

# Linear power supply and battery for shortwave

How many amps can a linear DC power supply sustain?

My objective is to design and build a very high quality, very safe, very stable 13.8v Linear DC Power Supply that can sustain up to 80 Amps at a 50% to 75% duty cycle, and 60 Amps full duty-cycle. At this stage, I've pieced together a design based on old schematics found while cruising the web that makes use of the LM723 voltage regulator.

What is a linear regulated power supply?

Application guides A linear regulated power supply regulates the output voltage by dropping excess voltage in a series dissipative component. They use a moderately complex regulator circuit to achieve very low load and line regulation. Linear regulated power supplies also have very little ripple and very little output noise.

Are SMPS a linear power supply?

And of course SMPS (switch-mode power supplies) have fundamental frequency well above the audio band, so unlike linear supplies there are no 50/60 or 100/120 Hz fundamentals and harmonics to corrupt the audio band (leakage excepted).

Why do you build a linear supply instead of a switcher?

Noise is of paramount concern. Noise is also why I'm building a Linear supply instead of a switcher. The simplistic design of a Linear is also why I'm building it instead of a switcher. The power input module that I'm using for this build has the filtering built into it. Line filtering never hurts, regardless of the installation specifics.

Can a linear PS withstand a short circuit?

It's silly to have all that input AC filtering on a linear PS unless you have a unique requirement. If you want it very safe, then it must withstand short circuit.  $90A * 20V = 1800 W$  dissipation. You need very strong fans on every heat sink to keep them not dangerously hot, or fold-back current limiting. Thanks for the comments.

What is a good power supply?

Design criteria - 13.8V, 80 AMPS at up to 75% duty-cycle, soft starting, over voltage protection, current limiting, short circuit protection, remote voltage sensing and automatic active cooling fan control (with replaceable dust filters). The power supply needs to look as GREAT as it performs.

Radio Station Power Supply Voltage is 9-13.8V (Battery or Linear Regulated Power Supply is ...

This post (originally from ~2014) introduces the basic operation of a linear power supply, showing voltage and currents at the input and output. There has been a lot of debate about power cords and their impact on the ...

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Are you trying to choose between a linear and switching power supply for a ...

The included AC adapter for the Tecsun PL-680 <https://> is a switch-mode type (switching) power supply as used ...

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ALLO SHANTI LINEAR POWER SUPPLY. 0827201234 by drjlo2, on Flickr. ... Actually, when compared to certain other types of wire and especially my battery power ...

Battery vs SMPS (switched-mode power supply) Battery's noise generated is usually very high frequency noise up into the Mega Hz or Giga Hz ranges. This is not only ...

2. A Lenovo Thinkpad X1 Gen 3 tablet (very similar design to the Microsoft Surface Pros). It receives power through either of its two USB-C Thunderbolt ports. I've tried ...

If you choose a linear power supply box, you benefit from higher transient response times. Linear power supplies are also less likely to cause EMI and RFI. If you decide linear suits your radio ...

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X6100 is an ultra-portable shortwave transceiver. It adopts the SDR software radio platform architecture of excellent performance, which carries powerful baseband and RF unit, ...

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This LHY Audio BATT-USB regulated linear power supply module uses four 21700 batteries with a capacity of 4900mAh (a total of 9.8Ah) and an ultra-low-noise LDO ...

It's worth keeping in mind that either the diodes or the linear regulator will waste a significant amount of battery power as heat. Their main advantages are that they are simple to ...

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We at MegaWatt Sell High Quality Power Supplies for Ham Radio, CB Radio, Linear Amplifiers, Shortwave Radio, HF and Audio Amplifies. Great RV and Car Battery Chargers too. They also work with RC Battery Chargers, Car Stereos ...

The TRA Q-3061 DRM Shortwave Radio can be operated via the inbuilt 240-volt linear power supply providing superior performance across the reception bands by eliminating any RF noise typically associated with switch-mode power ...

Web: <https://daklekkage-reparatie.online>

