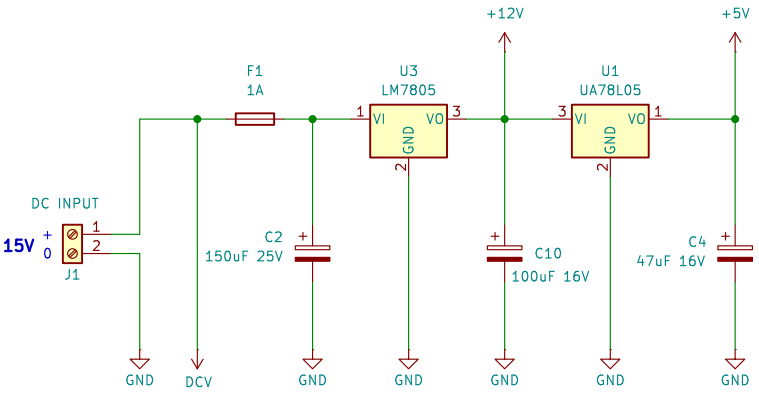
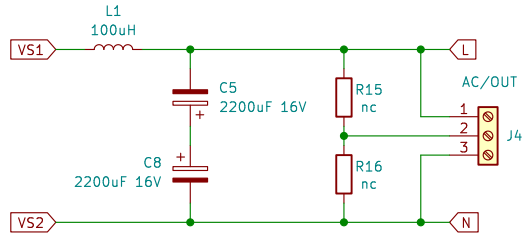
## INPUT

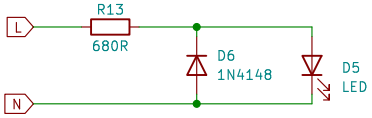



**DC module input absolute voltage: 14V–24V**

## OUTPUT

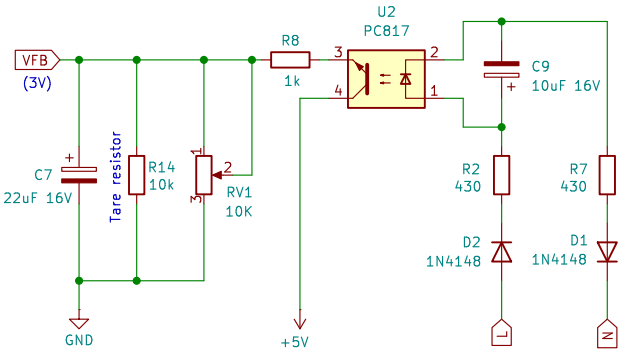



Connect the internal turns of the coil to VS1 (IN on PCB).
Leave a space between the coil and the PCB.




## VOLTAGE AC FEEDBACK

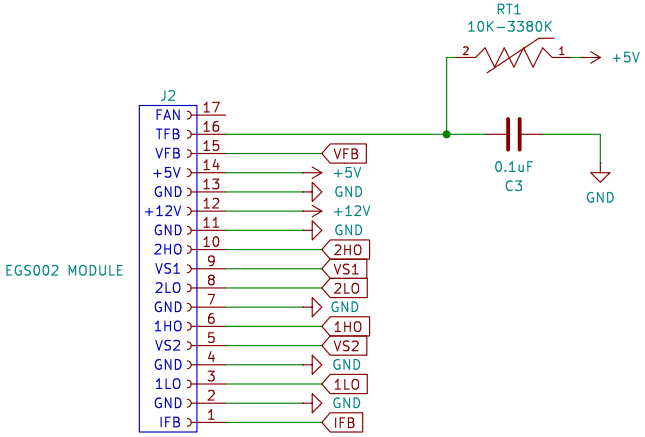
Range: 4V – 8V



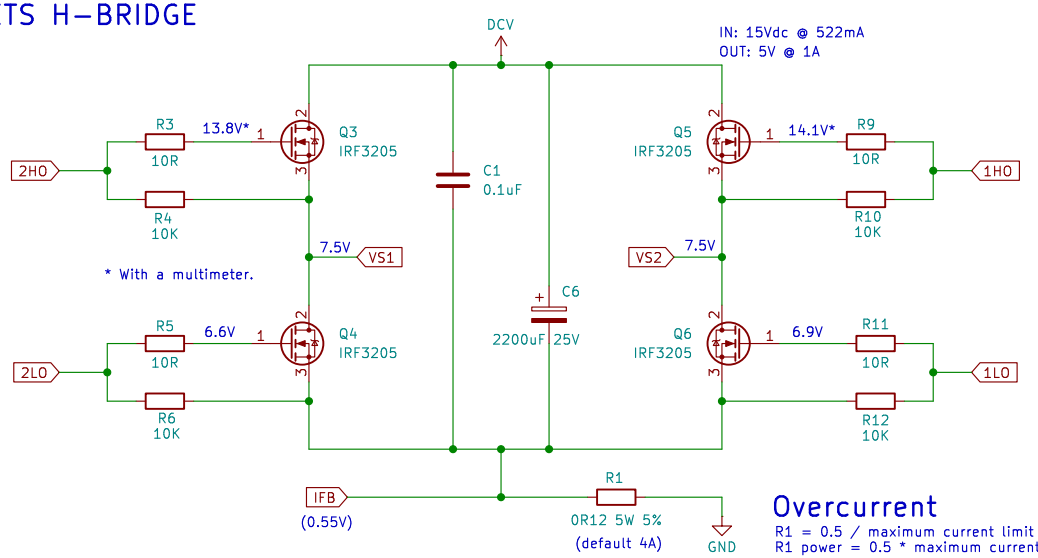

RV1: Preset the potentiometer to 5K before soldering it (1–2).
Overvoltage protection is set at 3.15V with 300mS delay.
Undervoltage protection is set at 2.75V with 3S delay.

## EGS002 MODULE

Headers receptacle for ESG002 module: 1x17 Harwin M20–7821746 (855–M20–7821746)




## MOSFETS H–BRIDGE




### Overcurrent

R1 = 0.5 / maximum current limit
R1 power = 0.5 * maximum current limit

## FILTER COMPONENTS

C5 and C8: two polarized polymer capacitors connected in series, plus to plus.
2200uF = Mouser 647–RNL1C222MDS1PH – 470uF = Mouser 80–A758MU477M1CAAE10

**Coils: Mundorf F2625, L2510 and L3020 body fits on the PCB.**
Basic tube heating config (<1.5A): L1 = Mundorf BL71 0.1mH 0R23 – C8/C5: 2200uF (962uF) – f: 510Hz
For 5U4G (3A): L1 = Mundorf BL100 0.1mH 0R14 – C8/C5: 2200uF (962uF) – f: 510Hz

**Direct heated triodes config (up to 1.5A)**
For 300B (1.1A): L1 = Mundorf (B)H71 3.3mH 0R50 – C8/C5: 470uF (260uF) – ƒ 170Hz
For 300B (1.1A): L1 = Mundorf (B)H71 1.2mH 0R25 – C8/C5: 1500uF (720uF) – ƒ 170Hz

No load consumption: 45mA
SNR: 64dB with 3.3mH coil.
Distorsion: <1%

**By stef**

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**Title: LVPS DC–AC 4V–8V 50Hz Inverter**

| | | |
|---|---|---|
| Size: A4 | Date: 2025–03–03 | **Rev: 1.0.3b4** |
| KiCad E.D.A. 8.0.8 | | Id: 1/1 |