



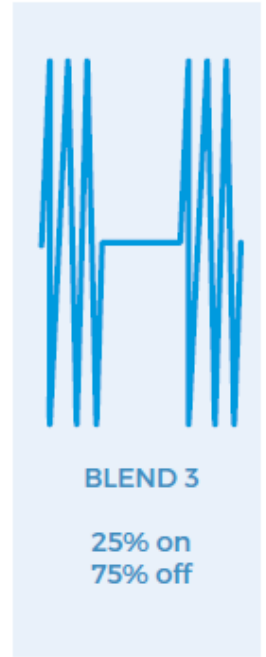
**RIGEL MEDICAL**

GMC-INSTRUMENTS GROUP

## **What is the crest factor in electro-surgery?**

The crest factor (CF) is defined by the ability of an ESU to coagulate without cutting and centres on the idea of shrinking the top layer of tissue which seals and prevents blood loss from the capillaries without causing further thermal damage or tissue necrosis. The CF ranges from 1.4 for a pure sine wave to around a value of 10 for coagulation.

### Low voltage



### High



### Typical Example

On (%)	100	50	40	25	
Off (%)	0	50	60	75	94
CF (approx.)	1.4	3	5	7	10

For waveforms with a continuous current setting or pure sinewave (100% on), the CF is defined as the ratio between peak voltage and RMS.

$$CF = V_p / V_{RMS}$$

For the other waveforms, the crest factor is defined as the ratio between peak-to-peak voltage and 2 x the RMS voltage.

$$CF = V_{pp} / 2 \times V_{RMS}$$

If you require more help, please contact us at

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