



ELECTRONICS FOR CARAVANNING

SOLAR SYSTEM

NEW TECHNOLOGY

MODULAR PLATES

ENERGY LINE

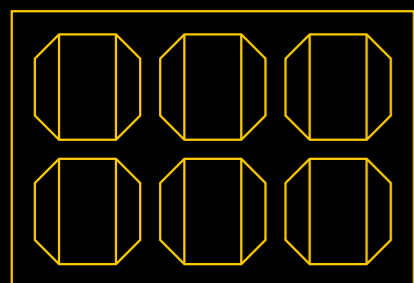
LITHIUM LINE





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Technical specifications are subject to change without prior notice.
The installation must be carried out by a qualified technician.



SOLAR SYSTEM



PHOTOVOLTAIC MODULES

ACCESSORIES



CBE PHOTOVOLTAIC MODULES made with **PERC (Passivated Emitter and Rear Cell) 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 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 glands 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 STANDARD SERIES

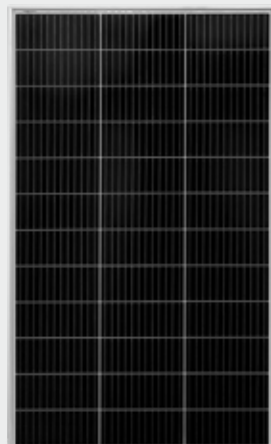


MF110 110W

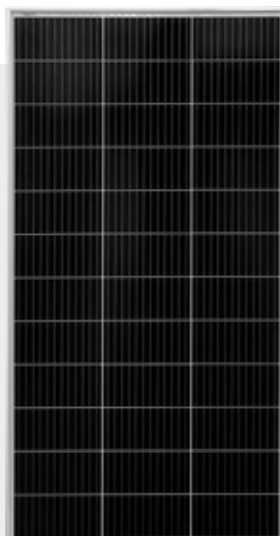


MF140S 140W

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



MF145 145W



MF175 175W

MODEL	MF145	MF175
PART-NR	215982	215983
TYPE	PERC (Passivated Emitter and Rear Cell)	PERC (Passivated Emitter and Rear Cell)
CELLS NUMBER	36	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



MF200 200W

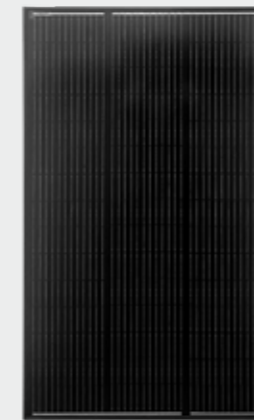
NEW

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

CBE PHOTOVOLTAIC MODULES BLACK SERIES



MFB105 105W



MFB140 140W

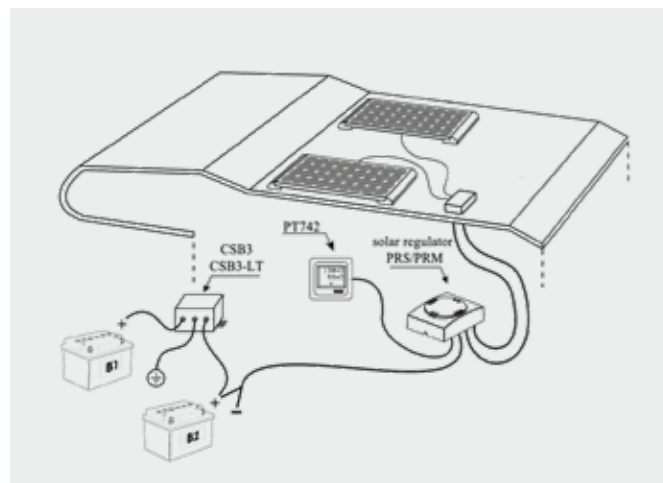
MODEL	MFB105	MFB140
PART-NR	215981B	215982B
TYPE	PERC (Passivated Emitter and Rear Cell)	PERC (Passivated Emitter and Rear Cell)
CELLS NUMBER	36	36
RATED VOLTAGE	12 V	12 V
MAX POWER	105 W	140 W
TOLERANCE	+3 %	+3 %
OPEN CIRCUIT VOLTAGE	23,76 V	21,78V
SHORT CIRCUIT VOLTAGE	5,33 A	7,75 A
VOLTAGE AT MAX 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



MFB170 170W

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

WIRING DIAGRAM



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

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.



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

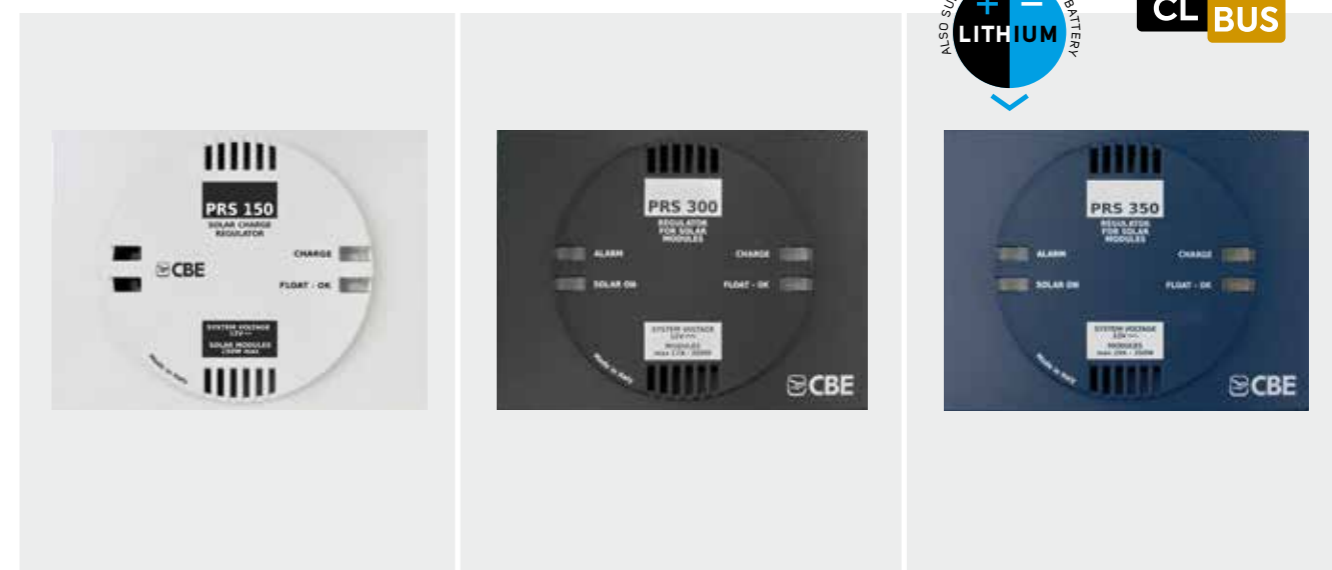
CAR BATTERY AUTOMATIC RECHARGING DEVICE both for photovoltaic modules and for battery chargers, through the service battery. This device is suitable for operation with lithium service batteries and is installed close to the batteries, thus avoiding connecting the car battery to the solar charge regulator. 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

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.



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

NEW 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.

The PRM350 is suitable for operation with 32 to 72-cell photovoltaic modules up to a maximum power of 350W. For optimal performance, you are advised to connect photovoltaic modules with a number of cells in series over 36, regardless the type of installation chosen.



PRM350 204285

MODEL	PRM350
PART-NR	204285
BATTERY RATED VOLTAGE	12V
MAXIMUM VOLTAGE OF THE PHOTOVOLTIC MODULE IN OPEN CIRCUIT (Voc)	45V
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	0A (In the absence of sunlight, the regulator switches off completely)
AUTOMATIC SHUTDOWN	in the absence of sunlight
DIMENSIONS (mm)	150 x 110 H48

TEST PANELS FOR SOLAR CHARGE REGULATORS



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



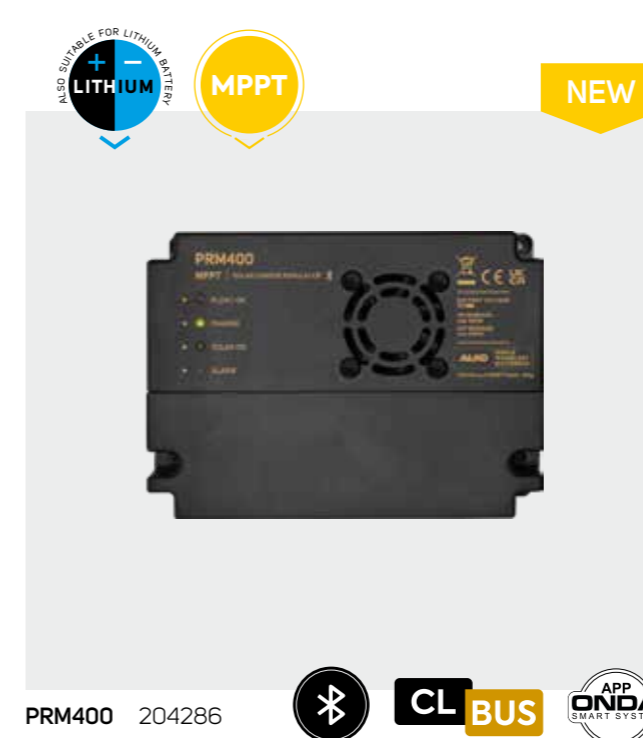
KT1 707200

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

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. 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.



PRM400 204286

MODEL	PRM400
PART-NR	204286
BATTERY RATED VOLTAGE	12V
MAXIMUM VOLTAGE OF THE PHOTOVOLTIC 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	0A (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.

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 time
- view the battery voltage in real time
- view the charging phase
- 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 60 mm.



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 diameter 6mm².



KT2-P 707140
PG16 CABLE GLAND suitable for 2 cables with outer diameter 6mm².

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 to connect the latest series of CBE photovoltaic modules.



KTR2-G 707144
SHEATH Ø 17mm, weatherproof and UV-resistant. 50 m roll, grey.



KTR2-F 707146
SHEATH FASTENER for Ø 17mm sheath, grey.
KTR-F 707136*
FASTENER for Ø 12mm diameter sheath. Colour: grey.



KT51-C50 707073
WIRING KIT FOR latest series of CBE photovoltaic modules complete with UV-resistant cable, 2 x 4 mm², length 5 metres, and "solar" type quick 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-G 707134
CABLE SHEATH, diameter 12mm, weatherproof and UV resistant. L=50 m. Colour: grey.



KTR-R 707132*
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 x 6 mm² L=2m cables.

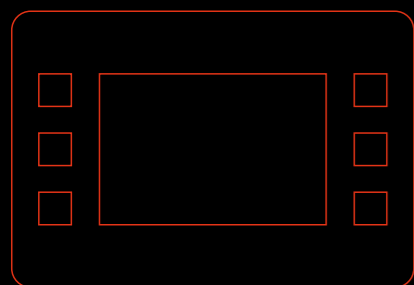
KT1-20 707220
1-EXIT ROOF DUCT provided with cable sheath L=2m and 2 x 6 mm² L=3m cables.



KT5-C10 707051
KIT FOR "KT5" provided with cable sheath L=1m and 2 x 6 mm² 2m 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 x 6 mm² 3m long cables. Provided with PG11 fittings and terminals for photovoltaic module connection.

* Minimum order 10 pieces or multiples of 10



NEW TECHNOLOGY



CONTROL PANELS

TEST PANELS

GAS DETECTORS

SYSTEM PC380

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

Main functions:

- ▶ 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:

- ▶ 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



THE SYSTEM INCLUDES:	MODEL	PART-NR
CONTROL PANEL	PC380	113800
12V DISTRIBUTION BOX, PROTECTION FUSES	DS300	209000
12V 16A SWITCHING BATTERY CHARGER	CB516-3	321517
DRINKING WATER ELECTRONIC TANK PROBE (indicate the tank height on the purchase order)	SPE/ ...	5120:::
SCREW PROBES FOR WASTE WATER TANK	SS/P	505000
CABLES KIT FOR TANK PROBES L=6m	CCS200	709020
CABLE FOR CONTROL PANEL L=6m	CP973-6	709623
CABLE WITH SENSORS FOR INTERNAL AND EXTERNAL TEMPERATURE (L=1,5m and L=5m)	CTIE-2	708661
50A FUSE + FUSE-HOLDER	R450	222551

THE SYSTEM INCLUDES:	MODEL	PART-NR
CONTROL PANEL	PC260	112600
12V DISTRIBUTION BOX, PROTECTION FUSES	DS300	209000
12V 16A SWITCHING BATTERY CHARGER	CB516-3	321517
DRINKING WATER ELECTRONIC TANK PROBE (indicate the tank height on the purchase order)	SPE/ ...	5120:::
SCREW PROBES FOR WASTE WATER TANK	SS/P	505000
CABLES KIT FOR TANK PROBES L=6m	CCS200	709020
CABLE FOR CONTROL PANEL L=6m	CP973-6	709623
CABLE WITH SENSORS FOR INTERNAL AND EXTERNAL TEMPERATURE (L=1,5m and L=5m)	CTIE-2	708661
50A FUSE + FUSE-HOLDER	R450	222551

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



THE SYSTEM INCLUDES:	MODEL	PART-NR
CONTROL PANEL	PC180	111800
12V DISTRIBUTION BOX, PROTECTION FUSES	DS300	209000
12V 16A SWITCHING BATTERY CHARGER	CB516-3	321517
DRINKING WATER TANK PROBE	SP5/40	505140
SCREW PROBES FOR WASTE WATER TANK	SS/P	505000
CABLES KIT FOR TANK PROBES L=6m	CCS910	709160
CABLE FOR CONTROL PANEL L=6m	CP973-6	709623
50A FUSE + FUSE-HOLDER	R450	222551

THE SYSTEM INCLUDES:	MODEL	PART-NR
CONTROL PANEL	PC210	112100
12V DISTRIBUTION BOX, PROTECTION FUSES	DS300	209000
12V 16A SWITCHING BATTERY CHARGER	CB516-3	321517
DRINKING WATER ELECTRONIC TANK PROBE (indicate the tank height on the purchase order)	SPE/ ...	5120:::
SCREW PROBES FOR WASTE WATER TANK	SS/P	505000
CABLES KIT FOR TANK PROBES L=6m	CCS200	709020
CABLE FOR CONTROL PANEL L=6m	CP973-6	709623
CABLE WITH SENSORS FOR INTERNAL AND EXTERNAL TEMPERATURE (L=1,5m and L=5m)	CTIE-2	708661
50A FUSE + FUSE-HOLDER	R450	222551



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:

- ▶ 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

Control panel dimensions 170 x 80 mm



THE SYSTEM INCLUDES:	MODEL	PART-NR
CONTROL PANEL	PC160	111600
12V DISTRIBUTION BOX, PROTECTION FUSES	DS300	209000
12V 16A SWITCHING BATTERY CHARGER	CB516-3	321517
DRINKING WATER TANKPROBE	SP5/40	505140
SCREW PROBES FOR WASTE WATER TANK	SS/P	505000
CABLES KIT FOR TANKPROBES L=6m	CCS910	709160
CABLE FOR CONTROL PANEL L=6m	CP973-6	709623
50A FUSE + FUSE-HOLDER	R450	222551

THE SYSTEM INCLUDES:	MODEL	PART-NR
CONTROL PANEL	PC110	111100
12V DISTRIBUTION BOX, PROTECTION FUSES	DS300	209000
12V 16A SWITCHING BATTERY CHARGER	CB516-3	321517
DRINKING WATER TANKPROBE	SP5/40	505140
SCREW PROBES FOR WASTE WATER TANK	SS/P	505000
CABLES KIT FOR TANKPROBES L=6m	CCS910	709160
CABLE FOR CONTROL PANEL L=6m	CP973-6	709623
50A FUSE + FUSE-HOLDER	R450	222551

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



DS300
12V DISTRIBUTION BOX, PROTECTION FUSES



CB516-3
12V 16A SWITCHING BATTERY CHARGER



SPE / ...
DRINKING WATER ELECTRONIC TANK PROBE



SS/P
SCREW PROBES FOR WASTE WATER TANK



CCS200
CABLES KIT FOR TANK PROBES L=6m



CP973-6
CABLE FOR CONTROL PANEL L=6m



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



R450
50A FUSE + FUSE-HOLDER



CCS910
CABLES KIT FOR TANK PROBES L=6m



CP973-6
CABLE FOR CONTROL PANEL L=6m

**PARTS INCLUDED IN THE
PC110 – PC180 COMPLETE SYSTEMS**



DS300
12V DISTRIBUTION BOX, PROTECTION FUSES



CB516-3
12V 16A SWITCHING BATTERY CHARGER



R450
50A FUSE + FUSE-HOLDER



SP5/40
DRINKING WATER TANK PROBE



SS/P
SCREW PROBES FOR WASTE WATER TANK



Provided by

PL3 - COMPLETE SYSTEM

Complete command and control system for 12V motorhome electrical systems.

Main characteristics and functions:

- ▶ Control panel with LED display
- ▶ Graphic indication of vehicle battery and service battery status
- ▶ Graphic indication of fresh water tank status
- ▶ Grey water tank reserve alarm
- ▶ Built-in electronic battery separator

- ▶ 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	PL3	120300
12V UTILITY DISTRIBUTION PANEL, 11 PROTECTION FUSES	DL30	209850
12V 16A SWITCHING BATTERY CHARGER	CB516-3	321517
DRINKING 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

PL3 CONTROL PANEL

COMPONENTS OF COMPLETE SYSTEMS PL3



DL30 12V UTILITY DISTRIBUTION PANEL, 11 PROTECTION FUSES



FT5/40 DRINKING WATER TANK PROBE WITH RODS



SS/P SCREW PROBE FOR RECOVERY TANK



CCS300 TANK PROBE WIRING L=6m



CP300 CONTROL PANEL WIRING L=6m



R450 FUSE 50A + FUSE HOLDER

SYSTEM NE273

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

Main functions:

- ▶ 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

- ▶ 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



NE273 CONTROL PANEL

THE SYSEM INCLUDES	MODEL	PART-NR
CONTROL PANEL	NE273	1347.273.03
12V DISTRIBUTION BOX, PROTECTION 13 FUSES	NE356	1347.356.01
DRINKING WATER TANK PROBE S1-S2	SSP	1347.000.04
WASTE WATER TANK PROBE R1-R2	SSR	000.400.32
CABLE KIT FOR TANK PROBES S1=6MT R1=6MT	CSS	000.404.66
CABLE FOR CONTROL PANEL L=8m	CPC	000.400.70
CABLE FOR EXTERNAL TEMPERATURE L=4m	CTE	006385AGE

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 and external temperature

Control panel dimensions 114 x 84 mm



NE333 CONTROL PANEL

THE SYSEM INCLUDES	MODEL	PART-NR
CONTROL PANEL	NE333	1347.001.02
12V DISTRIBUTION BOX, PROTECTION 13 FUSES	NE356	1347.356.01
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	CSS	000.404.66
CABLE FOR CONTROL PANEL L=8m	CPC700	000.400.70
CABLE FOR EXTERNAL TEMPERATURE L=4m	CTE	84.0060.040



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 SYSEEM INCLUDES	MODEL	PART-NR
CONTROL PANEL	NE334	1347.334.01
12V DISTRIBUTION BOX, PROTECTION 13 FUSES	NE356	1347.356.01
DRINKING WATER TANKPROBE S1-S2	SSP	1347.000.04
WASTE WATER TANKPROBE R1-R2	SSR	000.400.32
CABLE KIT FOR TANKPROBES S1=6MT R1=6MT	CSS	000.404.66
CABLE FOR CONTROL PANEL L=8m	CPC	000.400.70
CABLE FOR EXTERNAL TEMPERATURE L=4m	CTE	006385AGE

NE334 CONTROL PANEL

PARTS INCLUDED IN THE NE273 – NE 333 – NE 334 COMPLETE SYSTEMS



NE356
12V DISTRIBUTION BOX, PROTECTION 13 FUSES



SST/75
DRINKING WATER TANK PROBE S1-S2



SSR
WASTE WATER TANK PROBE R1-R2



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



CPC700
CABLE FOR CONTROL PANEL L=8m



CTE
CABLE FOR EXTERNAL TEMPERATURE L=4m



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.

Dimensions: 60 x 60 mm.



MTTR / G 270573

MTTR / M 270577

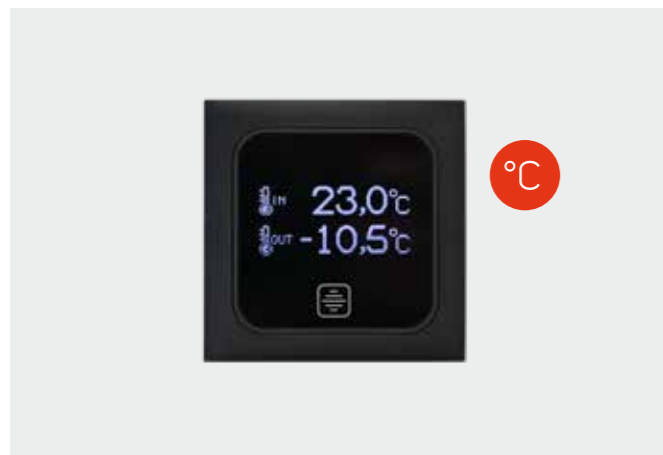
12V LED TEST PANEL for one waste water tank. This panel fits also the "Modular Plates" range.

The kit includes

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

Dimensions: 60 x 60 mm.

COLOURS:
... / G (Grey RAL 7015)
... / M (Brown RAL 8016)



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

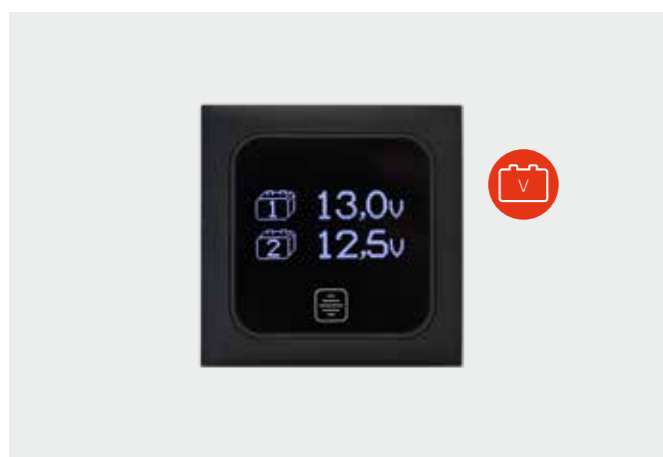


PT722 / GR 204762

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



PT752 / GR 204752

12V TOUCH TEST PANEL with OLED display to test the voltage of a 12V battery and the discharge or the charge of the battery from -130A to +130A.

The kit includes a shunt ±130A , cable L=5m, "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

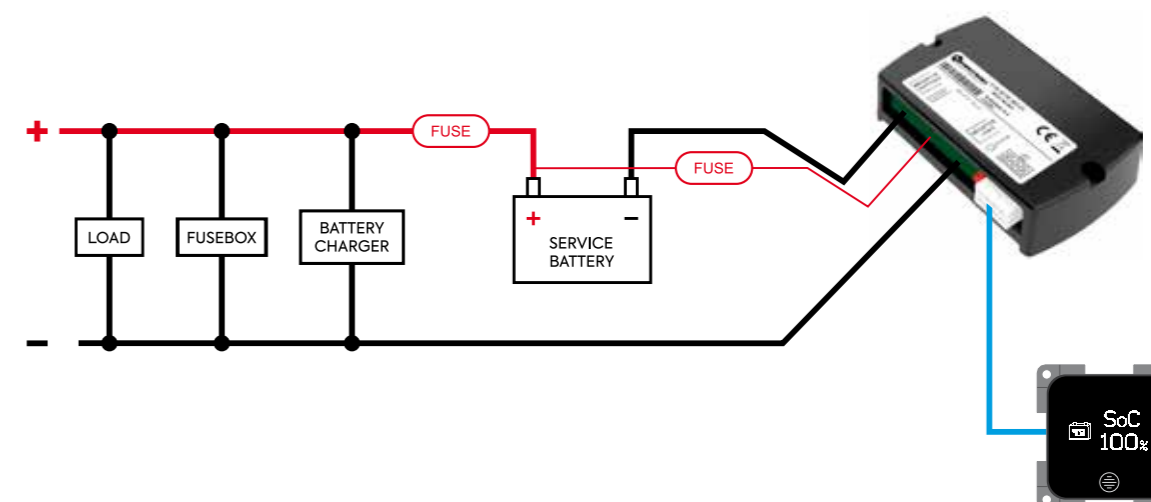
DIGITAL TOUCH TEST PANEL with OLED display showing the charge status (%) of lithium and conventional batteries. Displays State of Charge (SoC), battery voltage and current -150A + 150A.

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



COLORE:
... / GR (anthracite grey RAL 7021)

**BMTG / GR** 232800**BMTG / MA** 232801**12V LPG AND SOPORIFIC GAS DETECTOR**

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.
Built-in fixing or wall-fixing with spacer.

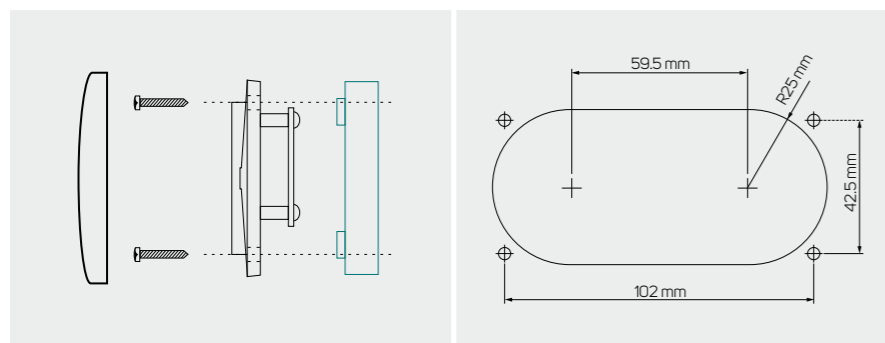
The kit includes a "BMAC2" frame.
This panel fits also the "BERKER INTEGRO" range.

12V Power supply.**Dimensions: 119 x 60 mm****Sensor consumption: 75mA****Acoustic power (beeper): 85 dB max at 1 meter distance****BMTCO / GR** 232802**BMTCO / MA** 232803**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.

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

12V Power supply.**Dimensions: 119 x 60 mm****Sensor consumption: 15mA****Acoustic power (beeper): 85 dB max at 1 meter distance****| INSTALLATION**

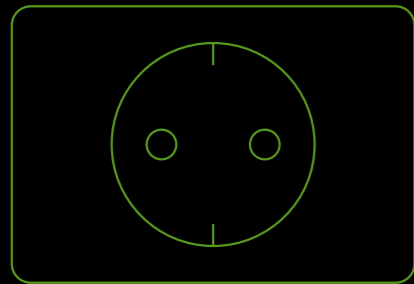
Wall mounting with spacer

Recessed mounting

COLOURS:

... / G (Grey RAL 7015)

... / M (Brown RAL 8016)



MODULAR PLATES



SWITCHES

SOCKETS

ACCESSORIES

FRAMES



MCN / ...
SWITCH

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

MC12P / ...
12V SWITCH + LED

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



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	-	-

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



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	270161
... / M	212991	270165
... / B	-	270160
... / GC	-	270163



MCGU / ...
3 POSITION STEP PUSH-BUTTON

COLOUR	BLISTER	BOX *
... / G	212834	270292
... / M	-	-
... / B	-	-
... / GC	-	-

MCG5 / ...
3 POSITION STEP PUSH-BUTTON

COLOUR	BLISTER	BOX *
... / 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



MP12 / ...
STANDARD 12V SOCKET

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



MP12TV / ...
STANDARD 12V SOCKET + TV

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 CHARGING 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)

COLOUR	BLISTER	BOX *
... / G	212921	270652
... / M	212929	270656
... / B	-	-
... / GC	-	-



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

COLOUR	BLISTER	BOX *
... / G	212931	270662
... / M	212932	270666
... / 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

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



MPTV / ...
TV SOCKET

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



MPRCA3TVS / ...
3 RCA + TV + SAT SOCKETS MODULE

COLOUR	BLISTER	BOX *
... / G	212919	270612
... / M	212920	270616
... / B	-	-
... / GC	-	-



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

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



MPF4 / ...
4 FUSES MODULE

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



MCB / ...
STEP BUZZER MODULE

COLOUR	BLISTER	BOX *
... / G	212804	270512
... / M	-	-
... / B	-	-
... / GC	-	-



MP / ...
BLIND PLATE

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



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

COLOUR	BLISTER	BOX *
... / G	212858	270392
... / M	212859	270396
... / B	-	270390
... / GC	-	270394



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

COLOUR	BLISTER	BOX *
... / G	-	270342
... / M	-	270346
... / B	-	-
... / GC	-	-



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

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



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

COLOUR	BLISTER	BOX *
... / G	212697	270602
... / M	212698	270606
... / B	212699	270600
... / GC	-	270604



MAP / ...
COVER

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

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

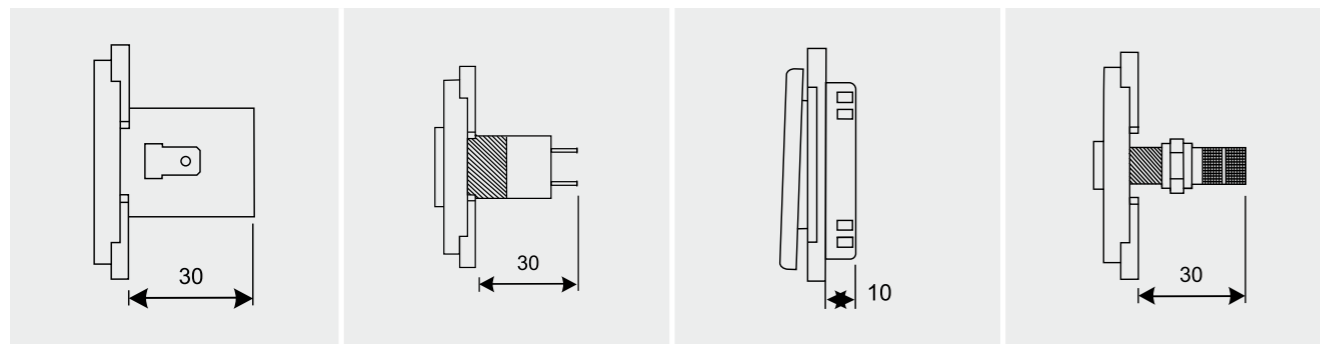


MAS 45 212676
BACK PROTECTION BOX
Ø45 L=48mm

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)

DIMENSIONS (mm)

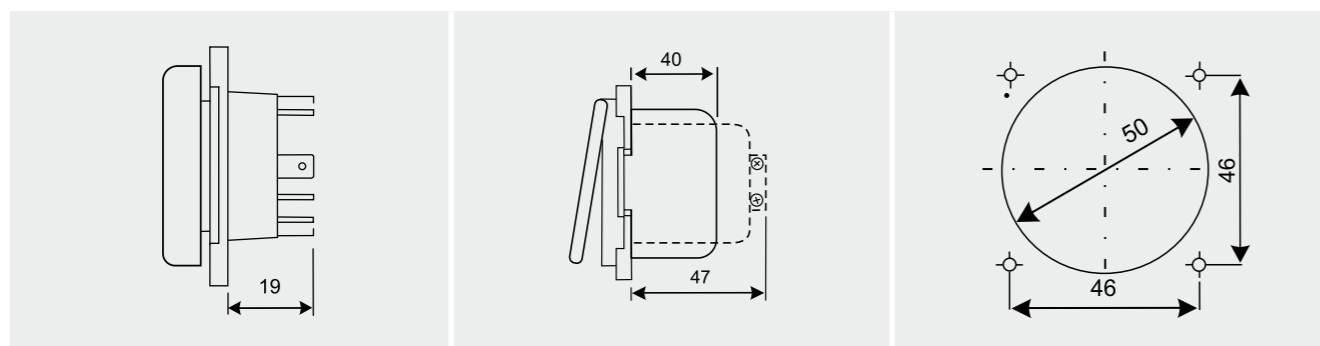


MP12A / MP12ATV

MP12 / MP12TV

MCN / MC12P / MCR

MPTV

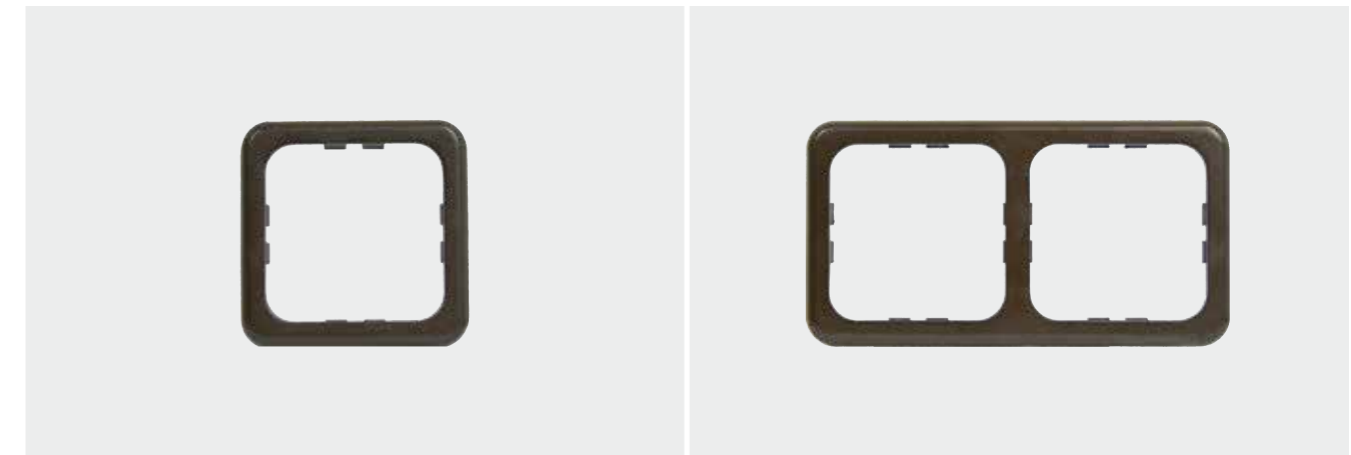


MCG / MC12

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



MAC1P / ...
1 MODULE FRAME
60 x 60mm

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

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

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



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

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

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

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

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



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

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



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

COLOUR	BLISTER	BOX*
... / G	215422	271020GR
... / M	215426	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

COLOUR	BLISTER	BOX *
... / G	215402	270902
... / M	215406	270906

MAC3FL / ...
3 FLAT MODULE FRAMES
192 x 78mm
Requires support frame MAT3NL

COLOUR	BLISTER	BOX*
... / G	215432	271030GR
... / M	215436	271030MA

COLOURS:

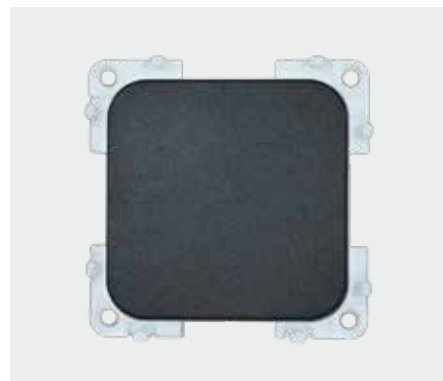
- ... / G (Grey RAL 7015)
- ... / M (Brown RAL 8016)
- ... / B (White RAL 9010)
- ... / GC (Light Grey RAL 7035)

* 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



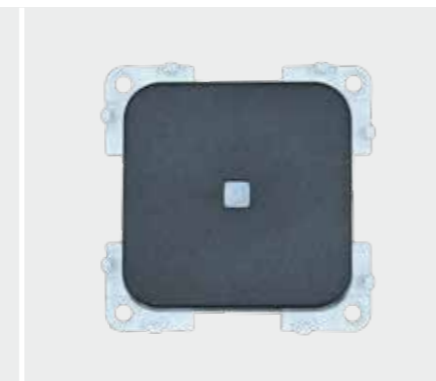
MCN3 / ...
SWITCH

COLOUR	BLISTER	BOX *
... / N	212342	271142



MC2N3 / ...
DOUBLE SWITCH

COLOUR	BLISTER	BOX *
... / N	212352	271152



MC12P3 / ...
12V SWITCH + LED

COLOUR	BLISTER	BOX *
... / N	212362	271162



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

COLOUR	BLISTER	BOX *
... / N	212322	271122



MCG53 / ...
3 POSITION STEP PUSH-BUTTON

COLOUR	BLISTER	BOX *
... / N	212332	271132



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

COLOUR	BLISTER	BOX *
... / N	212302	271102



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

COLOUR	BLISTER	BOX *
... / N	212312	271112

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

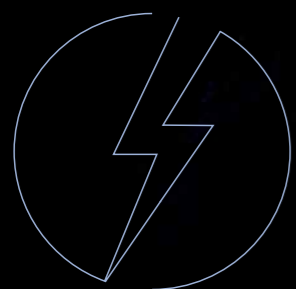


MODEL	DESCRIPTION	COLOUR	SIZE	BLISTER	BOX *
MAC1P3/...	1 MODULE FRAME	.../N	60 x 60 mm	212552	270752
MAC2P3/...	2 MODULE FRAME	.../N	119,5 x 60 mm	212562	270762
MAC3P3/...	3 MODULE FRAME	.../N	179 x 60 mm	212572	270772

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



ENERGY LINE

BATTERY CHARGERS

DIMMER

CBE ACCESSORIES 12V

CBE ACCESSORIES 230V

REFRIGERATOR FANS

INVERTER

BATTERY DUO SYSTEM

PROCAR ACCESSORIES 12V

| "CB500-3" SWITCHING BATTERY CHARGERS

CB510-3, CB516-3, CB520-3 and CB522-3 battery chargers can charge automatically lead-acid, lead-gel and AGM batteries with innovative charging lines. They are protected against overheating and the 12V outputs are protected against short circuits and polarity inversion.

CB516-3, CB516-3, CB520-3 and CB522-3 are furthermore designed to replace the CB510, CB516, CB520 and CB522 models.

The high frequency switching technology gives excellent performance with limited weight and dimensions.

Charging process for 12V batteries:

- ▶ Desulphation - when switching on the battery charger, only if needed, the battery is charged at 15,2V until the current exceeds 2A or for a maximum of 2 hours.
- ▶ Bulk - battery charging with maximum current until the end-of-charge voltage is reached.
Note: the end-of-charge voltage is reached only if the battery is efficient.
- ▶ Absorption - battery charging at constant end-of-charge voltage for the time defined by the charging line, with a progressive current reduction until the charging is completed.
- ▶ Float - Maintenance charging at constant voltage for a maximum time of 15 hours. A high load leads to phase Bulk starting again.
- ▶ Stand-by - The battery charger stops supplying power. It will switch over to the Refresh phase when the battery voltage goes under 13V.
- ▶ Refresh - The battery is charged at the Bulk voltage for a maximum time of 1h; this phase is designed to compensate for the battery self-discharge. Once completed, the charging starts again from the Float phase.



CB510-3
CB516-3
CB520-3



CB522-3

MODEL	CB510-3	CB516-3	CB520-3	CB522-3
PART-NR	321511	321517	321521	321523
TECHNICAL DATA				
NOMINAL INPUT VOLTAGE	230Vac± 10%	230Vac± 10%	230Vac± 10%	230Vac± 10%
FREQUENCY	50Hz+60Hz	50Hz+60Hz	50Hz+60Hz	50Hz+60Hz
MAX POWER	150W	250W	300W	320W
PROTECTION FUSE	3,15A (glass 5 x 20)	3,15A (glass 5 x 20)	3, 15A (glass 5 x 20)	T 3,15A (glass 5x20)
ON/OFF SAFETY SWITCH	230V	230V	230V	230V
OUTPUT TECHNICAL DATA				
BULK VOLTAGE (V)	14,1Vdc (A) - 14,4Vdc (B) - 14,7Vdc (C)	14,1Vdc (A) - 14,4Vdc (B) - 14,7Vdc (C)	14,1Vdc (A) - 14,4Vdc (B) - 14,7Vdc (C)	14,1Vdc (A) - 14,4Vdc (B) - 14,7Vdc (C)
FLOAT VOLTAGE (V)	13,5Vdc (A) - 13,8Vdc (B) - 13,8Vdc (C)	13,5Vdc (A) - 13,8Vdc (B) - 13,8Vdc (C)	13,5Vdc (A) - 13,8Vdc (B) - 13,8Vdc (C)	13,5Vdc (A) - 13,8Vdc (B) - 13,8Vdc (C)
MAX CURRENT	10A continuous	16A continuous	20A continuous	22A continuous
CHARGING LINE	IUoU	IUoU	IUoU	IUoU
BATTERY TYPE SELECTOR	3 positions (A - B - C)	3 positions (A - B - C)	3 positions (A - B - C)	3 positions (A - B - C)
SHORT-CIRCUIT AND POLARITY INVERSION PROTECTION	15A (blade)	25A (blade)	30A (blade)	30A (blade)
THERMAL PROTECTION	YES	YES	YES	YES
BATTERY OVERTEMPERATURE PROTECTION	NO	NO	NO	Yes (with NTC sensor)
SIGNAL AC POWER SUPPLY (S)	12V; 50 mA	12V; 50 mA	12V; 50 mA	12V; 50 mA
GENERAL TECHNICAL DATA				
EFFICIENCY	86%	86%	86%	86 %
ROOM TEMPERATURE	0 + 50°	0 + 50°	0 + 50°	0 + 40°
VENTILATION	NO	Gradual automatic regulation	Gradual automatic regulation	Gradual automatic regulation
PROTECTION DEGREE	IP 30	IP 30	IP 30	IP 30
MAINS CONNECTION	Schuko plug	Schuko plug	Schuko plug	Schuko plug
BATTERY CONNECTION	6,3 terminals	6,3 terminals	"M6" screw	"M6" screw
CASE	Nylon + fiber glass self-extinguishing	Nylon + fiber glass self-extinguishing	Nylon + fiber glass self-extinguishing	Nylon + fiber glass self-extinguishing
DIMENSIONS (mm)	180 x 140 x 85H	180 x 140 x 85H	180 x 140 x 85 H	180 x 190 x 85H
WEIGHT	1Kg	1Kg	1Kg	1,2kg
COLOUR	Graphite black	Graphite black	Graphite black	Graphite black



| 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.



BC122

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

“CB522-LT” SWITCHING BATTERY CHARGERS

The CB522-LT switch-mode battery charger has been designed for the charge of 12V lithium batteries only. It is protected against overtemperature and the 12V outputs are protected against short circuit and polarity inversion.

Charging process for 12V lithium batteries:

- ▶ Bulk - battery charging with maximum current until the end-of-charge voltage is reached.
Note: the end-of-charge voltage is reached only if the battery is efficient.
- ▶ Absorption - battery charging at constant end-of-charge voltage for a maximum time of 1h (or 30 minutes with I<5A).
- ▶ Float - Maintenance charging at a constant 13,5V voltage for a maximum time of 240 hours. If a high load lowers the battery voltage under 12,7V, the Bulk phase starts again.
- ▶ Refresh - The battery is charged at 14,5V for a maximum time of 30 minutes (or until I<5A). Once completed, the charging starts again from the Float phase.

The high frequency switching technology allows high performances with small dimensions and limited weight.



CB522-LT

MODEL	CB522-LT
PART-NR	321623
TECHNICAL DATA	
NOMINAL INPUT VOLTAGE	230Vac± 10%
FREQUENCY	50+60 Hz
MAX POWER	320W
PROTECTION FUSE	3,15A (glass 5 x 20)
ON/OFF SAFETY SWITCH	230V
OUTPUT TECHNICAL DATA	
BULK VOLTAGE (V)	14,5V
FLOAT VOLTAGE (V)	13,5V
MAX CURRENT	22A continuous
CHARGING LINE	IUoU
BATTERY TYPE SELECTOR	No
SHORT-CIRCUIT AND POLARITY INVERSION PROTECTION	30A (blade)
THERMAL PROTECTION	YES
BATTERY OVERTEMPERATURE PROTECTION	Yes (with NTC sensor)
SIGNAL AC POWER SUPPLY (S)	12V; 50 mA
GENERAL TECHNICAL DATA	
EFFICIENCY	86 %
ROOM TEMPERATURE	0 ÷ 40°
VENTILATION	Forced, variable automatic regulation
PROTECTION DEGREE	IP 30
MAINS CONNECTION	Schuko plug
BATTERY CONNECTION	"M6" screw
CASE	Nylon + fiber glass self-extinguishing
DIMENSIONS (MM)	180 x 190 x 85H
WEIGHT	1,2kg
COLOUR	Graphite black



NE287 SWITCHING BATTERY CHARGERS

The NE287 is a battery charger for lead, gel, AGM and lithium batteries. The batteries must have a nominal voltage of 12V and capacity suitable for the battery charger current (check compatibility of the maximum charging current with the technical data sheet for the battery to be connected). The NE287 also work as a power supply unit.

Operation

Power supply mode:

NE287 operates as a power supply unit when there is a 230V mains supply and there is no service battery installed or connected. In this mode output voltage is fixed at 13,8V with maximum current of 17A (230W max) or 21A (290W max). In this mode, the green LED flashes.

Battery charger mode:

If there is a service battery and it is powered by the main supply, NE287 operates as a battery charger. Use the dip switches to choose the charging algorithm according to the type of the battery. At switch on, the green LED flashes to indicate which algorithm is selected via dip switches. The battery charger 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, even if the charger is permanently connected to the mains 230V.

When battery charging is activated the power supply immediately provides the necessary current, so that the battery does not discharge (this is true if the current absorbed by the load 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

(I_{LOAD} - I_{BATTERY CHARGER}).

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

NE287-17A
NE287-21A

MODEL	NE287-17A	NE287-21A
PART-NR	4215.287.01	4215.287.02
TECHNICAL DATA		
NOMINAL INPUT VOLTAGE	230Vac± 10%	230Vac± 10%
FREQUENCY	50Hz±60 Hz	50Hz±60Hz
MAX POWER	250W	300W
PROTECTION FUSE	4A	4A
OUTPUT TECHNICAL DATA		
MAX CURRENT	17A continuous	21A 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 (with NTC sensor)	YES (with NTC sensor)
THERMAL PROTECTION	YES	YES
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
SIGNAL AC POWER SUPPLY (S)	12V (MAX 5mA)	12V (MAX 5mA)
GENERAL TECHNICAL DATA		
EFFICIENCY	86 %	86%
ROOM TEMPERATURE	0 ÷ 50°	0 ÷ 50°
VENTILATION	NO	YES
PROTECTION DEGREE	IP 20	IP 20
MAINS CONNECTION	3 poles IEC EN60320 C14	3 poles IEC EN60320 C14
BATTERY CONNECTION	"M5" screw	"M5" screw
DIMENSIONS (mm)	167x170x73mm	167x170x73mm
WEIGHT	1,5kg	1,5 Kg
COLOUR	Black	Black



Provided by



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 (I_{LOAD} - I_{DC/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.



DC/DC CONVERTER

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 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	I _{UoU} - AGM / I _{UoU} - GEL / I _{UoU} - Pb / I _{UoU} - LiFePO4	I _{UoU} - AGM / I _{UoU} - GEL / I _{UoU} - Pb / I _{UoU} - LiFePO4
INPUT D+ SIGNAL	12V	12V
GENERAL TECHNICAL DATA		
EFFICIENCY	90 %	90 %
ROOM TEMPERATURE	0 + 50°	0 + 50°
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

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 motor, etc.

- ▶ 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 230Vac 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



IVT Function included

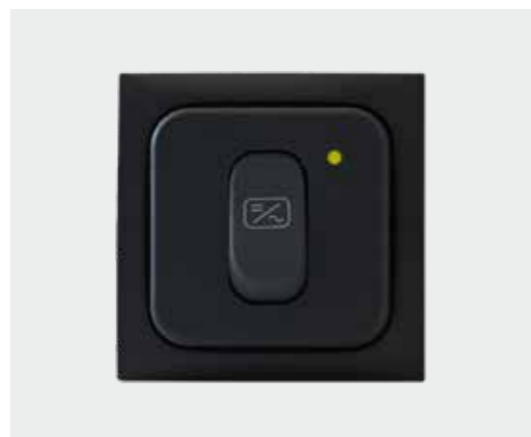
NEW



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
OUTPUT WAVE	Pure sine wave (THD < 3%)
SHORT-CIRCUIT PROTECTION	YES
OVER-LOAD PROTECTION	2050+2250W
INPUT TECHNICAL DATA	
OPERATING VOLTAGE RANGE	11±15Vdc
NO-LOAD CURRENT	≤ 1.6A
INPUT LOW-VOLTAGE ALARM	10.5Vdc
INPUT LOW-VOLTAGE SHUT DOWN	9.5Vdc
INPUT OVER-VOLTAGE SHUT DOWN	16Vdc
DC INPUT REVERSE POLARITY	YES (fuse)
INPUT TECHNICAL DATA «MAINS MODE»	
OPERATING VOLTAGE RANGE	230Vac± 10%
FREQUENCY	50HZ
INPUT 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
USB OUTPUT	2x USB type A
REMOTE SWITCH	MCI3 (optional)
DIMENSIONS (mm)	385 x 250 x 100H
WEIGHT	4,9 Kg
IVT FUNCTION INCLUDED	YES

REMOTE CONTROL PANELS FOR "ERP" AND "ER" SERIES INVERTERS



Remote control panels for "ERP" and "ER" 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.

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:

- ▶ 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

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.

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).



MCV
CONTROL PANEL (SPARE PART)

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.



MCV-2
2 FANS + CONTROL PANEL, BROWN



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

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 alternately
- ▶ 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

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 180.

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" series.

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

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 batteries
- view the signal of the intervention of the "save battery" function

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





AUTOMATIC SWITCH FOR SERVICE BATTERIES

NEW



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 alternately
- ▶ 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

NEW

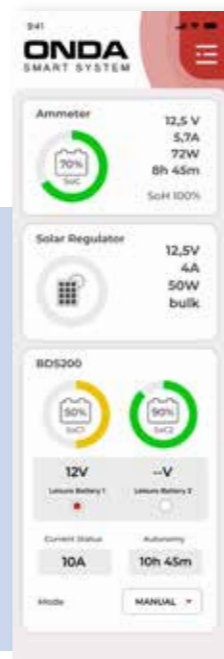
APP - ONDA SMART SYSTEM

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.

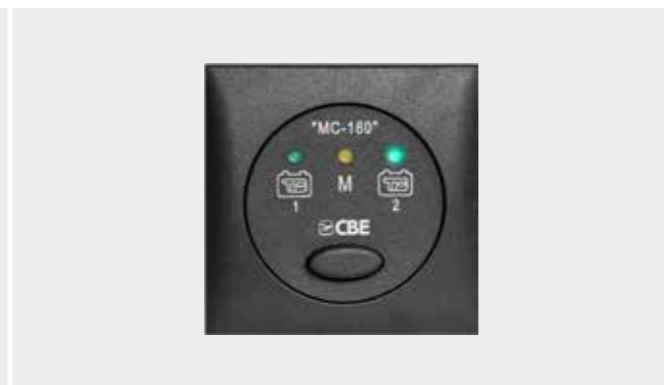
The "ONDA SMART SYSTEM" App allows you to:

- 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 batteries

- 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 batteries
- view the manual of the BDS200
- update the BDS200 firmware



CONTROL PANEL FOR 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" series.

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



VARTA AGM

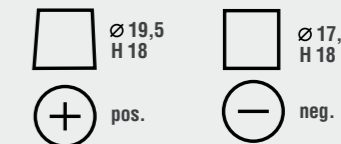
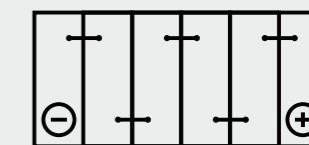
NEW



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



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



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



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

R511 222750**
002750*
12V socket Ø12

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



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)



R414 212766**
002762AA*
12V wall-fixing cigarette lighter socket Ø21

R417 212763**
002763*
Adapter 12V plug Ø12 / 12V cigarette
lighter socket Ø21, cable L=0,25m

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



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*
5V 2 x 2,5A double USB charging socket
(12V input)



R420 222410**
Fuse-holder + 10A fuse

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

R420/C 222572**
Modular fuse-holder



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



R444 212478**
4 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

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



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

R468/... 222100 (100A)**
222125 (125A)**
222150 (150A)**
222200 (200A)**
222250 (250A)**
"Megaval" blade fuses – 2pcs



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



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

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



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)



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)



R331 223461**
Battery terminals with cover

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



R407 212740**
002740*
Caravan plug 7 pins

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

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



R425 212955**
230V Extension cable H07RN-F, 3 x 2,5 mm² 25m, CEE plug / CEE socket



R425/S 212957**
230V Extension cable H07RN-F, 3 x 2,5 mm² 25m, CEE plug / CEE socket + schuko socket



CODE	MODEL	DESCRIPTION
212956	R425A	EXTENSION CABLE CEE/CEE 25m 3x1.5mm ² H07RN-F
212956B	R425B	EXTENSION CABLE CEE/CEE 10m 3x1.5mm ² H07RN-F

All extensions come with a bag

NEW

NEW



CODE	MODEL	DESCRIPTION
212958	R425A/S	EXTENSION CABLE CEE/CEE+SHUKO 25m 3x1.5mm ² H07RN-F
212958B	R425B/S	EXTENSION CABLE CEE/CEE+SHUKO 10m 3x1.5mm ² H07RN-F

All extensions come with a bag



R522 212713**
002713*
230V CEE female socket



R422 212712**
002712*
230V CEE male plug



R540 212735**
002735*
230V schuko socket



R440 212733**
002733*
230V schuko plug



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

* Minimum order 10 pieces or multiples of 10
** 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



R441 212710**
002710*
230V watertight schuko plug in black rubber



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



DS 100 203640
230V 13A magneto-thermal switch (MCB) with 2 protected poles, dimensions 138 x 180 x 85mm. Colour: Light Grey

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



NOTE



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



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

Replacement lid

MODEL	BLISTER
R431/C	212727



R435 212760**
002760*
230V built in external socket + 12V socket + TV + SAT, 105 x 110 mm, white



230V built-in male CEE plug with magnetic locking, 130 x 145mm

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

Replacement lid

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

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



LITHIUM LINE

 LITHIUM LINE PRODUCTS



NEW PRM350 MPPT SOLAR CHARGE REGULATOR FOR PHOTOVOLTAIC MODULES

PRM350

page 10



NEW PRM400 MPPT SOLAR CHARGE REGULATOR FOR PHOTOVOLTAIC MODULES

PRM400

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NEW



PRS350

PRS350

page 09



CAR BATTERY AUTOMATIC RECHARGING DEVICE

CSB3-LT

page 08



PT750 \ NE363

PT750 \ NE363

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SERIE BC122 SWITCHING BATTERY CHARGER

BC122

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NEW



"CB522-LT" SWITCHING BATTERY CHARGER

CB522-LT

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NE287 SWITCHING BATTERY CHARGER

NE287

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NE325 DC-DC POWER CONVERTER

NE325 DC /DC CONVERTER

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AUTOMATIC SWITCH FOR SERVICE BATTERIES

BDS200

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NEW



