


DC-DC Converter 24 V – 12 V (Model SP21100E01-10)

About this Guide

Read this guide carefully and keep it in a safe place. This guide is intended for professionals in the automotive electrical field.

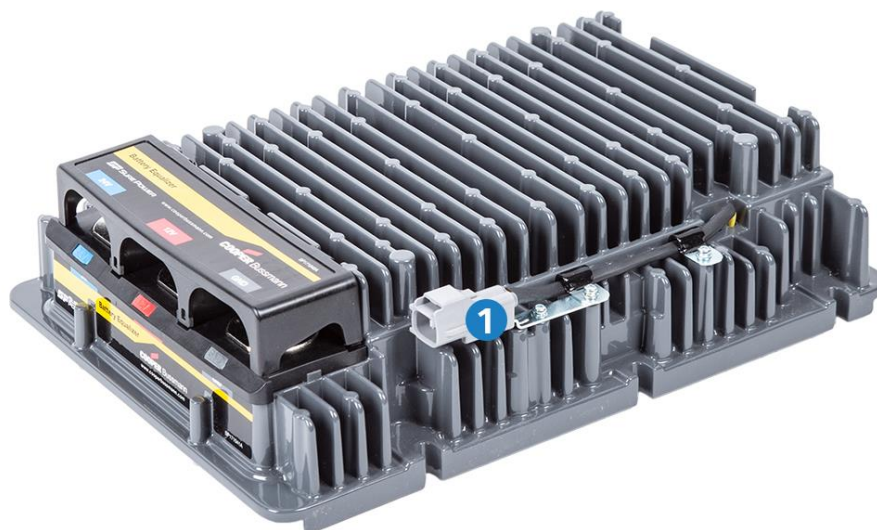
General Safety

Intended use: The DC-DC converter SP21100E01-10 enables you to charge 12 V batteries from 24 V on-board systems as well as to operate 12 V consumers in 24 V vehicles.

WARNING	
	<p>Danger of burns and device defect due to strong build-up of heat</p> <p>Long overload, incorrect installation or inadequate dimensioning of the connected cables lead to a strong build-up of heat.</p> <ul style="list-style-type: none"> • Only install the device as described in this guide. • Select a sufficient cable cross-section to connect the device.

About the DC-DC Converter

Technical Specifications	
Input voltage	15.8 V ... 32.9 V
Output voltage	$V_{in} / 2$
Output current	100 A (max. 114 A)
Standby current, max.	60 mA
Operating temperature	-40 °C ... 85 °C



The diagnostic output ❶ is a switching contact.

This indicates whether the voltage of the batteries is balanced at the 24 V input.

Installation

To install the DC-DC converter, perform the following steps:

1. Mount the device near the starter battery.
2. Disconnect all batteries and loads from the on-board power supply.
3. Connect the ground connection (GND) to the negative terminal of the starter battery.
4. Connect the input (24 V) to the positive terminal of the starter battery.

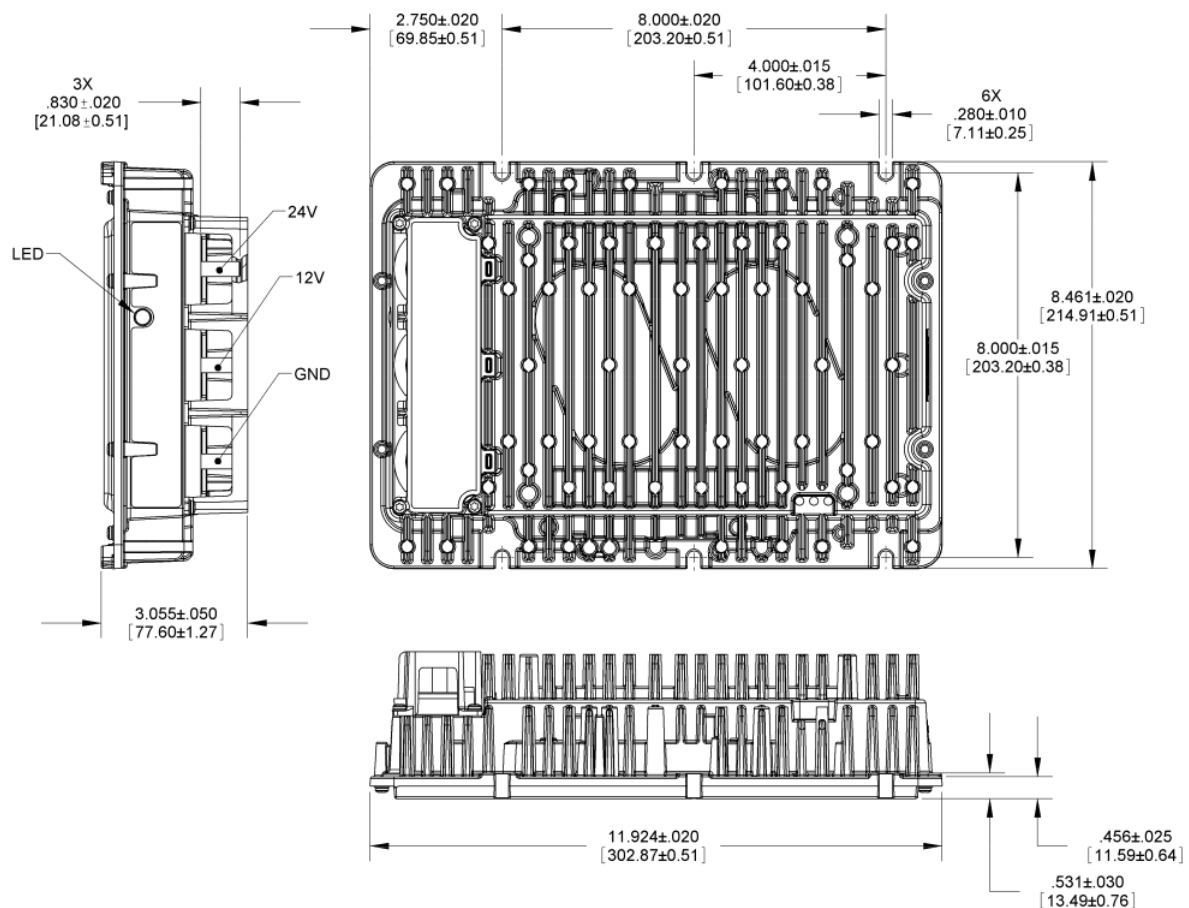
Notice: Use a cable with a cross-section of at least 35 mm² and install a suitable fuse (50 A) near the starter battery.

5. Connect the output (12 V) to the positive terminal of the 12 V battery or the 12 V consumer.

Notice: Use a cable with a cross-section of at least 50 mm².

6. Reconnect all batteries and consumers to the on-board power supply.

✓ The DC-DC converter charges the 12 V batteries and supplies the 12 V consumers. The status LED lights up.



Dimensions, specifications in inch [mm]