

# LITHIUM LINE (LITH IUM)

- ◆ DC-DC POWER CONVERTER **NE325** Provided by **Nordelettronica**
- SWITCHING BATTERY CHARGERS SERIE BC122
- AM500 CURRENT MEASUREMENT SHUNT
- PT750 / NE363 PANEL TEST
- CAR BATTERY AUTOMATIC RECHARGING DEVICE CSB3-LT
- PRS350 SOLAR CHARGE REGULATORS
- PRM350 MPPT SOLAR CHARGE REGULATOR
- PRM400 MPPT SOLAR CHARGE REGULATOR
- AUTOMATIC SWITCH FOR SERVICE BATTERIES BDS200

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## **POWER UP YOUR DEVICES WITH VARTA LITHIUM BATTERIES**

# **LITHIUM**

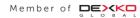








BATTERY	VARTA LL100LT	VARTA LL150	VARTA LL150LT	VARTA LL200
Code	21.0003.100	21.0004.000	21.0004.100	21.0005.000
Size	278x175x190mm (H6)	353x175x190mm (H8)	353x175x190mm (H6)	345x350x188
LTechnologie	LiFePO4	LiFePO4	LiFePO4	LiFePO4
Application	Deep-Cycle	Deep-Cycle	Deep-Cycle	Deep-Cycle
Rated Capacity	100Ah / 1280Wh	150Ah / 1920Wh	150Ah / 1920Wh	200Ah / 2560Wh
Nominal voltage	12.8V	12.8V	12.8V	12.8V
Energy	1280Wh	1920Wh	1920Wh	2560Wh
Voltage range	9.2 - 14.8V	9.2 - 14.8V	9.2 - 14.8V	9.2 - 14.8V
Charge voltage	14.2 ~ 14.6V	14.2 ~ 14.6V	14.2 ~ 14.6V	14.2 ~ 14.6V
Max. charge current (1C)	100A	150A	150A	200A
Continuous Discharge Current Max	100A	150A	150A	200A
Peak Discharge (10S)	200A	300A	300A	350A
Peak Discharge (1S)	300A	450A	450A	
Charge temperature range	-20°C to 45°C	0°C to 45°C	-20°C to 45°C	0°C to 45°C
Heating	-20°C Smart Heating	no	-20°C Smart Heating	no
Discharge temperature range	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C
Enclosure Protection (IP)	IP67	IP67	IP67	IP67
Weight	~12kg	~17kg	~17kg	~27kg
Terminal	DIN + M8	DIN + M8	DIN + M8	M8
BlueTooth + App	yes	yes	yes	yes
Cl Bus	yes	yes	yes	no
CAN bus	RS485 & J1939	RS485 & J1939	RS485 & J1939	RS485 & J1939
Sleep Mode	yes	yes	yes	yes
Parallel/Serial connection	yes	yes	yes	yes
ETN	850 100 001	850 150 000	850 150 001	850 200 000
EAN Code	4016987166932	4016987166949	4016987166956	4016987166963



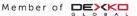


#### **DC-DC POWER CONVERTER NE325**

The DC/DC converter NE325 is suitable for recharging the service battery with the alternator.

The alternators of Euro 6 engines often provide a charge voltage that is too low and therefore a DC/ DC converter is required to charge the service battery with the vehicle is running.

MODEL	NE325-25A	NE325-40A
CODE	4215.325.01	4215.325.02
TECHNICAL DATA		
NOMINAL INPUT VOLTAGE	11Vdc - 15Vdc	11Vdc - 15Vdc
MAXIMUM CURRENT INPUT	37A @11V	48A @11V
PROTECTION FUSE	30A on the negative pole	30A on the negative pole
OUTPUT TECHNICAL DATA		
MAX CURRENT	25A continuous	40A continuous
SHORT-CIRCUIT PROTECTION	YES	YES
OVER-LOAD PROTECTION	YES	YES
OVER VOLTAGE PROTECTION	YES	YES
OVER TEMPERATURE PROTECTION	YES	YES
OVER TEMPERATURE BATTERY PROTECTION	YES (optional with NTC sensor)	YES (optional with NTC sensor)
BATTERY TYPE SELECTOR	Dip-switch 4 position	Dip-switch 4 position
CHARGING LINE	IUoU - AGM / IUoU - GEL / IUoU -Pb / IUoU -LiFePO4	IUoU - AGM / IUoU - GEL / IUoU -Pb / IUoU -LiFePO4
INPUT D+ SIGNAL	12V	12V
GENERAL TECHNICAL DATA		
EFFICIENCY	90 %	90 %
ROOM TEMPERATURE	0 ÷ 50° C	0 ÷ 50° C
VENTILATION	NO	YES
PROTECTION DEGREE	IP 20	IP 20
MAINS CONNECTION	"M5" screw	"M5" screw
BATTERY CONNECTION	"M5" screw	"M5" screw
DIMENSIONS (mm)	167x170x73mm	167x170x73mm
WEIGHT	1,3 kg	1,3 Kg
COLOUR	Black	Black





## **SWITCHING BATTERY CHARGERS SERIE BC122**

The BC122 switching is a highefficiency battery charger (without cooling fan) for lead, gel, lithium and AGM batteries. The batteries must have a rated voltage of 12V and a capacity suitable for the battery charger current (check the compatibility of the maximum charging current with the technical data sheet of the battery to be connected for use). The BC122 also works as a power supply unit.

MODEL	BC122
CODE	B1.0543.002
TECHNICAL DATA	
RATED VOLTAGE	230Vac± 10%
FREQUENCY	50Hz÷60 Hz
MAXIMUM POWER	320W
PROTECTION FUSE	4A
OUTPUT TECHNICAL DATA	
MAXIMUM CURRENT	22A continuous
SHORT-CIRCUIT PROTECTION	YES
OVERLOAD PROTECTION	YES
OUTPUT OVERVOLTAGE PROTECTION	YES
OVERTEMPERATURE PROTECTION	YES
BATTERY OVERTEMPERATURE PROTECTION	Yes (with NTC sensor)
THERMAL PROTECTION	YES
BATTERY TYPE SELECTOR	Dip-switch
CHARGING LINE	IUoU - AGM / GEL / Pb / LiFePO4
NUMBER OF CHARGING LINES	8
NETWORK PRESENCE SIGNAL (S)	12V (MAX 150mA)
GENERAL TECHNICAL DATA	
EFFICIENCY	93%
AMBIENT TEMPERATURE	- 20 ÷ 40° C
INTERNAL FAN	Absent
PROTECTION RATING	IP 20
MAINS CONNECTION	3 poles IEC EN60320 C14
BATTERY CONNECTION	"M6" screw
DIMENSIONS (mm)	146x183x65mm
WEIGHT	<0,8kg



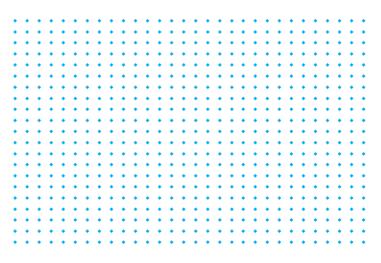


## **AM500 CURRENT MEASUREMENT SHUNT**

Shunt for electric current measurement. Enables precise calculation of:

- instantaneous power consumption,
- State of charge (SoC),
- State of health (SoH),
- · Remaining runtime expressed in hours.

MODEL	AM500
CODE	A1.0543.004
DIMENSIONS (MM)	130x44x57mm





ONDA

DIGITAL TOUCH TEST PANEL PT750 / NE363 With OLED display showing the charge status (%) of lithium and conventional batteries.

Displays State of Charge (SoC), battery voltage and current -150A + 150A.

With minimum brightness adjustment.

Complete with shunt and cable L =5m.

Built-in or wall-mounted version with supplied spacer; complete with Berker "BMAC1C" frame including the possibility for combination with "Modular Plates" and "Modular Plates Berker" series.



CAR BATTERY
AUTOMATIC
RECHARGING DEVICE
CSB3-LT

For photovoltaic modules and for battery chargers, through the service battery. This device is suitable for operation with lithium service batteries and is installed close to the batteries, thus avoiding connecting the car battery to the solar charge regulator. It charges the car battery with a current from 0.1A to max 4A, depending on the battery status and giving priority to the service battery. When the green LED is on, it means that the CSB3-LT is ready to recharge the car battery if necessary. Dimensions: 80 x 50 x 50mm

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### **PRS350 SOLAR CHARGE REGULATOR**

The solar charge regulator PRS350 is compatible with 12V photovoltaic modules. Designed and developed with cutting-edge electronics, they offer high electrical performance and very low heat dissipation.

MODEL	PRS350
CODE	204480
RATED VOLTAGE	12V
MAXIMUM VOLTAGE OF THE PHOTOVOLTAIC MODULE IN OPEN CIRCUIT (Voc)	28V
MAX POWER PHOTOVOLTAIC MODULES	350W
MAXIMUM OUTPUT CURRENT	20A
NUMBER OF PHOTOVOLTAIC MODULES CONNECTIONS	2
END-OF-CHARGE VOLTAGE	14,1V (A) - 14,3V (B) - 14,7V (C) - 14,5V (Li)
FLOAT VOLTAGE	13,5V (A) - 13,8V (B) - 13,6V (C) - 13,5V (Li)
BATTERY TYPE SELECTOR	Dip-Switch 4 position
NUMBER OF CHARGE LINES	8
BATTERY DESULPHATION	YES (except the lithium charge line)
REVERSE CURRENT BLOCKING PROTECTION	Electronic
REVERSE POLARITY PROTECTION	YES
TEST PANEL CONNECTION	PT 742
SELF-CONSUMPTION	OA (In the absence of sunlight, the regulator switches off completely)
AUTOMATIC SHUTDOWN	In the absence of sunlight
DIMENSIONS (mm)	115 x 90 H37

PRM350





MODEL

## **LITHIUM LINE**

#### PRM350 MPPT **SOLAR CHARGE REGULATOR** FOR PHOTOVOLTAIC MODULE

The PRM350 solar charge regulator can charge lead (liquid, gel and AGM) and lithium 12V batteries automatically controlling and limiting the energy supplied by the connected photovoltaic modules.

It features a MPPT (Maximum Power Point Tracker) system that allows picking in every situation of the maximum power supplied by the photovoltaic module.

	CODE	204285
	BATTERY RATED VOLTAGE	12V
	MAXIMUM VOLTAGE OF THE PHOTOVOLTAIC MODULE IN OPEN CIRCUIT (Voc)	50V
	MAX POWER PHOTOVOLTAIC MODULES	300W (32÷40 cells) – 350W (41÷72 cells)
	MAXIMUM OUTPUT CURRENT	25A
	NUMBER OF PHOTOVOLTAIC MODULES CONNECTIONS	2
	PERFORMANCE	>95%
	BATTERY TYPE SELECTOR	3 position dip-switch
	END-OF-CHARGE VOLTAGE	14,1V (A) - 14,4V (B) - 14,7V (C) - 14,6V (Li)
	FLOAT VOLTAGE	13,5V (A) - 13,8V (B) - 13,8V (C) - 13,8V (Li)
	NUMBER OF CHARGE LINES	4
	BATTERY DESULPHATION	Electronic
	REVERSE CURRENT BLOCKING PROTECTION	YES
	REVERSE POLARITY PROTECTION	YES
	TEST PANEL CONNECTION	PT 742
	SELF-CONSUMPTION	OA (In the absence of sunlight, the regulator switches off completely)
	AUTOMATIC SHUTDOWN	In the absence of sunlight
	DIMENSIONS (mm)	150 x 110 H48





#### PRM400 MPPT **SOLAR CHARGE REGULATOR** FOR PHOTOVOLTAIC MODULES

The PRM400 solar charge regulator can charge lead (liquid, gel and AGM) and lithium 12V batteries automatically, controlling and limiting the energy supplied by the connected photovoltaic modules. It features an MPPT (Maximum Power Point Tracker) system that allows for the maximum power supplied by the photovoltaic module to be drawn in every situation.

	MODEL	PRM400
	CODE	204286
	BATTERY RATED VOLTAGE	12V
	MAXIMUM VOLTAGE OF THE PHOTO- VOLTAIC MODULE IN OPEN CIRCUIT (Voc)	50V
	MAX POWER PHOTOVOLTAIC MO- DULES	350W (32÷40 cells) – 400W (41÷72 cells)
	MAXIMUM OUTPUT CURRENT	28A
	NUMBER OF PHOTOVOLTAIC MODU- LES CONNECTIONS	2
	PERFORMANCE	>95%
	BATTERY SELECTOR	4 position dip-switch
	NUMBER OF CHARGE LINES	8
	BATTERY DESULPHATION	Electronic
	REVERSE CURRENT BLOCKING PROTECTION	YES
	REVERSE POLARITY PROTECTION	YES
	TEST PANEL CONNECTION	PT 742
	SELF-CONSUMPTION	OA (In the absence of sunlight, the regula- tor switches off completely)
	AUTOMATIC SHUTDOWN	In the absence of sunlight
	DIMENSIONS (mm)	150 x 110 H48



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# **LITHIUM LINE**

#### **AUTOMATIC SWITCH FOR SERVICE BATTERIES BDS200**

The DUO-SYSTEM BATTERY is an electronic device with integrated microprocessor able to intelligently manage two lead, gel, AGM and lithium 12 V service batteries, both during charging (with alternator, battery charger and photovoltaic modules) and during discharging.

### APP - ONDA **SMART SYSTEM**

The "ONDA SMART SYSTEM" App for mobile devices has been specially developed to manage and extend the functions of BDS200. The connection between the BDS200 and the mobile devices is via BluAetooth and it has an operating range limited to the area surrounding the vehicle.





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