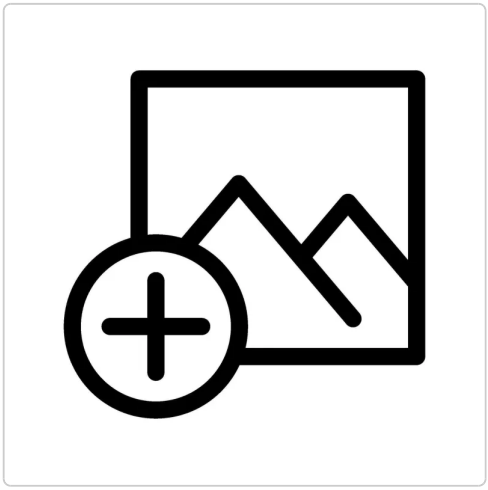
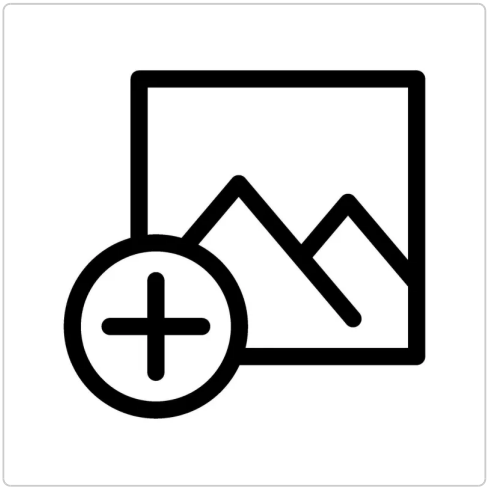
KRAMS - 36-48V/12V 300W Converter





Reference : KRA-364812-300

Brand : Krams Electronics

Options :

No variants

3D Model : Not available

EAN-13 : 3762552429025

KRAMS - 36-48V/12V 300W Converter is a 36V/48V to 12V DC/DC converter designed to supply a low-voltage auxiliary network from a traction battery or an onboard DC bus. This 48V to 12V step-down converter delivers up to 300 W with a 12 V / 25 A output, in a compact insulated housing suited to onboard electrical architectures where power stability and ease of integration are critical.

This 36V/48V to 12V voltage converter addresses a common requirement in retrofit projects, light electric vehicles, mobile machinery and embedded industrial systems: supplying 12 V auxiliaries from a main power source ranging from 28 to 60 V. Its 2 kV galvanic isolation, low 900 g weight and compact format make it suitable for installations where electrical robustness and ease of installation matter.

12V auxiliary bus

48V to 12V DC/DC converter for onboard auxiliaries

In a mixed electrical architecture, the role of a 48V to 12V DC/DC converter goes beyond simple voltage adaptation. It must maintain a stable supply for sensitive auxiliary equipment while coping with upstream bus variations, wiring constraints and the real operating environment of the machine or vehicle. Model 570-019-300-4812 covers this requirement with an input range of 28 to 60 V, allowing integration on both 36 V and 48 V systems while providing a 12 V output at up to 25 A for lighting, relays, automation, instrumentation, fans, pumps, control units and onboard accessories.

The value of this 300 W version lies in its intermediate positioning. It can power a more substantial 12 V auxiliary subsystem than a small service converter, without moving to a larger or heavier format. For an engineering office, this makes it easier to balance available power, compactness, electrical protection and mounting simplicity. The 2 kV galvanic isolation is also a structuring point for electrical separation between the traction network and the auxiliary 12 V network, especially when the architecture requires improved immunity to disturbances or cleaner grounding

management.

Key data

Brand	Krams Electronics
Model reference	570-019-300-4812
Product type	Isolated DC/DC converter
Function	36V/48V to 12V step-down converter
Input voltage	28 to 60 V DC
Output voltage	12 V DC
Max output current	25 A
Max power	300 W
Galvanic isolation	2 kV
Weight	900 g
Estimated shipping weight	1.125 kg
Main use	Supplying 12 V auxiliaries from a 36/48 V traction bus
Integration environment	Vehicle, mobile machine, embedded system
Integration benefit	Stable 12 V output with input/output electrical separation
Positioning	Compact version for intermediate auxiliary networks

System integration

Battery wiring and voltage drop

The 12 V / 25 A output should be considered as a useful capacity to be integrated into a realistic auxiliary load calculation. On a vehicle or machine, this means distinguishing between continuous loads and intermittent loads, as well as startup current peaks for certain devices. This converter is not intended to compensate for an undersized 12 V network: it must be selected according to actual simultaneous consumption, cable lengths and the required level of protection for the auxiliary harness. Particular attention must therefore be paid to upstream protection, conductor cross-sections and 12 V load distribution when several consumers are powered in parallel.

DC/DC converters with multiple input and output voltages

We also offer a complete range of DC/DC converters with different input and output voltages to cover a wide variety of electrical architectures. For applications requiring higher auxiliary power, packs allowing several converters to be connected in parallel are also available in order to increase output power while maintaining a modular integration approach.

Target uses

Integration on industrial vehicles and retrofit projects

This 36V/48V to 12V DC/DC converter is primarily intended for integrations where a high-energy main bus supplies a low-voltage sub-network dedicated to service functions. It is suitable for light electric vehicles, retrofit platforms, special

machines, compact agricultural systems, electric marine applications and certain mobile industrial assemblies. In these uses, the objective is to obtain a stable 12 V supply without resorting to an oversized auxiliary battery or a more complex architecture than the actual requirement demands.

For the integrator, compatibility with both 36 V and 48 V systems offers a practical operational advantage. It helps rationalize converter selection across similar projects while retaining a standard 12 V output for the most common auxiliaries. This is especially useful when the product must power equipment already available in 12 V, without redesigning the entire onboard ecosystem. Model 570-019-300-4812 can therefore serve as an electrical interface between a traction chain or main storage system and secondary functions retained at low voltage for cost, component availability or integration simplicity reasons.

2 kV isolation

Isolated converter for traction and 12 V networks

Galvanic isolation provides a benefit that is often underestimated at the design stage. In architectures where ground return paths, switching disturbances, potential differences or coupling risks are critical, an isolated converter helps separate the power network from the auxiliary network. This does not replace rigorous harness design, but it improves overall system robustness when correctly integrated. In onboard applications where several subsystems coexist, this characteristic can prevent late redesign work related to the electrical behavior of the complete system.

Useful points

Can this converter be used on a 36 V or 48 V battery?
Yes. Its 28 to 60 V input range allows integration on both 36 V and 48 V architectures, provided that the actual operating voltage and upstream system variations are validated.

What is galvanic isolation used for on this type of DC/DC converter?
It electrically separates the input circuit from the output circuit, which can improve integration robustness between the traction network and the 12 V auxiliary network.

Is 12 V / 25 A suitable for all onboard auxiliary loads?
No. Total power demand, transient current peaks and the simultaneity of loads must be checked before final sizing.

Overall selection

The KRAMS - 36-48V/12V 300W Converter is a consistent solution for creating a 12 V auxiliary network from a 36 V or 48 V system when electrical isolation, compactness and supply stability are key constraints. Its integration must nevertheless be validated at full system level, taking into account load calculations, wiring, protections, installation layout and real operating conditions before commissioning.

Frequently associated searches for this product: 36v 48v to 12v dc dc converter, 48v 12v 300w converter, isolated 48v 12v dc dc converter. See the corresponding category

Product sheet written by **Camille F.** and reviewed by the EVEA Distribution technical team — Last update on 08/04/2026.