

How to view the load current of base station power supply

What is a base load power station?

The total load on a power station consists of two parts viz., base load and peak load. In order to achieve overall economy, the best method to meet load is to interconnect two different power stations. The more efficient plant is used to supply the base load and is known as base load power station.

What are the characteristics of a power supply?

The quality of a power supply depends on its load regulation, line regulation, and output resistance. In this section, we will look at these characteristics because they are often used on data sheets to specify power supplies. Figure 1 shows a bridge rectifier with a capacitor-input filter. Changing the load resistance will change the load voltage.

What is the difference between base load and peak load power station?

The more efficient plant is used to supply the base load and is known as base load power station. The less efficient plant is used to supply the peak loads and is known as peak load power station. There is no hard and fast rule for selection of base load and peak load stations as it would depend upon the particular situation.

What if a power supply has a low output resistance?

This means that the load voltage varies less than 0.1 percent when the line voltage varies from 105 to 125 Vrms. The Thevenin or output resistance of a power supply determines the load regulation. If a power supply has a low output resistance, its load regulation will also be low. Here is one way to calculate the output resistance:

How do you calculate the minimum load of a power supply?

Use the formula for power: Power = Voltage x Current, or $P = VI$. If for any reason you only have the current and power ratings of your power supply, you can use $P = I^2 R$, which can be changed to $R = P/I^2$. As you can see, calculating the minimum required load of your power supply is a very simple process.

What is current load regulation?

Current load regulation describes how the power supply output current varies in response to a step change in load impedance. Line regulation is a measure of the power supply's ability to maintain its output voltage or output current while the AC line input voltage and frequency vary over their full allowable range.

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Abstract Base stations represent the main contributor to the energy consumption of a mobile cellular network. Since traffic load in mobile networks significantly varies during a working or ...

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1) Find the voltage and minimum current ratings of each output. 2) Use Ohm's Law: $R = V/I$ to calculate each output load. Notice that Channel 3 is rated at -12V, but it is not included as a ...

Divide the output voltage and the load resistance and you have an idea of what it will be. Alternatively, you could use a passive dummy load and adjust the series resistance to ...

Most DC power supplies provide built-in capabilities for measuring the voltage and current being delivered by the power supply output. Because they are reading the voltage and ...

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