

ARCS: DETECTION AND COUNTING

TECHNIX offer 2 options allowing detection and counting electrical arcs.

ARC DETECTION OPTION :

As soon as an arc is detected, an output signal is delivered and the power supply switches off during a stop time.

This stop time (T_{stop}) can be factory set between 0.1s* to 2s.

Typically, T_{stop} is set to 500 ms.

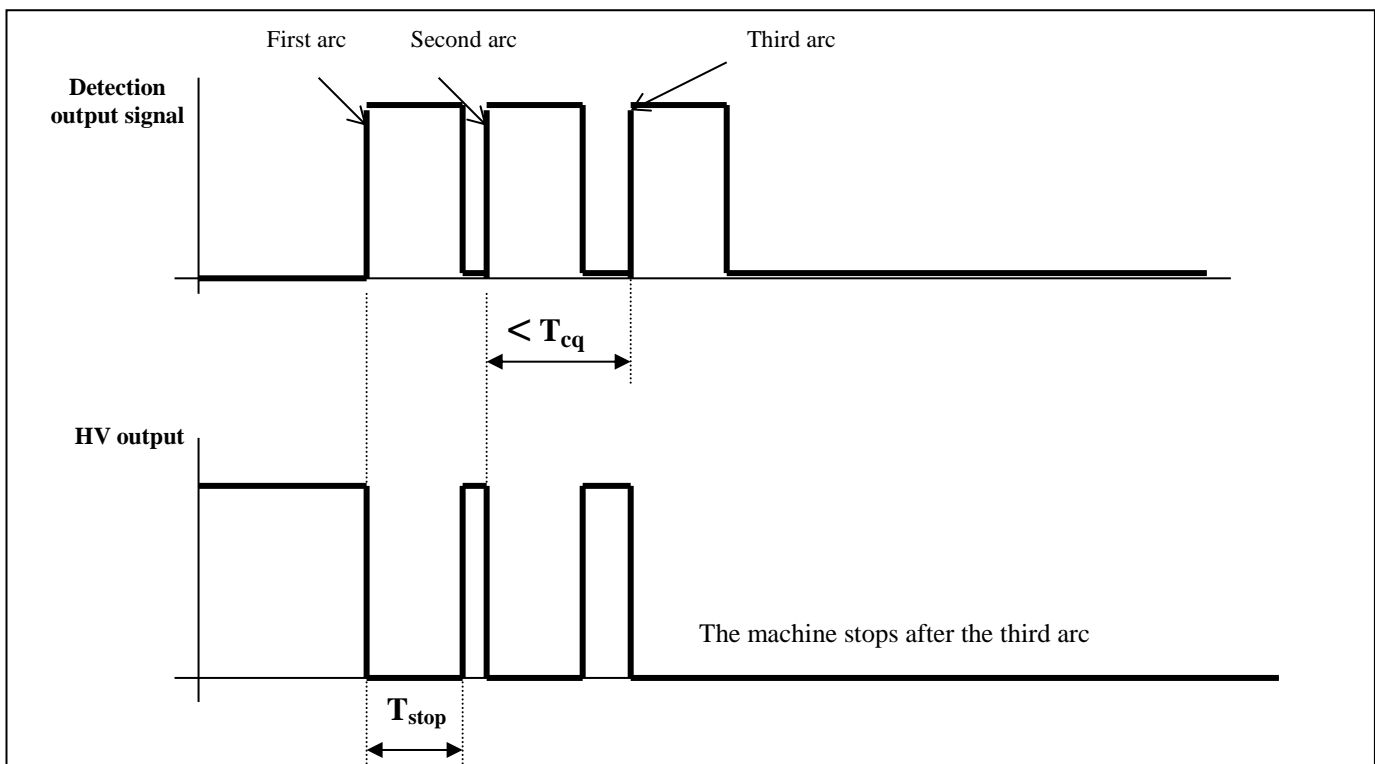
* less on request

ARC COUNTING OPTION :

Each detected arc generates the process described above and increments a counter.

When a certain number of arcs are counted the power supply switches off and will restart only with a new switch-on procedure of the user .

This number of arcs is programmable by the customer from 1 to 15 (in binary) with the use of 4 micro switches located on the rear panel of the power supply.



**Example 1 : User sets the counter to 3
The machine stops after a series of 3 successive arcs**

Counting qualification :

If the time between 2 arcs is too long, the second one resets the counter.

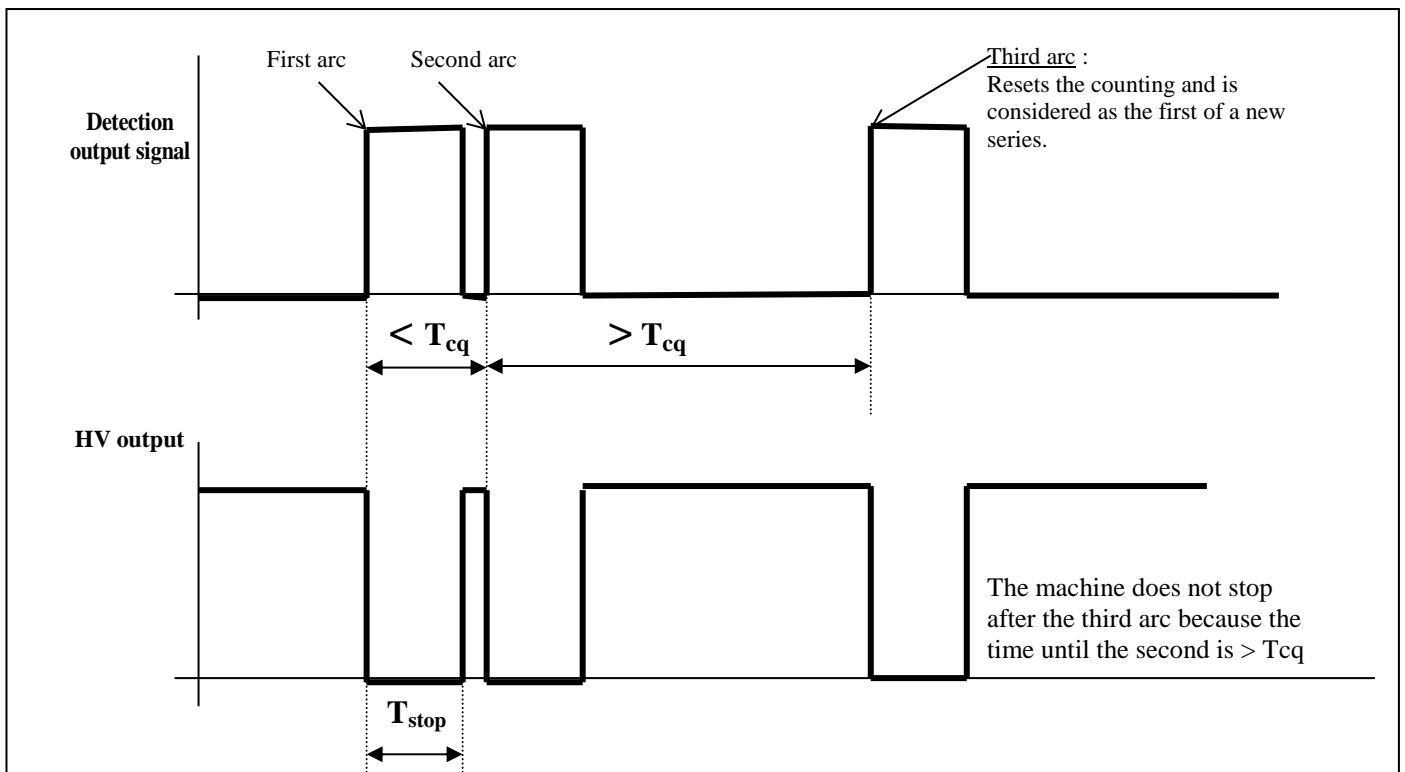
This time is called T_{Cq} : Time for counting qualification.

Typically T_{Cq} is 1.3 second , that means 0,8 s after the restart for a typical T_{stop} of 0.5 second.

If an arc occurs within 1.3 s after a previous one, it is counted.

The counter is reset if a new arc occurs 1.3 second or more after the previous one.

T_{Cq} can be factory set between 1 and 6 seconds.



Example 2 : User sets the counter to 3.
The third arc occurs "late" after the second one.

Counting validation/inhibition :

An fifth switch is available for the user to validate or inhibit counting function.

This switch is also located on the rear panel of the power supply.

In INHIBIT position, all the counting system is disable.