CAPACITOR CHARGER FORM

Date _____ **Company** _____

Your name and title _____

Your email _____

Phone number _____

Fax number _____

Quantities _____

Polarity

- ◯ Positive
- ◯ Negative
- ◯ Reversible
- ◯ Floatting

Special request

APPLICATION DESCRIPTION

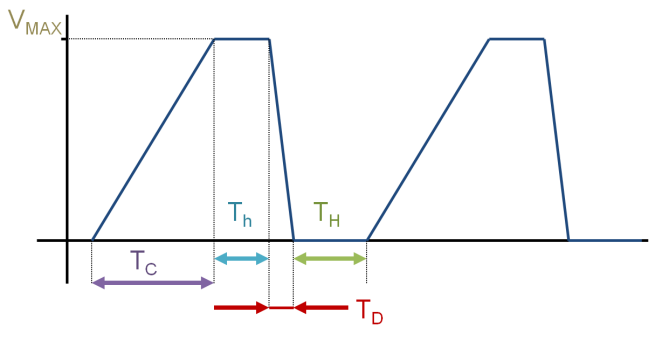
Will you use a serial resistor between the charger and your capacitor?

- ◯ No
- ◯ Yes, wich value? _____ ◯ Ω ◯ kΩ

Will you use a parallel resistor on your capacitor?

- ◯ No
- ◯ Yes, wich value? _____ ◯ Ω ◯ kΩ

☐ COMPLETE DISCHARGE



Load capacitor _____ ◯ nF ◯ µF

Maximum voltage (V_{MAX}) _____ ◯ V ◯ kV

Time of charging (T_C) _____ ◯ ms ◯ s

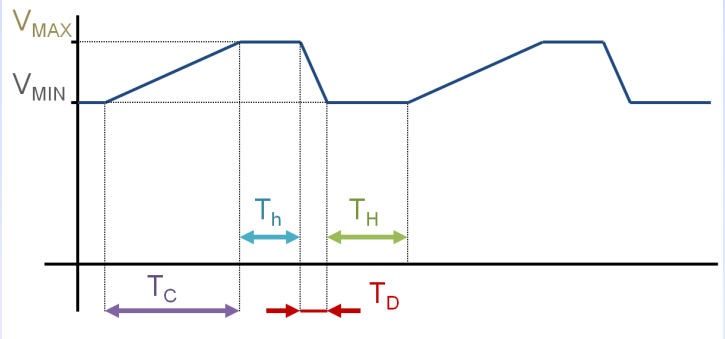
Time of discharging (T_D) _____ ◯ ms ◯ s

Holding time (T_h + T_H) _____ ◯ ms ◯ s

Periodicity (T) _____ ◯ ms ◯ s

Load factor* _____

☐ PARTIAL DISCHARGE



Load capacitor _____ ◯ nF ◯ µF

Maximum voltage (V_{MAX}) _____ ◯ V ◯ kV

Minimum voltage (V_{MIN}) _____ ◯ V ◯ kV

Time of charging (T_C) _____ ◯ ms ◯ s

Time of discharging (T_D) _____ ◯ ms ◯ s

Holding time (T_h + T_H) _____ ◯ ms ◯ s

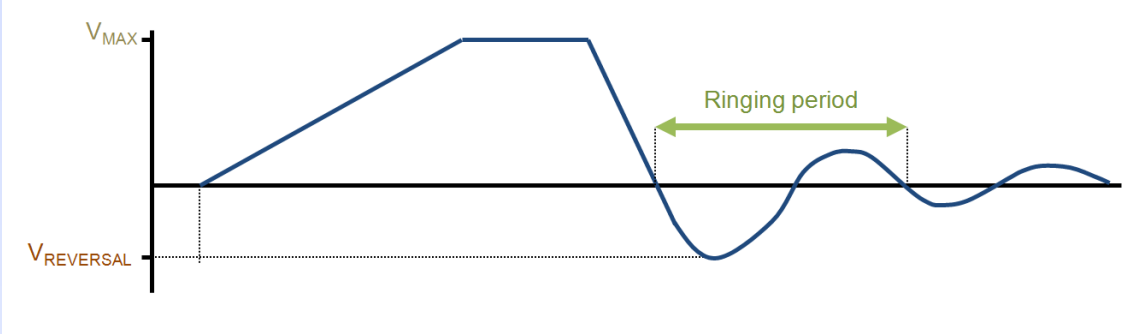
Periodicity (T) _____ ◯ ms ◯ s

Load factor* _____

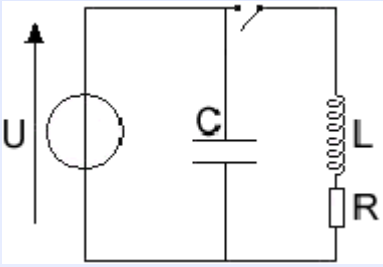
* Load factor: how often the charger is used? Example: 5mn/hour or continuously 24h/day

☐ REVERSE OSCILLATION

If and only if your application can generate a reverse oscillation, please fill this form
(if you're not sure, please contact our technical support)



Typical application that make reverse oscillation looks like this



Ringing period ☐ µs ☐ ms

Voltage reversal (kV) ☐ V ☐ kV

C value ☐ nF ☐ µF

L value ☐ µH ☐ mH

R value (Ω) ☐ ms ☐ s

Observations

Feel free to tell us more about your application, this space is yours

GLOBAL REMINDERS

Calculate the time to charge your capacitor

$$\Delta T = \frac{C.\Delta V}{i}$$

Calculate the stored energy in a capacitor

$$E = \frac{1}{2}.C.\Delta V^2$$

ΔT: time needed to charge the capacitor (in Seconds)
i is the current (in Ampers)
ΔV is the voltage (in Volts)
C is the value of the capacitor (in Farads)
E is the stored energy (in Joules)

REVERSE OSCILLATION REMINDERS

There is a reverse oscillation if

$$R < 2\sqrt{\frac{L}{C}}$$

Calculate the ring time

$$Ringing\ Period = 2\pi\sqrt{LC}$$

In a wire, there is always an inductance
1 meter with 10mm² section = 1.25 µH