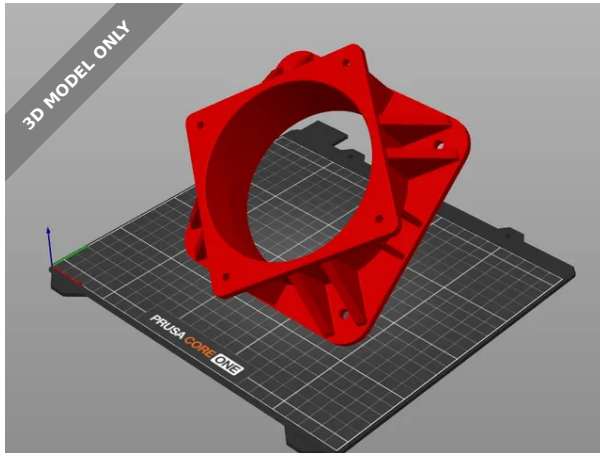




Inverter Bypass Fan Duct for Old Military Generators



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updated 16. 10. 2026 | published 16. 10. 2026

Summary

Intended to bypass the inverter previously used by the US Military. This houses 4 rectifiers and a 120mm fan.

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Tags: [fan](#) [duct](#) [military](#) [generator](#) [inverter](#) [bypass](#)

A friend purchased a retired 3kW 60Hz generator from a military auction. I don't have the NSN but can update this upload later if necessary.

It did not come with an inverter. He is a rather decent electrical wizard, so he formulated the idea of using 4 rectifiers (in whatever manner is supposed to make sense, I can not help with that or that part number used) (I am a mechanical engineer). So that is what is in the 2nd part of the duct.

For assembly, you will need 1/4-20 rivet-nuts, 1/4-20 x 1" bolts, 1/4" washers, 1/4" lock washers, #10-24 bolts (size depends on thickness of fan), #10-24 nuts, #10-24 washers, & #10-24 lock washers

I included the FreeCAD files as well if you go with a 240mm fan, you can modify it.

As for printing these are the settings I recommend, I have yet to print as I am waiting for him to choose the filament.

Orientation: Match the images (duct is shaded red)

Infill: 40% - Adaptive Cubic (Gyroid if you don't mind the noise it makes)

Perimeter Walls: 8

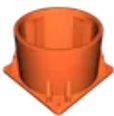
Brim: On - at least 2mm (5-10 if you just want to be safe)

Supports: On - Organic (my preference, probably fine otherwise) - 35deg Overhang Threshold

Model files



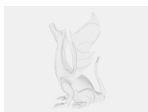
3kw_gen_inverter_fan_bypass_duct_1of2_v1_2.3mf



3kw_gen_inverter_fan_bypass_duct_2of2_v1_2.3mf



3kw_gen_inverter_fan_bypass_duct_1of2_v12.fcstd



3kw_gen_inverter_fan_bypass_duct_2of2_v12.fcstd

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