

Freedom through Energy Independence



PURSUIT OF PERFECTION



# NEMO series DC-DC Charging Converter

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# MARKET POSITION

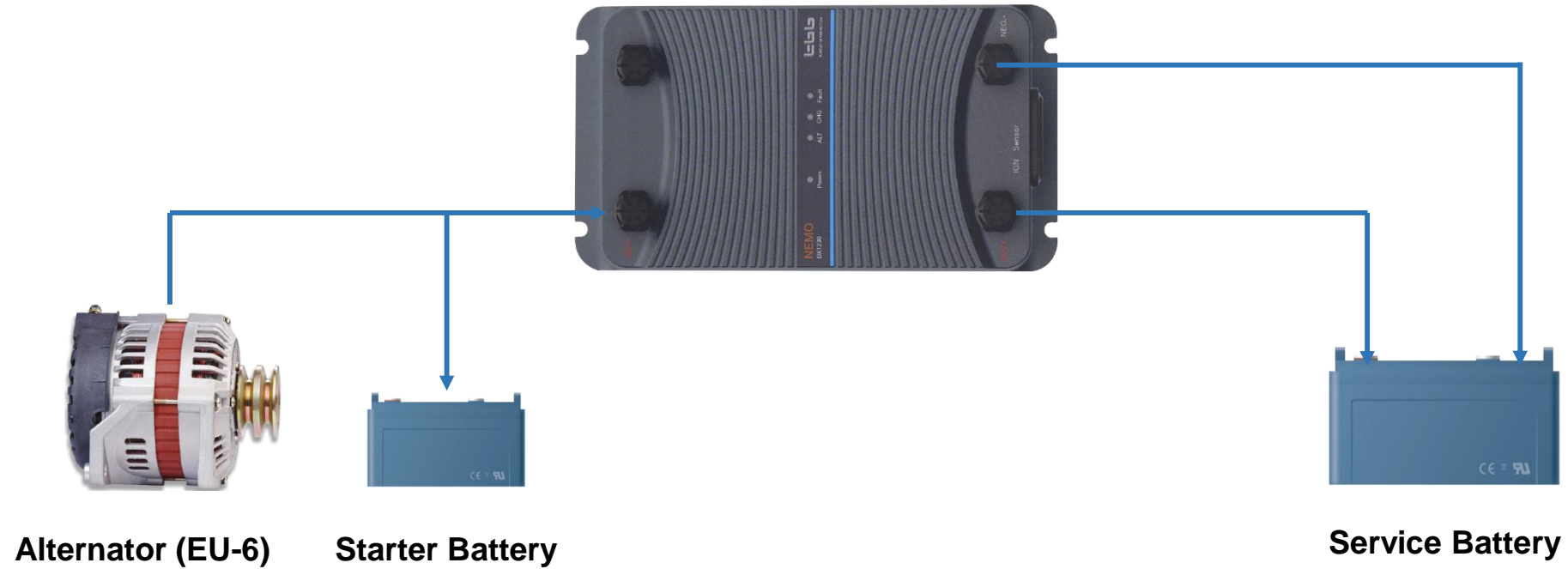
# NEMO series Charging Converter, with MPPT and RS485 optional, IP65

- The **NEMO series DC-DC Charger Converter** has maximum two inputs, can draw power from smart alternator or traditional alternator, as well as solar panel, to perform a proper charging for service battery while you are driving.
- NEMO is compatible with smart ECU controlled alternator (Euro 6) which delivers a variable output when it is not needed. NEMO could maintain the charging with a stable output in this situation, to assure your battery getting a fully charging in the shortest time.
- It will protect or maintain your starter battery even if engine was stopped without issue of starting problems.
  - Dual input from alternator and solar panel
  - Compatible with smart alternator – Euro 6
  - TBB premium II multiple stages charging algorithm for lead acid battery
  - Built in automatic temperature and voltage compensated battery charging
  - Multiple battery chemicals including AGM, GEL, LFP(LiFePO4) etc
  - Max Power Point Tracking (MPPT) technology
  - Compact and Water Proof, IP65

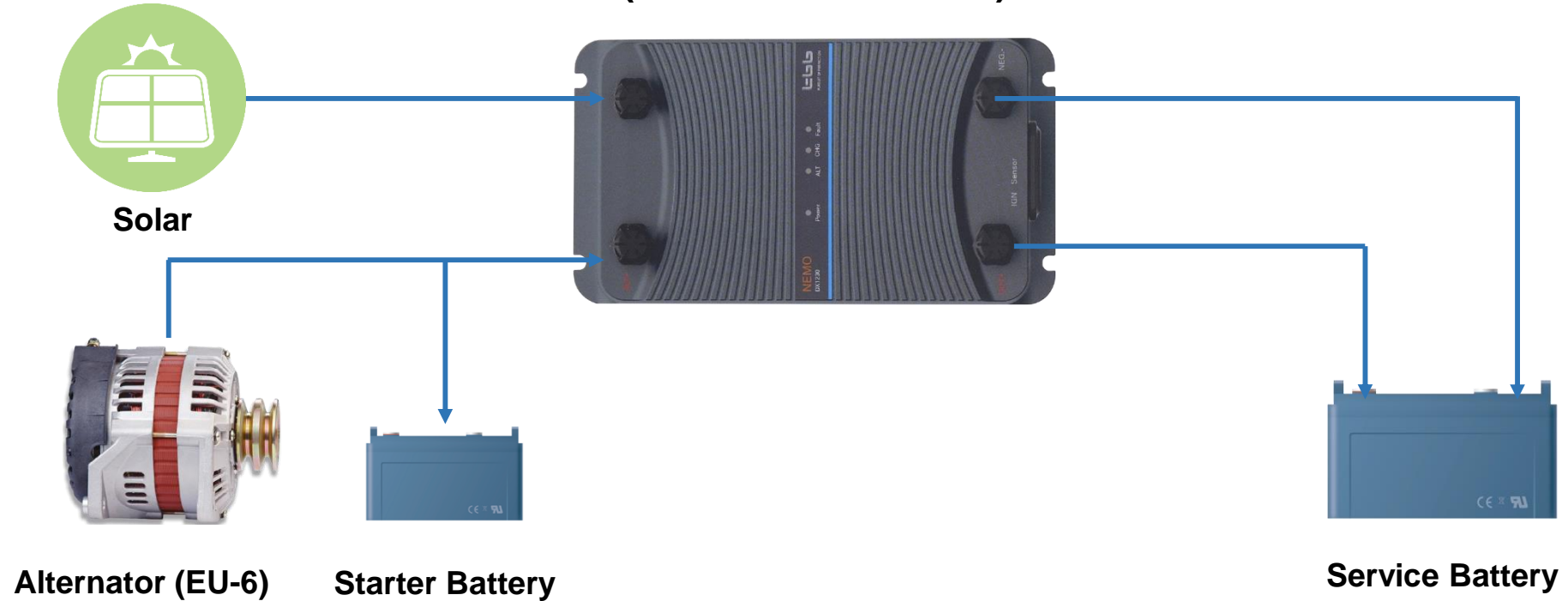


# SOLUTION

## NEMO DC-DC Booster (Euro 6)









## NEMO DC-DC Booster (Euro 6) (with Built-in MPPT)



# SPECIFICATIONS

# Comparison of NEMO series models

	DX1230 / DX1230-LFP	DDX1230 / DDX1230-LFP	iDX1230	iDDX1230
<b>AGM Battery</b> <ul style="list-style-type: none"> <li>Absorption Charging Voltage: 14.4 V</li> <li>Float Charging Voltage: 13.5 V</li> </ul>			<ul style="list-style-type: none"> <li>All parameters can be programmed with Windows software</li> </ul>	<ul style="list-style-type: none"> <li>All parameters can be programmed with Windows software</li> </ul>
<b>LFP Battery</b> <ul style="list-style-type: none"> <li>Absorption Charging Voltage: up to 14.6V</li> <li>Float Charging Voltage: up to 13.8V</li> <li>&lt; 0°C, charging current 10A</li> <li>&lt; -15°C, stop charging</li> <li>45 - 55°C, linearly decrease the charging voltage from 14.6 V to 13.8 V.</li> <li>≥ 55°C, 13.5 V</li> </ul>				



# Specification of standard models

Model	DX1230	iDX1230	DDX1230	iDDX1230
RRP. (EUR)				
<b>CHARGING CONVERTER</b>				
Input nominal voltage (Vdc)	12 Vdc	12 Vdc	12 Vdc	12 Vdc
Input voltage range of alternator (Intelligent type)	11.6 - 16 VDC (Start-up input voltage: 12V)			
Input voltage range of alternator (traditional type)	12.8 - 16 VDC (Start-up input voltage: 13.2V)			
Automatic activation - D+	Yes			
Output nominal voltage	12 Vdc	12 Vdc	12 Vdc	12 Vdc
Absorption charging voltage (Vdc)	AGM Battery: 14.4 V			
Charging Current (A)	30 A	30 A	30 A	30 A
Float charging voltage (Vdc)	AGM Battery: 13.5 V			
Efficiency	Max. 97%			
Temperature compensation	Yes			
Voltage compensation	Yes			
Charging algorithm	TBB premium II multi stage			
Protection				
RS485 communication interface ( <b>programmable</b> )	N.A.	Yes, with Windows software	N.A.	Yes, with Windows software
<b>CHARGE CONTROLLER</b>				
PV Input voltage range			11.6 - 25 Vdc (Start-up 12V)	
PV Open Circuit Voltage (Voc)			25 Voc	25 Voc
Max. Output Current (A)			30 A	30 A
Temperature Compensation			Yes	Yes
<b>TECHNICAL DATA</b>				
Operating Temperature	-20 °C - + 60 °C			
Material & Color	Aluminum with anodized, flame proof plastic			
Protection Category	IP65			
Battery Connection	M8			
Dimension (mm) / Weight (kg)	60 mm x 102.3 mm x 186.3 mm, 1.5 Kg			
Standards	EN60335-1,EN60335-2-29, EN55014-1,EN55014-2,EN61000-3-2,EN61000-3-3, <b>e-Mark</b>			

# Specification of standard models for LFP battery

Model	DX1230-LFP	DDX1230-LFP
RRP. (EUR)		
<b>CHARGING CONVERTER</b>		
Input nominal voltage (Vdc)	12 Vdc	12 Vdc
Input voltage range of alternator (Intelligent type)	11.6 - 16 VDC (Start-up input voltage: 12V)	
Input voltage range of alternator (traditional type)	12.8 - 16 VDC (Start-up input voltage: 13.2V)	
Automatic activation - D+	Yes	
Output nominal voltage	12 Vdc	12 Vdc
Absorption charging voltage (Vdc)	<b>LFP Battery: 14.8 V</b>	
Charging Current (A)	30 A	30 A
Float charging voltage (Vdc)	<b>LFP Battery: 13.6 V</b>	
Efficiency	Max. 97%	
Temperature compensation	Yes	
Voltage compensation	Yes	
Charging algorithm	TBB premium II multi stage	
Protection		
RS485 communication interface ( <b>programmable</b> )	N.A.	N.A.
<b>CHARGE CONTROLLER</b>		
PV Input voltage range		11.6 - 25 Vdc (Start-up 12V)
PV Open Circuit Voltage (Voc)		25 Voc
Max. Output Current (A)		30 A
Temperature Compensation		Yes
<b>TECHNICAL DATA</b>		
<b>Operating Temperature</b>	-5°C-45°C: normal charge; -15°C-5°C: maximum charging current 10A; ≤-15°C: stop charging; 45°C-55°C: linearly decrease the charging voltage from 14.8V to 13.5V; >55°C: 13.5V	
Material & Color	Aluminum with anodized, flame proof plastic	
Protection Category	IP65	
Battery Connection	M8	
Dimension (mm) / Weight (kg)	60 mm x 102.3 mm x 186.3 mm, 1.5 Kg	
Standards	EN60335-1, EN60335-2-29, EN55014-1, EN55014-2, EN61000-3-2, EN61000-3-3, <b>e-Mark</b>	

## Note:

- Due to its IP65 design, **DX1230 and DDX1230** have two standard models, one for AGM battery and another for LFP battery
- **iDX1230 and iDDX1230** has RS485 communication interface, then all parameters can be programmed through configuration tool running on Windows PC



## TBB Power GmbH



Opitzstrasse 10,  
40470 Düsseldorf,  
Deutschland



+49 (0)211 6413 7948

+49 (0)211 6413 7949



+49 (0)211 6415 0003



info@tbbpower.de



www.tbbpower.de

# Thank You



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**TBB Power GmbH**  
Opitzstrasse 10, 40470 Düsseldorf  
[www.tbbpower.de](http://www.tbbpower.de) [info@tbbpower.de](mailto:info@tbbpower.de)