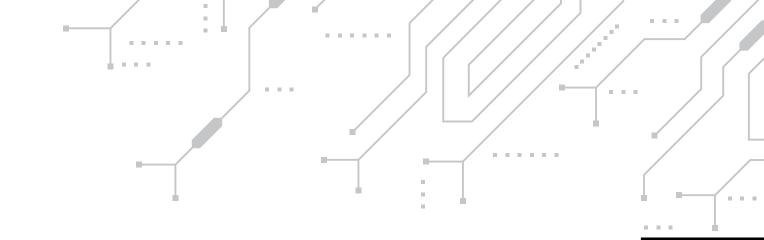




TOPTRONIK



# ELECTRONICS FOR CARAVANNING & MARINE

PRODUCT CATALOGUE 2025 2026





SOLAR System

MODULAR PLATES

> LITHIUM LINE

NEW TECHNOLOGY

ENERGY LINE

DIGITIZE YOUR MOTORHOME

**AL-KO** VEHICLE TECHNOLOGY ELECTRONICS

ALKO QUALITY FOR LIFE













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Technical specifications are subject to change without prior notice.

The installation must be carried out by a qualified technician.















MODEL

PART-NR







# **⊗CBE**°

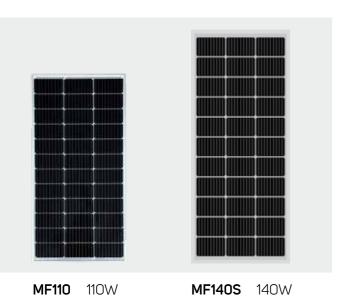
# **⊗CBE**°

CBE PHOTOVOLTAIC MODULES made with PERC (Passivated Emitter and Rear Cell) solar cells and Back Contact guarantee a higher level of conversion efficiency and, at the same time, additional technical advantages such as a lower temperature coefficient and, therefore, better performance. The high-quality anti-reflective coating of the cells and special glass make for a truly high-performance photovoltaic module. The high transmittance tempered glass is impact and weather resistant. The back of the

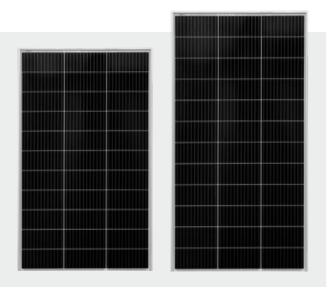
module is protected by a sheet of white Tedlar, preventing any infiltration of air and moisture, thus isolating the electrical contacts and avoiding any possibility of their oxidation. The module frame is made of anodised aluminium and the bypass diodes and cable glandes needed for connection are housed in the junction box at the back. CBE photovoltaic modules are built using the most advanced technology in line with European standards and are covered by a 25-year warranty on the declared power.

CBE PHOTOVOLTAIC MODULES

# CBE PHOTOVOLTAIC MODULES STANDARD SERIES

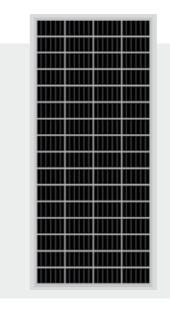


MODEL	MF110	MF140S
PART-NR	215981	215984
TYPE	PERC (Passivated Emitter and Rear Cell)	PERC (Passivated Emitter and Rear Cell)
CELLS NUMBER	36	33
RATED VOLTAGE	12 V	12 V
MAX POWER	110 W	140 W
TOLERANCE	+-3 %	+-3 %
OPEN CIRCUIT VOLTAGE	23,76 V	21,78V
SHORT CIRCUIT VOLTAGE	5,58 A	7,76 A
VOLTAGE AT MAX POWER	20,88 V	19,14 V
CURRENT AT MAX POWER	5,27 A	7,32 A
DIMENSIONS (mm)	1062 x 530 x 30	1345 x 530 x 30
WEIGHT (Kg)	6,2	7,5



MODEL	MF145	MF175
PART-NR	215982	215983
TYPE	PERC (Passivated Emitter and Rear Cell)	PERC (Passivated Emitter and Rear Cell)
CELLS NUMBER	33	36
RATED VOLTAGE	12 V	12 V
MAX POWER	145 W	175 W
TOLERANCE	+-3 %	+-3 %
OPEN CIRCUIT VOLTAGE	21,78V	23,76 V
SHORT CIRCUIT VOLTAGE	8,03A	8,88 A
VOLTAGE AT MAX POWER	19,14 V	20,88 V
CURRENT AT MAX POWER	7,58A	8,38 A
DIMENSIONS (mm)	1116 x 670 x 30	1320 x 670 x 30
WEIGHT (Kg)	8	9,5

**MF145** 145W **MF175** 175W



MODEL	MF200
PART-NR	215985
TYPE	PERC (Passivated Emitter and Rear Cell)
CELLS NUMBER	64
RATED VOLTAGE	12 V
MAX POWER	200W
TOLERANCE	+-3%
OPEN CIRCUIT VOLTAGE	21,12 V
SHORT CIRCUIT VOLTAGE	11,42 A
VOLTAGE AT MAX POWER	18,56 V
CURRENT AT MAX POWER	10,78 A
DIMENSIONS (mm)	1400 x 704 x 35
WEIGHT (Kg)	11,6

**MF200** 200W

#### CBE PHOTOVOLTAIC MODULES BLACK SERIES



TYPE	PERC (Passivated Emitter and Rear Cell)	PERC (Passivated Emitter and Rear Cell)
CELLS NUMBER	36	33
RATED VOLTAGE	12 V	12 V
MAX POWER	105 W	140 W
TOLERANCE	+-3 %	+-3 %
OPEN CIRCUIT VOLTAGE	23,76 V	21,78V
SHORT CIRCUIT VOLTAGE	5,33 A	7,75 A
VOLTAGE AT MAX POWER	20,88 V	19,14 V
CURRENT AT MAX POWER	5,03 A	7,31 A
DIMENSIONS (mm)	1062 x 530 x 30	1116 x 670 x 30
WEIGHT (Kg)	6,2	8

MFB105

215981B

MFB140

215982B

**MFB105** 105W

**MFB140** 140W



MODEL	MFB170
PART-NR	215983B
TYPE	PERC (Passivated Emitter and Rear Cell)
CELLS NUMBER	36
RATED VOLTAGE	12 V
MAX POWER	170 W
TOLERANCE	+-3 %
OPEN CIRCUIT VOLTAGE	23,76 V
SHORT CIRCUIT VOLTAGE	8,63 A
VOLTAGE AT MAX POWER	20,88 V
CURRENT AT MAX POWER	8,14 A
DIMENSIONS (mm)	1320 x 670 x 30
WEIGHT (Kg)	9,5

**MFB170** 170W





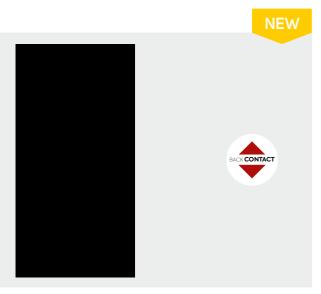






# **⊗CBE**°

# SUPER BLACK PHOTOVOLTAIC MODULES HIGH EFFICIENCY



MODEL	MFBC190
PART-NR	215986B
TYPE	PERC BACK CONTACT
CELLS NUMBER	60 (4*15)
RATED VOLTAGE	12 V
MAX POWER	190 W
TOLERANCE	+-3%
OPEN CIRCUIT VOLTAGE	21,60 V
SHORT CIRCUIT VOLTAGE	10,84 A
VOLTAGE AT MAX POWER	18,60 V
CURRENT AT MAX POWER	10,22 A
DIMENSIONS (mm)	1300 x 670 x 30
WEIGHT (Kg)	9,4

**MFBC190** 190W

#### PHOTOVOLTAIC MODULES - FLEXIBLE SERIES

CBE PHOTOVOLTAIC MODULES made with PERC (Passivated Emitter and Rear Cell) solar cells solar cells guarantee a higher level of conversion efficiency and, at the same time, additional technical advantages such as a lower temperature coefficient and, therefore, better performance. The high-quality anti-reflective coating of the cells make for a truly high-performance photovoltaic module. The module is protected by a layer of ETFE (etilene-tetrafluoroetilene) very resistant at UV, heavy whether conditions and anti-crack film

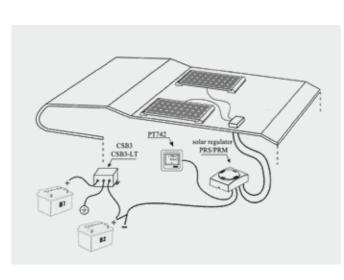
for mechanical damages. The module is protected, preventing any infiltration of air and moisture, thus isolating the electrical contacts and avoiding any possibility of their oxidation. The bypass diodes and cable glandes needed for connection are housed in the ijunction box at the front. CBE photovoltaic modules are built using the most advanced technology in line with European standards on the declared power. The flexible panels are provided with metal fixation holes of 10mm, at four corners and along the sides.



MFFL150	150W	MFFL190	190W

MODEL	MFFL150	MFFL190
PART-NR	215987A	215987B
TYPE	PERC (Passivated Emitter and Rear Cell)	PERC (Passivated Emitter and Rear Cell)
CELLS NUMBER	33 (210*105)	105 (210*42)
RATED VOLTAGE	12 V	12 V
MAX POWER	150 W	190 W
TOLERANCE	+-3 %	+-3 %
OPEN CIRCUIT VOLTAGE	21,78V	23,10 V
SHORT CIRCUIT VOLTAGE	8,32A	9,93 A
VOLTAGE AT MAX POWER	19,14 V	20,30 V
CURRENT AT MAX POWER	7,84A	9,36 A
DIMENSIONS (mm)	1260 x 690 x 3	1620 x 690 x 3
WEIGHT (Kg)	2,3	2,9

# WIRING DIAGRAM





# SOLAR PANEL FIXING KITS

The KFPN and KFPB supports are made, respectively, in silver anodized aluminum and black anodized aluminum and feature an innovative and aerodynamic design.

They have been studied specifically for motorhomes and caravans and are easy to install, as they do not require holes.

KFPN AND KFPB

MODEL	PART-NR	DIMENSIONS (mm)	WEIGHT (Kg)
KFPB530 (black)	250410B	530 x 60 x 50	0,45
KFPB670 (black)	250425B	670 x 60 x 50	0,55
KFPN530	250410	530 x 60 x 50	0,45
KFPN670	250425	670 x 60 x 50	0,55
KFPN700	250430	700 x 60 x 50	0,60



CSB3 205025N

CAR BATTERY AUTOMATIC RECHARGING DEVICE. When the leisure battery voltage exceeds 13,6V (battery charger and/or photovoltaic modules are charging), the device allows to recharge the car battery (through the leisure battery). Charging current is set to max 4A, according to the batteries' condition. When the leisure battery voltage is lower than 12,5V, the car battery recharging system is deactivated. When the green LED is on, it means that the CSB-3 is ready to recharge the car battery if necessary. Dimensions: 80 x 50 x 50mm



CSB3-LT 205026N

**CAR BATTERY AUTOMATIC RECHARGING DEVICE** both 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











# **⊗CBE**<sup>°</sup>

# PRS150, PRS300 AND PRS350 SOLAR CHARGE REGULATORS FOR 12V PHOTOVOLTAIC MODULES

The solar charge regulators PRS150, PRS300 and PRS350 are compatible with 12V photovoltaic modules. Designed and developed with cutting-edge electronics, they offer high electrical performance and very low heat dissipation.

PRS150 is compatible with photovoltaic modules with a maximum power of 150W. It features two LEDs to indicate the battery charge and is also designed to replace the PRS110 model.

PRS300 and PRS350 are designed to connect photovoltaic modules with a total maximum power of 300W and 350W respectively and are ready for connection of the PT742 test panel, used to monitor photovoltaic module charge and battery voltage. PRS300 and PRS350 have separate charge lines that can be selected using a switch inside the controller. There is also a battery desulphation function that is automatically activated only when needed. The 4 LEDs indicate the battery charge, any incorrect electrical connections and the on/off status of the device.





SOLAR CHARGE REGULATORS



PRS150 204268 PRS300 204274 PRS350 204480

MODEL	PRS150	PRS300	PRS350
PART-NR	204268	204274	204480
RATED VOLTAGE	12V	12V	12V
MAXIMUM VOLTAGE OF THE PHOTOVOLTAIC MODULE IN OPEN CIRCUIT (Voc)	27V	27V	28V
MAX POWER PHOTOVOLTAIC MODULES	150W	300W	350W
MAXIMUM OUTPUT CURRENT	9A	17A	20A
NUMBER OF PHOTOVOLTAIC MODULES CONNECTIONS	1	2	2
BATTERY SELECTOR	NO	3-position dip-switch	4-position dip-switch
NUMBER OF CHARGE LINES	1	3	4
BATTERY DESULPHATION	NO	YES	Yes (except for the lithium charging line)
REVERSE CURRENT BLOCKING PROTECTION	Diode	Electronic	Electronic
REVERSE POLARITY PROTECTION	YES	YES	YES
TEST PANEL CONNECTION	NO	PT 742	PT 742
SELF-CONSUMPTION	0,01mA	OA (switches off automatically in the absence of sunlight)	OA (switches off automatically in the absence of sunlight)
AUTOMATIC SHUTDOWN	In the absence of sunlight	In the absence of sunlight	In the absence of sunlight
DIMENSIONS (mm)	115 x 90 H37	115 x 90 H37	115 x 90 H37

# PRM350 MPPT SOLAR CHARGE REGULATOR FOR PHOTOVOLTAIC MODULES

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.



**PRM350** 204285

The PRM350 is suitable for operation with 32 to 72-cell photovoltaic modules up to a maximum power of 350W.

For optimal perfomance, you are advised to connect photovoltaic modules with a number of cells in series over 36, regardless the type of installation chosen.

MODEL	PRM350
PART-NR	204285
BATTERY RATED VOLTAGE	12V
MAXIMUM VOLTAGE OF THE PHOTO- VOLTAIC MODULE IN OPEN CIRCUIT (Voc)	50V
MAX POWER PHOTOVOLTAIC MODULES	300W (32÷40 modules) – 350W (41÷72 modules)
MAXIMUM OUTPUT CURRENT	25A
NUMBER OF PHOTOVOLTAIC MODULES CONNECTIONS	2
PERFORMANCE	>95%
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)
BATTERY SELECTOR	3-position dip-switch
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

#### I TEST PANELS FOR SOLAR CHARGE REGULATORS

CL BUS



PT742 / GR 204742

12V TOUCH TEST PANEL with OLED display for the control of battery voltage and current supplied by the solar panel. The kit includes a cable 1,5m long, a wall-fixing spacer and a "BMAC1C" frame. It works only with "PRS350", "PRS300", "PBS90", "PRM350" and "PRM400" solar charge regulators. This panel fits also the new "Modular Plates" range.

Colours: /GR Grey RAL 7021 Dimensions: 60 x 60mm



**KT1** 707200 1-EXIT ROOF DUCT

(for KTR-G 12mm diameter sheath). For maximum roof thickness of 60mm.







## **⊗CBE**<sup>°</sup>

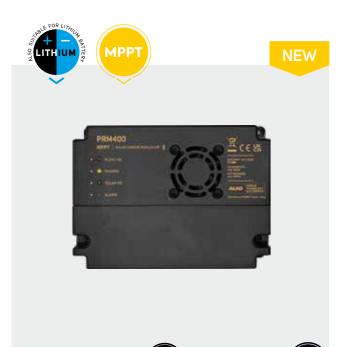
# NEW PRM400 MPPT SOLAR CHARGE REGULATOR FOR PHOTOVOLTAIC MODULES

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.

The PRM400 is suitable for operation with 32 to 72-cell photovoltaic modules up to a maximum power of 400W.

SOLAR CHARGE REGULATORS

For optimal performance, it is advisable to connect photovoltaic modules with a number of cells in series over 36, regardless of the type of installation chosen.



MODEL	PRM400
PART-NR	204286
BATTERY RATED VOLTAGE	12V
MAXIMUM VOLTAGE OF THE PHOTOVOLTAIC MODULE IN OPEN CIRCUIT (Voc)	50V
MAX POWER PHOTOVOLTAIC MODULES	350W (32÷40 modules) – 400W (41÷72 modules)
MAXIMUM OUTPUT CURRENT	28A
NUMBER OF PHOTOVOLTAIC MODULES 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 (switches off automatically in the absence of sunlight)
AUTOMATIC SHUTDOWN	In the absence of sunlight
DIMENSIONS (mm)	150 x 110 H48



# APP - ONDA SMART SYSTEM

The "ONDA SMART SYSTEM" App for mobile devices has been specially developed to manage and extend the functions of PRM400. The connection between the PRM400 and the mobile devices is via Bluetooth and it has an operating range limited to the area surrounding the vehicle.

CL BUS

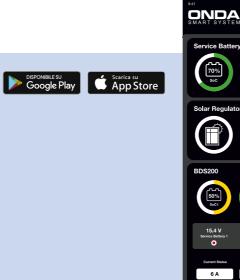
#### The "ONDA SMART SYSTEM" App allows you to:

- view the charging current of the photovoltaic modules in real time
- view the charging power of the photovoltaic modules in real timei
- view the battery voltage in real time
- view the charging phase

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PRM400 204286

- view the manual of the PRM400
- update the PRM400 firmware





**KT51** 707070

5-WAY KIT with 2 holes for PG11 for cable routing of photovoltaic modules, video cameras, antennas, etc. from the roof. Suitable for a maximum roof thickness of 60 mm.

**KT5** 707050

**5-EXITS ROOF DUCT** for the wiring of photovoltaic modules, cameras or antennas. For maximum roof thickness of 60mm. Dimensions: 20 x 90 x 30mm



**KT51-PG** 707071

5-WAY KIT complete with 2 x PG11 cable glands for cable routing of photovoltaic modules, video cameras, antennas, etc. from the roof. Suitable for a maximum roof thickness of



**KT61** 707061

CABLE ENTRY GLAND with 2 holes for PG11 for cable routing of photovoltaic modules, video cameras, antennas, etc. from the roof. Suitable for routing bulky cables.

**KT6** 707060

**6-EXITS ROOF DUCT** for the wiring of photovoltaic modules, cameras or antennas. Suitable for thick cables. For maximum roof thickness of 60mm. Dimensions: 20 x 90 x 30mm.



**KT61-PG** 707062

**CABLE ENTRY GLAND** complete with 2 x PG11 cable glands for cable routing of photovoltaic modules, video cameras, antennas, etc. from the roof.



**KT6-PG** 707063

CABLE ENTRY GLAND complete with PG16 cable gland for 2 cables with outer dia-



**KTR2-P** 707140

PG16 CABLE GLAND suitable for 2 cables with outer diameter 6mm<sup>2</sup>.

**KTR-P** 707130\*

**PG11 CABLE GLAND** complete with nut & gasket. Suitable for Mod. "KT5" roof duct kit. Colour: grey.



**KTR-C** 707143

KIT WITH 2 QUICK CONNECTORS MC4 to connect the latest series of CBE photovoltaic modules.



**KTR2-G** 707144

SHEATH Ø 17mm, weatherproof and UVresistant. L=50 m roll, grey.

**KTR-G** 707134

CABLE SHEATH, diameter 12mm, weatherproof and UV resistant. L=50 m. Colour: grey.



**KTR2-F** 707146

SHEATH FASTENER for Ø I7mm sheath, grey.

**KTR-F** 707136\*

**FASTENER** for Ø 12mm diameter sheath. Colour: grey.













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# **⊗CBE**°



**KT51-C50** 707073

WIRING KIT FOR latest series of CBE photovoltaic modules complete with UV-resistant cable,  $2 \times 4 \text{ mm}^2$ , length 5 metres, and "solar" type quick connectors.



**ACCESSORIES** 

**KTP-I5** 707074

Solar cable extension 1x4mm², length 1.5 meters, complete with MC4 male/female connectors.



**KT51K-C50** 707080

KIT COMPLETE with KT51-PG junction box and KT51-C50 cables.



**KT61K-C50** 707085

KIT COMPLETE with junction box, cable glands and 5m cables to connect 2 photovoltaic modules.



**KT6K-C50** 707090

KIT COMPLETE with KT6 - PG cable entry gland and KT51-C50 cables.



**KT6-C** 707060C

CABLE ENTRY GLAND for the wiring of photovoltaic modules, cameras or antennas. Suitable for thick cables.



KTR-R 707132\*

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**PG11 STRAIGHT FITTING** for KTR-G 12mm diameter sheath complete with nut & gasket. Suitable for "KT5" roof duct kit. Colour grey.



**KT1-10** 707210

1-EXIT ROOF DUCT

provided with cable sheath L=1m and  $2 \times 6 \text{mm}^2 \text{ L=} 2 \text{m}$  cables.

**KT1-20** 707220

1-EXIT ROOF DUCT

provided with cable sheath L=2m and  $2 \times 6 \text{ mm}^2 \text{ L=3m cables}$ .



**KT5-C10** 707051

KIT FOR "KT5" provided with cable sheath L=1m and  $2 \times 6 \text{ mm}^2 2\text{m}$  long cables. Provided with PG11 fittings and terminals for photovoltaic module connection.

**KT5-C20** 707052

KIT FOR "KT5" provided with sheath L=2m and  $2 \times 6 \text{ mm}^2 3 \text{m}$  long cables. Provided with PG11 fittings and terminals for photovoltaic module connection.





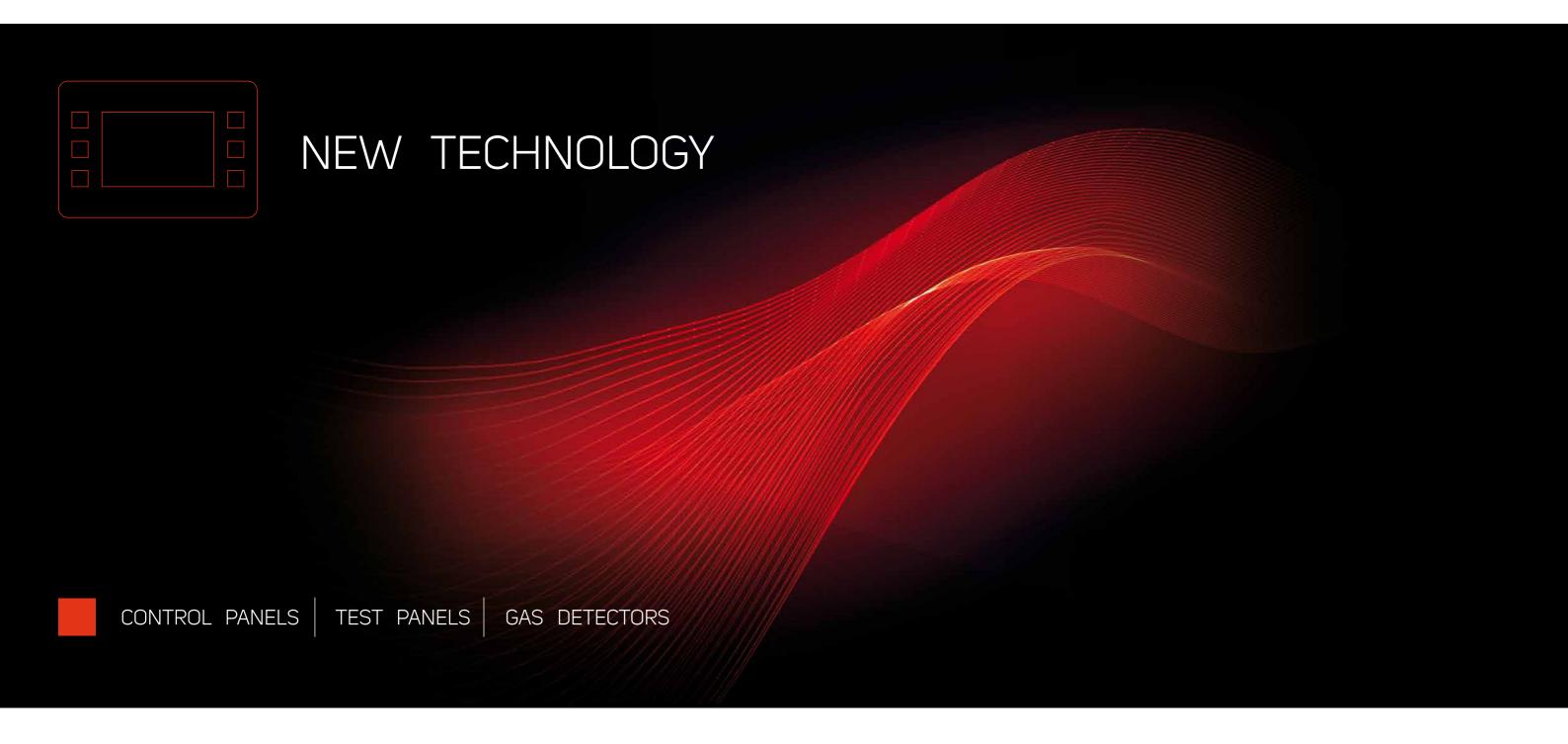












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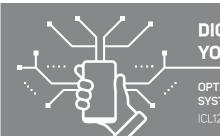








# **⊗CBE**<sup>°</sup>



# **DIGITIZE** YOUR MOTORHOME

OPTIONAL FOR COMPLETE SYSTEM PL50 AND PL3: CL12 **CO.0543.001** 



# NEW

#### APP - ONDA CONNECTIVITY

The mobile app 'ONDA CONNECTIVITY' has been specifically developed to manage and control all motorhome functions through a single interface.

It enables communication with smartphones and tablets either locally via Bluetooth or remotely via cloud over the internet, all using a single SIM card.





ONDA

# • Fresh water

# **NEW**

#### **DIGITIZE YOUR MOTORHOME**

# PL3 - COMPLETE SYSTEM

Complete command and control system for 12V motorhome electrical • Built-in electronic battery separator

#### Main characteristics and functions:

- ▶ Control panel with LED displau

- ▶ Grey water tank reserve alarm



PL3

- ▶ Trivalent fridge management
- ▶ 11 protection fuses for 12V utilities

- Vehicle battery charging
   Minimum voltage control ("battery saver" function)
   "Twilight" function to adjust the brightness of the buttons at night

#### Dimensions of control panel 175 x 93 mm

SYSTEM CONSISTING OF:	MODEL	CODE
CONTROL PANEL CONTROL PANEL CONFIGURED FOR ICL12	PL3 PL3	120300 120301
12V UTILITY DISTRIBUTION PANEL, 11 PROTECTION FUSES	DL30	209850
12V 22A SWITCHING BATTERY CHARGER	BC122	B1.0543.002
FRESH WATER TANK PROBE	FT5/40	525140
SCREW PROBE FOR RECOVERY TANK	SS/P	505000
TANK PROBE WIRING L=6m	CCS300	709170
CONTROL PANEL WIRING L=6m	CP300	709670
FUSE 50A + FUSE HOLDER	R450	222551

# NEW

#### **DIGITIZE YOUR MOTORHOME**

## I PL50 - COMPLETE SYSTEM

Complete command and control system for 12V motorhome electrical > 11 Protection fuses for 12V utilities

#### Main characteristics and functions:

- Control panel with LCD 5 inches color display
- Test drinking water tank level (percentage and graphic)
   Waste water tank alarm

- Electronic battery separatorControl 3-way fridge



- Control car battery recharging
   Save service battery function
   Digital clock

- Digital clock
   Test internal and external temperature
- Software update via USB
- "Twilight" sensor

Control panel dimensions 215 x 114 mm

# NEW

PL50

#### THE SYSTEM INCLUDES: MODEL PART-NR CONTROL PANEL 125001 PL50 12V DISTRIBUTION BOX, 209850 DI 30 PROTECTION FUSES 12V 22A SWITCHING BATTERY CHARGER B1.0543.002 BC122 FRESH WATER ELECTRONIC TANK PROBE (indicate the tank height SPE/... 5120::: on the purchase order) SCREW PROBES FOR WASTE WATER TANK SS/P 505000 CABLES KIT FOR TANK PROBES L=6m CCS310 709171 CABLE FOR CONTROL PANEL L=6m CP300 709670 CABLE WITH SENSORS FOR INTERNAL AND EXTERNAL TEMPERATURE (L=1,5m and CTIE-2 708661 50A FUSE + FUSE-HOLDER R450 222551

# I PARTS INCLUDED IN THE PL50 - PL3 SYSTEMS



DL30 12V UTILITY DISTRIBUTION PANEL, 11 PROTECTION FUSES



FT5/40 DRINKING WATER TANK PROBE WITH RODS



SPE / ... FRESH WATER ELECTRONIC TANK PROBE RECOVERY TANK



SCREW PROBE FOR



CCS300 / CCS310

TANK PROBE WIRING L=6m



FUSE 50A + FUSE HOLDER

12V 22A SWITCHING BATTERY CHARGER











Provided by NORDELETTRONICA®





ICL12 **C3.0543.001** 



# **NEW**

# APP - ONDA CONNECTIVITY

The mobile app 'ONDA CONNECTIVITY' has been specifically developed to manage and control all motorhome functions through a single interface.

It enables communication with smartphones and tablets either locally via Bluetooth or remotely via cloud over the internet, all using







# NEW

#### **DIGITIZE YOUR MOTORHOME**

# SYSTEM NE362

Microprocessor controlled digital system with 4,3" graphic LCD glass

- ▶ 4,3" praphic LCD glass control panel
- Test car and service battery B1 and B2 condition (volt and graphic)
   Test drinking water tank level (percentage and graphic)
   Waste water tank alarm
   Electronic battery separator



- Protection fuses
   Control car battery recharging
   Save service battery function
   Digital clock
   Test internal and external temperature
   Regulation of screen luminosity

Control panel dimensions 195 x 129 mm



THE SYSYEM INCLUDES	MODEL	PART-NR
CONTROL PANEL	NE362	1347.362.01
INTERFACE ICL12 RS485	ICL12	C3.0543.001
12V DISTRIBUTION BOX, PROTECTION 13 FUSES	NE356	1347.356.01
12V 22A SWITCHING BATTERY CHARGER	BC122	B1.0543.002
DRINKING WATER TANK PROBE S1-S2	SST/75	1347.000.04
WASTE WATER TANK PROBE R1-R2	SSR	000.400.32
CABLE KIT FOR TANK PROBES S1=6MT R1=6MT	CCS700	000.404.66
CABLE FOR CONTROL PANEL L=8m	CP700	000.400.70
CABLE FOR EXTERNAL TEMPERATURE L=4m	CTE	006385AGE

# NE362

# NEW

#### DIGITIZE YOUR MOTORHOME



# | PARTS INCLUDED IN THE NE362 COMPLETE SYSTEMS



12V DISTRIBUTION BOX, PROTECTION 13 **FUSES** 



DRINKING WATER TANK PROBE S1-S2



WASTE WATER TANK PROBE R1-R2



CSS CABLE KIT FOR TANK PROBES S1=6MT R1=6MT



CPC700 CABLE FOR CONTROL PANEL L=8m



CABLE FOR EXTERNAL TEMPERATURE L=4m



12V 22A SWITCHING **BATTERY CHARGER** 











# **⊗CBE**°

# SYSTEM PC380

Microprocessor controlled digital system with 4,8" GRAPHIC NEGATIVE LCD 12 COLOURS control panel.

- ▶ Test car and service battery B1 and B2 condition (volt and graphic)
- ▶ Test drinking water tank level (percentage and graphic)
- ▶ Waste water tank alarm
- ▶ Electronic battery separator
- ▶ Control 3-way fridge
- Protection fuses
- ▶ Control car battery recharging
- ▶ Save service battery function
- Digital clock
- ▶ Test internal and external temperature
- Software update via USB
- "Twilight" sensor

Control panel dimensions 190 x 130 mm

# SYSTEM PC260

Microprocessor controlled digital system with 3,2" GRAPHIC NEGATIVE LCD control panel.

#### Main functions:

**CONTROL PANELS** 

- ▶ Test car and service battery B1 and B2 condition (volt and graphic)
- ▶ Test drinking water tank level (percentage and graphic)
- Waste water tank alarm
- ▶ Electronic battery separator
- ▶ Control 3-way fridge
- Protection fuses
- ▶ Control car battery recharging
- ▶ Save service battery function
- Digital clock
- ▶ Test internal and external temperature
- "Twilight" sensor

Control panel dimensions 180 x 125 mm





PART-NR	MODEL	THE SYSTEM INCLUDES:
113800	PC380	CONTROL PANEL
209000	DS300	12V DISTRIBUTION BOX, PROTECTION FUSES
B1.0543.002	BC122	12V 22A SWITCHING BATTERY CHARGER
5120:::	SPE/	FRESH WATER ELECTRONIC TANK PROBE (indicate the tank height on the purchase order)
505000	SS/P	SCREW PROBES FOR WASTE WATER TANK
709020	CCS200	CABLES KIT FOR TANK PROBES L=6m
709623	CP973-6	CABLE FOR CONTROL PANEL L=6m
708661	CTIE-2	CABLE WITH SENSORS FOR INTERNAL AND EXTERNAL TEMPERATURE (L=1,5m and L=5m)
222551	R450	50A FUSE + FUSE-HOLDER

PART-NR	MODEL	THE SYSTEM INCLUDES:
112600	PC260	CONTROL PANEL
209000	DS300	12V DISTRIBUTION BOX, PROTECTION FUSES
B1.0543.002	BC122	12V 22A SWITCHING BATTERY CHARGER
5120:::	SPE/	FRESH WATER ELECTRONIC TANK PROBE (indicate the tank height on the purchase order)
505000	SS/P	SCREW PROBES FOR WASTE WATER TANK
709020	CCS200	CABLES KIT FOR TANK PROBES L=6m
709623	CP973-6	CABLE FOR CONTROL PANEL L=6m
708661	CTIE-2	CABLE WITH SENSORS FOR INTERNAL AND EXTERNAL TEMPERATURE (L=1,5m and L=5m)
222551	R450	50A FUSE + FUSE-HOLDER

#### SYSTEM PC210

Microprocessor controlled digital system with 2,9" GRAPHIC LCD 12 COLOURS control panel.

#### Main functions:

- ▶ Touch capacitive buttons
- ▶ Test car and service battery B1 and B2 condition (volt and graphic)
- ▶ Test drinking water tank level (percentage and graphic)
- ▶ Waste water tank alarm
- ▶ Electronic battery separator
- ► Control 3-way fridge
- Protection fuses
- ▶ Control car battery recharging
- Save service battery function
- ▶ Test internal and external temperature

Control panel dimensions 170 x 80 mm

#### SYSTEM PC180

Microprocessor controlled digital system with LED control panel.

#### Main functions:

- ▶ Test car and service battery B1 and B2 condition
- ▶ Test drinking water tank level
- ▶ Waste water tank alarm
- ▶ Electronic battery separator
- ▶ Control 3-way fridge
- Protection fuses
- ▶ Control car battery recharging
- ▶ Save service battery function
- "Twilight" sensor

Control panel dimensions 190 x 130 mm





PART-NR	MODEL	THE SYSTEM INCLUDES:
112100	PC210	CONTROL PANEL
209000	DS300	12V DISTRIBUTION BOX, PROTECTION FUSES
B1.0543.002	BC122	12V 22A SWITCHING BATTERY CHARGER
5120:::	SPE/	FRESH WATER ELECTRONIC TANK PROBE (indicate the tank height on the purchase order)
505000	SS/P	SCREW PROBES FOR WASTE WATER TANK
709020	CCS200	CABLES KIT FOR TANK PROBES L=6m
709623	CP973-6	CABLE FOR CONTROL PANEL L=6m
708661	CTIE-2	CABLE WITH SENSORS FOR INTERNAL AND EXTERNAL TEMPERATURE (L=1,5m and L=5m)
222551	R450	50A FUSE + FUSE-HOLDER

PART-NR	MODEL	THE SYSTEM INCLUDES:
111800	PC180	CONTROL PANEL
209000	DS300	12V DISTRIBUTION BOX, PROTECTION FUSES
B1.0543.002	BC122	12V 22A SWITCHING BATTERY CHARGER
505140	SP5/40	DRINKING WATER TANK PROBE
505000	SS/P	SCREW PROBES FOR WASTE WATER TANK
709160	CCS910	CABLES KIT FOR TANK PROBES L=6m
709623	CP973-6	CABLE FOR CONTROL PANEL L=6m
222551	R450	50A FUSE + FUSE-HOLDER













# SYSTEM PC160

Microprocessor controlled digital system with LED control panel

#### Main functions:

- ▶ Test car and service battery B1 and B2 condition
- ▶ Test drinking water tank level
- ▶ Waste water tank alarm
- ▶ Electronic battery separator
- ▶ Control 3-way fridge
- Protection fuses
- ▶ Car battery charger
- ▶ Save service battery function
- ▶ Regulation of screen luminosity

# Control panel dimensions 180 x 125 mm

# SYSTEM PC110

Microprocessor controlled digital system with LED control panel.

# Main functions:

**CONTROL PANELS** 

- Test car and service battery B1 and B2 conditionTest drinking water tank level
- ▶ Waste water tank alarm
- Electronic battery separatorControl 3-way fridge
- Protection fuses
- ▶ Control car battery recharging
- ▶ Save service battery function

#### Control panel dimensions 170 x 80 mm





PART-NR	MODEL	THE SYSTEM INCLUDES:
111600	PC160	CONTROL PANEL
209000	DS300	12V DISTRIBUTION BOX, PROTECTION FUSES
B1.0543.002	BC122	12V 22A SWITCHING BATTERY CHARGER
505140	SP5/40	DRINKING WATER TANKPROBE
505000	SS/P	SCREW PROBES FOR WASTE WATER TANK
709160	CCS910	CABLES KIT FOR TANKPROBES L=6m
709623	CP973-6	CABLE FOR CONTROL PANEL L=6m
222551	R450	50A FUSE + FUSE-HOLDER

PART-NR	MODEL	THE SYSTEM INCLUDES:	
111100	PC110	CONTROL PANEL	
209000	DS300	12V DISTRIBUTION BOX, PROTECTION FUSES	
B1.0543.002	BC122	12V 22A SWITCHING BATTERY CHARGER	
505140	SP5/40	DRINKING WATER TANKPROBE	
505000	SS/P	SCREW PROBES FOR WASTE WATER TANK	
709160	CCS910	CABLES KIT FOR TANKPROBES L=6m	
709623	CP973-6	CABLE FOR CONTROL PANEL L=6m	
222551	R450	50A FUSE + FUSE-HOLDER	

# PARTS INCLUDED IN THE PC210 - PC220 - PC260 - PC380 COMPLETE SYSTEMS



DS300 12V DISTRIBUTION BOX, PROTECTION FUSES



BC122 12V 22A SWITCHING BATTERY CHARGER



SPE/... FRESH WATER ELECTRONIC TANK PROBE



SCREW PROBES FOR WASTE WATER TANK



CCS200 CABLES KIT FOR TANK PROBES L=6m



25

CP973-6 CABLE FOR CONTROL PANEL L=6m

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CTIE-2 CABLE WITH SENSORS FOR INTERNAL AND EXTERNAL TEMPERATURE (L=1,5m and L=5m)



R450 50A FUSE + FUSE-HOLDER

CONTROL PANELS



CCS910 CABLES KIT FOR TANK PROBES L=6m



CP973-6 CABLE FOR CONTROL PANEL L=6m

# | PARTS INCLUDED IN THE PC110 - PC160 - PC180 COMPLETE SYSTEMS



DS300 12V DISTRIBUTION BOX, PROTECTION FUSES



BC122 12V 22A SWITCHING BATTERY CHARGER



50A FUSE + FUSE-HOLDER



DRINKING WATER TANK PROBE



SCREW PROBES FOR WASTE WATER TANK













NORDELETTRONICA®

SYSTEM NE273

Microprocessor controlled digital system with 7" GRAPHIC COLOURS control panel.

#### Main functions:

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- ▶ 7" graphic colours full touch control panel
- ▶ Test car and service battery B1 and B2 condition (volt and graphic)
- ▶ Test drinking water tank level (percentage and graphic)
- ▶ Waste water tank alarm
- ▶ Electronic battery separator



NE273 CONTROL PANEL

- ▶ Control 3-way fridge
- Protection fuses
- ▶ Control car battery recharging
- ▶ Save service battery function
- Digital clock
- ▶ Test internal and external temperature
- ▶ Regulation of screen luminosity

#### Control panel dimensions 195 x 129 mm

THE SYSYEM INCLUDES	MODEL	PART-NR
CONTROL PANEL	NE273	1347.273.03
12V DISTRIBUTION BOX, PROTECTION 13 FUSES	NE356	1347.356.01
12V 22A SWITCHING BATTERY CHARGER	BC122	B1.0543.002
DRINKING WATER TANK PROBE S1-S2	SST/75	1347.000.04
WASTE WATER TANK PROBE R1-R2	SSR	000.400.32
CABLE KIT FOR TANK PROBES S1=6MT R1=6MT	CCS700	000.404.66
CABLE FOR CONTROL PANEL L=8m	CP700	000.400.70
CABLE FOR EXTERNAL TEMPERATURE L=4m	CTE	006385AGE

NORDELETTRONICA®

# I SYSTEM NE333

Microprocessor control digital system with 3 digit visualization led control panel

#### Main functions:

- ▶ LED Control Panel with 3 digit visualization
- ▶ Test car and service battery B1 and B2 condition (volt and graphic)
- ▶ Test drinking water tank level (percentage and graphic)
- ▶ Waste water tank alarm
- ▶ Electronic battery separator

- ▶ Control 3-way fridge
- Protection fuses
- ▶ Control car battery recharging
- ▶ Save service battery function
- ▶ Digital clock
- ▶ Test internal temperature

THE SYSYEM INCLUDES

# Control panel dimensions 114 x 84 mm



1347.333.01	NE333	CONTROL PANEL
1347.356.01	NE356	12V DISTRIBUTION BOX, PROTECTION 13 FUSES
B1.0543.002	BC122	12V 22A SWITCHING BATTERY CHARGER
1347.000.04	SST/75	DRINKING WATER TANK PROBE S1-S2
000.400.32	SSR	WASTE WATER TANK PROBE R1-R2
000.404.66	CCS700	CABLE KIT FOR TANK PROBES S1=6MT R1=6MT
000.400.70	CP700	CABLE FOR CONTROL PANEL L=8m

MODEL

PART-NR

NE333 CONTROL PANEL

# SYSTEM NE334

Microprocessor control digital system with 3 digit visualization led control panel

#### Main functions:

- ▶ LED Control Panel with 3 digit visualization
- ▶ Test car and service battery B1 and B2 condition (volt and graphic)
- ▶ Test drinking water tank level (percentage and graphic)
- Waste water tank alarm
- Electronic battery separator
- ▶ Control 3-way fridge
- Protection fuses
- ▶ Control car battery recharging
- ▶ Save service battery function
- ▶ Digital clock
- ▶ Test internal and external temperature

#### Control panel dimensions 170 x 103 mm

THE SYSYEM INCLUDES	MODEL	PART-NR
CONTROL PANEL	NE334	1347.334.01
12V DISTRIBUTION BOX, PROTECTION 13 FUSES	NE356	1347.356.01
12V 22A SWITCHING BATTERY CHARGER	BC122	B1.0543.002
DRINKING WATER TANKPROBE S1-S2	SST/75	1347.000.04
WASTE WATER TANKPROBE R1-R2	SSR	000.400.32
CABLE KIT FOR TANKPROBES S1=6MT R1=6MT	CCS700	000.404.66
CABLE FOR CONTROL PANEL L=8m	CP700	000.400.70
CABLE FOR EXTERNAL TEMPERATURE L=4m	CTE	006385AGE

NE334 CONTROL PANEL

# I PARTS INCLUDED IN THE NE273 - NE 333 - NE 334 COMPLETE SYSTEMS







NE356

12V DISTRIBUTION BOX, PROTECTION 13 **FUSES** 

DRINKING WATER TANK PROBE S1-S2

WASTE WATER TANK PROBE R1-R2











BC122

12V 22A SWITCHING BATTERY CHARGER

CSS CABLE KIT FOR TANK PROBES

S1=6MT R1=6MT

CPC700 CABLE FOR CONTROL PANEL L=8m

CABLE FOR EXTERNAL TEMPERATURE L=4m

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MTB/G 212892 MTB/M 212893

#### 12V LED BATTERY VOLTAGE TEST PANEL

The kit includes "BMAC1C" frame and "MAD" spacer. This panel fits also the "Modular Plates" range.

Dimensions: 60 x 60 mm.



MT214/G 212898 MT214/M 212895

**12V LED TEST PANEL** for one drinking water tank and one waste water tank. This panel fits also the "Modular Plates" range.

#### The kit includes

2 cables L=4m, tank probe "SP5/40", waste water tank screws "SS/P" and "BMAC1C" frame.

Dimensions: 60 x 60 mm.



MTT/G 270572 MTT/M 270576

**12V LED TEST PANEL** for one drinking water tank. This panel fits also the "Modular Plates" range.

#### The kit includes

1 cable L=4m, tank probe "SP5/40", "BMAC1C" frame and "MAD" spacer.

#### MTT/G-R 270572SS

12V LED panel replacement, complete with wiring, without probe.

Dimensions: 60 x 60 mm.



MTTR/G 270573 MTTR/M 270577

12V LED TEST PANEL for one waste water tank.

This panel fits also the "Modular Plates" range.

#### The kit includes

1 cable L=4m, tank probe "SP5/40", "BMAC1C" frame and "MAD" spacer.

Dimensions: 60 x 60 mm.



... / GR (anthracite grey RAL 7021)



PT738/GR 204738

**12V TOUCH TEST PANEL** with OLED display to test the external and internal temperature. **The kit includes** sensor for external temperature L=3m, sensor for internal temperature L=1,5m, "BMAC1C" frame and a wall-fixing spacer.

This panel fits also the "Modular Plates" range.

12V Power supply. Dimensions: 60 x 60mm



**PT722 / GR** 204762

**12V TOUCH TEST PANEL** with OLED display to test 2 water tanks' level in percentage.

**The kit includes** 2 cables L=4m, "BMAC1C" frame and a wall-fixing spacer. This panel fits also the "Modular Plates" range.

NB: electronic tank probe mod. "SPE" must be ordered separately.

12V Power supply. Dimensions: 60 x 60mm



**PT732 / GR** 204732

**12V TOUCH TEST PANEL** with OLED display to test two 12V batteries' voltage **The kit includes** "BMAC1C" frame and a wall-fixing spacer.

This panel fits also the "Modular Plates" range.

12V Power supply. Dimensions: 60 x 60mm



PT750 / NE363 204750

DIGITAL TOUCH TEST PANEL with OLED display showing the charge status (%) of lithium and conventional batteries.

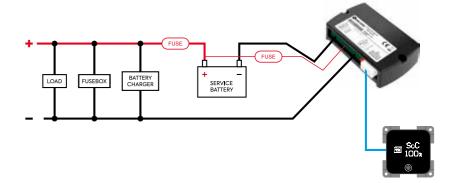
Displays State of Charge (SoC), battery voltage and current -150A + 150A.

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.

12V power supply. DIM 60 x 60 mm



COLOURS

... / G (Grey RAL 7015)

... / M (Brown RAL 8016)













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#### **AM500** A1.0543.004

SHUNT for measuring electric current up to 500A. Allows precise calculation of instantaneous consumption, state of charge (SoC), state of health (SoH), and remaining autonomy expressed in hours.

Powered at 12V DIM. 130 x 44 x 57mm



PT754 204754

OPTIONALI:

DIGITAL TOUCH TEST PANEL with OLED display showing the data provided by the AM500 shunt.

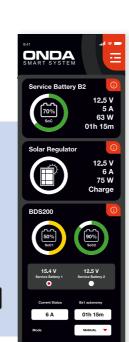
12V power supply. DIM 60 x 60 mm

Google Play Scarica su App Store



OPTIONAL

FOR AM500





BMTCO/GR 232802 **BMTCO/MA** 232803

#### 12V LPG AND SOPORIFIC GAS DETECTOR

BMTG / GR 232800

BMTG/MA 232801

The acoustic alarm detects the gas concentration in time to prevent poisoning accidents and before one tenth of the minimum level to cause an explosion is reached. The sensor can be set in accordance with the use and the install position. The detector is tested and calibrated using LPG and soporific gas. Average sensor life is about 10 years.

The kit includes a "BMAC2" frame. This panel fits also the "BERKER INTEGRO" range.

Built-in fixing or wall-fixing with spacer.

12V Power supply. Dimensions: 119 x 60 mm Sensor consumption: 75mA Acoustic power (beeper): 85 dB max at 1 meter distance

12V CARBON MONOXIDE DETECTOR

The acoustic alarm detects the gas concentration in time to prevent poisoning accidents. Carbon monoxide is a toxic gas produced by incomplete fossil fuel combustion or when combustion takes place in a room where oxygen concentration is very low. The detector is tested and calibrated using carbon monoxide.

Average sensor life is about 10 years. Built-in fixing or wall-fixing with spacer.

12V Power supply.

The kit includes a "BMAC2" frame. This panel fits also the "BERKER INTEGRO" range.

Dimensions: 119 x 60 mm Sensor consumption: 15mA Acoustic power (beeper): 85 dB max at 1 meter distance

NEW

#### APP - ONDA SMART SYSTEM

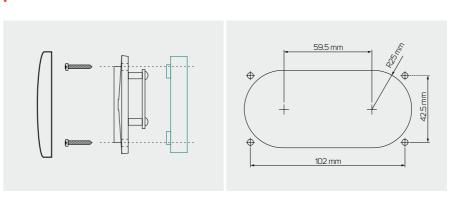
The mobile application "ONDA SMART SYSTEM" has been specifically developed to manage and extend the functionalities of the AM500. The connection between the AM500 and mobile devices is established via **Bluetooth**, with an effective range limited to the vicinity of the vehicle.

#### The "ONDA SMART SYSTEM" App allows you to:

- View the current and power being generated (positive sign "+") or consumed (negative sign "-") by the system
- View the voltage, State of Charge (SoC), and State of Health (SoH) of the service battery B2
- View the remaining range of the service battery B2
- Access the AM500 user manual
- Update the firmware of the AM500



#### INSTALLATION



Wall mounting with spacer

Recessed mounting

#### COLOURS:

- ... / G (Grey RAL 7015)
- ... / M (Brown RAL 8016)

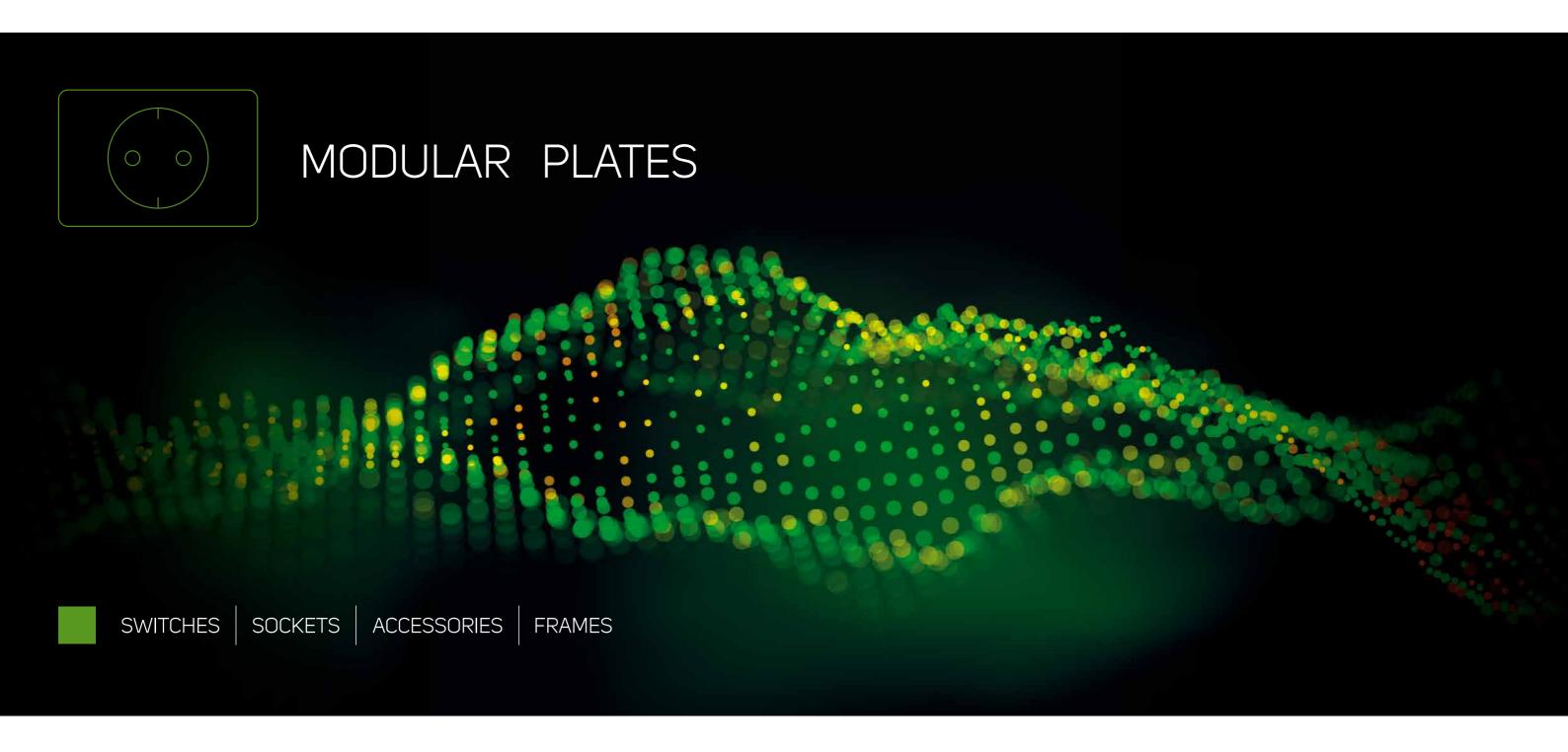
























**⊗CBE**°

# **⊗CBE**°



MCN / ... SWITCH

COLOUR	BLISTER	BOX *
/ G	212866	270122
/ M	212867	270126
/ B	212868	270120
/ GC	-	270124



**MC12P** / ... 12V SWITCH + LED

**SWITCHES** 

COLOUR	BLISTER	BOX*
/ G	212855	270132
/ M	212856	270136
/ B	-	270130
/ GC	-	270134



MC12N / ... 12V SWITCH + LED

COLOUR	BLISTER	BOX*
/ G	212994	272052
/ M	212995	272056
/ B	-	-
/ GC	-	272054



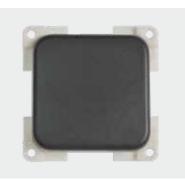
MCD2N / ...
DOUBLE TWO-WAY SWITCH

COLOUR	BLISTER	BOX *
/ G	212839	272082
/ M	212840	272086
/ B	-	272080
/ GC	-	272084



MCPL / ...
PUMP SWITCH + LIGHT SWITCH

_		
COLOUR	BLISTER	BOX*
/ G	212862	270482
/ M	-	-
/ B	-	-
/ GC	-	-



MCP/ ...
PUSH-BUTTON

COLOUR	BLISTER	BOX
/ G	212990	27016
/ M	212991	270165
/ B	-	270160
/ GC	-	270163
	/G /M /B	/G 212990 /M 212991 /B -



MC2N / ...
DOUBLE SWITCH

_		
COLOUR	BLISTER	BOX *
/ G	212872	270142
/ M	212873	270146
/ B	212874	270140
/ GC	-	270144



MCD / ... TWO-WAY SWITCH

COLOUR	BLISTER	BOX*
/ G	212869	270152
/ M	212870	270156
/B	212871	270150
/ GC	-	270154



MCD1N / ...
TWO-WAY SWITCH

COLOUR	BLISTER	BOX *
/ G	212814	272062
/ M	212815	272066
/ B	-	-
/ GC	-	-



MCGU / ...
3 POSITION STEP PUSH-BUTTON

_		
COLOUR	BLISTER	BOX <sup>3</sup>
/ G	212834	270292
/ M	-	
/ B	-	
/ GC	-	



MCG5 / ...
3 POSITION STEP PUSH-BUTTON

BOX *	COLOUR	BLISTER	BOX
0292	/ G	212812	270272
-	/ M	212813	270276
-	/B	-	270270
-	/ GC	-	270274



MCGD5 / ...
STEP PUSH-BUTTON +
12/24V LIGHT TWO-WAY SWITCH

COLOUR	BLISTER	BOX *
/ G	212837	272112
/ M	212838	272116
/ B	-	-
/ GC	-	-

# COLOURS:

- ... / G (Grey RAL 7015)
- ... / M (Brown RAL 8016)
- ... / B (White RAL 9010)
- ... / GC (Light Grey RAL 7035)
- \* Minimum order 10 pieces or multiples of 10

- ... / G (Grey RAL 7015)
- ... / M (Brown RAL 8016)
- ... / B (White RAL 9010)
- ... / GC (Light Grey RAL 7035)
- \* Minimum order 10 pieces or multiples of 10











# **⊗CBE**°



MP12 / ... STANDARD 12V SOCKET

COLOUR	BLISTER	BOX *
/ G	212822	270302
/ M	212823	270306
/ B	212821	270300
/ GC	-	-



MP12TV / ... STANDARD 12V SOCKET + TV

SOCKETS

COLOUR	BLISTER	BOX*
/ G	212826	270322
/ M	212827	270326
/ B	-	270320
/ GC	-	270324



MP12TVS / ...
STANDARD 12V SOCKET + TV + SAT

COLOUR	BLISTER	BOX *
/ G	212828	270332
/ M	212829	270336
/B	-	270330
/ GC	-	270334



MP12ATV / ...
12V LIGHTER TYPE SOCKET + TV

_		
COLOUR	BLISTER	BOX *
/ G	212843	270212
/ M	212844	270216
/ B	-	270210
/ GC	-	270214



MP12ATVS / ...

12V LIGHTER TYPE SOCKET + TV + SAT

COLOUR	BLISTER	BOX*
/ G	212846	270232
/ M	212847	270236
/ B	-	270230
/ GC	-	270234



MPTVS / ...
TV SOCKET + SAT

COLOUR	BLISTER	BOX
/ G	212852	270412
/ M	212853	270416
/ B	-	270410
/ GC	-	270414



MP12A / ...
12V LIGHTER TYPE SOCKET

COLOUR	BLISTER	BOX *
/ G	212790	270172
/ M	212791	270176
/B	212792	270170
/ GC	-	270174



MP12AC / ...
12V LIGHTER TYPE SOCKET + COVER

COLOUR	BLISTER	BOX*
/ G	212907	270182
/ M	212908	270186
/ B	212909	270180
/ GC	-	270184



MP12ACS / ...
12V WATERTIGHT LIGHTER TYPE SOCKET

COLOUR	BLISTER	BOX *
/ G	212917	270202
/ M	212918	270206
/B	-	-
/ GC	-	-



MPUSB / ... 5V/3A USB-A CHARGHING SOCKET (12V INPUT)

COLOUR	BLISTER	BOX *
/ G	212922	270642
/ M	212923	270646
/B	-	-
/ GC	-	-



MP2USB / ...
5V/1A + 5V/2,1A DOUBLE USB-A
CHARGING SOCKET (12V INPUT)

COLOU	R BLISTER	BOX*
/ G	212921	270652
/ M	212929	270656
/B	-	
/ GC	-	



MP2USBC / ...
5V/3A USB-A + 5V/3A USB-C
DOUBLE CHARGING SOCKET
(INPUT 12V)

BOX *	BLISTER	COLOUR	
270662	212931	/ G	
270666	212932	/ M	
-	-	/ B	
-	-	/ GC	

#### COLOURS:

- ... / G (Grey RAL 7015)
- ... / M (Brown RAL 8016)
- ... / B (White RAL 9010)
- ... / GC (Light Grey RAL 7035)
- \* Minimum order 10 pieces or multiples of 10

- ... / G (Grey RAL 7015)
- ... / M (Brown RAL 8016)
- ... / B (White RAL 9010)
- ... / GC (Light Grey RAL 7035)
- \* Minimum order 10 pieces or multiples of 10









# **⊗CBE**°



MPTV / ... TV SOCKET



SOCKETS

MP22D / ... 230V SCHUKO SOCKET WITH COVER AND BACK PROTECTION BOX



MP22I / ... 230V ITALIAN SOCKET WITH COVER AND BACK PROTECTION BOX



MCB / ... STEP BUZZER MODULE



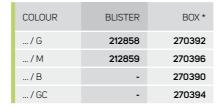
MP / ... BLIND PLATE



MAD / ... SPACER FOR WALL-FIXING 60 x 60 x 10mm

COLOUR	BLISTER	BOX*
/ G	212849	270402
/ M	212850	270406
/ B	-	270400
/ GC	-	270404

COLOUR	BLISTER	BOX*
/ G	212880	270362
/ M	212881	270366
/ B	212882	270360
/ GC	-	270364





COLOUR	BLISTER	BOX *
/ G	212700	273072
/ M	212701	273076
/ B	-	-
/ GC	-	-





MP22B / ... 230V BRITISH STANDARD SOCKET WITH BACK PROTECTION BOX



MCR / ... 12V ELECTRONIC DIMMER FOR LIGHTS AND FANS (MAX 3A)



MPF4 / ... 4 FUSES MODULE



MAP / ... COVER

COLOUR	BLISTER	BOX*	COLOUR	BLISTER	ВС
/ G	-	270342	/ G	212808	270
/ M	-	270346	/ M	212809	2705
/ B	-	-	/ B	-	2705
/ GC	-	-	/ GC	-	2705

BOX*	COLOUR	BLISTER	BOX *
270342	/ G	212808	270502
270346	/ M	212809	270506
-	/B	-	270500
-	/ GC	-	270504

COLOUR	BLISTER	BOX*
/ G	212841	270492
/ M	-	-
/B	-	-
/ GC	-	-

# COLOURS:

- ... / G (Grey RAL 7015)
- ... / M (Brown RAL 8016)
- ... / B (White RAL 9010)
- ... / GC (Light Grey RAL 7035)
- \* Minimum order 10 pieces or multiples of 10

_		
COLOUR	BLISTER	BOX *
/ G	212668	-
/ M	212667	-
/ B	212669	-
/ GC	-	-

#### COLOURS:

- ... / G (Grey RAL 7015)
- ... / M (Brown RAL 8016)
- ... / B (White RAL 9010)
- ... / GC (Light Grey RAL 7035)

\* Minimum order 10 pieces or multiples of 10











# **⊗CBE**°



MAS 45 212676 BACK PROTECTION BOX Ø45 L=48mm



**ACCESSORIES** 

MAS 50 212677 BACK PROTECTION BOX Ø50 L=34mm

MAS 50R 212675

BACK PROTECTION BOX

Ø45 L=22mm



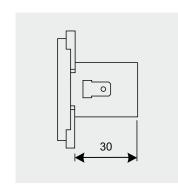
MCAP5 212640 TV CONNECTOR Ø0,5 (10 pcs)

MCAP6 212644 TV CONNECTOR Ø0,6 (10 pcs)

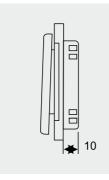
**MCAP7** 212648

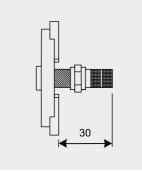
TV CONNECTOR Ø0,7 (10 pcs)





30



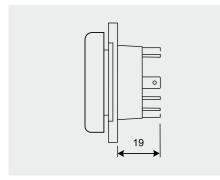


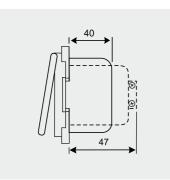
MP12A / MP12ATV

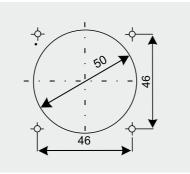
MP12 / MP12TV

MCN / MC12P / MCR

MPTV







MCG / MC12

MP22I

# COLOURS:

- ... / G (Grey RAL 7015)
- ... / M (Brown RAL 8016)
- ... / B (White RAL 9010)
- ... / GC (Light Grey RAL 7035)
- \* Minimum order 10 pieces or multiples of 10





COLOUR	BLISTER	BOX *
/ G	212681	270702
/ M	212670	270706
/ B	212672	270700
/ GC	-	270704



MAC2P / ... 2 MODULE FRAME 113 x 60mm

COLOUR	BLISTER	BOX*
/ G	212660	270722
/ M	212678	270726
/ B	212696	270720
/ GC	-	270724



MAC1PS / ...
1 MODULE FRAME "SOFTLINE"
64 x 60mm

COLOUR	BLISTER	BOX *
/ G	212602	270712
/ M	212606	270716



MAC2PS / ... 2 MODULE FRAME "SOFTLINE" 116 x 60mm

COLOUR	BLISTER	BOX*
/ G	212612	270732
/ M	212616	270736



- ... / G (Grey RAL 7015)
- ... / M (Brown RAL 8016)
- ... / B (White RAL 9010)
- ... / GC (Light Grey RAL 7035)
- \* Minimum order 10 pieces or multiples of 10

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**FRAMES** 















**⊗CBE**°

# **⊗CBE**°



MAC1/ ... 1 MODULE CBE FRAME 86 x 78 mm

_		
COLOUR	BLISTER	BOX *
/ G	215030	270012
/ M	215031	270016
/ B	-	270010
/ GC	-	270014



MAC2 / ... 2 MODULE CBE FRAME 139 x 78 mm

BOX*	BLISTER	COLOUR
270032	215040	/ G
270036	215041	/ M
270030	-	/ B
270034	-	/ GC



MAT2NL/ ... 2 MODULE SUPPORT FRAME

COLOUR	BLISTER	BOX *
/ G	215342	270842
/ M	215346	270846

MAC2NL / ... 2 MODULE FRAME 139 x 78 mm Requires support frame MAT2NL

_		
COLOUR	BLISTER	BOX *
/ G	215362	270862
/ M	215366	270866

MAC2FL/ ... 2 FLAT MODULE FRAMES 139 x 78mm Requires support frame MAT2NL

COLOU	R BLISTE	R BOX*
/ G	21542	271020GF
/ M	21542	6 271020MA



MAT1NL / ... 1 MODULE SUPPORT FRAME

_		
COLOUR	BLISTER	BOX *
/ G	215302	270802
/ M	215306	270806



MAC1NL / ... 1 MODULE FRAME 86 x 78 mm Requires support frame MAT1NL

COLOUR	BLISTER	BOX*
/ G	215322	270822
/ M	215326	270826



MAC1FL/ ... 1 FLAT MODULE FRAME 86 x 78mm Requires support frame MAT1NL

_		
COLOUR	BLISTER	BOX*
/ G	215412	271010GR
/ M	215416	271010MA



MAT3NL / ... 3 MODULE SUPPORT FRAME

COLOUR	BLISTER	BOX *
/ G	215382	270882
/ M	215386	270886

MAC3NL / ...

3 MODULE FRAME 192 x 78 mm Requires support frame MAT3NL

BOX *	COLOUR	BLISTER	BOX *
270882	/ G	215402	270902
270886	/ M	215406	270906



3 FLAT MODULE FRAMES 192 x 78mm

Requires support frame MAT3NL	

ı	COLOUR	BLISTER	BOX
١	/ G	215432	271030GI
ı	/ M	215436	271030M

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#### COLOURS:

- ... / G (Grey RAL 7015)
- ... / M (Brown RAL 8016)
- ... / B (White RAL 9010)
- ... / GC (Light Grey RAL 7035)
- \* Minimum order 10 pieces or multiples of 10



- ... / G (Grey RAL 7015)
- ... / M (Brown RAL 8016)
- ... / B (White RAL 9010)
- ... / GC (Light Grey RAL 7035)
- \* Minimum order 10 pieces or multiples of 10

















MCN3/... SWITCH

COLOUR	BLISTER	BOX *
/ N	212342	271142



MC2N3/...
DOUBLE SWITCH

COLOUR BLISTER BOX*	/ N	212352	271152
	COLOUR	BLISTER	BOX*



MC12P3 / ... 12V SWITCH + LED

COLOUR	BLISTER	BOX *
/ N	212362	271162



MP22D3 / ...
230V SCHUCKO SOCKET WITH COVER
AND BACK PROTECTION BOX

COLOUR	BLISTER	BOX *
/ N	212312	271112



MP22B3 / ...
230V BRITISH STANDARD SOCKET WITH
BACK PROTECTION BOX

/N	212322	271122
COLOUR	BLISTER	BOX *



MCG53 / ...
3 POSITION STEP PUSH-BUTTON

COLOUR	BLISTER	BOX *
/ N	212332	271132



MP12A3 / ...
12V LIGHTER TYPE SOCKET + COVER

COLOUR	BLISTER	BOX*
/ N	212302	271102

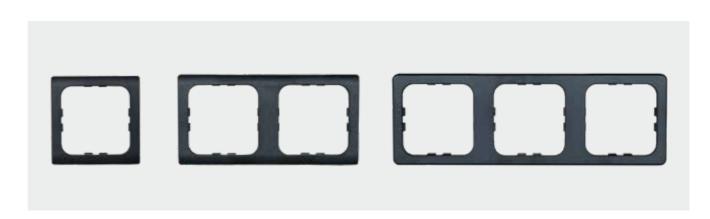


MP2USBC3 / ...

DUAL USB-A (3A) + USB-C (3A)

SOCKET, INPUT SUPPLY VOLTAGE: 12V.

COLOUR	BLISTER	BOX *
/ N	212933	270668



MODEL	DESCRIPTION	COLOUR	SIZE	BLISTER	BOX*
MAC1P3/	1 MODULE FRAME	/N	60 x 60 mm	212552	270752
MAC2P3/	2 MODULE FRAME	/N	119,5 x 60 mm	212562	270762
MAC3P3/	3 MODULE FRAME	/N	179 x 60 mm	212572	270772

#### COLOURS:

- ... / G (Grey RAL 7015)
- ... / M (Brown RAL 8016)
- ... / B (White RAL 9010)
- ... / GC (Light Grey RAL 7035)
- \* Minimum order 10 pieces or multiples of 10

COLOURS:

- ... / G (Grey RAL 7015)
- ... / M (Brown RAL 8016)
- ... / B (White RAL 9010)
- ... / GC (Light Grey RAL 7035)
- \* Minimum order 10 pieces or multiples of 10





















NORDELETTRONICA<sup>®</sup>

Provided hi

# **⊗CBE**°

### | SERIE BC122 SWITCHING BATTERY CHARGER

The BC122 switching is a high-efficiency 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.

If the battery is present and it is powered via mains, the BC122 works as a battery charger (if the algorithm for lithium batteries has been selected, the BC122 works as a battery charger even if it does not detect the battery when switched on)

Using the dip-switch, it is possible to choose the charging algorithm according to the battery type. When switched on, the green LED flashes, indicating which charging algorithm has been selected via the dip-switch.

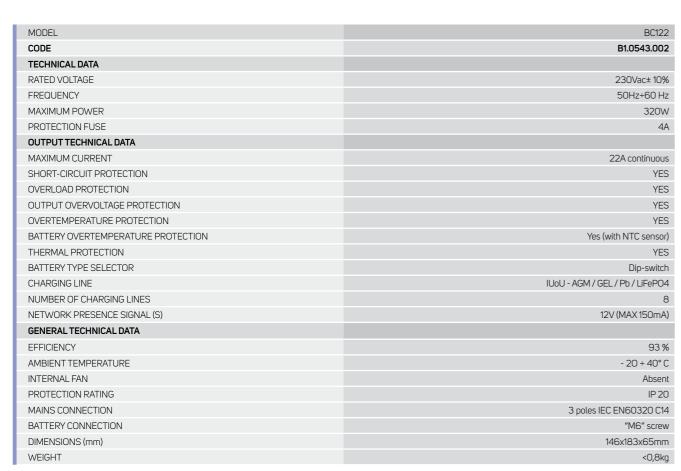
The battery charger uses a combination of Constant Current and Constant Voltage charging; this allows for the charging time to be significantly reduced and it also prevents damage to the batteries even if the charger is permanently connected to the 230V mains.

When a load is inserted, the charger immediately provides the necessary current, preventing the battery from discharging (this is true if the load current is less than the maximum current that can be delivered by the battery charger, otherwise the battery still discharges with a current equal to the difference: (ILOAD - IBATTERY CHARGER).

It is possible to connect a temperature probe to the battery charger (to be placed on the battery) to adapt the charging algorithm to the battery temperature.

SWITCHING BATTERY CHARGERS





#### I NE325 DC-DC POWER CONVERTER

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. In the case of lithium batteries, which have very low internal resistance, the DC/DC is instead necessary to limit the charging current of the alternator and therefore to protect the system from overheating or damage. The DC/DC converter works only when the vehicle is running and this is achieved by the enabling input (Enable DC/DC) connected to the vehicle ignition

#### Operation

#### Power supply mode:

The NE325 operates as a power supply unit if the output is not connected to the battery when it is turned on. In this mode the green LED flashes and the output voltage is fixed at 13.8V.

#### Battery charger mode:

The NE325 operates as a battery charger if the output is connected to the battery when it is turned on (if the algorithm for lithium batteries has been selected, the DC/DC operates as a battery charger even if it does not detect the battery when it is turned on). Use the dip switches to choose the charging algorithm according to the type of battery, at switch on, the green LED flashes to indicate which algorithm is selected via dip switches. The DC/DC uses a combination of Constant Current and Constant Voltage. This makes it possible to significantly reduce charging time and prevents permanent damage to the batteries.

When a load is activated, the DC/DC immediately provides the necessary current, so that the battery does not discharge (this is true if the load current is lower than the maximum current available from the battery charger, otherwise the battery will discharge in any case with current equal to the difference (ILDAD - IDC/DC). It is possible to connect a temperature probe to the DC/DC (to be placed on the battery), to adapt the charging algorithm selected to the temperature of the battery.



NE325-25A NE325-40A

MODEL	NE325-25A	NE325-40A
PART-NR	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 pol
DUTPUT TECHNICAL DATA		
MAX CURRENT	25A continuous	40A continuou
SHORT-CIRCUIT PROTECTION	YES	YE
OVER-LOAD PROTECTION	YES	YE
OVER VOLTAGE PROTECTION	YES	YE
OVER TEMPERATURE PROTECTION	YES	YE
OVER TEMPERATURE BATTERY PROTECTION	YES (optional with NTC sensor)	YES (optional with NTC senso
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 -LiFePC
NPUT D+ SIGNAL	12V	12
GENERAL TECHNICAL DATA		
EFFICIENCY	90 %	90
ROOM TEMPERATURE	0 ÷ 50°	O ÷ 50
/ENTILATION	NO	YE
PROTECTION DEGREE	IP 20	IP 2
MAINS CONNECTION	"M5" screw	"M5" scre
BATTERY CONNECTION	"M5" screw	"M5" scre
DIMENSIONS (mm)	167x170x73mm	167x170x73mi
WEIGHT	1,3 kg	1,3 k
COLOUR	Black	Blad

50 |







# **⊗CBE**°

### | PURE SINE WAVE INVERTERS 12V/230V - ERP SERIES

The new "ERP" series inverters, with pure sine wave output, specifically designed for use on campers and cars, stand out for their high performance, construction quality, maximum safety and reliability.

#### Main features and functions:

- ▶ Pure sine wave output, to maximize the efficiency of the powered devices and recommended especially for sensitive 230V users, such as audio and video equipment, laptops, satellite systems, devices and household appliances equipped with an electric
- ▶ 4 models with power from 300 to 2000W.
- Complete with USB Type-A port.
- Reduced size and weight thanks to HF technology.
- High quality and robust construction with aluminium alloy casing.
   Electrical insulation between 12Vdc input and 23OVac output.
   "Smart" load and temperature controlled cooling fan.

- Protection against overload, short circuit, over temperature, high / low voltage, reverse polarity.
- Predisposition for the connection of the remote control panel.







ERP300	ERP600	ERP1500	
INVERTER	ERP300	ERP600	ERP1500
PART-NR	215475	215477	215481
TECHNICAL DATA			
NO-LOAD OUTPUT VOLTAGE	230Vac± 10V	230Vac± 10V	230Vac± 10V
LOAD OUTPUT VOLTAGE	210÷240Vac	210÷240Vac	210÷240Vac
FREQUENCY	50HZ	50HZ	50HZ
PEAK POWER	600W	1200W	3000W
CONTINUOUS POWER	300W	600W	1500W
OUTPUT WAVE	Pure sine wave (THD < 5%)	Pure sine wave (THD < 5%)	Pure sine wave (THD < 5%)
SHORT-CIRCUIT PROTECTION	YES	YES	YES
OVER-LOAD PROTECTION	360÷400W	650÷750W	1550÷1800W
INPUT TECHNICAL DATA			
OPERATING VOLTAGE RANGE	11÷15Vdc	11÷15Vdc	11÷15Vdc
NO-LOAD CURRENT	≤ 0.8A	≤ 1.0A	≤1.3A
INPUT LOW-VOLTAGE ALARM	10.5Vdc	10.5Vdc	10.5Vdc
INPUT LOW-VOLTAGE SHUT DOWN	9.5Vdc	9.5Vdc	9.5Vdc
INPUT OVER-VOLTAGE SHUT DOWN	16Vdc	16Vdc	16Vdc
DC INPUT REVERSE POLARITY	YES (fuse)	YES (fuse)	YES (fuse)
GENERAL TECHNICAL DATA			
EFFICIENCY	≥ 85%	≥ 85%	≥ 85%
VENTILATION	Forced, variable automatic regulation	Forced, variable automatic regulation	Forced, variable automatic regulation
ROOM TEMPERATURE	-15°÷+25°C; 60°C @40% power load	-15°÷+25°C; 60°C @40% power load	-15°÷+25°C; 60°C @40% power load
OVER TEMPERATURE PROTECTION	YES	YES	YES
230V CONNECTION	Schuko socket	Schuko socket	Schuko socket
BATTERY CONNECTION	Clamps	Clamps	Clamps
USB OUTPUT	1x USB type A	1x USB type A	2x USB type A
REMOTE SWITCH	MCI3 (optional)	MCI3 (optional)	MCI3 (optional)
DIMENSIONS (mm)	236 x 171 x 74H	272 x 171 x 74H	375 x 210 x 100H
WEIGHT	1,4Kg	1,75Kg	3,9Kg
IVT FUNCTION INCLUDED	NO	NO	NO



#### ERP2000-IVT-PLUS

INVERTER	ERP2000-IVT
PART-NR	215485
TECHNICAL DATA	
NO-LOAD OUTPUT VOLTAGE	230Vac± 10V
LOAD OUTPUT VOLTAGE	210÷240Vac
FREQUENCY	50Hz
PEAK POWER	4000W
CONTINUOUS POWER	2000W
DUTPUT WAVE	Pure sine wave (THD < 3%)
SHORT-CIRCUIT PROTECTION	YES
OVER-LOAD PROTECTION	2050÷2250W
NPUT TECHNICAL DATA	
DPERATING VOLTAGE RANGE	11÷15Vdc
NO-LOAD CURRENT	≤ 1.6A
NPUT LOW-VOLTAGE ALARM	10.5Vdc
NPUT LOW-VOLTAGE SHUT DOWN	9.5Vdc
NPUT OVER-VOLTAGE SHUT DOWN	16Vdc
OC INPUT REVERSE POLARITY	YES (fuse)
NPUT TECHNICAL DATA «MAINS MODE»	
DPERATING VOLTAGE RANGE	230Vac± 10%
REQUENCY	50HZ
NPUT PROTECTION	Fuse 15A
AC SWITCH (INVERTER/MAINS MODE)	≤ 100ms
GENERAL TECHNICAL DATA	
EFFICIENCY	≥ 85%
VENTILATION	Forced, variable automatic regulation
ROOM TEMPERATURE	-15°÷+25°C; 60°C @40% power load
OVER TEMPERATURE PROTECTION	YES
230V CONNECTION	1x Schuko socket
BATTERY CONNECTION	Clamps
JSB OUTPUT	2x USB type A
REMOTE SWITCH	MCI3 (optional)
DIMENSIONS (mm)	385 x 250 x 100H
VEICUT	4014
WEIGHT	4,9 Kg

# | REMOTE CONTROL PANELS FOR INVERTERS



Remote control panels for inverters, equipped with LED to show inverter status (on / off) and complete with:

- Cable L=6m
- Frame

#### MCI3 / G 215470 MCI3 / M 215471

Built-in version, complete with "BMAC1C" Berker frame, fitting the "Modular Plates" and the "Modular Plates Berker" range. Dimensions 60 x 60 mm.

Colours: /G Grey RAL 7015. /M Brown RAL 8016.











# **⊗CBE**°

### DIMMER 12 V

#### DIMMER - LIGHT BRIGHTNESS ADJUSTER

The light brightness adjuster DLS200 is an electronic device which allows the brightness of the motorhome's internal lights to be varied (resistive incandescent, LED and halogen lights). It can be connected to one or more push buttons installed in the vehicle. By pressing once, lights can be switched on and off while continual pressing varies the light's brightness. The DLS200 can manage up to 8 different light channels up to 200W maximum power.

#### Technical Specs:

**DIMMER** 

- ▶ Power supply / nominal voltage 12V cc
- ▶ Maximum power 200W
- ▶ Up to 8 dimmed light channels (parallelable)
- ► PWM (pulse-width modulation) outputs
- Short-circuit and overheating protection
   Dimensions (mm): 102 x 60 x 30
- Weight (Kg): 0,1



DLS200 402200

#### I CBE ASSISTANCE KIT BRIEFCASE



# CBE ASSISTANCE KIT BRIEFCASE 900059

Specific components and tools for assistance on CBE products. Content: connectors, terminals, terminals extraction tools (LOK, MINIFIT, MICROFIT), connection cables, electronic tank probes simulators, temperature sensors.

#### I CONTROL PANEL

An electronic circuit allows the setting of fans to automatic or manual. It also sets the fans' speed depending on the temperature: the fridge will always work optimally and will be able to maintain the optimum temperature. A trimmer allows you to choose the temperature you want the fans to start at. An LED shows the functions. Supplied with spacer for wall-fixing installation. It fits the "Modular Plates" range (only model MCV).

#### FANS

The system consists of two silent and energy saving fans, an electronic sensor, a metal support, a 1,5m long cable: easy and quick to install













P292
CONTROL PANEL (SPARE PART)

P292-2 2 FANS + CONTROL PANEL, GREY

MODEL	PART-NR	DESCRIPTION	FANS DIM. (mm)	CONTROL PANEL DIMENSIONS (mm)
MCV - 2	200312	2 FANS + BROWN CONTROL PANEL	250 x 100 x 28	60 x 60
P292 - 2	200322	2 FANS + GREY CONTROL PANEL	250 x 100 x 28	92 x 42
SPARE PARTS				
MCV	212864	BROWN CONTROL PANEL		60 x 60
P292	200293	GREY CONTROL PANEL		92 x 42





I CONTROL PANEL FOR







**⊗CBE**°

#### **⊗CBE**<sup>°</sup>

# I AUTOMATIC SWITCH FOR SERVICE BATTERIES



**BDS180** 402180

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

#### Using the BDS180 has several advantages:

- management of battery charge and discharge separately and alternatelu
- possibility of connecting two batteries of different capacities and different ages
- > control of the functionality of each individual battery and, in case of faulty battery, isolation of the same with light signalling (yellow LED on the BDS180)
- "save battery" function, which disconnects the batteries when a safety voltage is reached to avoid irreversible damage
- possibility of electrically disconnecting both service batteries (in case of prolonged periods of inactivity) using the switch located on the device or via a remote switch
- management of high currents (charge and discharge) up to a maximum of 90A with peaks of 120A for each battery
- > possibility of connecting utilities with consumption up to a maximum of 180A
- possibility of connecting a control panel (MC-180) for selecting the operating mode of the equipment (automatic/manual)
- ▶ possibility of connecting to mobile devices via the APP "REMOTE CONTROL BDS180"

Dimensions (mm): 150 x 110 / h 48 Colour: black

# I CONTROL PANEL FOR DUO-SYSTEM 180 BATTERY



MC-180 / G 215255 MC-180 / M 215256

Remote control panel for selecting the operating mode of the BDS

MANUAL: the user can choose which battery to use, both during charging and discharging.

AUTOMATIC: the service batteries are charged or discharged automatically according to the microprocessor algorithm integrated in the "BDS180".

The panel is equipped with LEDs for view of the battery used and for signalling a possible faulty battery.

The package includes the connection cable to the "BDS180" L=6 m and the frame "BMAC1".

The panel can be combined with the "MODULAR PLATES BERKER"

Recessed version - dimensions (mm): 60 x 60 Colours: grey RAL 7021 or brown RAL 8017

# AUTOMATIC SWITCH FOR SERVICE BATTERIES



BDS200 402182

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.

#### Using the BDS200 has several advantages:

- management of battery charge and discharge separately and
- possibility of connecting two batteries of different capacities and different ages
- control of the functionality of each individual battery and, in case of faulty battery, isolation of the same with light signalling (yellow LED on the BDS200)
- "save battery" function, which disconnects the batteries when a safety voltage is reached to avoid irreversible damage
- possibility of electrically disconnecting both service batteries (in case of prolonged periods of inactivity) using the switch located on the device or via a remote switch
- management of high currents (charge and discharge) up to a maximum of 100A with peaks of 120A for each battery
- possibility of connecting utilities with consumption up to a maximum of 200A
- possibility of connecting a control panel (MC-180) for selecting the operating mode of the equipment (automatic/manual)
- possibility of connecting to mobile devices via the "ONDA SMART SYSTEM" App

Dimensions (mm): 150 x 110 / h 48 Colour: black

**DUO-SYSTEM 200 BATTERY** 



MC-180/G 215255 MC-180/M 215256

Remote control panel for selecting the operating mode of the BDS200.

MANUAL: the user can choose which battery to use, both during charging and discharging.

AUTOMATIC: the service batteries are charged or discharged automatically according to the microprocessor algorithm integrated in the "BDS200".

The panel is equipped with LEDs for view of the battery used and for signalling a possible faulty battery.

The package includes the connection cable to the "BDS180" L=6 m and the frame "BMAC1".

The panel can be combined with the "MODULAR PLATES BERKER"

Recessed version - dimensions (mm): 60 x 60 Colours: grey RAL 7021 or brown RAL 801

## APP - REMOTE CONTROL BDS180

The "REMOTE CONTROL BDS180" APP for mobile devices has been specially developed to manage and extend the functions of the BDS180. The connection between the BDS180 and mobile devices is via WI-FI and has a limited range around the vehicle.

#### The "REMOTE CONTROL BDS180" APP allows you to:

- select the operation mode of the BDS180 (automatic/manual)
- view graphically and in volts the voltage of the two batteries
- view real-time charging and discharging of the current
- view the remaining autonomy of the battery in use
- view the number of charge and discharge cycles of the two
- view the signal of the intervention of the "save battery" function







- receive information about any abnormalities in the batteries
- view the manual of the BDS180
- update the BDS180 firmware



# 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 Bluetooth and it has an operating range limited to the area surrounding the vehicle.

NEW

The "ONDA SMART SYSTEM" App allows you to:

- select the operation mode of the BDS200 (automatic/manual)
- view graphically and in volts the voltage of the two batteries
- view real-time charging and discharging of the current
- view the remaining autonomy of the battery in use
- view the number of charge and discharge cycles of the two hatteries





• view the signal of the intervention of the "save battery" function

- view the state of charge of the batteries (SoC)
- view the state of health of the batteries (SoH)
- receive information about any abnormalities in the hatteries
- view the manual of the BDS200
- update the BDS200 firmware









# **⊗CBE**°

# VARTA AGM

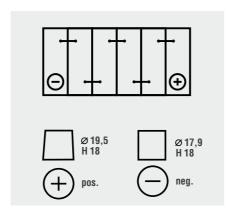


VARTA AGM

#### MAIN ADVANTAGES

- ▶ Designed for motorhomes, caravans and boats to run electrical equipment with moderate energy requirements
- ▶ Long lasting up to three times the cyclic stability of conventional flooded batteries
- ▶ Minimal self-discharge makes it ideal for seasonal use
- ▶ AGM technology for high rate discharge performance, plus superb shock and vibration resistance
- ▶ Ideal for dual power applications (can be used for both starting and overall energy supply)

# **DIAGRAMS**



CODE AL-KO	21.0001.00
CODE EAN13 AL-KO	8033123268394
EUROPEAN TYPE NO. (ETN)	595901085
VOLTAGE (V)	12V
BATTERY CAPACITY	95AH
CCA, EN [A]	850AH
DIMENSIONS (mm)	353x175x190
BASE HOLD-DOWN	B13
LAYOUT	0
TERMINAL TYPES	1
CASE SIZE	H8/LN5
WEIGHT FILLED (KG)	26,4

\*for more information visit: varta-automotive.com

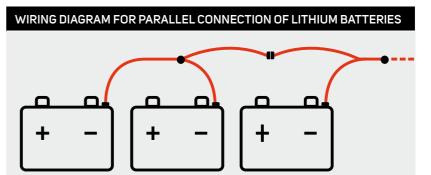
# VARTA LITHIUM

#### MAIN ADVANTAGES

- Monitors each individual cell in the battery and balances the cells
- Prevents too low and too high voltage
- Protects battery from overcharging, draining, short-circuiting and overheating.
- Parallel & series connection
- Supports sub zero charging



Model	VARTA LL50	VARTA LL100
Code	21.0002.000	21.0003.000
Size	195x132x183mm	278x175x190mm (H6)
LTechnologie	LiFePO4	LiFePO4
Application	Deep-Cycle	Deep-Cycle
Rated Capacity	50Ah / 640Wh	100Ah / 1280Wh
Nominal voltage	12.8V	12.8V
EnergY	640Wh	1280Wh
Voltage range	9.2 - 14.8V	9.2 - 14.8V
Charge voltage	14.2 ~ 14.6V	14.2 ~ 14.6V
Max. charge current (1C)	50A	100A
Continuous Discharge Current Max	50A	100A
Peak Discharge (10S)	100A	200A
Peak Discharge (1S)	150A	300A
Charge temperature range	0°C to 45°C	0°C to 45°C
Heating	no	no
Discharge temperature range	-20°C to 60°C	-20°C to 60°C
Enclosure Protection (IP)	IP67	IP67
Weight	~6,5kg	~12kg
Terminal	M6	DIN + M8
Bluetooth + App	yes	yes
Cl Bus	no	yes
CAN bus	no	RS485 & J1939
Sleep Mode	yes	yes
Parallel/Serial connection	yes	yes
ETN	850 050 000	850 100 000
EAN Code	4016987166918	4016987166925



#### 21.1000.001

Y-Cable BMS connection Li-lon 100/150 (for batteries connection in parallel mode).

#### 21.1000.002

Y-Cable BMS connection LL200(for batteries connection in parallel mode).







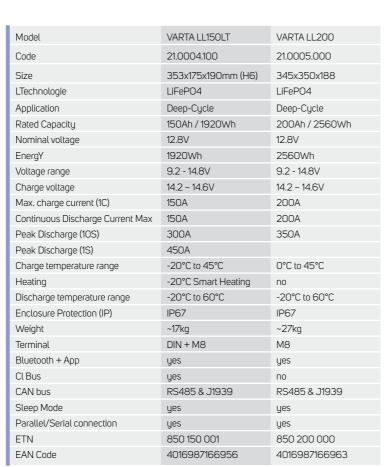


# **⊗CBE**°



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







**R419/90** 212743\*\* 002743\* 12V universal plug 90° + LED



**R412** 212751\*\* 002751\* 12V plug Ø12



R419 212754\*\* 002754\* 12V universal plug + 8A fuse R419/L 212742\*\* 002742\*

12V universal plug + 8A fuse + LED



**R513** 222747\*\* 002747\* 12V wall-fixing socket Ø12 with cover



**R511** 222750\*\* 002750\* 12V socket Ø12



**R512** 222749\*\* 002749\* 12V socket Ø12 with cover



R414 212766\*\*
002762AA\*

12V wall-fixing cigarette lighter socket Ø21





R417/R 212936\*\*
002763R\*
Adapter 12V Plug Ø12 /
12V cigarette lighter socket Ø21

<sup>\*</sup> Minimum order 10 pieces or multiples of 10

<sup>\*\*</sup> 

















**R417/2F** 212797\*\* 002797\*

Adapter 12V universal plug / 12V cigarette lighter socket Ø21, flexible cable L=0,6-3m



**R510/2** 212744\*\* 002795\*

12V cigarette lighter socket Ø21, cable L=1,8m



**R510/P** 212745\*\* 002768\*

12V cigarette lighter socket Ø21 + clamps, cable L=1m



**R420** 222410\*\* Fuse-holder + 10A fuse



**R420/S** 222570\*\* Watertight fuse-holder + 10A fuse



R420/C 222572\*\* Modular fuse-holder



**R555/8** 212756\*\* 002767E\*

Adapter 12V universal plug/ pin 2,5 x 5,5 (8A)



**R555/2** 212757\*\* 002767F\*

Adapter 12V universal plug/ pin 2,1 x 5,5 (2A)



**R550/UP** 212935\*\* 002767BP\*

5V 3A USB charging socket L=1m (12V input)



R421 222510\*\* Built-in fuse-holder + 10A fuse



**R457/50** 222567\*\* "Maxi" fuse-holder + 50A fuse + terminals



**R450** 222551\*\* 222550 (no ring terminals)\* 50A fuse-holder + strip fuse + 2 ring terminals



**R550/UI** 212927\*\* 002767H\*

5V 3A USB charging socket (12V input)



**R418/3U** 212769\*\* 002762DA\*

Adapter 12V universal plug / 2 12V cigarette lighter sockets Ø21 + 5V 3A USB charging socket, cable L=1,5m



**R550/UU** 212930\*\* 002767DP\*

(12V input)



\*\* Blister



R444 212478\*\* 4 ways fuse-holder with cover **R446** 212479\*\*

5V 2 x 2,5A double USB charging socket

6 ways fuse-holder with cover



**R459/...** 222569\*\* 002571A\* "Megaval" fuse-holder



R460/... 222003 (3A)\*\* 222005 (5A)\*\*

222007 (7,5A)\*\* 222010 (10A)\*\*

222015 (15A)\*\* 222020 (20A)\*\*

222025 (25A)\*\*

222030 (30A)\*\* 222040 (40A)\*\*

Blade fuses 10 pcs

<sup>\*</sup> Minimum order 10 pieces or multiples of 10

<sup>\*\*</sup> Blister











# **⊗CBE**°



R461/... 221003 (3A)\*\* 221005 (5A)\*\* 221007 (7,5A)\*\* 221010 (10A)\*\* 221015 (15A)\*\* 221020 (20A)\*\* 221025 (25A)\*\*

221030 (30A)\*\*

"Minival" blade fuses – 10pcs



**R466/...** 222053 (30A)\*\* 222055 (50A)\*\* 222058 (80A)\*\* Strip fuses – 10pcs



222125 (125A)\*\* 222150 (150A)\*\* 222200 (200A)\*\* 222250 (250A)\*\* "Megaval" blade fuses – 2pcs



**R290** 223467\*\* 003467 (without ring terminals)\* Battery isolator switch 100A / 500A (10 sec)



**R295** 223468\*\* 003467A (without ring terminals)\* Battery isolator switch 150A / 1200A (5 sec)



**R295/P** 223469\*\* Battery isolator switch 150A / 1200A with knob and display (5 sec)



**R470/...** 222063 (30A)\*\* 222065 (50A)\*\* "Maxi" blade fuses - 2pcs



**R480/...** 222087 (70A)\*\* 222088 (80A)\*\*

222089 (125A)\*\*

"Midival" blade fuses – 2pcs



R228 222965\*\* 12V 70A relay



R290/C 223466\*\* Spare key for R290 Battery isolator switch



**R295/C** 223470\*\* Spare key for R295 Battery isolator switch



**R295/R** 003467C Battery isolator switch 300A/1000A (5 sec)



**R237** 212620\*\* 12V red luminous switch



**R200** 222920\*\* MTA branch knot 3 x M8



**R225** 222960\*\* Relay single pole double throw with diode 40/30A



**R331** 223461\*\* Battery terminals with cover

\* Minimum order 10 pieces or multiples of 10

<sup>\*</sup> Minimum order 10 pieces or multiples of 10

<sup>\*\*</sup> Blister

<sup>\*\*</sup> Blister













NEW

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**R407** 212740\*\* 002740\* Caravan plug 7 pins



"CBE" ACCESSORIES 12V

PRESE E SPINE PER CARAVAN

**R408** 212770\*\* 002770\* Caravan plug 13 pins



**R507** 222739\*\* 002739\* Caravan socket 7 pins



R409/R 212776\*\* 002772A\* Adapter 7 pins plug / 13 pins socket



**R410/R** 212775\*\* 002773A\* Adapter 13 pins plug / 7 pins socket



**R508** 212771\*\* 002771\* Caravan socket 13 pins



**R409** 212772\*\* 002772\* Adapter 7 pins plug / 13 pins socket

with cable L=1m



**R411** 212774\*\* 002774\* Adapter 13 pins plug / 7 pins socket L=1m



**R425** 212955\*\* 230V Extension cable H07RN-F, 3 x 2,5 mm<sup>2</sup> 25m, CEE plug / CEE socket



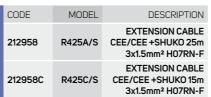
**R425/S** 212957\*\* 230V Extension cable H07RN-F, 3 x 2,5 mm<sup>2</sup> 25m, CEE plug / CEE socket + schuko socket



CODE	MODEL	DESCRIPTION
212956	R425A	EXTENSION CABLE CEE/CEE 25m 3x1.5mm² H07RN-F
212956C	R425C	EXTENSION CABLE CEE/CEE 15m 3x1.5mm² H07RN-F

All extensions come with a bag







**R522** 212713\*\* 002713\* 230V CEE female socket



**R422** 212712\*\* 002712\* 230V CEE male plug

All extensions come with a bag

NEW



**R540** 212735\*\* 002735\* 230V schuko socket



R440 212733\*\* 002733\* 230V schuko plug



**R428** 212720\*\* 002720\* Adapter 90° schuko plug / 230V CEE blue socket

<sup>\*</sup> Minimum order 10 pieces or multiples of 10

<sup>\*\*</sup> Blister

<sup>\*</sup> Minimum order 10 pieces or multiples of 10

<sup>\*\*</sup> Blister



R428/I 212719\*\* 002719\* Adapter 90° italian plug / 230V CEE blue socket



**R424** 212945\*\* Adapter 230V schuko plug / 230V CEE socket, cable L=0,3m



R429 212721\*\* 002721\* Adapter schuko plug / 230V CEE blue socket



**R523** 212714\*\* 002714\* 230V blue CEE socket 90° + schuko socket



002710\* 230V watertight schuko plug in black rubber

**R441** 212710\*\*



**R541** 212711\*\* 002711\* 230V watertight schuko socket in black rubber



**R426/B** 212723\*\* 002723\*\* Adapter 230V CEE plug / schuko socket



**R427** 212941\*\* Adapter 230V CEE plug / french standard socket



**DS100** 203640 230V 13A magneto-thermal switch (MCB) with 2 protected poles, dimensions 138 x 180 x 85mm. Colour: Light Grey



<sup>\*\*</sup> Blister



**DS120** 203690 230V 13A magneto-thermal switch (RCD) with 2 protected poles, dimensions 138 x 180 x 85mm. Colour: Light Grey



**DS-SR** 203635 230V 25A relay net-generator changeover



230V built-in male CEE plug, 105 x 110mm, white

MODEL	COLOUR	BLISTER	BOX*
R430	WHITE	212730	002730
R430/GR	ANTHRACITE GREY	212730AN	002730AN



230V built-in male CEE plug, 100 x 160mm, white

MODEL	BLISTER
R431	212725

Replacement lid

MODEL	BLISTER
R431/C	212727



**R432** 002932AB\* 230V built-in "ROSI" CEE plug, 110 x 160mm, white



**R432/C** 212724\*\* Spare cover for R432 plug, 110 x 160 mm, white



**R435** 212760\*\* 002760\*

+12V socket +TV + SAT, 105 x 110 mm, white

\* Minimum order 10 pieces or multiples of 10 \*\* Blister





R430M	WHITE	002730M
MODEL	COLOUR	BOX*
30 x 145mm	_	

MODEL	COLOUR	BOX*
R430M	WHITE	002730M
R430M/N	BLACK	002730ML

Replacement li	C
----------------	---

MODEL	COLOUR	BOX*
R430M/C	WHITE	212730MP
R430M/NC	BLACK	212730MM























**⊗CBE**°



NEW PRM350 MPPT SOLAR CHARGE REGULATOR FOR PHOTOVOLTAIC MODULES

**PRM350** 

page 11



NEW PRM400 MPPT SOLAR CHARGE REGULATOR FOR PHOTOVOLTAIC MODULES

**PRM400** 

page 12



PRS350 PRS350

page 10



CAR BATTERY AUTOMATIC RECHARGING DEVICE **CSB3-LT** 

page 09



PT750 \ NE363

PT750 \ NE363

page 31



SHUNT AM500

**AM500** 

page 31



NEW



SERIE BC122 SWITCHING BATTERY CHARGER

**BC122** 

page 50



NE325 DC-DC POWER CONVERTER
NE325 DC /DC CONVERTER

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AUTOMATIC SWITCH FOR SERVICE BATTERIES **BDS200** 

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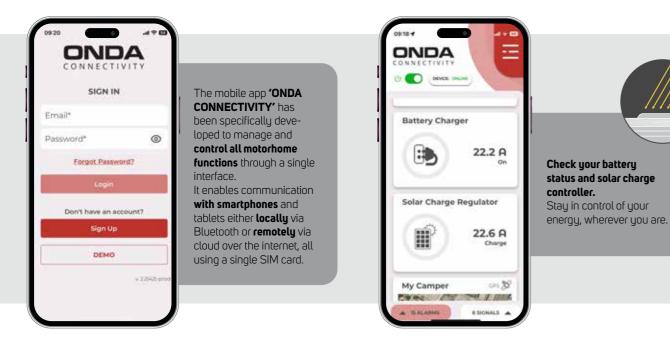


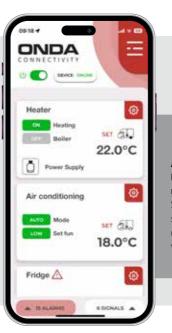




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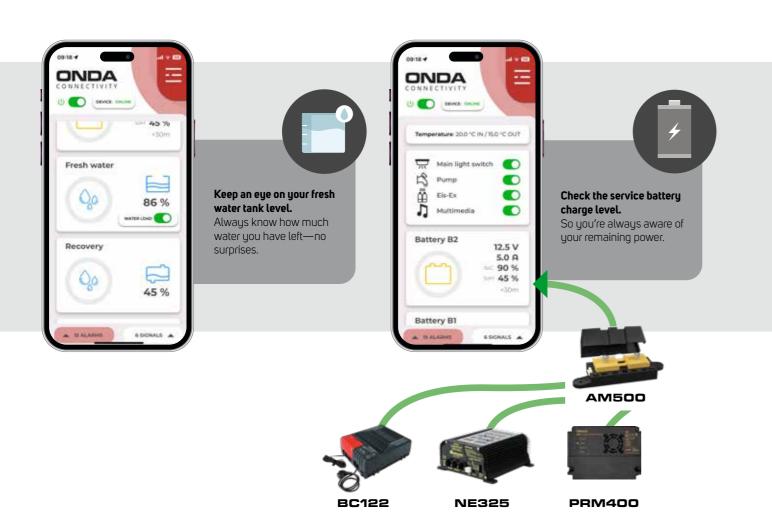










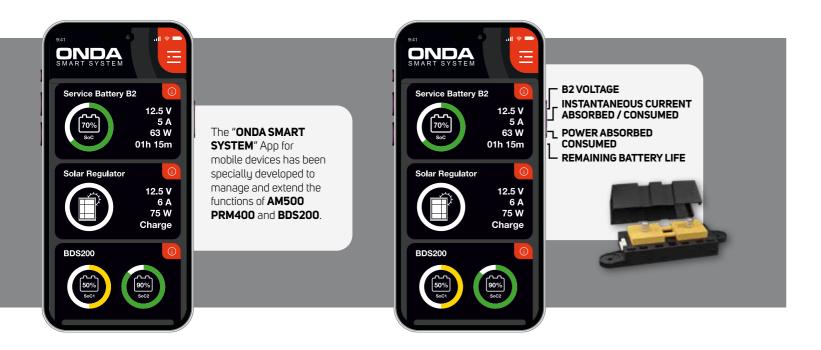


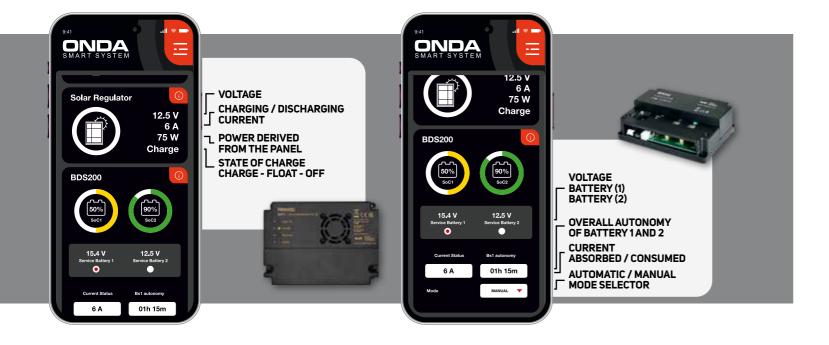






# SMART SYSTEM















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