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**ITOPP**  
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ITOPP, Leader in Pulsed Power Systems  
Repetitive Resonant Transformer



from **spark** to **lightning**

### Resonant transformer based on SINUS technology

ITOPP has designed and manufactured a resonant transformer based on SINUS technology, initially developed by the High Current Electronics Institute (HCEI). This technology can be used for various applications : Electron beam sources or high power microwave sources.

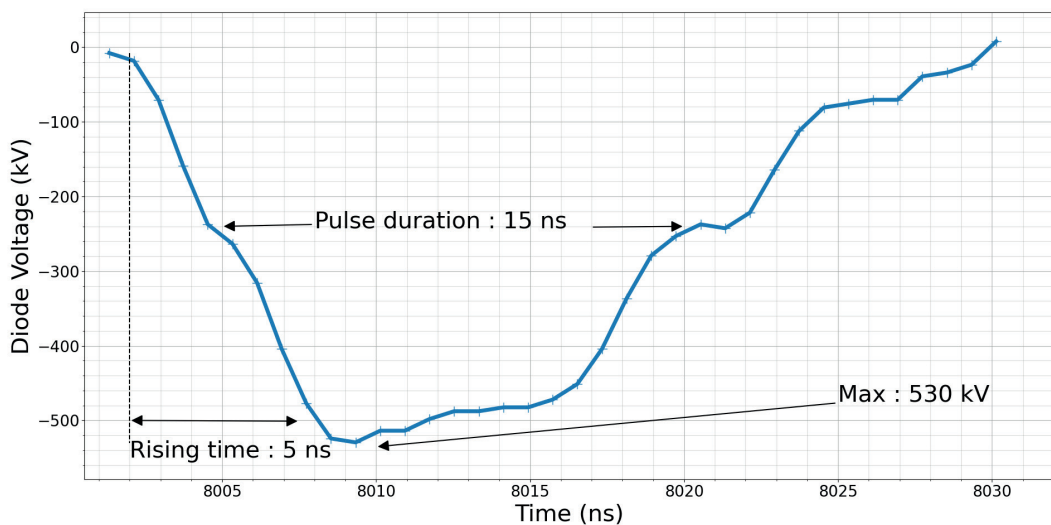
The system includes a repetitive resonant pulse transformer. Its geometrical parameters allow the formation of a pulse of a few tens of nanoseconds. The pulse is transferred to the load via a spark gap and a transmission line.

**ITOPP responds to customer needs with modifications or complete designs.**

Our knowledge and know-how are made available to customers having requirements for specific applications that ITOPP can meet by adapting pre-existing technologies and techniques or by creating a complete design taking into account required performance standards, safety and ergonomics of use.

### Example of technical parameters for electron beam sterilization application:

- Transformer output voltage: 760 kV
- Diode voltage: 500 kV
- Diode current: up to 10 kA / pulse
- Pulse duration (FWHM): 15 ns
- Repetition rate: Max 100 Hz
- Rising time: 5 ns
- Proof of endurance: 8 hours



### Generator specifications

- Generator size with transmission line and diode : 2900mm x 1200mm x 400mm. (L x h x w)
- Cabinet size: 1,400 mm x 1,700 mm x 800 mm (L x h x w)
- Weight: ≈800 kg
- Ancillaries: automation cabinet, chiller

#### ALCEN

6 rue Paul Baudry – 75008 Paris – France  
Tel. + 33 (0)1 40 72 55 00  
alcen@alcen.com  
www.alcen.com



#### ITOPP

1160 route de Miers – 46500 Thegra – France  
Tel. +33(0)5 65 33 43 30  
contact@itopp-alcen.com  
www.itopp-alcen.com