

# High-density AC DC power supply intelligent type in stock



## Overview

The REF\_3K3W\_HFHD\_PSU power supply exhibits a fully integrated transformer structure and includes a baby-boost stage to hold up time requirements. Typical applications include AC-DC power conversion for telecom infrastructure, data centers, and computing solutions. Intended audience The document is intended for R&D engineers, hardware designers, and developers of power electronic systems.

Keypoints •Presents a 12 kW PSU reference design achieving 113 W/in<sup>3</sup> power. Munich, Germany - 10 September 2025 - Infineon Technologies AG (FSE: IFX / OTCQX: IFNNY) is introducing a 12 kW reference design for high-performance power supply units (PSUs), specifically designed for AI data centers and server applications. The reference design offers high efficiency and high-power density, and leverages all relevant semiconductor materials. AC-DC Configurable Power Supply Modules are the circuit board portion of a configurable device that converts an alternating current input into a direct current output with voltages ranging from 2.5 A to 53 A, and a power maximum of 33 W to 600 W.

## Article Content

What is Intelligent Power Supply? The Role of Advanced Power Supplies

What is an intelligent power supply? An intelligent power supply is a type of power supply that is designed to provide stable, efficient and reliable power to electronic devices. It is equipped with

30kW-INFY POWER

It has the features of high efficiency, zero noise, high power density and high reliability. By 300~900VDC input, it can deliver up to 40kW DC output power and cover 150 to 1000VDC output voltage range.

High-Density Open-Frame AC-DC Power Supplies

CUI's space and energy saving high-density open-frame AC-DC power supplies are suitable for ITE, industrial, and consumer electronics

12KW high frequency and high power density PSU for AI data centers

Infineon's 12 kW high-density PSU reference design combines Si, SiC, and GaN technologies to deliver exceptional efficiency and power density. Ideal for AI data center and server power racks, it supports

High-Density AC-DC Power Supply is All-In on Digital

XP Power highlights the potential for fully digital power supplies with its FLXPro series, which provides up to 1.3 kW of AC-DC power conversion.

Intelligent Power Supply Design Solutions

Today, power supply designers must create power conversion products that offer greater efficiency, higher power density, higher reliability, advanced communications and sophisticated control features.

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Intelligent Power Supply Design Solutions

Intelligent Power Supply Solutions Today, power supply designers must create power conversion products that offer greater efficiency, higher power density, higher reliability, advanced

Infineon Technologies : releases 12 kW high-density power supply unit ...

These architectures, combined with Infineon's latest wide-bandgap technologies, achieve a power density of up to 113 W/in<sup>3</sup>. Another key feature of the 12 kW PSU reference design is the

## Infineon Releases 12 kW High-Density Power Supply Unit Reference

Infineon Technologies AG is introducing a 12 kW reference design for high-performance power supply units (PSUs), specifically designed for AI data centers and server applications. The

### High-density PSU reference design for AI data centres and servers

The reference design offers high efficiency and high-power density, leveraging all relevant semiconductor materials: Si, SiC, and GaN. It is aimed at research and development

## Infineon 12-kW High-Density PSU Reference Design

A new 12-kW reference design for high-performance power-supply units (PSUs) from Infineon Technologies is specifically designed for AI data centers and

## Infineon Launches 12 kW High-Density PSU for AI Data

Munich, Germany – 10 September 2025 – Infineon Technologies AG (FSE: IFX / OTCQX: IFNNY) is introducing a 12 kW reference design for high-performance

### 8KW high frequency and high power density PSU for AI data centers

With a size of just 40 mm x 73.5 mm x 450 mm (including chassis) and 100 W/in<sup>3</sup> power density, REF\_8KW\_HFHD\_PSU shows a viable approach for achieving higher power density and efficiency

## High-Density Power for the AI Revolution

There are physical considerations too. The space afforded to power, processing, and server systems cannot expand without limit, making power density a priority for system architects.

## Infineon Launches 12 kW High-Density PSU for AI Data

The reference design offers high efficiency and high-power density, and leverages all relevant semiconductor materials silicon (Si), silicon carbide

## How Next-Gen AI Data Centers Are Optimizing Power

SiC power components cut switching and conduction losses, boosting system efficiency. In AC-DC conversion, SiC rectifiers and power factor

## Infineon Technologies REF\_3K3W\_HFHD\_PSU High Power Density

The REF\_3K3W\_HFHD\_PSU power supply exhibits a fully integrated transformer structure and includes a baby-boost stage to hold up time requirements. Typical applications include AC-DC power

## Infineon Releases 12 kW High-Density Power Supply

“Our new 12 kW high-density power supply unit reference design is using advanced power conversion topologies and therefore utilizing CoolMOS™ ,

Electric motor

Electric motors can be powered by direct current (DC) sources, such as from batteries or rectifiers, or by alternating current (AC) sources, such as a power

## Contact Us

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