DC/DC CONVERTER

Step-Down (Buck) 48V/12V

100A (960W)



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	36-59 Vdc
Output voltage range	14,5 Vdc ± 0,5 Vdc
Nominal output current	80A (at 70°C)
Maximal ouput current	100 A (at 23°C)
Input Turn ON voltage	<30 Vdc (w/ derating)
Stand-by current	< 1 mA (Enable OFF)
Output start up:	< 500 ms
Output switching frequency	400 kHz ± 50kHz
Output voltage ripple:	< 250 mVpp
Output over voltage turn OFF	< 17 Vdc
Working temperature	-40°C to 70°C
Storage temperature	-40°C to 85°C
Efficiency	>93%
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.



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Pin-Out

Connector 1: Type AMPHENOL AHDP02-18-06PN

Power Input:

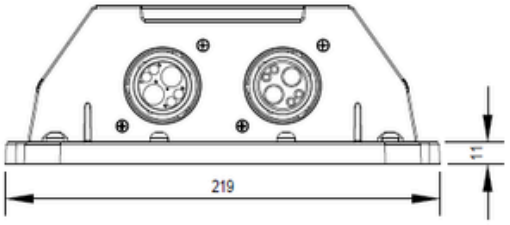
Pin1: Input Key Switch - Terminal AT60-14-0122
Pin3: Input GND - Terminal AT60-204-0490
Pin4: Input Voltage - Terminal AT60-204-0490

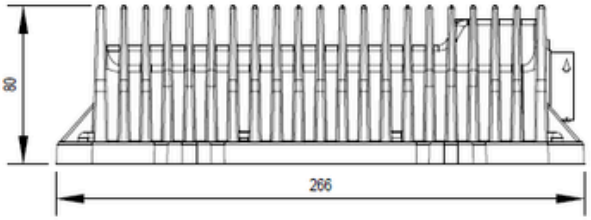
Connector 2: Type AMPHENOL AHDP02-18-06SN

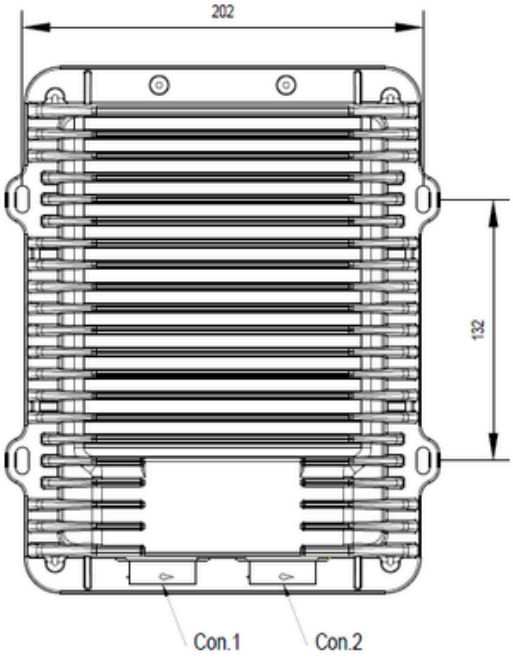
Power Output:

Pin3: Output Voltage - Terminal AT62-203-04141
Pin4: Output GND - Terminal AT62-203-04141

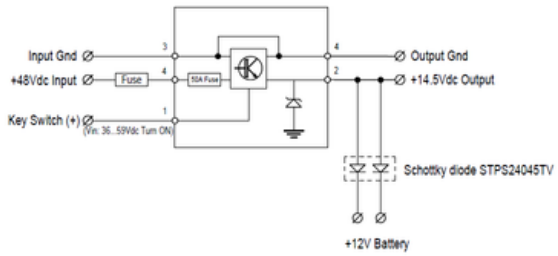
Dimensions







Wiring Diagram



Protections

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

Order Information

DC/DC 48V/12V 100A (960W)	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.

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