PSU2 STORAGE TIME CALCULATION (09.05.2012)

$u_e := umin, umin + 1 .. 250 \qquad u_{cap}(u_e) := u_e - ud$

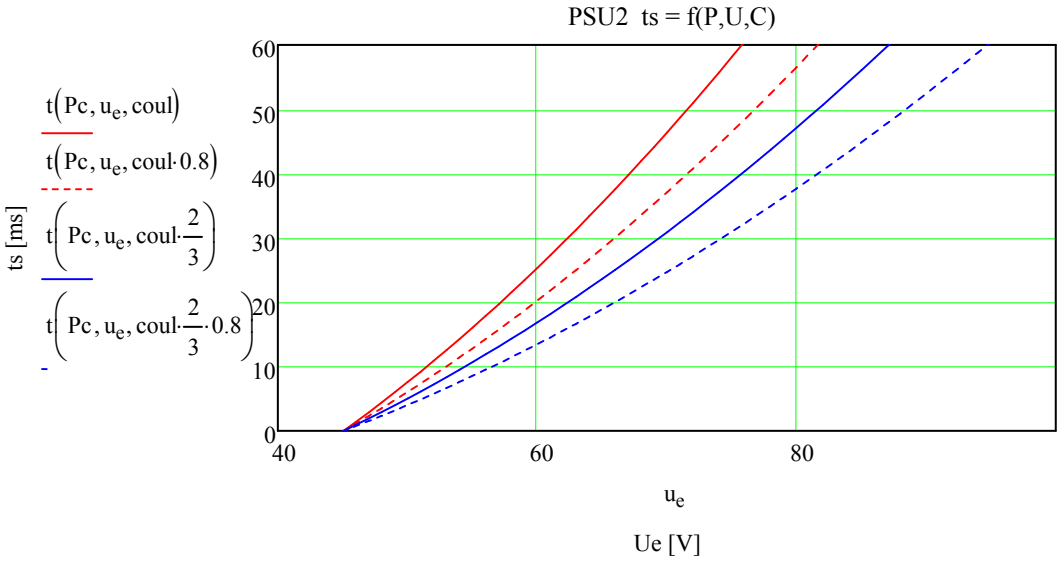
$Wcap(u_e, coul) := \frac{1}{2} \cdot coul \cdot 10^{-6} \cdot u_{cap}(u_e)^2$

$dWcap(u_e, coul) := Wcap(u_e, coul) - Wcap(umin, coul)$

$t(Pc, u_e, coul) := \frac{dWcap(u_e, coul)}{Pc} \cdot 1000$

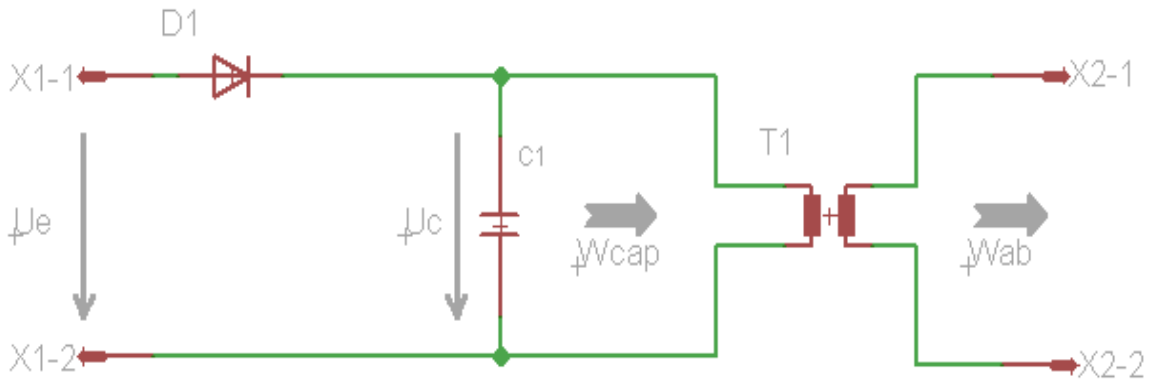
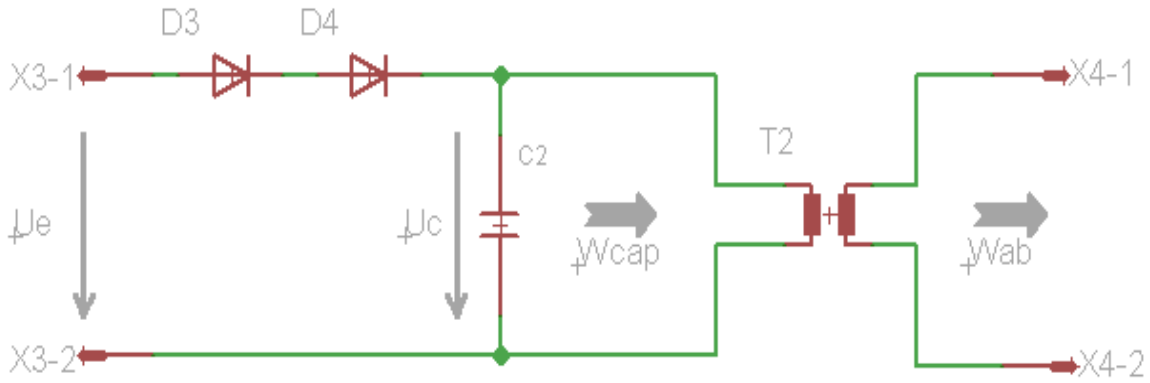
$ud \equiv 1.2$	**60-250V** 2 Dioden: -1.2V	**24- 60V** 1 Diode: -0,6V
$umin \equiv 45$	**60-250V** umin: 45V	**24- 60V** umin: 16V
$Pc \equiv 20$	**60-250V** Pc: 20W	**24- 60V** Pc: 20W
$coul \equiv 660$	**60-250V** C: 660µF	**24- 60V** C: 3600µF

$coul \cdot \frac{2}{3} = 440$



24V-60V

24V-60V PSU2 energy flow principle



60V-250V PSU2 energy flow principle