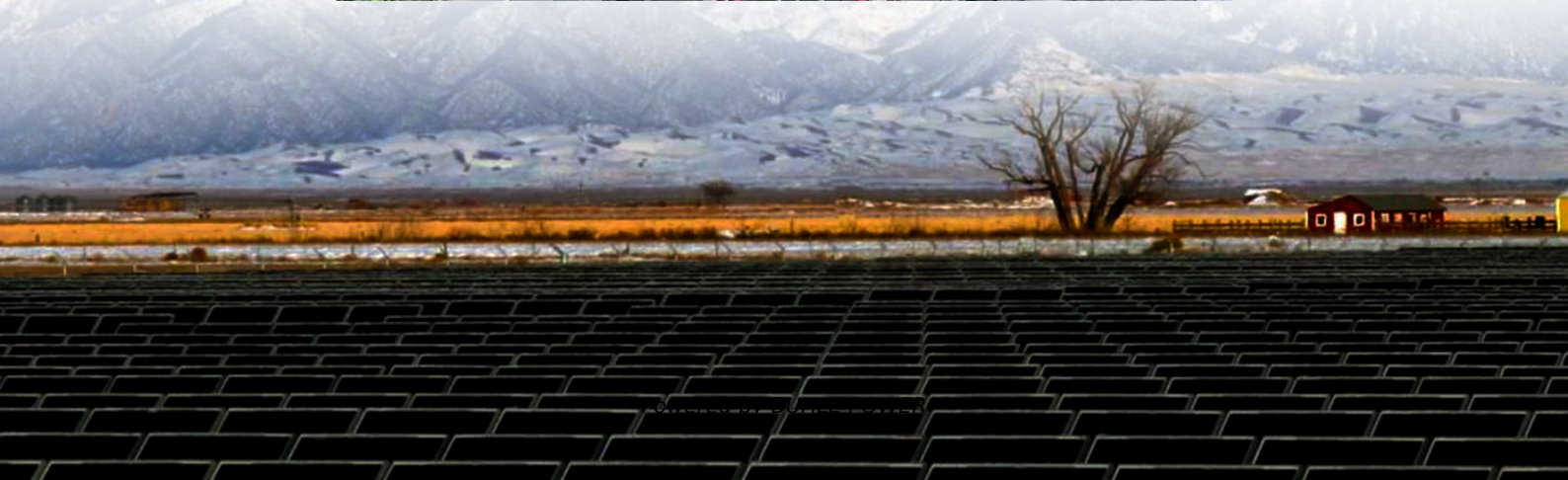
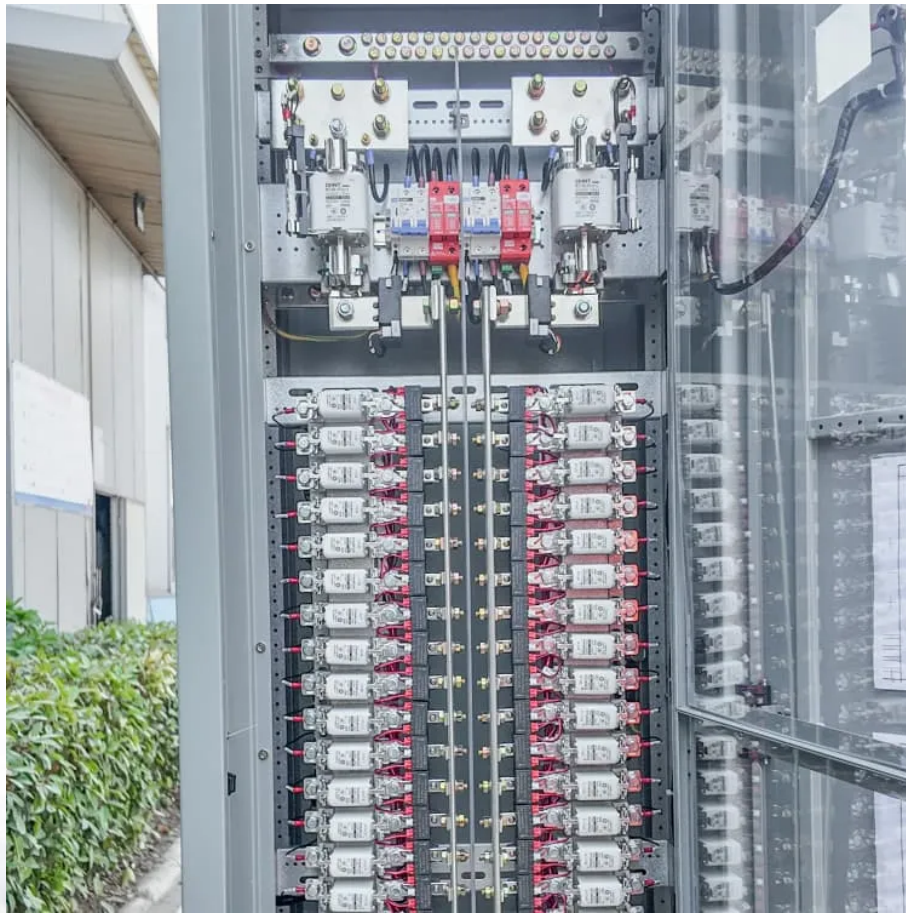


Introduction to base station power supply equipment and parameters





Overview

How much power does a base station need?

There is no general maximum output power requirement for base stations. As mentioned in the discussion of base-station classes above, there is, however, a maximum power limit of 24 dBm output power for Local Area base stations and of 20 dBm for Home base stations, counting the power over all antennas.

What types of power systems are used in communications infrastructure equipment?

Communications infrastructure equipment employs a variety of power system components. Power factor corrected (PFC) AC/DC power supplies with load sharing and redundancy (N+1) at the front-end feed dense, high efficiency DC/DC modules and point-of-load converters on the back-end.

What is a 3G base station converter?

In a 3G Base Station application, two converters are used to provide the +27V distribution bus voltage during normal conditions and power outages.

What is a preferred power supply architecture for DSL applications?

A preferred power supply architecture for DSL applications is illustrated in Fig. 2. A push-pull converter is used to convert the 48V input voltage to +/-12V and to provide electrical isolation. Synchronous buck converters powered off of the +12V rail generate various low-voltage outputs.



Introduction to base station power supply equipment and parameters

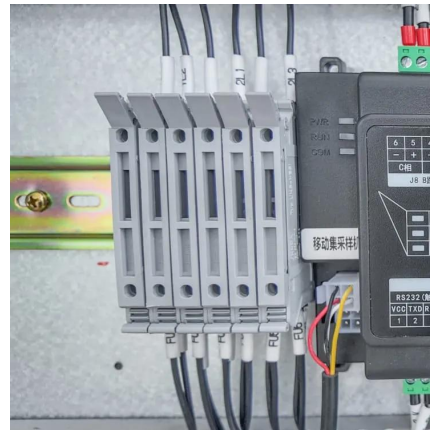


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These tools simplify the task of selecting the right power management solutions for these devices and, thereby, provide an optimal power solution for 5G base stations components.



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