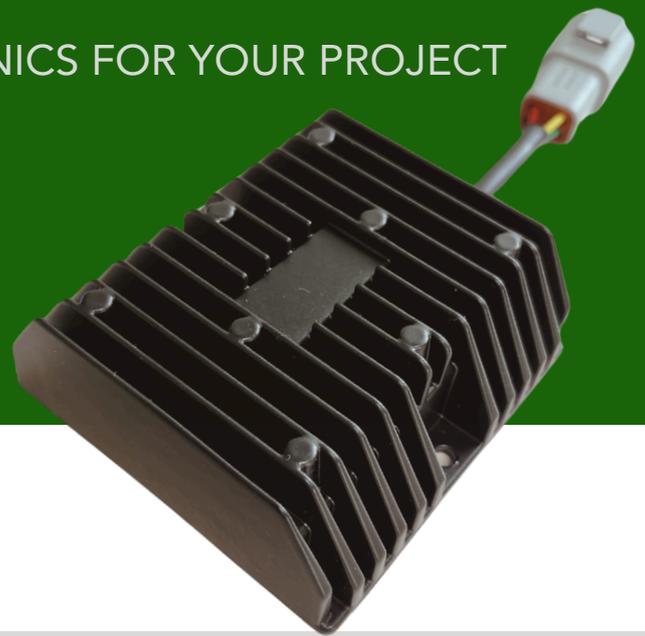


DC/DC CONVERTER

Buck-Boost 12V/12V

10A



DC/DC converters adapt electrical power between different DC voltage levels, ensuring compatibility between high-voltage systems and low-voltage components for efficient power distribution and stable vehicle electronics.

05242410 DC/DC Converter

The 05121210 buck-boost converter delivers stable 12V output across a wide input voltage range, ideal for automotive, mobility, and off-highway applications. This converter is designed for scenarios where input voltages can fluctuate, ensuring consistent performance and protection for critical systems.

Benefits:

- **Stability under variable input conditions:** Delivers precise voltage regulation even with fluctuating input.
- **High efficiency:** Over 95% efficiency ensures minimal energy loss and optimized performance.
- **Robust design:** With IP67-rated housing, sealed connectors, and reliable operation from -40°C to 85°C, it ensures durability and performance in extreme conditions.
- **Environmental compliance:** Fully adheres to RoHS and CE standards, supporting sustainable design.
- **EMC compliance:** Certified to meet ECE R10 standards, ensuring electromagnetic compatibility.

GUILERA buck-boost converters deliver reliable performance and high efficiency, tailored for the specific needs of modern vehicles and off-highway equipment, ensuring durability even in the toughest conditions.

Technical Data

Nominal Input Voltage	12 Vdc
Input Range Voltage	9-16 Vdc
Crank Input Voltage	<8 Vdc
Input Turn ON Voltage	<6 Vdc
Input Overvoltage Turn OFF	<37 Vdc
Output Voltage Range	13,5±0,5 Vdc
Output Switching Frequency	250 KHz ± 10%
Output Over Voltage Turn OFF	<30 Vdc
Output Voltage Ripple	<200 mVpp
Nominal Current	10A
Peak Current	15A (0,5")
Stand-By Current	< 10 mA
	< 0,1mA Enable / Key OFF
Storage Temperature	-40°C to 85°C
Working Temperature	-40°C to 85°C
	(with derating)
Efficiency	>95%
Encapsulation	IP67

Applications:

Industrial vehicles: Forklifts, pallet stackers, automated guided vehicles (AGVs).

Agricultural vehicles: Tractors, sprayers, lawn mowers and utility vehicles.

Transportation: Buses, trucks, delivery vans.

Construction vehicles: Excavators, wheel loaders, bulldozers.

Light mobility vehicles: E-scooters, e-bikes, golf carts, go-karts.

Specialized vehicles: Police cars, fire trucks, ambulances and municipal service cars.



DC/DC CONVERTER

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10A

Pin-Out

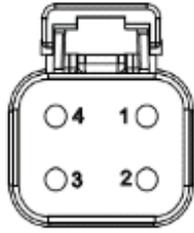
Connector: AMPHENOL AT04-4P

PIN 1/4: V input

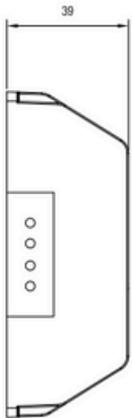
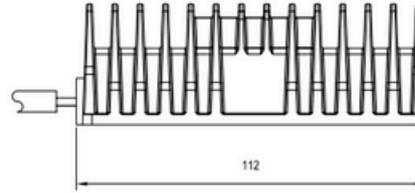
PIN 2/4: GND

PIN 3/4: V output

PIN 4/4: Enable



Dimensions



Protections

Internal Overheat

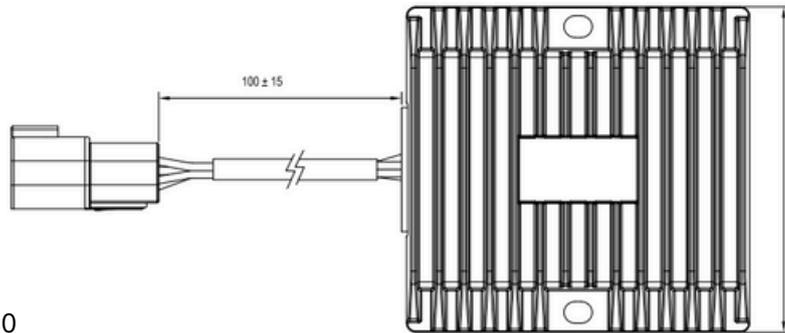
Input Reverse Polarity

Input Overvoltage

Output Overvoltage

Overload

Short circuit

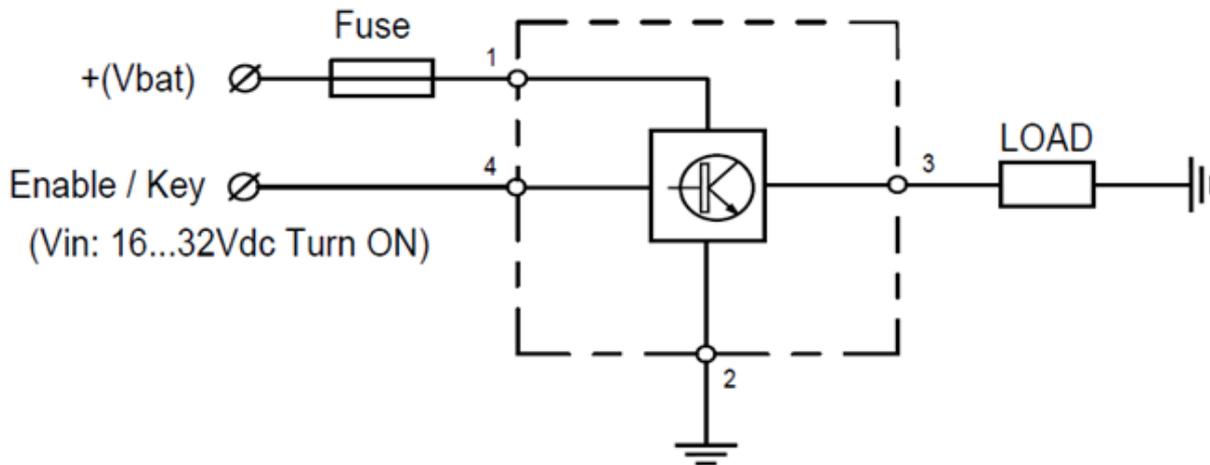


Order Information

DC/DC 12V/12V 10A:

05121210

Block Function Diagram



Technical Notice: Images and specifications are for reference only. Guilera reserves the right to modify product design and features without prior notice. The latest validated technical drawing is the only official document certifying product characteristics.

GUILERA S.A.

Founded in 1953, Guilera S.A. specializes in advanced electronic and electromechanical systems for the automotive, off-highway, and mobility sectors.

Our products include reliable DC-DC converters, electronic power control systems for traction, advanced flasher units, and solid-state electronics.

Guilera is committed to sustainability and social responsibility, integrating eco-friendly practices and pursuing CSR certifications. Serving OEMs and Tier 1 suppliers, we continuously innovate to shape the future of transportation and mobility.

 <https://www.linkedin.com/company/guilera>

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