



Atorch AT24C Energy Meter Case



Wiseone

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Summary

Here is the Atorch AT24C energy meter module built into a case.

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Tags: [energy](#) [meter](#) [atorch](#)

Here is the Atorch AT24C energy meter module built into a case. The energy meter displays multiple electrical parameters, simultaneously.

The case encloses the Atorch AT24CBT Energy Meter Module and includes a power switch. The meter displays AC voltage, current, power, power factor and energy consumption on a constantly on colour 2.4in LCD display. The meter is powered directly from the AC power.

The meter can measure up to 100A and uses an induction clamp to sense the AC current. This design implementation only makes use of up to 10A normal use, constrained by the power plug, socket and wiring capacity. See included Meter User Manual for further details.

Key Components Used:

- * Atorch module

https://www.aliexpress.com/item/1005002004583680.html?spm=a2g0o.order_list.0.0.68dc1802wsDiHX

- * LED Warning Light 220V AC, 8mm

https://www.aliexpress.com/item/1005004068707500.html?spm=a2g0o.order_list.0.0.68dc1802wsDiHX

pdp_ext_f=%7B%22sku_id%22:%2212000027933634203%22,%22ship_from%22:%22C
id=pcStoreLeaderboard&scm=1007.22922.271278.0&scm_id=1007.22922.271278.0&
url=1007.22922.271278.0&pvid=142180ab-
ee34-440e-9dbc-11356391e5c9&spm=a2g0o.store_pc_home.smartLeaderboard_60019
* Mains Panel Socket (Australia)
<https://www.jaycar.com.au/mains-panel-socket/p/PS4094>
* Light Switch for Panel Mount
[https://www.ebay.com.au/itm/302123694611?
hash=item4657f9ba13:g:Xr0AAOSwzVphHO3e&amdata=enc%3AAQAHA4Kq0wBX3](https://www.ebay.com.au/itm/302123694611?hash=item4657f9ba13:g:Xr0AAOSwzVphHO3e&amdata=enc%3AAQAHA4Kq0wBX3)
* Wago 221-2411 Inline splicing connector
[https://au.element14.com/webapp/wcs/stores/servlet/ProductDisplay?
catalogId=15001&productSeoURL=wago&partNumber=3929047&storeId=10184&lang](https://au.element14.com/webapp/wcs/stores/servlet/ProductDisplay?catalogId=15001&productSeoURL=wago&partNumber=3929047&storeId=10184&lang)

This is my 3D design.

My print is made in PLA 1.75mm Prusament silver filament, with 0.2mm layer height and 10% infill on a PRUSA I3 MK3S printer.

I hope you can find this print useful, too.

Model files



case.stl



wago-connector-cover.stl



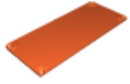
case-with-pads.stl



lid-with-pads.stl



front-plate.stl



lid.stl

Other files



atorch-at24c-english-user-manual.pdf

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