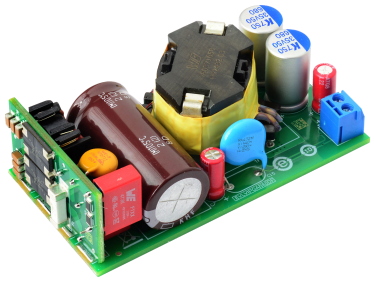
EVLVIPGAN65DF

Data brief

24 V / 65 W reference design based on VIPERGAN65D



Features

- Input voltage range: universal AC from 90 to 264 V_{AC} with 47 Hz to 63 Hz frequency
- Maximum output power: 65 W
- Output voltage: 24 V_{DC}
- Output current: 2.7 A
- Peak efficiency: > 93 %
- Key products: Power GaN IC: VIPERGAN65D; SR IC: SRK1001

Applications

- High-efficiency auxiliary power supply for appliances, industrial, and consumers.

Description

The EVLVIPGAN65DF is a 24 V / 65 W reference design set in isolated QR flyback topology, based on the VIPERGAN65D high-voltage converter. This controller combines, in the same package, a low-voltage PWM controller chip with a 700 V GaN HEMT and integrates:

- a complete set of features which help design high-efficiency and low-standby consumption SMPSs with a short bill of materials, for cost-effective and fast design: ZVS quasi-resonant operation with dynamic blanking time; feedforward compensation; valley synchronization adjustment; low quiescent current; advanced light load management
- a complete set of protections that considerably increase end-product's safety and reliability: output overvoltage protection (OVP), output overload/short-circuit protection (OLP), brown-in/out protection, input overvoltage protection (iOVP).

To increase the system efficiency, the secondary side rectification is realized through a power MOSFET driven by the SRK1001 adaptive synchronous rectification controller.

Product summary	
65W Adaptor	EVLVIPGAN65DF
Power GaN IC	VIPERGAN65D
Secondary side synchronous rectification controller optimized for flyback converter	SRK1001

Product label

SUSTAINABLE TECHNOLOGY

1 Schematics

Figure 1. **Input board circuit schematic**

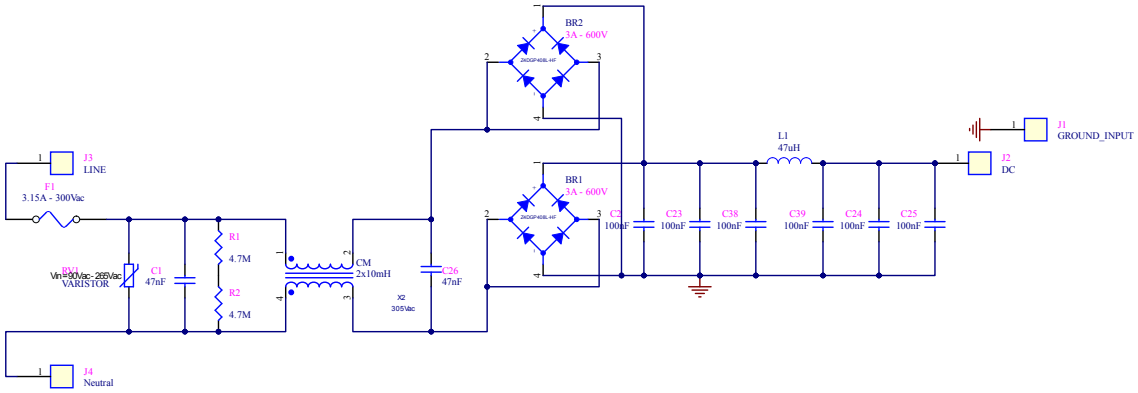
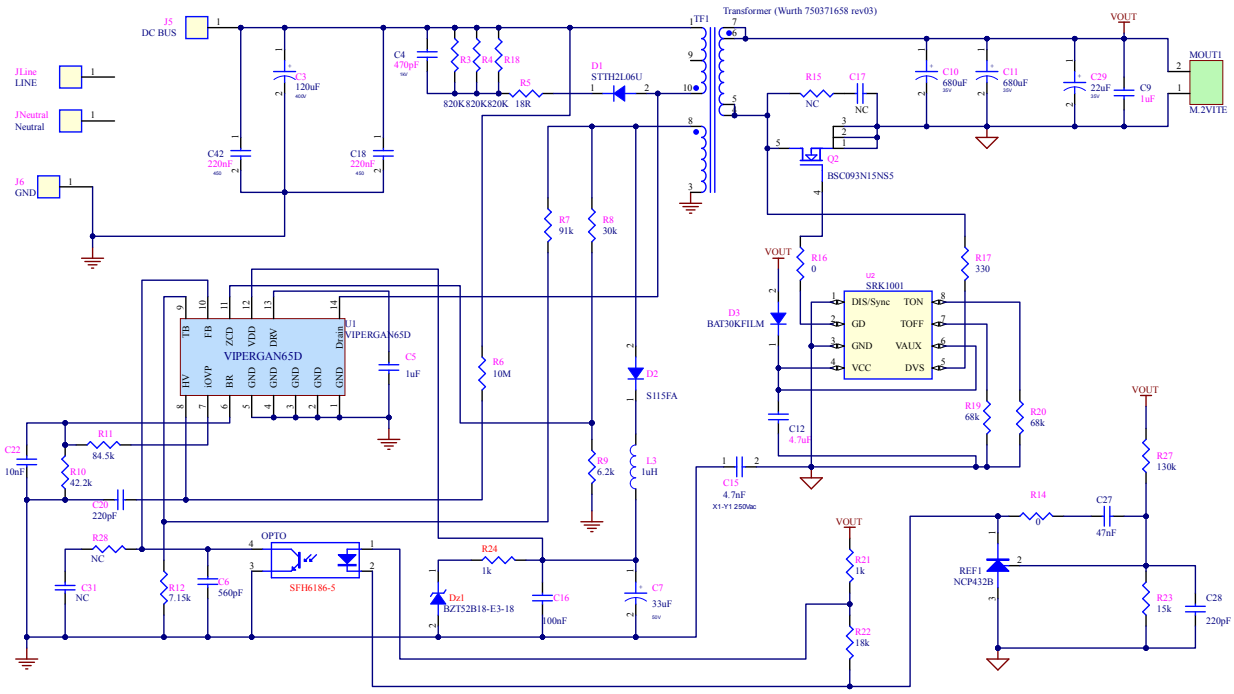


Figure 2. **Main board circuit schematic**



Revision history

Table 1. **Document revision history**

Date	Version	Changes
27-Nov-2024	1	Initial release.

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