

# 25 million more reasons to trust our reliability!

Clinical utility: reliable, reproducible and homogeneous tissue effects

User friendliness: intuitive, logical operation customized for clinical applications

# User-friendly multilingual stepGUIDE system

intuitive, logical operation customized for clinical applications

# State-of-the-art microprocessor technology

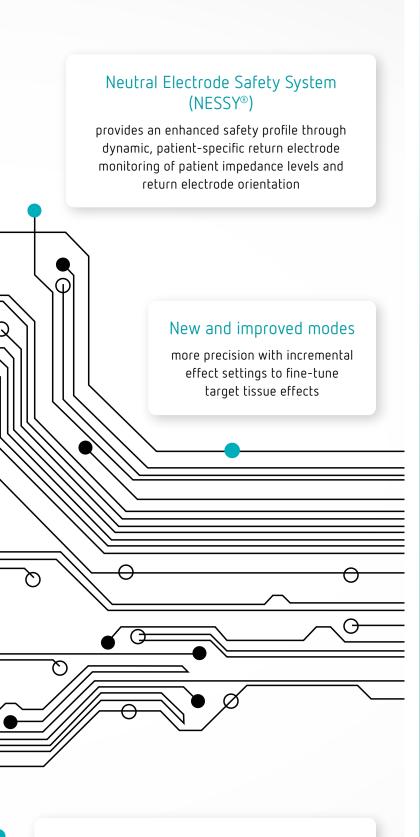
multi-processors provide measurements on target tissue at more than 25 million per second

#### Optimized patented power supply unit (400W device class – high dynamics with up to 8 Amperes)

enhances energy output especially with high and varying impedance loads, e.g. saline-enriched electrosurgical circuit

#### Proprietary Voltage and Spark Control

provide cutting results largely independent of the cutting speed, shape of the electrode and the tissue type as well as reproducible coagulation with optimally adjusted output



# Software updates and improved service via secured WiFi

offers continued access to the latest performance and application enhancements and more efficient service from Erbe Almost 170 years of innovation has helped Erbe build a foundation of trusted partnerships. And Erbe continues to set innovative standards aimed at providing optimal patient outcomes.

We have been a pioneer in the development of electrosurgery, gathering valuable clinical and technical experience you can count on.

The VIO® 3, with the latest technology upgrades and enhancements, stands proud as the newest generation in the VIO® series.

1923: Erbotherm 900 HC



1992: ICC 200 E



2002: VIO® 300 D 1.x

# WITH ITS LOGICAL AND INTUITIVE INTERFACE, THE VIO® 3 IS DESIGNED TO ENSURE OPTIMAL USER FRIENDLINESS:

Digital instrument recognition technology automatically configures the system to preprogrammed experienced starting settings and instrument-specific parameters.

The multilingual stepGUIDE system suggests these parameters and provides simple selection, adjustment and confirmation of settings and instruments.

20 program groups ensure a clear structure and optimized workflow for program settings.



# 3 Customized for clinical application



# Erbe control technology

Proprietary algorithms and state-of-the-art microprocessor technology with measurements on target tissue at more than 25 million per second for reliable, reproducible and homogeneous tissue effects.

Cutting results largely independent of cutting speed, shape of the electrode and tissue type as well as reproducible coagulation with optimally adjusted output.

### Proprietary Voltage and Spark Control

## CONSTANT VOLTAGE REGULATION

Constant voltage regulation with power dosing automatically delivers lowest effective adjusted power output in all modes, including both CUT and COAG.

#### **SPARK RECOGNITION**

Spark Recognition automatically detects the formation of micro electric sparks for controlled and reproducible cuts, e.g. length and quality, and for applicable COAG modes, to reduce carbonization and adhesion of tissue to the instrument.

Spark Regulation (micro electric sparks) provides reproducible, efficient cuts in tissue with high or extremely low impedance.

#### INITIAL CONTROL SUPPORT

For even the most challenging electrosurgical circuits

Offers optimal support during the initial cutting or coagulation stage, especially low contact impedance situations, allowing the electrode to start in contact with target tissue without delay:

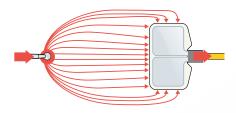
- → Power Peak System™ (PPS and Special PPS)
- → Initial Cut Support
- → QuickStart
- → Spark Support

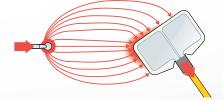


More precision with incremental effect settings to fine tune target tissue effects.

## Neutral Electrode Safety System (NESSY®)

NESSY® provides an enhanced safety profile through dynamic, patient specific neutral electrode monitoring of patient impedance levels and return electrode orientation.





Conventional neutral electrodes must be oriented properly.

#### **NESSY®**

When connected to a split neutral electrode, three safety relevant properties are monitored:

- → Connection to the VIO® 3
- → Contact of the patient's skin
- → Application direction of the neutral electrode (NESSY symmetry monitoring)



Neonatal monitoring feature provides additional temperature related status and prompt messages in critical situations.

# New and improved modes

VIO® 3 has the right mode for various applications and clinical specialties, supporting monopolar and bipolar technology, as well as our proprietary hybrid technology.

All modes have benefited from the advanced measuring technology of VIO® 3.

# CUT



autoCUT®

Reproducible, smooth cuts, minimal to moderate hemostasis.



Reproducible, smooth cuts, in particular in poorly conductive and varying tissue.



Reproducible, slightly slower cut with pronounced hemostasis.



The cut consists of alternating cutting and coagulating phases. The cut is easy to control and is characterized by a reproducible, pre-selectable coagulation property while cutting.



Reproducible, smooth cuts, minimal to moderate hemostasis.



The cut consists of alternating cutting and coagulating phases. The cut is easy to control and is characterized by a reproducible, pre-selectable coagulation property while cutting.



Reproducible, smooth cuts, low to moderate hemostasis.

# COAG



Optimized dissection characteristics through dynamic adaptation of modulation.



#### softCOAG®

Slow, deep coagulation without spark generation, limited carbonization of the tissue. Adhesion of the electrode to the tissue is greatly reduced.



#### forcedCOAG®

Reproducible, slightly slower cut with pronounced hemostasis.



#### swiftCOAG®

Fast, effective coagulation, which is highly suitable for dissection with high hemostasis owing to its limited tissue cutting property.



#### twinCOAG®

Fast, effective coagulation, which is highly suitable for dissection with high hemostasis owing to its limited tissue cutting property. Two monopolar instruments can be activated at the same time.



### sprayCOAG™

Contact free, efficient surface coagulation.



Slow, deep coagulation without spark generation, limited carbonization of the tissue.

Adhesion of the electrode to the tissue is greatly reduced.



### forcedCOAG® bipolar

Fast bipolar coagulation.

APC® waveforms available with APC® 3 module

preciseAPC®

pulsedAPC®

forcedAPC™

# Product data

Products					
	10160-000	VIO® Electrosurgical unit			
	20189-353	Two-pedal foot switch, VIO® 3 ReMode®, bracket, middle piece			
	20188-350	One-pedal foot switch, VIO® 3 ReMode®			
	20180-000	VIO® CART System carrier for VIO®			
	20180-010	Wire basket, 339 x 205 x 155 / 100 mm			

Attachment sets				
	20180-140	Fastening set for VIO® 3 on VIO® Cart		
	20180-143	Fastening set VIO® 3 for APC® 3 on boom mount		
	20180-144	Fastening set VIO® 3 for APC® 3 on ERBEJET® 2		

Instrument cables from Erbe					
	20192-133	Monopolar cable MO 3Pin; MIS OD 4mm; L 4.5m			
	20192-134	Monopolar cable MO 3Pin; OD 4.5mm pin; L 4.5m			
	20192-135	Monopolar cable MO 3Pin; OD 3mm socket; L 4.5m			
	20196-064	Bipolar cable Bl 2Pin28; ang.; forceps; L 4.5m			
	20196-067	Bipolar cable Bl 2Pin28; grasp. forceps; L 4.5m			
	20196-127	Bipolar cable Bl 2Pin28; forceps 2Pin; L 4m			
	21196-115	Bipolar Conecting Cable; MF-U Olympus Resectoscope; L 4.5m			
	21196-118	Bipolar Connecting Cable; MF-U Storz Resectoscope; L 4.5m			
	21196-119	Bipolar Connecting Cable; MF-U Wolf Resectoscope; L 4.5m			



#### PRECISE. RELIABLE. REPRODUCIBLE.

- State-of-the-art microprocessor technology
- Optimized patented power supply unit
- ☑ Proprietary Voltage and Spark Control
- ☑ New and improved modes
- User-friendly multilingual stepGUIDE
- ☑ Neutral Electrode Safety System (NESSY®)
- Software updates and improved service via secured WiFi



# Technical data

Power connection					
	100-120 VAC (±10 %)				
Rated supply voltage	220-240 VAC (±10%)				
Rated supply frequency	50/60 Hz				
Line current (averaged)	Max. 6.3 A				
Power consumption in standby mode	< 30 watts				
Power consumption at max. HF power	550 watts				
Max. pulse power consumption	1,600 watts				
Potential equalization connection	Yes				
Power fuse	T 6.3 A H / 250 VAC				
Power output					
Maximum CUT output	400 watts at 300 ohm				
Maximum COAG output	up to 360 watts				
Type of operation					
Intermittent operation	25 % duty cycle				
Dimensions and weight					
Width x height x depth	415 x 215 x 375 mm				
Weight	12 kg				
Display size	10.4 inches				
Ambient conditions for transport and storage of the unit					
Temperature	-30 °C to +70 °C				
Relative humidity	10 % - 90 %				
Ambient conditions for operating the unit					
Temperature	+10°C to +40°C				
Relative humidity	15 % – 80 %, non-condensing				
Standards					
Classification in accordance with EU directive 93/42/EEC	II b				
Protection class in accordance with EN 60 601-1	I				
Type in accordance with EN 60 601-1	CF				
Programs					
Program groups	20; program storage capacity per group: 15				
Programs/applications	Up to 300				
ReMode levels/settings	Up to 1800				

Erbe USA Incorporated 2225 Northwest Parkway Marietta, GA 30067 USA

Phone 800 778 3723 Fax 770 955 2577 sales@erbe-usa.com erbe-usa.com