## Resistor to Current (Tranform Ratio 3000:1)

| Current | Rcurr | Current Type |
|---|---|---|
| 1000A | 3.3Ω | 0 |
| 750A | 4.3Ω | 1 |
| 500A | 6.8Ω | 2 |
| 300A | 10Ω | 3 |
| 200A | 15Ω | 4 |
| 120A | 27Ω | 5 |
| 80A | 43Ω | 6 |

## Resistor to Voltage (Primary)

| Voltage | RPvolt | Voltage Type |
|---|---|---|
| 440Vac | 270kΩ | 0 |
| 380Vac | 270kΩ | 1 |
| 220Vac | 180kΩ | 2 |
| 127Vac | 100kΩ | 3 |

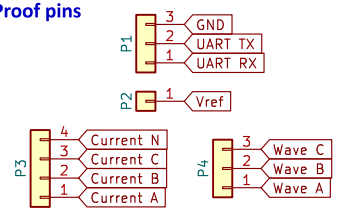
## Resistor to Voltage (Secundary)

| Voltage | RSvolt | Voltage Type |
|---|---|---|
| 440Vac | 510Ω | 0 |
| 380Vac | 560Ω | 1 |
| 220Vac | 560Ω | 2 |
| 127Vac | 510Ω | 3 |

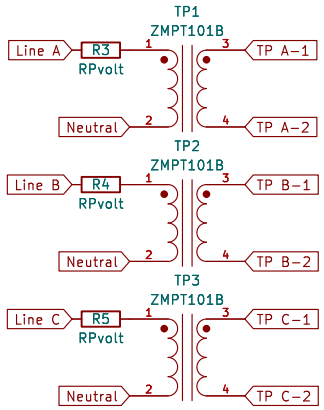
## Type of Electrical System

| Type | System Type |
|---|---|
| Single-phase (P+N) | 0 |
| Biphasic (2P) | 0 |
| Biphasic (2P+N) | 1 |
| Three-phase (3P+N) | 2 |

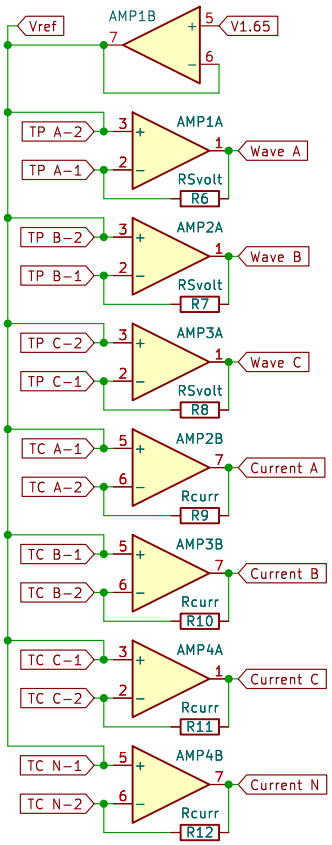
## Proof pins



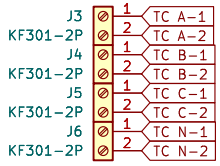

## Voltage Transformation



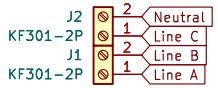

## Signals Conditioning



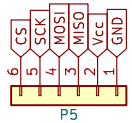

## TCs Connections



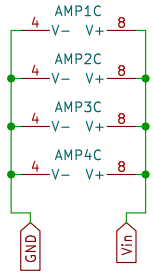

## Voltage Inputs



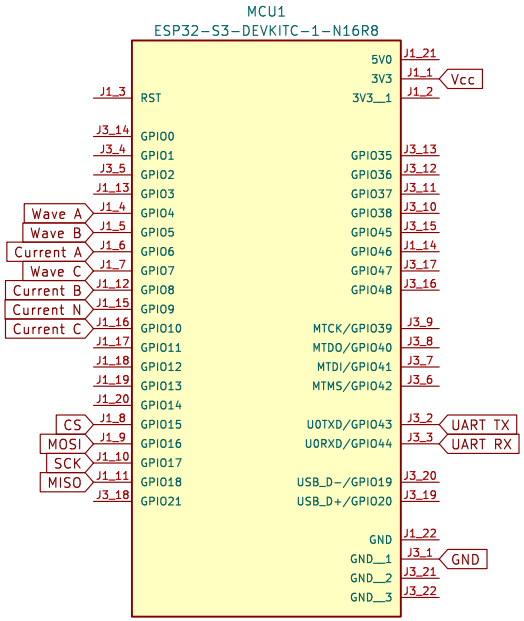

## SD Card



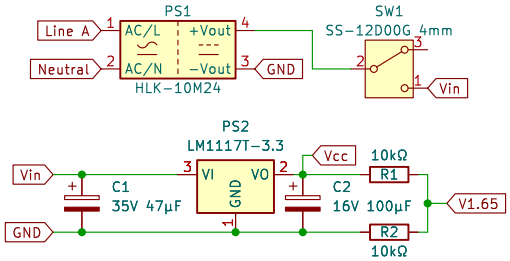

## TL082s Power



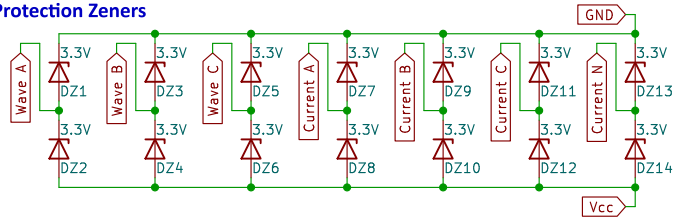

## MCU




## Power




## Protection Zeners




# Observation

**After selecting the ideal resistor for your application, according to the tables, remember to modify the value of the variables "CURRENT TYPE", "VOLTAGE_TYPE" and "SYSTEM_TYPE" in the MCU code according to what's in the tables**

https://www.linkedin.com/in/lucasrguerra

Sheet: /
File: board.kicad_sch

**Title: Energy Guardian V3.2 Schematic**

| Size: A4 | Date: 27/05/2024 | **Rev: 1.0** |
|---|---|---|
| KiCad E.D.A. eeschema 7.0.10 | | Id: 1/1 |