Vpp 2770 – CF 6.9	
Coag micro	Soft Coag	60 W – 200 ohm Vpp 1420 – CF 2.8	60 W – 200 ohm Vpp 1420 – CF 2.8	60 W – 200 ohm Vpp 1420 – CF 2.8	60 W – 200 ohm Vpp 1420 – CF 2.8	
Bipolar mode						
Cut	Pure Cut					100 W – 500 ohm Vpp 750 – CF 1.3
Blend	Blend Cut					100 W – 500 ohm Vpp 890 – CF 1.8
Bip Coag	Coagulation	60 W – 100 ohm Vpp 400 – CF 1.4	100 W – 100 ohm Vpp 400 – CF 1.4	100 W – 100 ohm Vpp 400 – CF 1.4	100 W – 100 ohm Vpp 400 – CF 1.4	100 W – 100 ohm Vpp 530 – CF 1.7

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