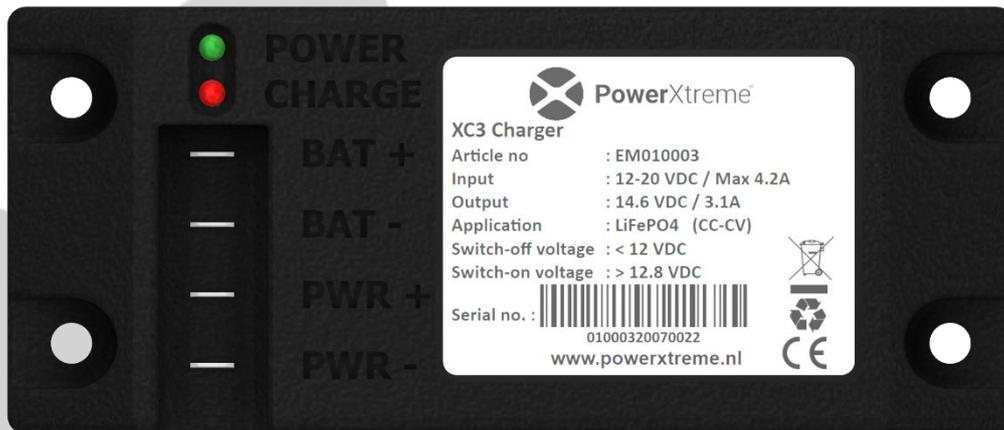


User manual

PowerXtreme XC3 charger



EmergoPlus BV
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www.emergoplus.com
info@emergoplus.com

Dear customer,

Thank you for purchasing the high quality PowerXtreme XC3 charger from PowerXtreme! This product has been developed using the most modern technologies and quality systems. We assure you that we make every effort to ensure trouble-free operation so that you are happy with your purchase. Our ultimate goal is a satisfied customer.

If you have any questions, please contact one of our dealers or our service department.

We hope you enjoy your PowerXtreme XC3 charger!

Cordial greetings,

EmergoPlus BV

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1. Product description

The PowerXtreme XC3 charger is a charging booster that converts the offered charging voltage (while driving) the vehicle's dynamo or starter battery into a correct charging voltage for the on-board battery. The PowerXtreme XC3 charger will limit the charging current to a maximum of 3.1A to avoid overloading the cabling. The PowerXtreme XC3 charger also ensures that no current can flow from the on-board battery to the starter battery. With LiFePO4 batteries it is better not to have a direct connection to another type.

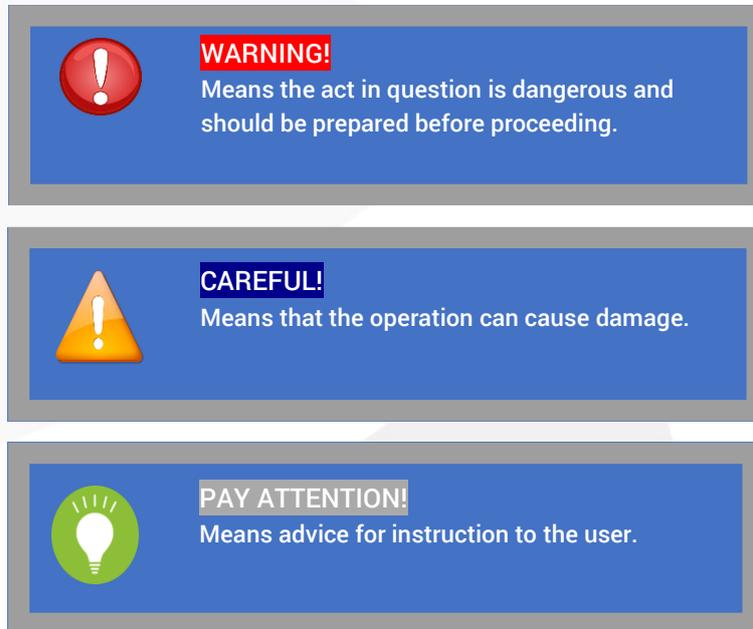
To ensure that on-board batteries of Lead and LiFePO4 are charged to 100% capacity at all times, the PowerXtreme XC3 charger is required. Because the offered charging voltage is often too low to fully charge LiFePO4 (14.6V) batteries, the PowerXtreme XC3 charger transforms this charging voltage to the correct voltage.

When the charger is setup for lead-acid batteries it operates a 4 step, 3 stage charging profile. When the charger is setup for lithium batteries it operates a CC/CV charging strategy.

2. Safety instructions

2.1 Safety instructions statement

The safety instructions help you to avoid hazards when performing actions. The safety instructions are divided into the following categories:



2.2 Safety regulations

- Read this manual carefully before using the PowerXtreme XC3 charger;
- Keep this manual near the PowerXtreme XC3 charger and make it available to the user of the PowerXtreme XC3 charger;
- Only technically qualified personnel should install the PowerXtreme XC3 charger;
- Use cables with the correct cross-section and keep the cable connections as short as possible. Use the supplied flat plugs and check whether they clamp properly;
- Do not place the PowerXtreme XC3 charger in a high temperature environment or in direct sun or with a heat source > 45 ° C;
- Avoid damage to the PowerXtreme XC3 charger housing;
- Do not use a damaged PowerXtreme XC3 charger.

3. Description en operation

3.1 Operation

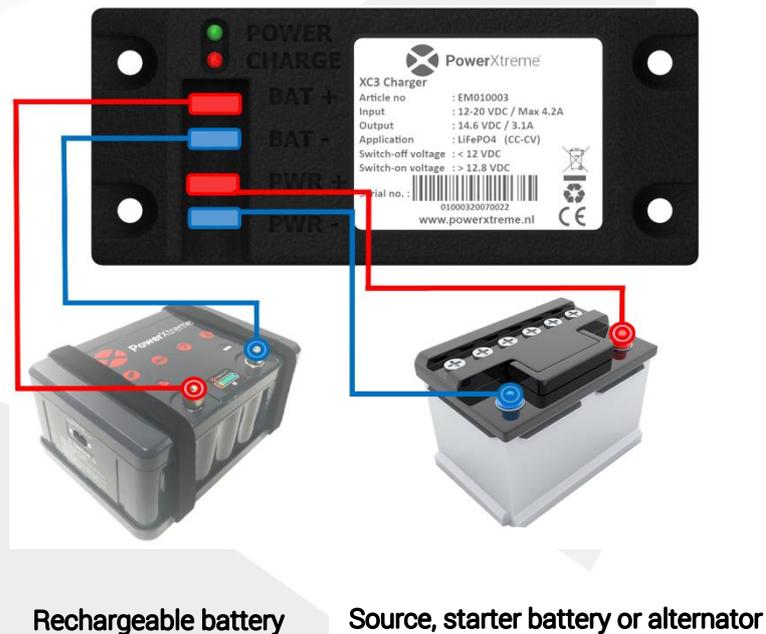
As soon as the voltage of the source battery is available the green Power LED of the charger will turn on. During the charging process the red Charge LED will be on. When the battery is fully charged the Charge LED will turn off.

When the incoming voltage will go under 11.2 V or 12.0 V, the charging process stops to prevent the source battery being discharged too deep (depending on the settings).

- When mounting the PowerXtreme XC3 charger, choose a place that is dry and clean;
- The PowerXtreme XC3 charger can be mounted in any position;
- Use at least 1,5 mm² cables for connection and to make the cables as short as possible to prevent loss of current.

Advice: fit 5A fuses. These also function as reverse polarity protection.

Connection diagram:



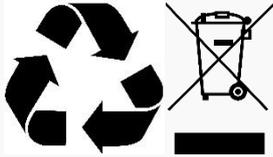
4. Specifications techniques

Spécifications							
Type of battery	LiFePO4		Lead (low)	Lead (high)	Lead (low)	Lead (high)	On-board battery
Article number	EM010003	EM010061	EM010063	EM010064	EM010005	EM010006	EM010116
Voltage input range	12-20 VDC						
Cut off voltage	12 V	11 V	11 V	11 V	12 V	12 V	< 13.8 V
Turn on voltage	12.8 V	11.2 V	11.2 V	11.2 V	12.8 V	12.8 V	> 13.8 V
Voltage output	14.6 V	14.6 V	14.4 V	14.7 V	14.4 V	14.7 V	14.4 V
Float voltage	n.a.		13.32		13.6		13.6
Restart charger	14.25		12.6		12.85		12.85
Pre-charge condition	n.a.		Vbat < 10.1		Vbat < 10.3		Vbat < 10.3
Charging strategy	CC/CV		4 steps, 3 stages				
Pre-charge current	n.a.		220 mA				
Efficiency [%]	> 94						
IP Class	IP65						
Max. charge current	3.1 A						
Max. input current	4.2 A						
LED	LED GREEN (power)/LED RED (charging)						
Connections	4 x 4.8 mm connection						
Recommended wiring	Minimal 1,5 mm ²						
Weight	120 grams						
Temperature	-20 °C to + 40 °C						
Warranty	2 years						



5. Decommissioning

Electric appliances should not be disposed of with normal household waste. According to the European Directive 2012/19/EU on waste electrical and electronic equipment (WEEE), these devices must be collected separately in order to recycle them in an environmentally friendly manner possible.



6. Warranty conditions

EmergoPlus guarantees that the PowerXtreme XC3 charger is built according to the legally applicable standards and regulations. During production and before delivery all PowerXtreme XC3 charger have been extensively tested and checked. Failure to act in accordance with the instructions and provisions of this manual may result in damage and / or the unit will not meet our specifications. This may mean that the warranty will become void. The warranty period is 2 years. The warranty expires when the silver label is removed from the PowerXtreme XC3 charger.

7. Liability

EmergoPlus cannot be held liable for:

- Damage resulting from the use of the PowerXtreme XC3 charger;
- Possible errors in the supplied manual and their consequences;
- Use that is incompatible with the purpose of the product.

8. EG Declaration of Conformity

EG DECLARATION OF CONFORMITY OF ELECTRICAL EQUIPMENT

Declaration according to Directive 2014/35 / EC, as amended

This language version of the statement is checked by the manufacturer (original statement).

We:

Name : EmergoPlus BV
Address : Informatiestraat 20, 4538 BT Terneuzen
Country : The Netherlands

Declare for the product described below:

Generic name : PowerXtreme XC3 charger
Trade name : PowerXtreme XC3 charger

Function: : Ensure that the offered charging voltage is converted to the correct charging voltage for the battery.
that all relevant provisions of the Machinery Directive are met;

that the product also complies with the provisions of the following European directives:

- **2014-35-EU** DIRECTIVE 2014/35 / EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014 on the harmonization of the laws of the Member States concerning the making available on the market of electrical equipment for use within specified voltage limits.
- **2014/30/EU** DIRECTIVE 2014/30 / EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014 on the harmonization of the laws of the Member States concerning electromagnetic compatibility.
- **2011/65/EU** DIRECTIVE 2011/65 / EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

and which the following natural or legal person established in the Community is authorized to compile the technical file:

Name : EmergoPlus BV
Name and position : Dick van Wijck, CEO
Address : Informaticastraat 20, 4538 BT Terneuzen
Country : The Netherlands

Done at Kapelle 5/4/2019

Dick van Wijck, EmergoPlus BV

