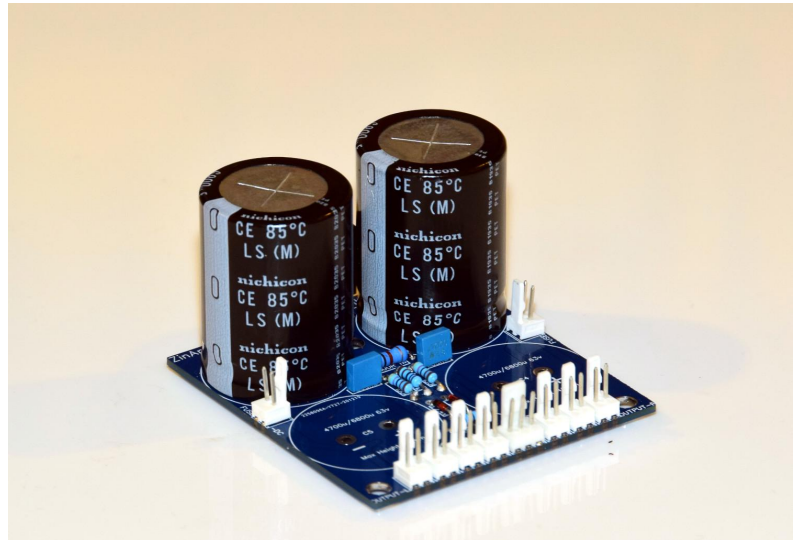


Application & Purpose:

Unregulated Supply delivering +/- DC for up to two ZinAmp power amp modules. Suitable for transformers between +/-25v and +/-50v AC as long as fitted capacitors are suitably DC rated.

This power supply is recommended with the ZinAmp LatFET Class A/B Amplifier.



Specification:

| | |
|-------------------------------------|---|
| PCB Dimensions | 72.5mm x 68mm x 1.6mm |
| Voltage Input (AC) | Min: 15-0-15 Max: 50-0-50 |
| Transformer Power | 160-300VA |
| Output Current | -3A and +3A. 2 x 3A fast fuses recommended |
| Filter Capacitors | Up to two pairs - 4700uF or 6800uF. Use capacitors capable of storing the DC rectified voltage from your transformer. |
| Recommended Max Power Output | 300W - can drive two 150W power amps Use two of these modules where power requirement is greater |
| Output Voltage (DC) | -/+21v to 70v - depending on transformer |

Details:

Power supply for running ZinAmp's Lateral MosFET Class A/B power amplifier - up to 2 modules can be driven from this supply.

Features:

- Snubbed AC Input - snubbing the secondary windings of the transformer to reduce ringing.
- Switchable AC input - for remote switching or soft-start features
- LED output
- Additional Outputs for Headphone Adaptor and Speaker Protector modules

PLEASE NOTE: If you are not using a controller or relays to switch this supply on and off, you will need to jumper the two AC Switch terminals with soldered links. These are marked on the PCB below as -AC Switch and +AC Switch. Leaving these open will leave the AC Supply isolated with no DC output.

Voltage and Transformer selection

DC output is based on the AC voltage rating of your transformer multiplied by 1.4

- Input: 20-0-20v AC - Output: -/+28vDC
- Input: 30-0-30v AC - Output: -/+42vDC
- Input: 35-0-35v AC - Output: -/+49vDC
- Input: 40-0-40v AC - Output: -/+56vDC
- Input: 50-0-50v AC - Output: -/+70vDC

Your power amplifier module will state which voltage is required, which will determine whether you will need a 30v, 35v or 40v AC transformer. These are available from Airlink Transformers in the UK - [here](#).

Note: This supply is tested to -/+70vDC. *Exceed this at your own risk.*

Fuses and Safety:

The supply must be used with two fast-blow fuses - typically 3A. These are normally fitted to the back of the ZinAmp chassis and connected to the supply. Do not jumper (short) the fuse connections EVER. Use lower value fuses when testing - e.g. 1A



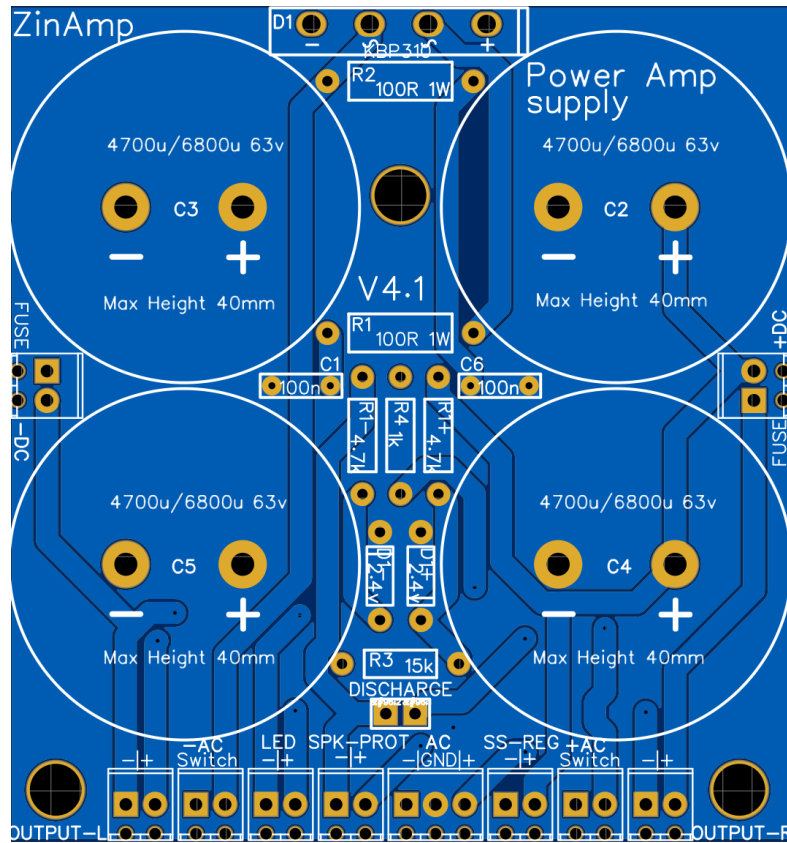
Panel mounted fuse holder
(two required for this module)



3 A Fast blow Fuse
5mm x 20mm

Always discharge the supply before removing and/or handling. A discharge terminal is provided that discharges the capacitors through a resistor without sparking. Switch off the amplifier, remove the AC power cord and place a screwdriver across the discharge terminals for 10 seconds. Test the output voltage with a meter - if less than 2v + or -, it is safe to handle. *NEVER attempt to discharge the supply with AC power switched on , EVER!! The discharge terminals are not fused and extensive damage will result!*

Bare PCB - note discharge terminal near to bottom in center:



Parts List:

CONNECTORS: Both blank and ready-built PCB requires connectors be purchased and soldered on by the constructor. This is to give the constructor a choice of how they wire their own particular installation. Terminal block connectors are indicated in the list below in **blue** and can be swapped for equivalent 2.54mm pitch connectors e.g. Molex KK254 headers, which are provided to the constructor in kits with ready-made wiring.

If you have trouble obtaining any of these parts, email: parts@zinamp.co.uk for help

| Designator | Value/Spec | Qty | Manufacturer | Manufacturer Part | RS Part |
|---|-------------------------------------|-----|-----------------|------------------------|----------|
| C1,C6 | 100n | 2 | Epcos | B32529C1104K000 | 896-1332 |
| DISCHARGE | 1 Row Jumper | 1 | RS-PRO | 251-8086 | 251-8086 |
| R1,R2 | 100R 3W | 1 | TE Connectivity | ROX3SJ100R | 214-2623 |
| R3 | 15k | 1 | Vishay | MRS25000C1502FCT0 0 | 683-3055 |
| R4 | 1k | 1 | Vishay | MRS25000C1001FCT0 0 | 683-3165 |
| OUTPUT-L,OUTPUT-R, LED,+AC,-AC,SPK-PRO T,SS-REG,+DC,-DC | 2 Pole Terminal (self-wire only) | 9 | RS-PRO | 790-1098 | 790-1098 |
| D1+,D1- | 2.4v | 2 | Vishay | 1N5221B-TR | 811-5933 |
| R1+,R1-,R2+,R2- | 4.7k | 4 | TE Connectivity | MRS25000C4701FCT0 0 | 683-3799 |
| AC | 3 Pole Terminal (self-wire only) | 1 | RS-PRO | 790-1098 | 790-1098 |
| C2,C3,C4,C5 | 6800u | 4 | Epcos | B41231B8688M000 | 171-3278 |
| D1 | KBP310 | 1 | HY | GBU2510 | 923-5472 |

Parts available from [RS Online](#). Also try [Farnell](#), [Mouser](#) and other online suppliers.

Parts from different manufacturers can be substituted where spec is sufficient.
Supplier trading names may differ by country.