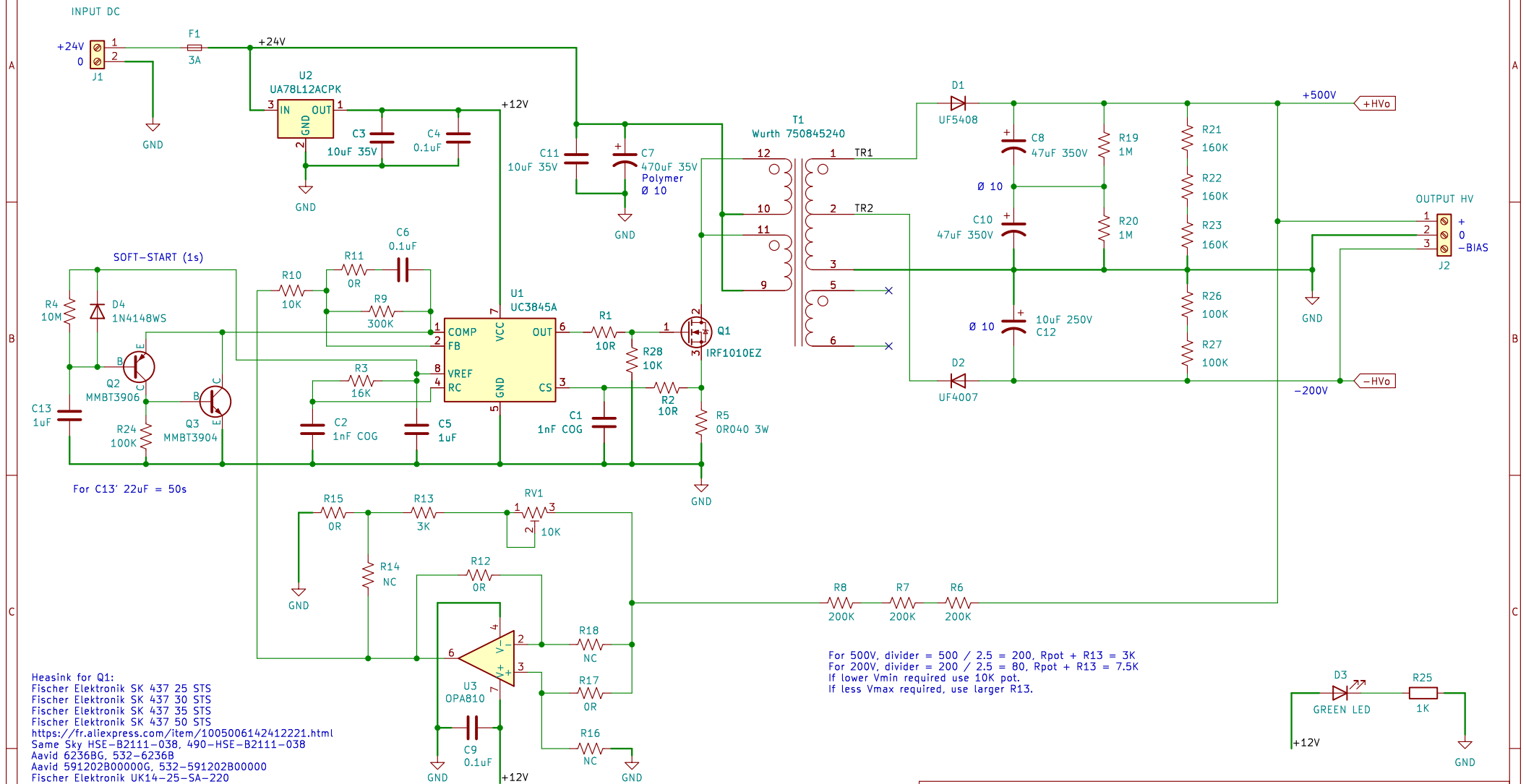


Note: The output load resistors have been selected for an output voltage around 300/400V. If you use the module outside this voltage range, you will need to adapt the values.



Heatsink for Q1:
 Fischer Elektronik SK 437 25 STS
 Fischer Elektronik SK 437 30 STS
 Fischer Elektronik SK 437 35 STS
 Fischer Elektronik SK 437 50 STS
<https://fr.aliexpress.com/item/1005006142412221.html>
 Same Sky HSE-B2111-038, 490-HSE-B2111-038
 Aavid 6236B6, 532-6236B
 Aavid 591202B00000G, 532-591202B00000
 Fischer Elektronik UK14-25-SA-220
 Fischer Elektronik SK-431
 Fischer Elektronik SK 13 35 SA 220
 Fischer Elektronik ICK 35 SA

- H1 MountingHole
 - H2 MountingHole
 - H3 MountingHole
 - H4 MountingHole
- + Out: Bypass
 Install R15, R12, R18, no U3, R9=100K
- + Out: Follower (better load regulation)
 Install R15, R12, R17, U3 = OPA810, R9=300K
- Out: Inverter
 Install R14, R16, R18 U3 = OPA810, R9=300K, invert D1 diode and C8/C10 capacitors

For 500V, divider = $500 / 2.5 = 200$, Rpot + R13 = 3K
 For 200V, divider = $200 / 2.5 = 80$, Rpot + R13 = 7.5K
 If lower Vmin required use 10K pot.
 If less Vmax required, use larger R13.

Adapted from Dave's project (<https://www.djerrickson.com/hi-v-dc-dc/>)
 150-500V

by Stef

Sheet: /

File: HV-MODULE.kicad_sch

Title: High Voltage Power Supply

Size: A4 Date: 2025-10-25

KiCad E.D.A. 9.0.4

Rev: 1.1.1

Id: 1/1