

DC/DC CONVERTER

Step-Up (Boost) 12V/24V
10A (15A peak)



DC/DC converters are electronic devices that adapt electrical power between different DC voltage levels.

Step-up converters specifically increase voltage while maintaining efficiency, ensuring stable operation for 24V systems powered from 12V sources.

051224C10 DC/DC Step-Up Converter

This converter elevates 12V input voltage to a stable 24V output, delivering 13A continuous power (300W nominal) and up to 15A peak.

Designed for demanding automotive, mobility, and industrial applications, it features IP67-rated housing and a sealed connector, ensuring reliability in harsh environments.

Benefits:

Enhanced reliability: Stable voltage boost ensures consistent performance in critical systems.

Energy efficiency: Optimized power conversion minimizes losses and reduces operating costs.

Versatility: Supports a wide range of 12V input sources with no minimum load requirement.

High performance: Delivers reliable 300W output.

Durability: Robust, sealed design withstands dust, water, and mechanical stress.

Safety: Built-in protection against reverse polarity, overcurrent, overvoltage, short circuit, and thermal shutdown.

Environmental compliance: Meets RoHS and CE standards for sustainability.

EMC compliance: Meets ECE R10 standards, ensuring electromagnetic compatibility.

Technical Data

Nominal Input Voltage	12 Vdc
Input Range Voltage	6-16 Vdc
Crank Input Voltage	<6 Vdc (with derating)
Output Start Up	<500 ms
Output Voltage Range	24,5 Vdc ± 0,5 Vdc
Output Switching Frequency	150 kHz ± 10%
Output Voltage Ripple	<200 mVpp
Nominal Current	13A
Peak Current	15A (≤1")
Stand-By Current	< 10 mA < 1 mA Enable/Key OFF
Storage Temperature	-40°C to 85°C
Working Temperature	-40°C to 85°C (with derating)
Efficiency	>90%
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.

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



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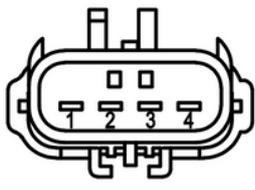
10A (15A peak)

COMING SOON

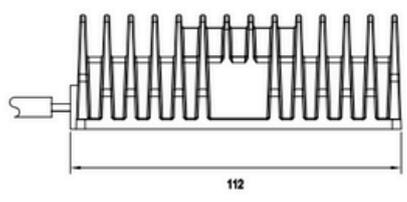
Pin-Out

Connector: Aptiv Male APEX 2.8 15489820

- PIN 1/4 (RED): V Input
- PIN 2/4 (BLACK): GND
- PIN 3/4 (GREEN): V Output
- PIN 4/4 (YELLOW): Enable

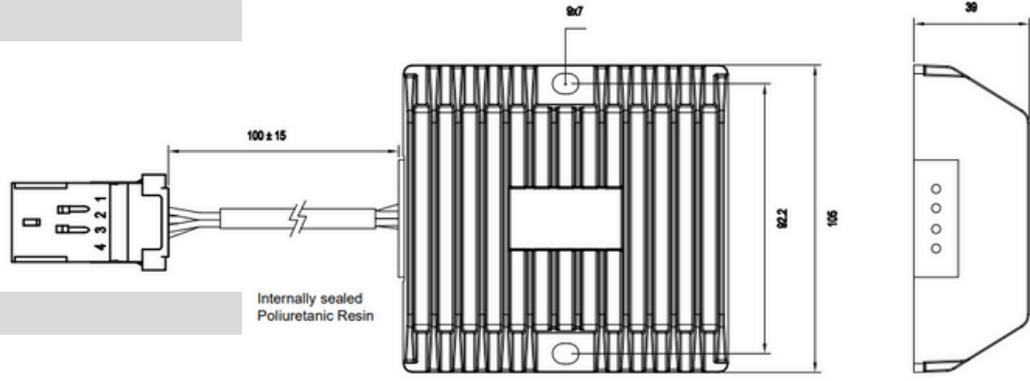


Dimensions



Order Information

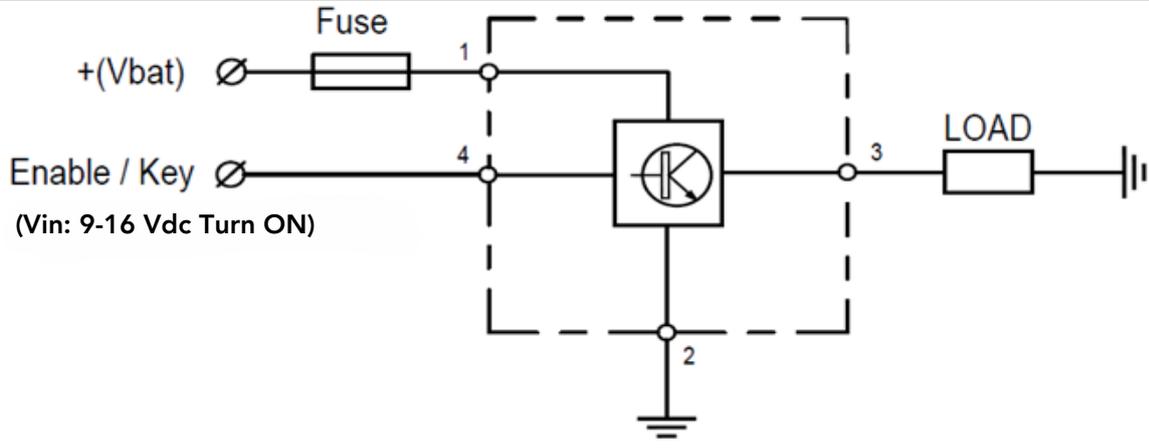
DC/DC 12V/24V 10A: 051224C10



Protections

- Internal Overheat
- Input Reverse Polarity
- Overload
- Short circuit

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.

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