



HDC-SERIES



Charging problems

The modern alternators in vehicles have the property of keeping the voltage supplied as low as possible, all in the context of emission reduction. On the other hand, the voltage can also rise again at the moment that the brakes are applied. All this is arranged via the vehicle management, whereby the energy supply is based on only the starter battery that is installed. In a commercial vehicle, camper, etc., however, a second extra battery is often present as an accessory battery (also known as a light battery or household battery). Then it is of course practical that this battery is also charged while driving. But because of the fluctuating alternator voltage, this battery will not get a good charging process. The result is that the battery is not or not sufficiently charged. However, this charging problem can be easily solved by installing the HDC charging converter. This DC-DC charger is mounted between the starter battery and the second battery and converts the fluctuating input voltage into a stable output voltage. This gives the second battery a full charging process and optimum use is made of the alternator.

Protection of the starter battery

When charging a second battery in a vehicle, it is important that the starter battery remains protected at all times against deep discharge. Of course, one does not want to get starting problems as a result of this. Therefore, the converter will only operate when

energy. To double protect the starter battery, the converter also contains an input voltage protection. If the starter battery voltage drops anyway, the converter intervenes.

Adjustable

Each type or brand of battery may have different charging instructions. That is why, among other things, the charging voltage is adjustable. The converter contains a number of standard charging profiles, but can also be fully personalized if desired. In this way, the converter can be optimized for the relevant battery, including LiFePO4 batteries. Furthermore, the charging current can be adjusted if necessary and the undervoltage protection and restart voltage can be adjusted. Everything can be set via the display.

Integrated solar charge controller

The HDC charging converter also contains an extra input that offers the possibility to connect solar panels. Up to 600 Watt panels can be connected to this input. The maximum input voltage is 45Vdc. The second battery will be charged via internal MPPT charge controller when the engine is switched off. This way you have a complete DC, hybrid charging system!





Available models

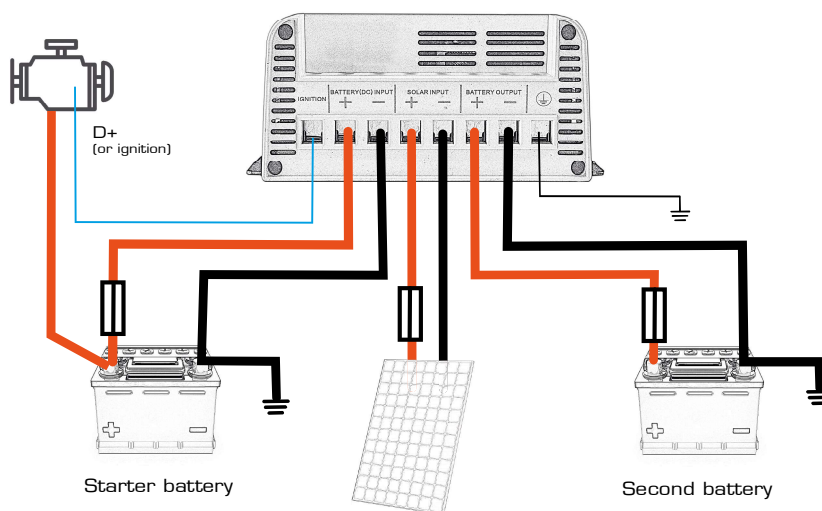
Article no.	Input voltage (nominal)	Output voltage (nominal)	Charging current	Dimensions	Weight
HDC 1212-40	12Vdc	12Vdc	10~40Amp.	22,2x16,4x7,4	1,3kg

Battery separator vs. charging converter

A battery separator is also a frequently used item to charge two batteries (simultaneously) via an alternator. This relay merely puts the two batteries, under certain voltage conditions, in parallel with each other. However, an relay cannot and will not do anything about the voltage offered. If the alternator does not provide a good charging voltage, the second battery will still not be charged sufficiently. For this reason, a battery separator is not the right solution for Euro 5/6 engines. Therefore, always use a charging converter in these vehicles, to ensure that the second battery is charged to the maximum.

Functional display

In addition to use for the settings menu, all relevant information regarding the charging process can be read on the display during use. The display shows whether the charging process is in progress and the corresponding input voltage, output voltage, charging current and charging phase are displayed.



Your dealer

**A complete, adjustable
DC charging solution!**

Extensive technical information can be downloaded from our website