

# The Valleylab Force™ 1C Generator

## A generator as flexible as today's surgical setting



The Force™ 1C has a streamlined, compact design perfect for the requirements of outpatient surgery – as well as the power and performance features needed for a full range of general inpatient surgical procedures.

### THREE BLENDED CUT MODES

provide flexibility with varying degrees of hemostasis in the cut modes.

### QUICK SET UP FEATURES

reduce the need for readjustment between procedures. Microbipolar and monopolar modes are set independently, and the digital display allows easy confirmation of power levels.

### ISOLATED OUTPUT DESIGN

directs current return to the generator, reducing the risk of alternate site burns.

### REM™ SAFETY

is guaranteed with Valleylab's REM™ Contact Quality Monitoring System, which continually monitors the return pad patient contact quality. If a fault is detected, the REM™ system automatically deactivates the generator – virtually eliminating the risk of burns under the return electrode.

Valleylab REM™ safety has been proven in more than 100 million surgical procedures worldwide.

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Innovations That Work

# Force™ 1C Electrosurgical Generator

## Technical Specifications

### WEIGHT AND DIMENSIONS

Height: 15 cm (6 in.)  
Width: 28 cm (11 in.)  
Length: 43 cm (17 in.)  
Weight: 6.8 kg (15 lbs)

### OUTPUT WAVEFORMS

Cut: 516 kHz sinusoid  
Blend 1: 516 kHz sinusoidal bursts at 70% duty cycle recurring at 31 kHz  
Blend 2: 516 kHz sinusoidal bursts at 45% duty cycle recurring at 31 kHz  
Blend 3: 516 kHz sinusoidal bursts at 20% duty cycle recurring at 31 kHz  
Coag: 516 kHz damped sinusoidal bursts with a repetition frequency of 31 kHz  
Microbipolar: 516 kHz sinusoid

Output power changes by less than 5% as the line voltage varies from 85-135 volts.

### LOW FREQUENCY LEAKAGE (50/60 HZ)

Source current, patient leads, all outputs tied together

- Normal polarity, intact chassis ground < 10 µA
- Normal polarity, ground open < 100 µA
- Reverse polarity, ground open < 100 µA
- Sink current, 135V applied, all inputs < 150 µA

### HIGH FREQUENCY LEAKAGE

Less than 150 mA rms

All waveforms meet AAMI/IEC leakage current requirements.

### PER = 75

PER (Power Efficiency Rating) is the measure of an electrosurgical generator's ability to accurately deliver the selected power into a wide range of tissue types.

### INPUT POWER REQUIREMENTS

Operation range is 85 to 135 AC volts. Current is less than 5 amperes in cut and less than 3 amperes in coag.

### POWER READOUTS

Agree with actual power into rated load to within ±20% or 5 watts, whichever is greater.

### REM™ SYSTEM

Measurement Frequency: 140 kHz ±20 kHz

Measurement Current: 3 mA maximum

Acceptable Resistance Ranges:

REM™ pad – 5-135 ohms

Non-REM™ pad – less than 20 ohms

### COOLING

Convection, no fan

### AUDIO VOLUME

The mode indicator tones are adjustable from 45 to 65 dBA.

The alarm tones are not adjustable and are set to 65 dBA.

Designed to meet UL and CSA specifications.

### OUTPUT CHARACTERISTICS

Mode	Maximum P-P Voltage	Rated Load (ohms)	Nominal Power (watts)	Crest Factor* (typical)
Cut	2400	300	200	1.8
Blend 1	2800	300	175	2.7
Blend 2	3200	300	150	3.3
Blend 3	3600	300	125	4.6
Coag	5200	300	75	8.0
Microbipolar	900	100	50	1.8

\*Crest Factor is an indicator of a waveform's ability to coagulate bleeders without cutting effect.

### ORDER INFORMATION

CATALOG NUMBER	DESCRIPTION	ORDER QUANTITY
Force 1C	Microprocessor-based isolated electrosurgical generator, designed for all general surgical procedures. Equipped with Valleylab REM™ System.	1 each

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