

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

Current	Rcurr	Current Type
1000A	3Ω	0
750A	3.9Ω	1
500A	5.6Ω	2
300A	10Ω	3
200A	15Ω	4
120A	24Ω	5
80A	36Ω	6

### Resistor to Voltage (Primary)

Voltage	RPvolt	Voltage Type
440Vac	270kΩ	0
380Vac	270kΩ	1
220Vac	150kΩ	2
127Vac	100kΩ	3

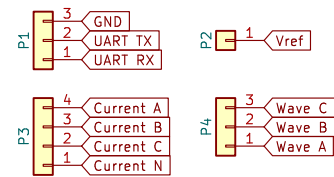
### Resistor to Voltage (Secondary)

Voltage	RSvolt	Voltage Type
440Vac	470Ω	0
380Vac	510Ω	1
220Vac	430Ω	2
127Vac	470Ω	3

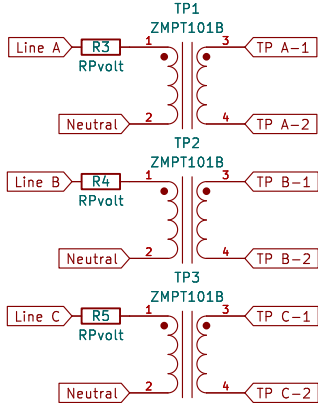
### Type of Electrical System

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

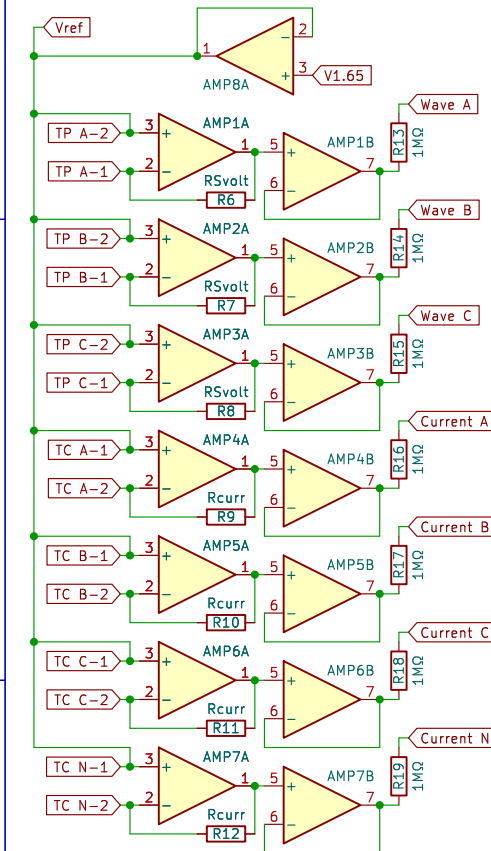
### Proof pins



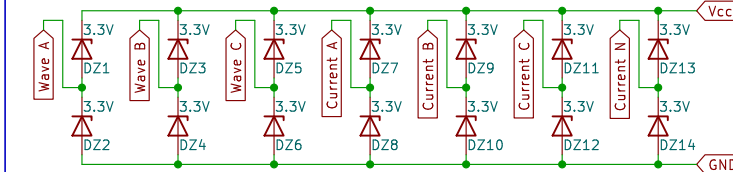
### Voltage Transformation



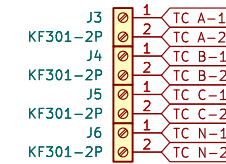
### Signals Conditioning



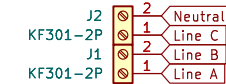
### Protection Zeners



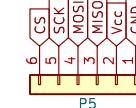
### TCs Connections



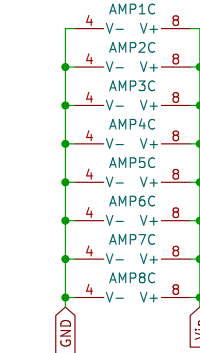
### Voltage Inputs



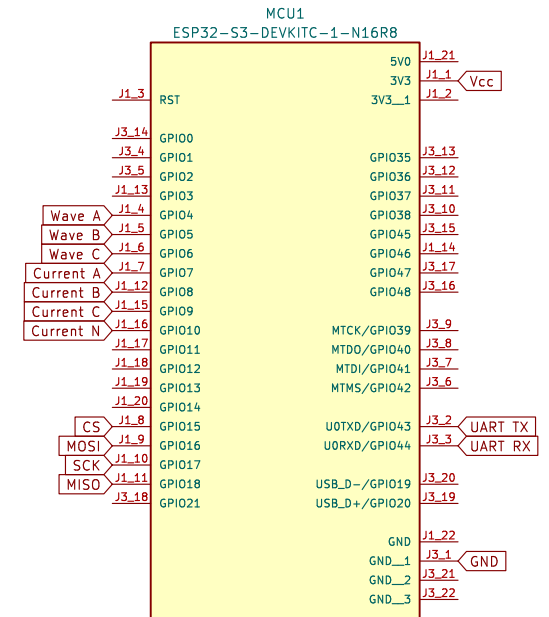
### SD Card



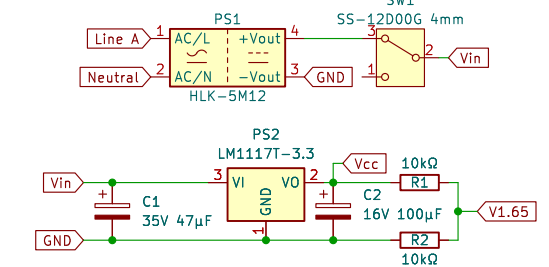
### TL082s Power



### MCU



### Power



## 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/lucasguerra>

Sheet: /

File: board.kicad\_sch

**Title: Energy Guardian V3.3 Schematic**

Size: A4 Date: 01/06/2024

KiCad E.D.A. kicad 7.0.10

Rev: 1.1

Id: 1/1