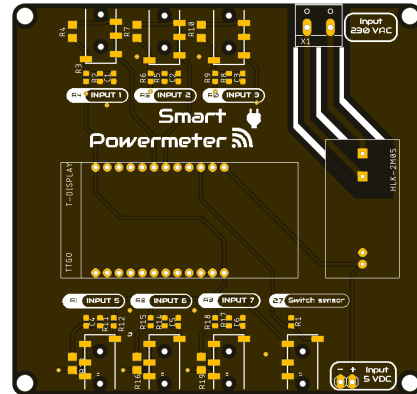


1 Overview

- ✓ TTGO T-Display based
- ✓ Power supply through $230V_{AC}$ or regulated $5V_{DC}$
- ✓ Support for up to 6 independent CT clamps
- ✓ Support a switch sensor for controlling the background light of the display



2 Description

The Smart Powermeter is an electronic board based on the TTGO T-Display module with the target of monitoring your electric installation. It can be mounted on a standard DIN Rail compatible enclosure and inside your electric distribution box. There you can install non-invasive CT clamps sensors around the AC cables to measure your actual electric consumption.

3 Technical specification

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Supply voltage (AC) CT clamps compatible ¹	V_{AC}	100		240	V	
Working temperature ²	T_{amb}	0	25	60	$^{\circ}C$	
Storage temperature ²	T_{amb}	-20		100	$^{\circ}C$	

¹ Tested working.

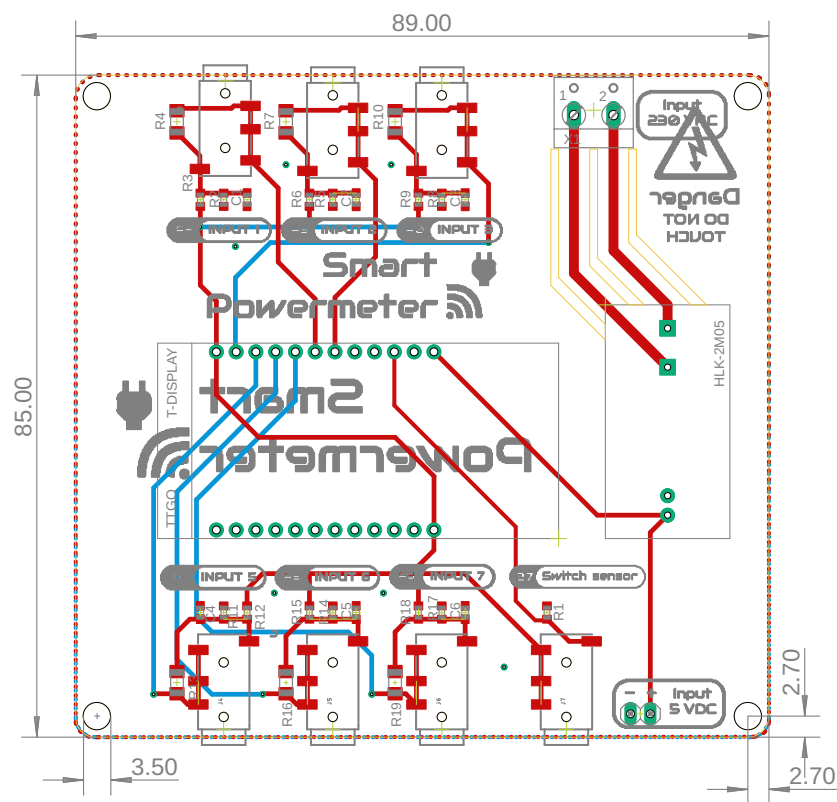
² Based on components datasheets.

Table 1: Absolute ratings

4 Bill of Materials

Value	ID	Package
	JP1	1X02
	X1	W237-132
10k	R1 R2 R3 R5 R6 R8 R9 R11 R12	R0603
	R14 R15 R17 R18	
10u	C1 C2 C3 C4 C5 C6	C0603
22	R4 R7 R10 R13 R16 R19	R1206
AUDIO JACK TRRSSMD RA	J1 J2 J3 J4 J5 J6 J7	AUDIO JACK 3.5MM TRRS SMD RA
HLK-2M05	U2	HLK-2M05
TTGO-T-DISPLAYFRAME	U1	2x12 PIN HEADERS FEMALE

5 Measures



Note: Indicated measures in *mm*.

More information ...

You can find this document and many more under the documentation section available in the Github repository https://github.com/JGAguado/Smart_Powermeter.