

# DC/DC CONVERTER

Step-Down (Buck) 48V/12V

100A (480W)



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

In automotive applications, they ensure compatibility between high-voltage systems and low-voltage components, enabling efficient power distribution and stable operation of vehicle electronics.

The 054812C100 DC/DC Converter delivers 12V from a 30V-56V input with a 100A output. With two integrated connectors and an IP67 housing, this converter ensures reliable power for automotive, mobility, and off-highway applications.

## Benefits:

### Enhanced Reliability

Stable voltage conversion ensures consistent performance.

### Energy efficiency

Reduces power consumption, lowering costs.

### Versatility

Suitable for various vehicle types.

### Long-term durability

Withstands harsh conditions.

### Safety

Advanced protection features for vehicle systems.

### Compliance

Complies with RoHS Directive for restricted hazardous substances and ECE R10 standards for electromagnetic compatibility.

## Technical Data

Nominal Input Voltage	48 Vdc
Input Range Voltage	30-59 Vdc
Input Turn ON Voltage	<25 Vdc
Input Overvoltage Turn OFF	<150 Vdc
Output Voltage Range	14,5 Vdc $\pm$ 0,5 Vc
Output Switching Frequency	200 kHz $\pm$ 50kHz
Maximal Input Current	45A
Nominal Output Current	95A
Peak Current	100A (at 23°C)
Stand-By Current (enable OFF)	< 2 mA (Key Switch OFF)
Working Temperature	-40°C to 85°C
Storage Temperature	-40°C to 105°C
Efficiency	>85%
Encapsulation	IP67

## Applications:

- Industrial vehicles: Forklifts, pallet stackers, automated guided vehicles (AGVs).
- Agricultural vehicles: Tractors, sprayers, lawn mowers.
- Transportation: Buses, trucks, delivery vans.
- Construction vehicles: Excavators, wheel loaders, bulldozers.
- Specialized vehicles: Police cars, fire trucks, ambulances, utility vehicles, and municipal service cars.
- Etc.



# DC/DC CONVERTER

Step-Down (Buck) 48-96V/12V

80A (960W)

## Pin-Out

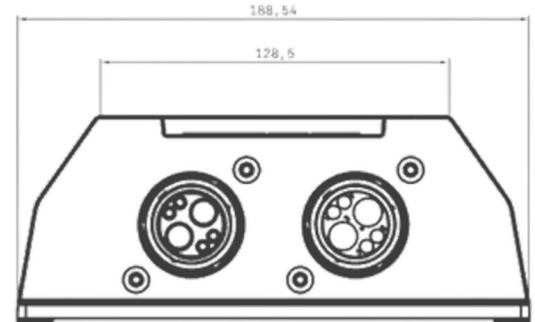
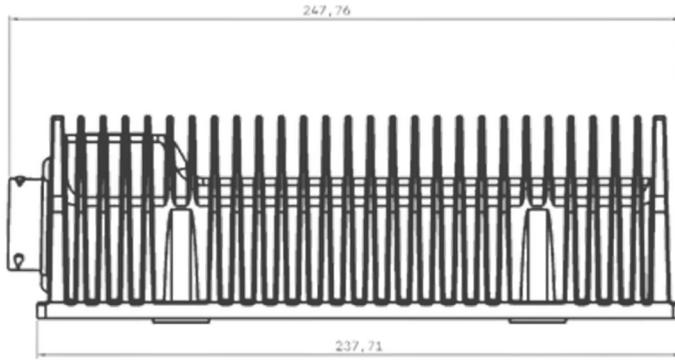
**Connector 1: Type AMPHENOL AHDP02-18-06PN**

Input Key Switch  
Input Voltage  
GND

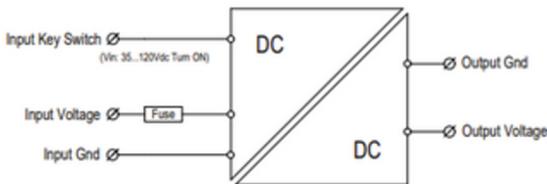
**Connector 2: Type AMPHENOL AHDP02-18-06SN**

+12V Switched Output  
GND

## Dimensions

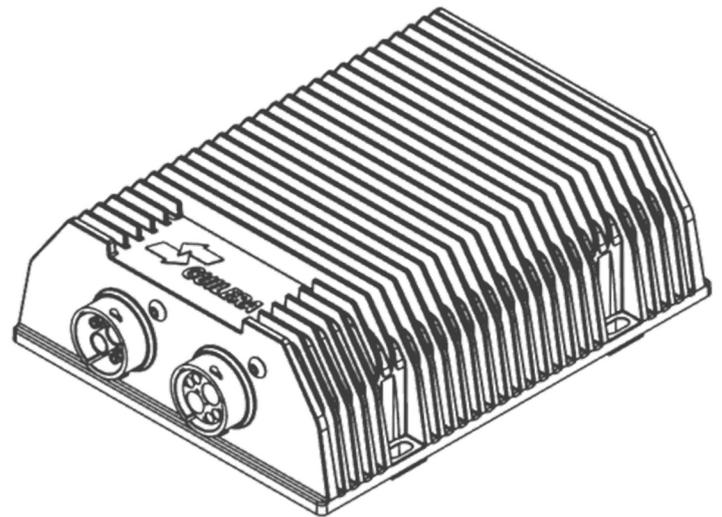


## Wiring Diagram



## Protections

IP67  
Internal Overheat  
Input Reverse Polarity  
Input Overvoltage  
Output Overvoltage  
Overload  
Short Circuit



## Order Information

DC/DC 48V/12V 100A (500W)      054812C100

**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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