



Case for DPS5005 and DPS5020 Ruideng (RIDEN, RD Tech) with 200W PS Velika S-200-48



arminth

[VIEW IN BROWSER](#)

updated 12. 4. 2022 | published 20. 3. 2022

Summary

I designed two halves of a power-supply cover for the DPS5005 and DPS5020 from Ruideng (RIDEN, RD TECH) which fits...

[Hobby & Makers](#) > [Electronics](#)

Tags: [dps5005](#) [powersupplycover](#) [ruideng](#) [riden](#) [dps5020](#)
[rddps5005](#) [rddps5020](#) [rdtech](#)

I designed two halves of a power-supply cover for the DPS5005 and DPS5020 from Ruideng (RIDEN, RD TECH) which fits perfectly with the 200W, 48V switching powersupply from Velika.

As powerswitch, I am using an Inlet Combi-Module C14 with a lit powerswitch from RND Connect.

For the DC-outlets, I am using 4mm safety sockets SEB2610F from Hirschmann.

The powersupply only has one M3-threaded hole on the front side. I added a second possibility so you can drill a 2.5mm hole and tap it into the powersupply for more stability

Parts print in PLA, 0.2mm, 100mm/s, 10-15% infill, no supports.

For easy remixing, I added the OpenSCAD files.

BOM:

DPS5005 Ruideng

https://www.aliexpress.com/store/product/RD-DPS5005-Communication-Function-Constant-Voltage-current-Step-down-Power-Supply-module-buck-Voltage-converter-LCD/923042_1000004290003.html?spm=2114.12010615.8148356.1.25e06bf05CeaEG

DPS5020 Ruideng

<https://www.aliexpress.com/item/32821185351.html?spm=a2g0o.detail.1000023.9.26dafc26AMnhV0>

Switching Powersupply Velika <https://www.aliexpress.com/item/48V-4A-200W-Switching-Switch-power-supply-Driver-AC110-220V-for-Led-Control-CNC-CCTV-Stepper/32750973254.html?spm=a2g0s.9042311.0.0.2c544c4dzvrrwR>

Inletmodule:

https://www.reichelt.de/kaltgeraeteeinbaustecker-mit-schalter-10-a-4-8-mm-faston-rnd-465-00787-p254051.html?&trstct=pos_0

Safetysockets 4mm:

<https://www.reichelt.de/einbaubuchse-4-mm-faston-rot-gesichert-seb-2610f-rt-p106130.html?r=1> https://www.reichelt.de/einbaubuchse-4-mm-faston-schwarz-gesichert-seb-2610f-sw-p106129.html?&trstct=vrt_pdn

3 (4) pcs M3x10 Hex cylinderhead

Update July 28 2019: I added a modified front model to also fit a DPS5020 with the same Powersupply. Back cover is the same like 5005 version.

PS will still only deliver 200W max with DPS5020 but you get 4 times higher amperage at up to 10V and 2 times up to 20V. The ventilation openings for the fan might be a bit tiny but at 200W, I think it should be good to go.

Print Settings

Printer Brand:

Creality

Printer:

Ender 3

Rafts:

No

Supports:

No

Resolution:

0.2

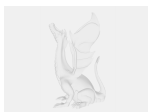
Infill:

10%

Filament: Noyes PLA black/aluminium

Category: Electronics

Model files



dps5005.scad



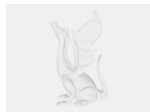
dps5005_case_front.stl



dps5005_case_back.stl



dps5005_case.stl



dps5020.scad



dps5020_case_front.stl

[Find source .stl files on Thingiverse.com](#)

License ©

This work is licensed under a
Creative Commons (4.0 International License)



Attribution-NonCommercial

- ✗ | Sharing without ATTRIBUTION
- ✓ | Remix Culture allowed
- ✗ | Commercial Use
- ✗ | Free Cultural Works
- ✗ | Meets Open Definition