

SolarInnovate Energy Solutions

Power supply for communication base stations Wind power supply



Overview

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 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.

What is a multi-output power supply design?

Multiple output designs may also employ a complex regulation scheme which senses multiple outputs to control the feedback loop. Voice-over-Internet-Protocol (VoIP), Digital Subscriber Line (DSL), and Third-generation (3G) base stations all necessitate varying degrees of complexity in power supply design.

What are hybrid isolated power supply topologies?

Competing with these new POL modules are hybrid isolated power supply topologies, such as the cascaded current-fed or voltage-fed push-pull converters. Semiconductor suppliers are enabling power supply system designers to embed low-cost compact isolated power supplies directly onto their motherboards and line cards.

What is a low profile power supply?

Low profile power supply design usually includes printed circuit board (planar) power transformers and output inductors and surface mount input and output capacitors. Multiple output power supplies are often implemented with a multi-

output flyback converter.

Do VoIP converters need power supply circuit topologies?

VoIP converters generally require power supply circuit topologies that are performance-driven (highly efficient with minimal conducted line current), easy to use and cost-effective with a small footprint and low profile. A number of topologies can be designed to meet these requirements to some degree.

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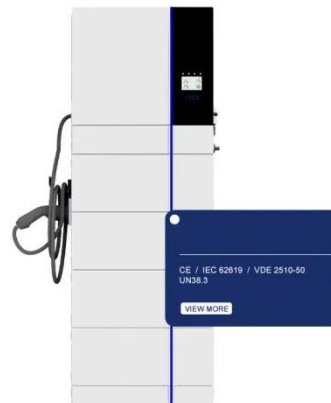


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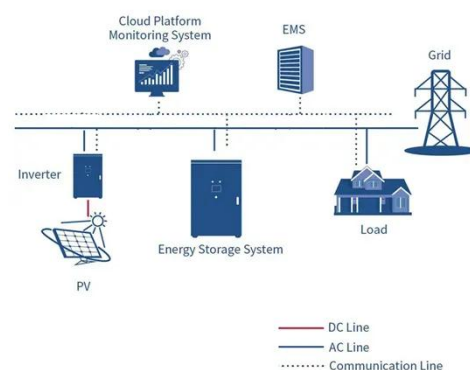


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