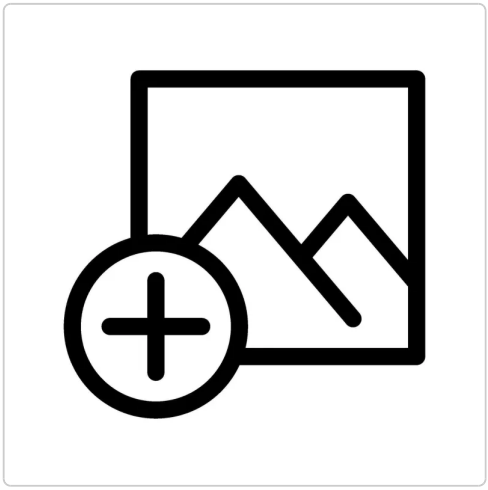
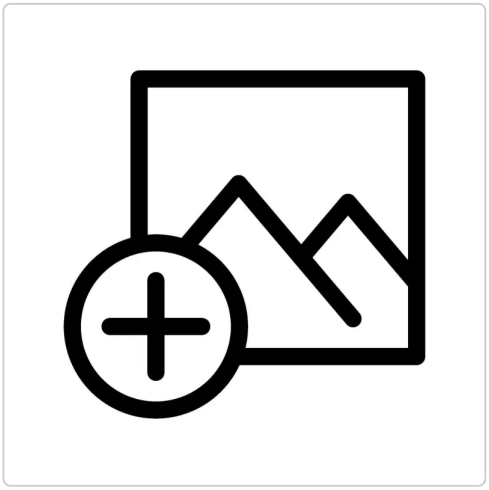
Krams Electronics - 570-019-300-9612 - 96V 12V Converter





Reference : KRA-9612-300

Brand : Krams Electronics

Options :

No variants

3D Model : Available

EAN-13 : 3762552428011

Krams Electronics 570-019-300-9612 is an isolated 96V to 12V DC/DC converter designed to supply a low-voltage auxiliary network from a high-voltage battery bus, which often corresponds to the traction battery in an electric vehicle. This 96V to 12V voltage converter delivers up to 300 W, or 25 A on a regulated 12 V output, with an 80 to 120 V DC input range and 2 kV galvanic isolation suited to demanding embedded environments.

This 96V 12V converter is intended for integrations where traction or high-voltage battery power must be converted into a 12 V auxiliary supply for relays, automation, lighting, control electronics or embedded peripherals. Its compact 190 x 76 x 43.5 mm housing, 900 g weight, integrated fuse holder and parallel mounting capability make it a relevant embedded 96V 12V converter for electric vehicles, mobile machinery, electrified industrial equipment or retrofit projects.

96V to 12V bus

96V 12V DC/DC converter for embedded auxiliaries

In a 96 V architecture, the role of a 96V to 12V DC/DC converter is to interface between the main power bus and auxiliary consumers that cannot be powered directly from the high-voltage battery. The 570-019-300-9612 performs this function with a regulated 12 V DC output, a maximum current of 25 A and a power rating of 300 W, allowing continuous supply of a significant set of low-voltage loads within an electric vehicle or mobile machine.

The 80 to 120 V DC input range covers the usual variations of a nominal 96 V system. This input span is particularly useful when pack voltage changes with state of charge, operating conditions or system power demand. For a design office, this means the converter can be used on 96 V traction architectures without adding a dedicated intermediate stage for auxiliaries, provided that the protection strategy and system operating margins are properly validated.

Key data

Product type	Isolated DC/DC voltage converter
Reference	570-019-300-9612
Input voltage	80 to 120 V DC
Nominal system voltage	96 V
Output voltage	12 V DC
Max output current	25 A
Power	300 W
Efficiency	88 %
Galvanic isolation	2 kV
Sealing	Fully sealed
Parallel mounting	Yes
Integrated fuse holder	Yes
Operating temperature	-40 °C to +75 °C
Weight	900 g
Dimensions	190 x 76 x 43.5 mm
RoHS compliance	Yes
CE marking	Yes
Standard reference	UL60950
EMC standards	EN12895
Electrical transient standards	ISO7637-2
Available option	20 mm finned aluminium heatsink

Isolation and stability

Isolated DC/DC converter for electric vehicle

The 2 kV galvanic isolation is a major technical point. In an isolated DC/DC converter, it electrically separates the high-voltage input circuit from the 12 V auxiliary network, making it easier to manage ground potentials, limiting certain parasitic feedback paths and improving overall electrical architecture consistency in complex systems. In electric vehicle or mobile machine applications, this feature is especially relevant when 12 V auxiliaries include sensitive control, safety, signalling or supervision functions.

An efficiency of 88% remains suitable for embedded auxiliary supply, but it still implies real thermal dissipation at full load. At 300 W output, internal losses remain high enough to require serious attention to mechanical placement. This point is often underestimated on a compact 96V to 12V voltage converter: a small footprint does not remove the need for proper heat exchange with the installation environment. In closed volumes, at high ambient temperature or with several converters placed side by side, the optional 20 mm finned aluminium heatsink should be considered early in the design phase.

Field integration

12V auxiliary supply on a 96V bus

The product is intended for applications exposed to the mechanical, thermal and electrical constraints typical of embedded environments. However, the converter's robustness alone does not guarantee overall system robustness: system durability also depends on harness quality, connectors, cable routing and mounting method. From an integration standpoint, this 12V auxiliary converter for electric vehicles should therefore be treated as a technical subassembly that must fit into a coherent environmental chain at vehicle or machine level.

The integrated fuse holder simplifies electrical integration and provides a first practical response to local converter protection. This function remains useful to reduce footprint and streamline installation, but it does not replace full upstream and downstream protection sizing. On an electric vehicle DC/DC converter or on an embedded machine, conductor cross-section, connector capability, fuse coordination and transient load behaviour on the 12 V side must all be checked. This is even more important because the product can deliver up to 25 A on the auxiliary network.

Parallel mounting

Parallel mounting with plug & play assembly

Parallel mounting is another differentiating feature. It makes it possible to increase available power, split 12 V supplies by function or implement partial redundancy depending on the chosen architecture. This option is particularly useful in systems where 12 V auxiliaries become numerous or evolve over time, such as special vehicles, industrial electric platforms or certain retrofit machines.

At EVEA, we also offer this kind of pre-wired assembly for parallel mounting: the converters are already mounted on a heatsink, with input and output wiring completed, as well as an input connector and an output connector for more direct plug & play integration. In return, wiring must remain symmetrical, each branch must be independently protected and mutual heating between modules must be evaluated from the layout phase onward.

12V uses

12V auxiliary battery charging and direct supply

This 96V to 12V DC/DC converter can supply a 12 V auxiliary network from a battery pack or a nominal 96 V traction bus. It is suitable for lighting, control, relays, instrumentation, embedded logic or certain low-voltage electromechanical devices.

Beyond direct supply of 12 V consumers, this converter can also be used to charge a 12 V auxiliary battery, which can then in turn supply certain equipment or stabilise the auxiliary network depending on the chosen architecture. The product is particularly relevant for electric mobility architectures, special vehicles, electrified industrial platforms or electric retrofit projects, where high-energy DC voltage must be converted into a stable and protected auxiliary supply.

System constraints

Temperature, EMC and prototype validation

The operating temperature range of -40 °C to +75 °C broadens the field of use to outdoor applications, harsh industrial environments and rolling equipment exposed to major climate variations. However, this data should not be interpreted as an automatic guarantee under all conditions. At low temperature, connected auxiliaries must remain compatible with

the delivered 12 V supply; at high temperature, the thermal margin available around the 96V to 12V DC/DC converter must be confirmed by testing or calculation, taking the actual duty cycle into account.

Finally, RoHS, CE, UL60950, EN12895 and ISO7637-2 compliance strengthen the product's relevance for projects where electromagnetic compatibility, environmental resistance and regulatory integration are important. These references do not remove the need to validate the final equipment, but they clearly position this 96V 12V 300W converter as a component intended for serious embedded architectures, where stability of the 12 V auxiliary supply directly contributes to overall system reliability.

Integration questions

What is a 96V to 12V DC/DC converter used for?

It is used to supply 12 V auxiliaries from a 96 V battery or traction bus, but also to charge a 12 V auxiliary battery that can then in turn supply certain equipment depending on the system architecture.

Why choose an isolated DC/DC converter?

An isolated DC/DC converter provides galvanic separation between input and output, helping to structure grounding and secure the integration of low-voltage auxiliaries within a high-voltage architecture.

Yes, it is suitable for electric vehicle, mobile machine or retrofit architectures, provided that input voltage, 12 V auxiliary demand, protections and thermal dissipation are validated at system level.

Parallel mounting is supported, but it requires balanced wiring, branch protection and verification of thermal behaviour in the final installation. At EVEA, we also offer pre-wired assemblies with converters already mounted on a heatsink, completed wiring and input/output connectors for plug & play integration.

Integration choice

The Krams Electronics 570-019-300-9612 addresses a precise need for 12 V auxiliary supply from a 96 V network in embedded, industrial or electric mobility applications. Its combination of 2 kV isolation, 25 A, 300 W, integrated fuse holder and parallel mounting capability makes it a coherent 96V to 12V voltage converter for demanding integrations, provided that wiring, cooling, protection and overall system compatibility are validated before commissioning.

Frequently associated searches for this product: isolated dc dc converters, dc dc voltage converter, dc dc converter for electric vehicle. See the corresponding category

Product sheet written by **Camille F.** and reviewed by the EVEA Distribution technical team — Last update on 07/04/2026.