

## SolarInnovate Energy Solutions

# How big a resistor should I use for a 12v inverter 500w



## Overview

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The 25 Ohms resistor will limit the dead short (discharged capacitor is like a dead short when Voltage is applied to it) current to  $12V/25\text{ Ohms} = 0.48A$ . Your switch is fine. Is 20R a good voltage for a 48V inverter?

20R at 48V is about 2.5A or therabouts, I'd suggest that will be just fine, give it a suitably rated switch and you're good to go. You're just trying to avoid that massive (almost infinite) current splat when you first connect the discharged inverter. The Seplos 48V BMS has a 51R 10W pre-charge resistor for about 1A pre-charge.

How do you get 5V from a resistor?

Place the resistors between 12v and ground and then you will get 5v at the point between them. This is a very crude way of doing it. It is unregulated so the voltage out will be dependent of voltage in. You will also have to be concerned with power consumption.

Is a 20R resistor enough for a 48V BMS?

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How much current does a 20R inverter need?

Thailand, just north of Bangkok. 20R at 48V is about 2.5A or therabouts, I'd suggest that will be just fine, give it a suitably rated switch and you're good to go. You're just trying to avoid that massive (almost infinite) current splat when you first connect the discharged inverter.

What are the different types of resistors?

These requirements may include filter resistors, snubbers, gate resistors,

bleeders, balancing resistors, voltage dividers, braking/regenerative braking resistors, power factor control, surge current protection, pre-charge resistors, and even current shunts. Here we will discuss the various resistor solutions.

How much current can a 5 volt led supply provide?

If you just want a 5vdc output and you will always have at least a 7vdc input use a 7805 from Radioshack. It will provide up to 1A of current (if used with a heat sink). Kevin Pierson If you are trying to put a 5 volt LED on a 12 volt source like the others said it is dependent on the current draw, but you will be safe with a 1K Ohm resistor.

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### Do I need a pre-charge resistor for a 300 watt inverter?

Nov 18, 2022 · hello! if it is a 300 W inverter and 12V, then i suggest to not worry about using a resistor to precharge. for my 300 W giandel 12V inverter, it makes a tiny spark, so i tap the ...

### Inverter Capacitor Pre-charging , DIY Solar Power Forum

Mar 30, 2021 · I've watched Will Prowse and other's on pre-charging the capacitors on their inverters before connecting them to the battery. Generally, they use a high power resistor ...



### Calculating the correct size of braking resistors (DBR's)

Oct 10, 2023 · A drive motor can also act as a generator. If the drive system is built so as to allow reverse power to flow then this power can be fed into a resistor, thus taking energy out of the ...

## I see Will uses a [Resistor] when connecting an inverter to a ...

Apr 10, 2021 · FYI - it's capacitor, not capaciator. But Will is using a resistor, not a capacitor. Search this forum for "precharge resistor" or "pre-charge resistor". There are several good ...



## Choosing the correct resistor to be used with an optocoupler

Jan 26, 2024 · Hey, I'm working on a small Arduino project that basically turns on two relays when a few 12v triggers are active. Since a nano will probably fry instantly if the 12v trigger wire is ...

## How does a resistor between 5v and 12v on a power supply ...

Feb 27, 2025 · With this resistor, the 12V rails has a minimum current of  $(12-5)/81 = 86\text{mA}$ . And instead of shunting that current to GND, it does something useful at the 5V power rails, which ...

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