CHAPTER 02

BATTERY CHARGERS

- Battery charger
- Remote display
- Temperature sensors
- Professional inverters
- Combi inverters - battery chargers
- Battery isolators
- Battery separators
- Automatic charging relay
- Voltage reducer
- DC DC converters
- Equalizers
- Solar modules

CHAPTER 02

REBAMARINE
NAUTICAL EQUIPMENT

OPTIMATE 6 AMPMATIC

The most advanced battery charger and tester you can find on the market.
One single device, in a robust, resistant and elegant case, easy to install.
When connection is made, the microprocessor, automatically,
checks battery conditions, and sets up current charge and the best program
A new version of this thrustworthy multiphase desulfation Optimate program,
will give new life to low charged batteries or discharged ones.
Thanks to the Eco-mode, when battery is fully charged, there is no consume waste
and the charge is ensured and ready, month after month,
with a 400% safe long term maintenance.

Model	Lenght input cable m	Lenght output cable m	Protection	Dimensions mm	Weight kg	Code
Optimate 6	2	2	IP 54	199 x 71 x 61	0,74	RE 30033

TECHNICAL FEATURES

For AGM/MF, STD, GEL and batteries with spiral cells	5Ah ÷ 240Ah
Check program	Ampmatic TM microprocessor
Max input current	0.55A@230V
Output current (charge bulk)	0,4A – 5,0A
Automatic desulfation	Multiphase (high voltage, turbo and on impulse)
Charge limit	48 hours (Maintenance time: unlimited)
Maintenance cycle	30 min (each hour)
Charge test	5 possible results
Installation	Easy wall installation
Accessories	TM-71 kit eye-bolt, resistant to elements TM-74 kit clamps
Intervals of Functioning temperature	-40°C / +50°C

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BLUE POWER

BLUE SMART IP22 CHARGER

The Blue Smart IP22 Charger is the new professional battery charger with built-in Bluetooth. The Blue Smart IP22 Charger can be used on devices in your workshop and on motor vehicles, such as (classic) cars; motorbikes; boats and camper-vans.

Technical data

- **Bluetooth Smart**
- **High efficiency**
- **Adaptive 6-stage charge algorithm:** test - bulk - absorption - recondition float - storage
- **Fully programmable charge algorithm**
- **Storage Mode:** less maintenance and aging when the battery is not in use
- **Also charges Li-ion batteries**
- **Fully discharged battery recovery function**
- **NIGHT and LOW setting**
- **Protected against overheating**
- **Eleven LEDs for status indication**
- **Charge algorithm:** EST / BULK / ABSORPTION RECONDITION / FLOAT / STORAGE / READY.
- **MODE button to set:** NORMAL (14,4 V) HIGH (14,7 V) / RECONDITION / LI-ION.
- **Forty cycle history log**
- **VE.Smart Networking:** The VE.Smart Network is a wireless device to device (D2D) communication network between Victron products, using Bluetooth Smart.
- **Optional battery voltage and temperature compensation, and current sensing**
- **Synchronized parallel charging:** Synchronize up to ten battery chargers in a VE.Smart network to make them charge a battery as if they were one large charger. The chargers will synchronize the charge algorithm between them. They will simultaneously switch from one charge state to another, for example from bulk to absorption.

Output voltage	Charge current	Number of outputs	Charge voltage (absorption)	Charge voltage (float)	Charge voltage (storage)	Input voltage range	Dimensions (H x W x D) mm	Code
12 V	15 A	3	14,4 - 14,7 V / Li ion 14,2V	13,8V / Li ion 13,5V	13,2V / Li ion 13,5V	180 - 265 VCA	235 x 108 x 65	RE 90194
12 V	20 A	3	14,4 - 14,7 V / Li ion 14,2V	13,8V / Li ion 13,5V	13,2V / Li ion 13,5V	180 - 265 VCA	235 x 108 x 65	RE 90195
12 V	30 A	3	14,4 - 14,7 V / Li ion 14,2V	13,8V / Li ion 13,5V	13,2V / Li ion 13,5V	180 - 265 VCA	235 x 108 x 65	RE 90196
24 V	8 A	1	28,8 - 29,4 V / Li ion 28,4V	27,6V / Li ion 27,0V	26,4V / Li ion 27,0V	180 - 265 VCA	235 x 108 x 65	RE 90197
24 V	16 A	3	28,8 - 29,4 V / Li ion 28,4V	27,6V / Li ion 27,0V	26,4V / Li ion 27,0V	180 - 265 VCA	235 x 108 x 65	RE 90198

BLUE SMART IP65 CHARGER

The Blue Smart IP65 Charger is the new professional battery charger with built-in Bluetooth. The Blue Smart IP65 Charger can be used on devices in your workshop and on motor vehicles, such as (classic) cars; motorbikes; boats and camper-vans.

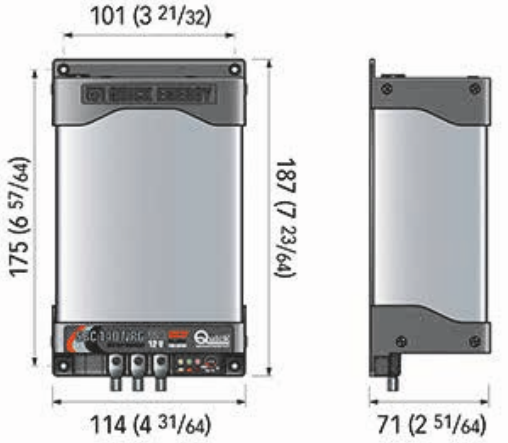
- Operating temp. range: -40 to +50 °C (full rated output up to 30°C)
- Seven step smart charge algorithm
- Current losses 0.7 Ah / month (1 mA)
- Max battery capacity (recommended): 40/250 Ah (12V-10/25A) 50/130 Ah (24V-13A)
- Standby power consumption: 0,5 W
- Efficiency: 94% (12V-10/25A) 95% (24V-13A)
- Weight 1,9 Kg
- Protection category: IP65

Output voltage	Charge current	Number of outputs	Charge voltage (absorption)	Charge voltage (float)	Charge voltage (storage)	Input voltage range	Dimensions (H x W x D) mm	Code
12 V	10 A	1	14,4 - 14,7 V / Li ion 14,2V	13,8V / Li ion 13,5V	13,2V / Li ion 13,5V	180-265 VCA	60 x 105 x 190	RE 90119
12 V	25 A	1	14,4 - 14,7 V / Li ion 14,2V	13,8V / Li ion 13,5V	13,2V / Li ion 13,5V	180-265 VCA	75 x 140 x 240	RE 90120
24 V	13 A	1	28,8 - 29,4 V / Li ion 28,4V	27,6V / Li ion 27,0V	26,4V / Li ion 27,0V	180-265 VCA	75 x 140 x 240	RE 90121

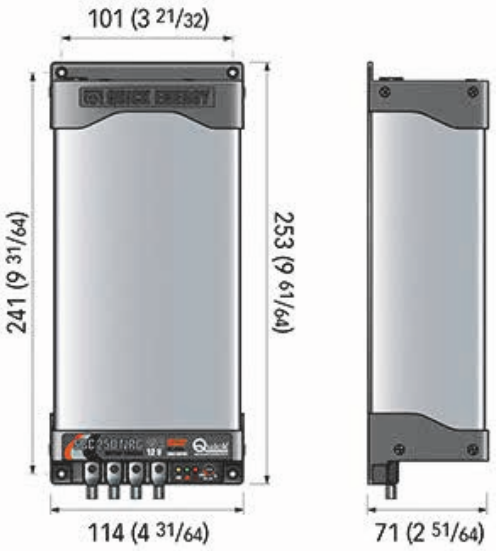
SWITCHING BATTERY CHARGERS MINI AND LOW POWER

SBC NRG NEW BATTERY CHARGERS

Three stage IUoU battery charging.
Multiple outputs in order to charge more groups of batteries (Electronic mosfet charge separator inside).
Differentiated charging for open or sealed liquid electrolite, GEL or AGM batteries.
Integrated fuses inside the battery chargers (for each output).
Ability of providing full output power with low supply voltage.
The possibility of using the battery charger as a power supply without batteries.
Low residual fluctuation on output.
Universal AC supply input (264 ÷ 83 Vac, 45 ÷ 66 Hz).
Compatible with every kind of generator.
Can work in a wide range of ambient temperatures.
Variable speed for the cooling fans.
Protections:
- Reverse polarity (with internal fuses)
- Overload
- Output short circuit
- Overvoltage in output
- Overheating



SBC NRG 140



SBC NRG 250

Model	Output voltage	Max current	Output current	Voltage charge in absorption Vdc	Voltage charge in float Vdc	Voltage supply	Dimensions (W x H x D) mm	Code
SBC 140 NRG+ FR	12 V	12 A	2	14.1 OL - 14.4 SL/GEL/ AGM - 14.7 V Optima®	13.4 OL - 13.6 AGM 13.8 SL/GEL/Optima®	83...264 V	114 x 187 x 71	RE 90166
SBC 250 NRG+ FR	12 V	25 A	3	14.1 OL - 14.4 SL/GEL/ AGM - 14.7 Optima®	13.4 OL - 13.6 AGM 13.8 SL/GEL/Optima®	83...264 V	114 x 252 x 71	RE 90169
SBC 300 NRG+ FR	12 V	30 A	3	14.1 OL - 14.4 SL/GEL/ AGM - 14.7 Optima®	13.4 OL - 13.6 AGM 13.8 SL/GEL/Optima®	83...264 V	114 x 252 x 71	RE 90173
SBC 365 NRG+ FR	24 V	15 A	3	28.2 OL - 28.8 SL/GEL/ AGM - 29.4 Optima®	26.8 OL - 27.2 AGM 27.6 SL/GEL/Optima®	83...264 V	114 x 252 x 71	RE 90177
SBC 500 NRG+ FR	12 V	40 A	3	14.1 OL - 14.4 SL/GEL/ AGM - 14.7 Optima®	13.4 OL - 13.6 AGM 13.8 SL/GEL/Optima®	83...264 V	114 x 276 x 71	RE 90174

SWITCHING BATTERY CHARGERS MEDIUM POWER

SBC NRG NEW BATTERY CHARGERS

Three stage IUoU battery charging.
Multiple outputs in order to charge more groups of batteries (Electronic mosfet charge separator inside). Differentiated charging for open and sealed liquid electrolite, GEL or AGM batteries. Integrated output fuses inside the battery chargers (for each output).
Thermal battery protection (with optional sensors).
Ability of providing full output power with low supply voltage.
The possibility of using the battery charger as a power supply without batteries.
Low residual fl uctuation on output. - Universal AC supply input (Hi-Power excluded).
Power factor (cos) equal to 1. - Compatible with every kind of generator.
Short circuit, overloading, output overvoltage and overheating protection.
Can work in a wide range of ambient temperatures. - Variable speed for the cooling fans.
User interface that consist of a alphanumeric backlit LCD display with 3 buttons.
Automatic and manual power derating. - CAN BUS interface for data transfer.
Up to three battery chargers can be connected in parallel (Medium 700 - 1100 and Hi-Power).

SBC 700 NRG+

SBC 750 NRG+

SBC 950 NRG+

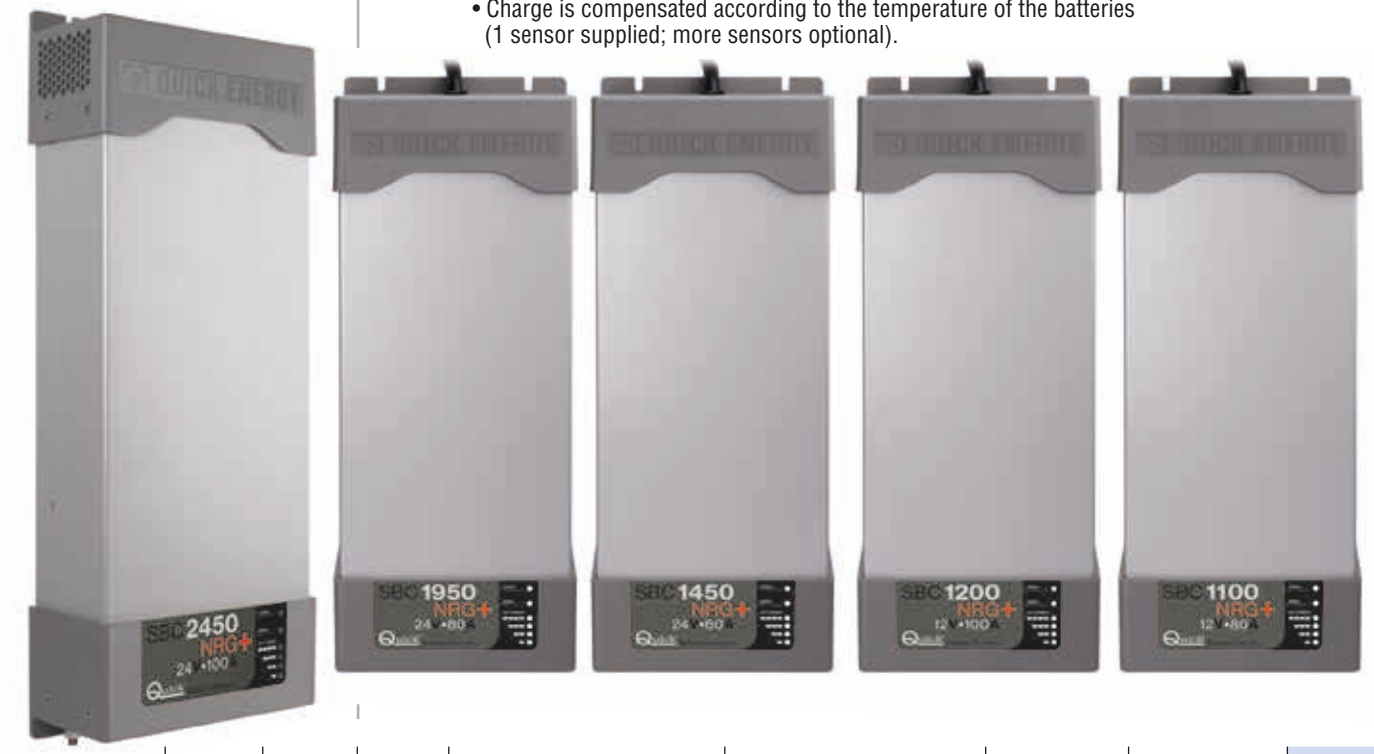
Model	Output voltage	Max current	Output current	Voltage charge in absorption Vdc	Voltage charge in float Vdc	Voltage supply	Dimensions (W x H x D) mm	Code
SBC 700 NRG+ FR	12 V	60 A	3	14.1 OL - 14.2 Li-Ion - 14.4 SL/ GEL/AGM - 14.7 Optima®	13.4 OL - 13.5 Li-Ion - 13.6 AGM - 13.8 SL/GEL/Optima®	83…264 V	170 x 391 x 82	RE 90175
SBC 950 NRG+ FR	24 V	40 A	3	28.2 OL - 28.4 Li-Ion - 28.8 SL/ GEL/AGM - 29.4 Optima®	26.8 OL - 27.0 Li-Ion - 27.2 AGM - 27.6 SL/GEL/Optima®	83…264 V	170 x 391 x 82	RE 90105

Model	Connection	Voltage supply	Absorption	Dimensions mm	Code
RDS 1562	Can Bus	9 - 32 V	55 mA	116,5 x 77,2 x 27,2	RE 90127

BATTERY CHARGERS
HI POWER

SBC NRG NEW BATTERY CHARGERS

The advantages which the SBC NRG+ battery chargers offer, are:
- Three stage IUoU battery charging. High efficiency.
- Multiple outputs in order to charge more groups of batteries (mosfet charge separator inside).
- Differentiated charging for open or sealed liquid electrolite, Gel, AGM, Optima®, Li-Ion batteries.
- Integrated output fuses inside the battery chargers (for each output).
- Thermal battery protection (with optional sensors).
- Capacity of supplying full power with low AC mains voltage.
- Possibility to connect in parallel up to three battery chargers of the same model for current sharing by means of digital control.
- Low residual fluctuation on output.
- Power factor (cos) equal to 1.
- Compatible with the generators.
- Short circuit, overloading, output overvoltage and overheating protection.
- Can work in a wide range of ambient temperatures.
- Variable speed for the cooling fan.
- User interface via LEDs that signal the status, errors and the output current.
- Charge is compensated according to the temperature of the batteries (1 sensor supplied; more sensors optional).



Model	Output voltage	Max current	Output current	Voltage charge in absorption Vdc	Voltage charge in float Vdc	Voltage supply	Dimensions (W x H x D) mm	Code
SBC 1100 NRG+ FR	12	80	3	14.1 OL - 14.2 Li-Ion 14.4 SL/GEL/AGM - 14.7 Optima®	13.4 OL - 13.5 Li-Ion - 13.6 AGM 13.8 SL/GEL/Optima®	264 - 83 Vac	481 x170 x 82	RE 90106
SBC 1200 NRG+ FR	12	100	3	14.1 OL - 14.2 Li-Ion 14.4 SL/GEL/AGM - 14.7 Optima®	13.4 OL - 13.5 Li-Ion - 13.6 AGM 13.8 SL/GEL/Optima®	264 - 83 Vac	481 x 170 x 82	RE 90107
SBC 1450 NRG+ HR	24	60	3	28.2 OL - 28.4 Li-Ion 28.8 SL/GEL/AGM - 29.4 Optima®	26.8 OL - 27.0 Li-Ion - 27.2 AGM 27.6 SL/GEL/Optima®	264 -161 Vac	481 x 170 x 82	RE 90108
SBC 1950 NRG+ HR	24	80	3	28.2 OL - 28.4 Li-Ion 28.8 SL/GEL/AGM - 29.4 Optima®	26.8 OL - 27.0 Li-Ion - 27.2 AGM 27.6 SL/GEL/Optima®	264 -161 Vac	481 x 170 x 82	RE 90118
SBC 2450 NRG+ HR	24	100	3	28.2 OL - 28.4 Li-Ion 28.8 SL/GEL/AGM - 29.4 Optima®	26.8 OL - 27.0 Li-Ion - 27.2 AGM 27.6 SL/GEL/Optima®	264 -161 Vac	481 x 170 x 82	RE 90117

Model	Connection	Voltage supply	Absorption	Dimensions mm	Code
RDS 1562	Can Bus	9 - 32 V	55 mA	116,5 x 77,2 x 27,2	RE 90127

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BLUE POWER

PHOENIX INVERTER VE.DIRECT

Inverters allow you to power domestic equipment - requiring 230V/120V AC - using “leisure” or “automotive” batteries rated at 12V, 24V or 48V DC.

The VE.Direct port can be connected to:

- A computer (VE.Direct to USB interface cable needed)
- Apple and Android smartphones, tablets, MacBook’s and other devices (VE.Direct Bluetooth Smart dongle needed)

Fully configurable:

- Low battery voltage alarm trip and reset levels
- Low battery voltage cut-off and restart levels
- Dynamic cut-off: load dependent cut-off level
- Output voltage 210 - 245V
- Frequency 50 Hz or 60 Hz
- ECO mode on/off and ECO mode sense level

Monitoring:

- In-and output voltage, % load and alarms

Model	Input voltage	Cont. power	Output voltage (adjustable)	Peak power	Dimensions	Weight (Kg/Lbs)	Code
12/250	12 V	200 W	230VAC or 120VAC +/- 3%	400 W	86 x 165 x 260 mm	2,4kg / 5,3lbs	RE 70100
12/500	12 V	400 W	230VAC or 120VAC +/- 3%	900 W	86 x 172 x 275 mm	3,9kg / 8.5lbs	RE 70101
12/800	12 V	650 W	230VAC or120VAC +/- 3%	1500 W	105 x 230 x 325 mm	5,5kg / 12lbs	RE 70102
12/1200	12 V	1000 W	230VAC or 120VAC +/- 3%	2200 W	117 x 232 x 362 mm	7,4kg / 16,3lbs	RE 70103
24/500	24 V	400 W	230VAC or 120VAC +/- 3%	900 W	86 x 172 x 275 mm	3,9kg / 8.5lbs	RE 70104
24/800	24 V	650 W	230VAC or 120VAC +/- 3%	1500 W	105 x 216 x 305 mm	5,5kg / 12lbs	RE 70105
24/1200	24 V	1200 W	230VAC or 120VAC +/- 3%	2200 W	117 x 232 x 327 mm	7,4kg / 16,3lbs	RE 70106

INVERTER PHOENIX SMART

The Phoenix Inverter Smart is an efficient and reliable inverter. Built on our proven and field tested Phoenix inverter platform, it now comes with a new slimmer design and full metal casing. Models are available in 1600VA, 2000VA, 3000VA and 5000VA for 12, 24 or 48V systems.

It’s powerful enough to supply most common plug in appliances in your car, boat, caravan or home. A toroidal transformer provides a high peak power surge capacity, stable voltage, frequency and high quality sine-wave.

Bluetooth is built-in, and makes setting up your high power inverter easier than ever before.
Configure alarms, alarm relay, voltage cut-off, output voltage, frequency, eco-mode and more, all from within VictronConnect.

Model	Input voltage	Cont. power	Output voltage	Peak power	Dimensions	Weight	Code
12/1600	12 V	1300 W	230 VAC ± 2%	3000 W	485 x 219 x 125 mm	12 kg	RE 70110
12/2000	12 V	1600 W	230 VAC ± 2%	4000 W	485 x 219 x 125 mm	13 kg	RE 70111
12/3000	12 V	2400 W	230 VAC ± 2%	6000 W	533 x 285 x 150 mm	19 kg	RE 70112
24/1600	24 V	1300 W	230 VAC ± 2%	3000 W	485 x 219 x 125 mm	12 kg	RE 70113
24/2000	24 V	1600 W	230 VAC ± 2%	4000 W	485 x 219 x 125 mm	13 kg	RE 70114
24/3000	24 V	2400 W	230 VAC ± 2%	6000 W	485 x 285 x 150 mm	19 kg	RE 70115
24/5000	24 V	4000 W	230 VAC ± 2%	10000 W	595 x 295 x 160 mm	29 kg	RE 70116

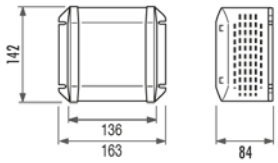
PROFESSIONAL INVERTERS

INVERTERS AJ SERIES

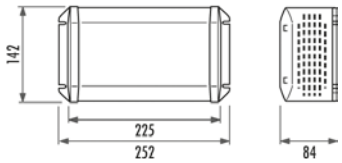
The AJ range consists of sine wave inverters that convert the DC voltage of a battery into AC voltage
Pure sine wave, high reliability, high capacity for supporting high voltage
Hybrid technology – Toroidal transformer and an oversized MOS power stage
Digital regulation and control by microprocessor
Direct power cables and outputs for maximum reliability
DC cable (1,2 – 1,5 – 1,7 m) AC cable (1m)
Peak power: up to 2,5x Pnom
PROTECTION: overload - overheat – short circuit – reverse polarity
Stand-by level adjustable from a very low threshold
Acoustic alarm before low battery or overheating disconnection
A green led on the inverters indicates the function mode
Degree of protection: IP30 (IP 20 for 2100-2400 model)
Certified to the ECE-R 10 norm
EC conformity: EN 50081 EN 50022-6-3 EN 50091-2 EN 60950 IEC 801(1/3/4) CEI555
INSTALLATION:
In a dry place and in any case with no condensation
Not directly on top of the battery
Ventilation must be free (it needs a space of 10 cm)

CONNECT THE BATTERY OBSERVING CAREFULLY THE POLARITY
REVERSE POLARITY DAMAGES THE INVERTER

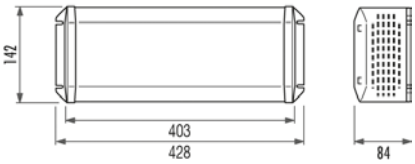
AJ 275-AJ 350



AJ 500-AJ 600



AJ 1000-AJ 1300



INVERTER 12V-230V

Model	Input voltage Vdc	Output voltage Vac	Nominal power VA	Power 30 min VA	Power 5 sec VA	Stand by load W	Absorp. Stand by W	Absorp. On No load	Max absorp. A/h	Dimensions (W x L x H) mm	Weight Kg	Code
AJ 275-12	11,4...16	230	200	275	450	2	0,3	1,9 W	27	142x163x84	2,5	RE 70017
AJ 500-12	11,4...16	230	400	500	1000	1...20	0,3	3,8 W	50	142x240x84	4,5	RE 70013
AJ 1000-12	11,4...16	230	800	1000	2200	1...20	0,3	9 W	80	142x428x84	8,5	RE 70014
AJ 2100-12	11,4...16	230	2000	2100	5000	1...20	0,3	13 W	210	273x399x117	19	RE 70024

INVERTER 24V-230V

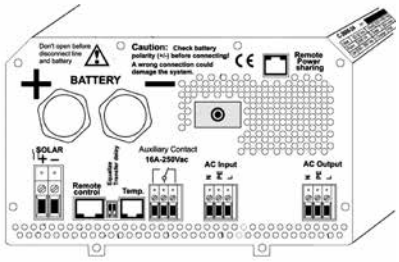
Model	Input voltage Vdc	Output voltage Vac	Nominal power VA	Power 30 min VA	Power 5 sec VA	Stand by load W	Absorp. Stand by W	Absorp. On No load	Max absorp. A/h	Dimensions (W x L x H) mm	Weight Kg	Code
AJ 350-24	22,8...32	230	300	350	650	2	0,3	3,3 W	17,5	142x163x84	2,5	RE 70018
AJ 600-24	22,8...32	230	500	600	1200	1...20	0,4	8,5 W	30	142x240x84	4,5	RE 70015
AJ 1300-24	22,8...32	230	1000	1300	2800	1...20	0,4	10 W	65	142x428x84	8,5	RE 70016
AJ 2400-24	22,8...32	230	2000	2400	5200	1...20	0,4	18 W	120	273x399x117	19	RE 70025

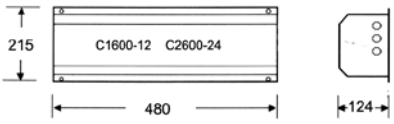
CONTROL FOR AJ INVERTERS

It can be used from AJ1000-12V series to the AJ2400-24V
Supplied with 10m cable - Max length cable: 50m
ON-OFF switch - Acoustic alarm - Green indicator LED

Model	Compatibility	Dimensions	Code
JT8 REMOTE CONTROL	Serie AJ 1000 - AJ1300 - AJ 2100 - AJ 2400	58 x 52 x 25 mm	RE 70045

INVERTER BATTERY CHARGER

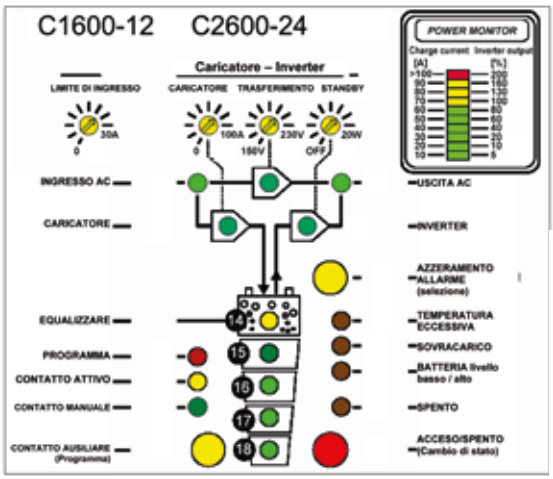




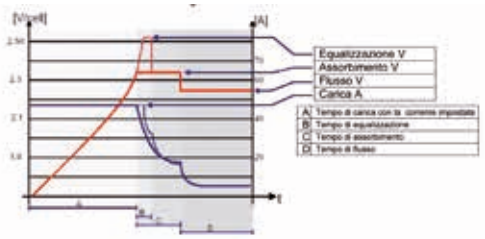
COMBI INVERTER - CHARGERS COMPACT SERIES

Full automatic battery charger-inverter.
High efficiency 94%.
Toroidal transformer, Hybrid technology.
Digital regulation with microprocessor
4 step (I/U/Uo/equalizing) battery charger
Certified to the ECE-R 10 (E24) norm.
PROTECTIONS: overload, overheating-short circuit, reverse polarity.

BEFORE CONNECTING THE BATTERY
OBSERVE CAREFULLY THE POLARITY
REVERSED POLARITY DAMAGES THE INVERTER



CHARGING DIAGRAM AT 4 STAGES



COMBI INVERTERS-CHARGERS 12V

Model	Input supply Vdc	Output voltage V	Nominal power VA	Power 30 min VA	Power 5 sec VA	Charging current A	Width mm	Length mm	Height mm	Weight Kg	Code
C 1600-12	11,4...16	230	1300	1600	3900	0-55	215	480	124	16	RE 70027

COMBI INVERTERS-CHARGERS 24V

Model	Input voltage Vdc	Output voltage V	Nominal power VA	Power 30 min VA	Power 5 sec VA	Charging current A	Width mm	Length mm	Height mm	Weight Kg	Code
C 2600-24	22,8...32	230	2300	2600	6900	0-50	215	480	124	17,1	RE 70028

COVER

COVER FOR A PROTECTION AGAINST INTRUSIONS OR PROJECTIONS

RE 70060

REMOTE CONTROL FOR COMPACT SERIES

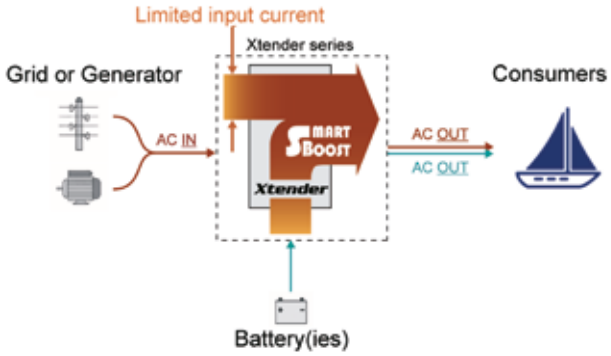
Supplies with 10 m cable.
Acoustic alarm.
Comprehensive LED display.

Model	Compatibility	Dimensions	Code
RCC - 01	C 1600-12 C 2600-24	136 x 111 x 25 mm	RE 70061

COMBI INVERTER
BATTERY CHARGER

SINE WAVE INVERTER-CHARGER XTM

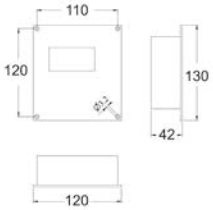
The medium power x-tender series provide
an unmatched freedom of use.
It offers the functions of
inverter, battery charger,
transfer system and smart-Boost
(assistance to the source even with difficult load).
This function can be combined and controlled in a totally automatic way.
Its programmable auxiliary contacts allow the interconnection
with existing system as well.
It is possible to set 3 MTH in parallel
(increase of the power available x 3).
It is possible to create a 3-phase source.



Model	Nominal battery voltage	Voltage output Vac	Max power x 5 sec	Max power x 30 min	Continuous power VA	Power Smart boost x 30 min	Charging current A	Dimensions mm	Weight Kg	Code
XTM 2000-12	12 V	230	4800 VA	2000 VA	1600	2000 VA	0 - 85	322 x 466 x 133	18,5	RE 70056
XTM 3500-24	24 V	230	9000 VA	3500 VA	3000	3500 VA	0 - 75	322 x 466 x 133	21,2	RE 70057

REMOTE CONTROL CENTRE RCC-03

Panel mount.
Allows the setting and the programming of the inverter-charger XTM series.
Graphic display simple to read.
Equipped with four operating keys.
ON-OFF switch.
Equipped with an SD card reader used for various functions: recording statistics, updates.



Model	Voltage supply Vdc	Panel connections	Possible to connect 2 x RCC-03	Possible to connect 3 combi	Display Back Lighted	Dimensions mm	Code
RCC - 03	10 - 30	2 x RJ45	Yes	Yes	Amber color	130 x 120 x 42	RE 70064

COMUNICATION CABLE RJ45

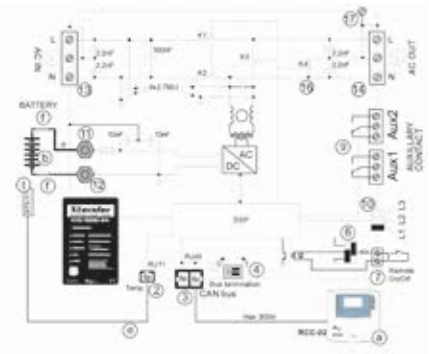
Studer cable used for interconnection between electronic Studer.

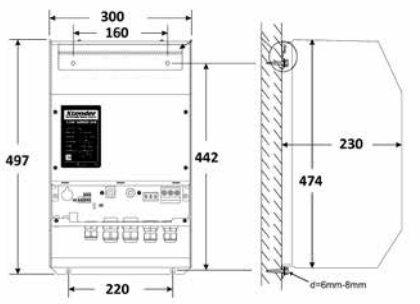
Model	Applications	Length	Connectors	Packaging	Code
CAB - RJ45 - 2	Parallel between XTM	2 m	2 x RJ45	1 pc	RE 70065
CAB - RJ45 - 5	RCC 03 - XTM	5 m	2 x RJ45	1 pc	RE 70066
CAB - RJ45 - 20	RCC 03 - XTM	20 m	2 x RJ45	1 pc	RE 70068
CAB - RJ45 - 50	RCC 03 - XTM	50 m	2 x RJ45	1 pc	RE 70069

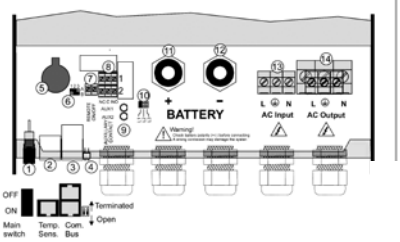
COMBI INVERTER
BATTERY CHARGER

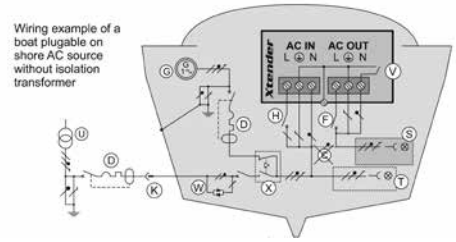
SINE WAVE INVERTER-CHARGER XTH

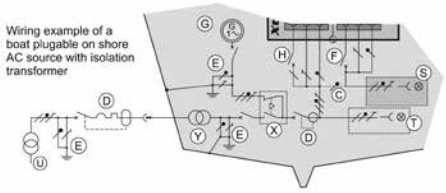
The Xtender series provide an unmatched freedom of use.
It offers the functions of inverter, battery charger, transfer system And smart-Boost (assistance to the source even with difficult load).
This function can be combined and controlled in a totally automatic way.
Its programmable auxiliary contacts allow as well the interconnection with existing system.
Is possible to set 3 XTH in parallel to increase the power available.
It is possible to create a 3-phase source.







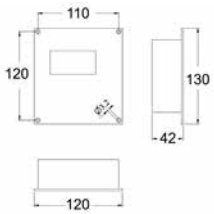




Model	Nominal battery voltage	Voltage output Vac	Max power x 5 sec	Max power x 30 min	Continuous power VA	Power Smart boost x 30 min	Charging current A	Dimensions mm	Weight Kg	Code
XTH 3000-12	12 V	230	7500 VA	3000 VA	2500	3500 VA	0 - 160	300 x 500 x 230	34	RE 70058
XTH 5000-24	24 V	230	12000 VA	5000 VA	4500	5000 VA	0 - 140	300 x 500 x 230	40	RE 70059

REMOTE CONTROL CENTRE RCC-03

Panel mount.
Allows the setting and the programming of the inverter-charger XTM series.
Graphic display simple to read.
Equipped with four operating keys - ON-OFF switch.
Equipped with an SD card reader used for various functions: recording statistics, updates.



Model	Voltage supply Vdc	Panel connections	Possible to connect 2 x RCC-03	Possible to connect 3 combi	Display back lighted	Dimensions mm	Code
RCC - 03	10 - 30	2 x RJ45	Yes	Yes	Amber color	130 x 120 x 42	RE 70064

COMUNICATION CABLE RJ45

Studer cable used for interconnection between electronic Studer.

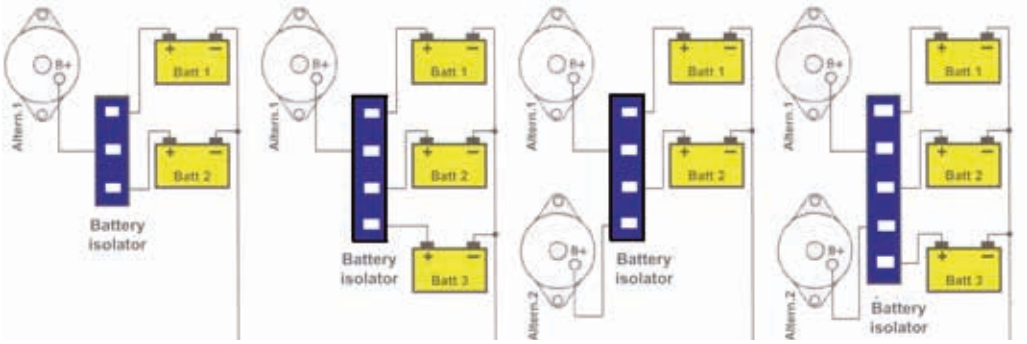
Model	Applications	Length	Connectors	Packaging	Code
CAB-RJ45-2	Parallel between XTM	2 m	2 x RJ45	1 pc	RE 70065
CAB-RJ45-5	RCC03 - XTM	5 m	2 x RJ45	1 pc	RE 70066
CAB-RJ45-20	RCC03 - XTM	20 m	2 x RJ45	1 pc	RE 70068
CAB-RJ45-50	RCC03 - XTM	50 m	2 x RJ45	1 pc	RE 70069

BATTERY ISOLATORS

MULTI BATTERY ISOLATORS

Negative ground battery isolator.
The original: invented by Sure Power in 1959.
100% solid state electronics protection.
Operating temperature: - 40°C + 120°C.
Expressively designed for nautical use employ.

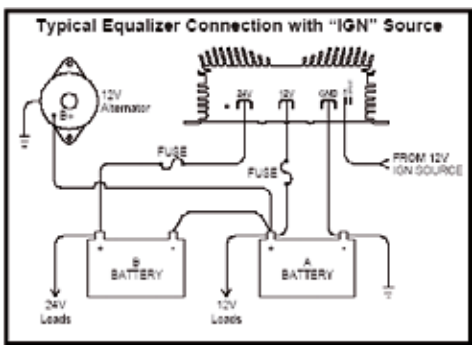
Model	Voltage supply Vdc	Output current A	Input (alternators) n°	Output (battery) n°	Widht cm	Length cm	Height cm	Stud section mm	Code
702	6-50	70	1	2	11,43	8,26	7,87	M6	RE 90141
702 R	6-50	70	1	2	11,43	8,26	7,87	M6	RE 90142
703	6-50	70	1	3	11,43	8,26	7,87	M6	RE 90161
2703	6-50	70	2	3	11,43	16,51	7,87	M6	RE 90146
3203	6-50	120	2	3	11,43	22,86	7,87	M8	RE 90136
1202	6-50	120	1	2	11,43	16,51	7,87	M8	RE 90143
1203	6-50	120	1	3	11,43	16,51	7,87	M8	RE 90181
1602	6-50	160	1	2	11,43	22,86	7,87	M8	RE 90144
1603	6-50	160	1	3	11,43	22,86	7,87	M8	RE 90182
2002	6-50	200	1	2	10,52	18,97	7,87	M8	RE 90130
2003	6-50	200	1	3	10,52	18,97	7,87	M8	RE 90131

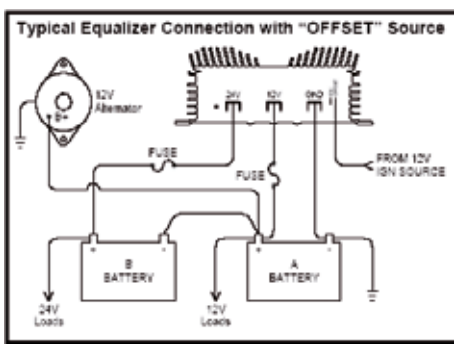


BATTERY EQUALIZER

APPLICATION: 24V system that requires 12V power. Operating temperature: - 40° C + 85°C.
Low standby current drain- typically 5 mA or less. Protections: reverse polarity - short circuit - over current.

Model	Voltage supply Vdc	Output voltage V	Output current A	Width cm	Length cm	Height cm	Code
12025E00	12	24	25	16,76	30,48	7,37	RE 90183
21030E10	24	12	30	16,76	21,84	7,37	RE 90147



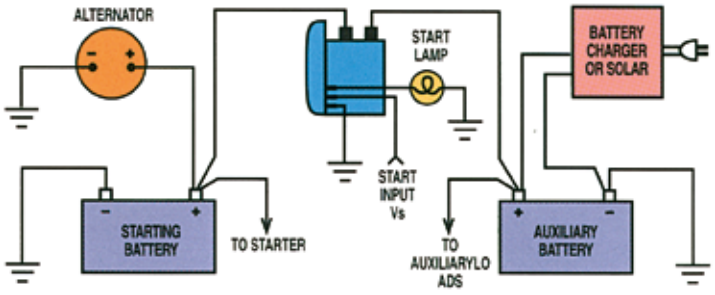


BATTERY SEPARATORS

BATTERY SEPARATORS

SIMPLE INSTALLATION: connects to primary battery, auxiliary battery and ground.
MULTIPLE BATTERY CHARGER: allows multiple battery to be charged from one charging source.
PRIORITIZED CHARGING: the system disconnects at approximately at 13,2V and connects below 12,8V.
PREVENT CHARGING SYSTEM OVERLOAD: if the current requirements are bigger than these of the charging source the battery separator will automatically separate the batteries.
ELECTRONIC SAFETY: a delay function prevents the battery separator to react to momentary voltage fluctuations and chattering.

Model	Voltage V	Max continous current A	MAX current 10 sec A	Description	Width cm	Length cm	Height cm	Stud section mm	Code
1314	12	100	400	Uni-directional	6,35	8,25	7,62	M 8	RE 90180
1314-200	12	200	600	Uni-directional	8,3	10,3	10,2	M 8	RE 90186
1315	12	100	400	Bi-directional	6,35	8,25	7,62	M 8	RE 90140
1315-200	12	200	600	Bi-directional	8,3	10,3	10,2	M 8	RE 90112
1319	24	100	400	Bi-directional	6,35	8,25	7,62	M 8	RE 90184
3103	24	300	900	Bi-directional	9,22	7,62	9,22	M 10	RE 90138



LOW VOLTAGE DISCONNECT

Senses low battery voltage and automatically disconnects devices to save power for starting or to preserve battery life. A dead battery is one of the most common reasons for a tow. Don't get stranded with a dead battery. The m-LVD senses low battery voltage and automatically disconnects non-essential devices to save power for starting or to preserve battery life. The m-LVD is ideal for any single battery boat or vehicle that wants to avoid getting stranded with a dead battery.

Nominal voltage V	Continuous rating A	Intermittent rating A	Disconnect voltage V	Connect voltage V	Dimensions mm	Code
12	65	115	11,3 - 12,1	13	72,3 x 72,3 x 65,2	RE 90187

INTELLIGENT BATTERY SAVING DEVICES

Automatically disconnects non critical loads from the battery to prevent excessive battery discharge.
Automatically reconnects when battery is recharged (alternator - battery charger).
Manual override for connecting or disconnecting during emergency.
Adjustable disconnect voltage from 9,0V to 12,15V.
Audible or visual alarm output activates 1 minute before disconnect.
Fully protected: Over current, short circuits, over temperature - Low standby current drain.

Model	Voltage supply Vdc	Disconnect voltage V	Length cm	Width cm	Height cm	Code
130512	12	9,0 - 12,15	11,6	10,16	3,81	RE 90185

BATTERY SPLITTERS

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BLUE POWER

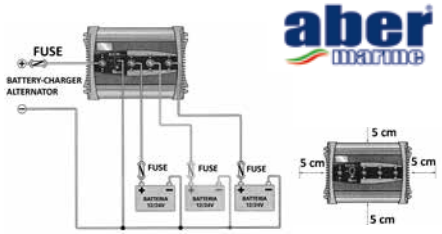
ARGOFET BATTERY ISOLATORS

Similarly to Argodiode battery isolators, Argofet isolators allow simultaneous charging of two or more batteries from one alternator (or a single output battery charger), without connecting the batteries together.
In contrast with Argodiode battery isolators, Argofet isolators have virtually no voltage loss.
Voltage drop is less than 0,02 Volt at low current and averages 0,1 Volt at higher currents.

Model	Maximum charge current	Number of batteries	Length	Depth	Height	Code
Argofet 100-2	100 A	2	200 mm	65 mm	120 mm	RE 90190
Argofet 100-3	100 A	3	200 mm	65 mm	120 mm	RE 90191
Argofet 200-2	200 A	2	200 mm	65 mm	120 mm	RE 90192
Argofet 200-3	200 A	3	200 mm	65 mm	120 mm	RE 90193

MOSFET BATTERY ISOLATOR

aber marine



Power MOSFET electronic circuit.
Power indicating LED.
Low power dissipation.
No voltage drop.
O-Ring effect allows the charge of the batteries.
safeguarding the electrical system on board.

Supply V	Input alternator n°	Charge current A	Output batteries n°	Width mm	Length mm	Height mm	Weight g	Code
12/24	n° 1	A 160	n° 2	135	195	68	1200	RE 90101
12/24	n° 1	A 160	n° 3	135	195	68	1200	RE 90102
12/24	n° 1	A 220	n° 2	135	195	68	1200	RE 90103
12/24	n° 1	220	3	135	195	68	1200	RE 90104

GALVANIC ISOLATED DC DC CONVERTERS

To use in aluminium boat - Useful for SSB wiring.
Great stability of the output voltage for a more reliable system.
PROTECTIONS: overload, overheating, Short circuits, reverse polarity.
Isolation Voltage: 400V - Efficiency >85%. Operating temperature -20°C +45°C.
Cooling with fan (RE70039 convection).

STUDER

Model	Input supply Vdc	Output voltage V	Power W	Width mm	Length mm	Height mm	Weight gr	Code
MDCI100A12	9 - 18	12,5	100	88	152	49	500	RE 70039
MDCI200A12	9 - 18	12,5	200	88	182	49	600	RE 70040
MDCI200B24	20...35	24	200	88	182	49	600	RE 70041
MDCI360B24	20...35	24	360	163	160	64	1400	RE 70042

DC DC CONVERTERS 12-24 V

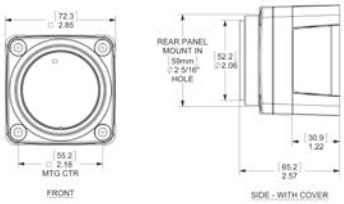
Great stability of the output voltage for a more reliable system.
PROTECTIONS: overload, overheating, Short circuits, reverse polarity.
Operating temperature -1°C +40C.
Application: 24V system that requires 12V power.

STUDER

Model	Input supply Vdc	Output voltage V	Power W	Width mm	Length mm	Height mm	Weight gr	Galvanic isolated	Code
MDCI360A24	9 - 18	24	15	183	160	64	1400	YES	RE 70043
MDCI1224-7	10 - 18	24	7	88	98	49	477	NO	RE 70044

AUTOMATIC CHARGING RELAY

BLUE SEA SYSTEMS



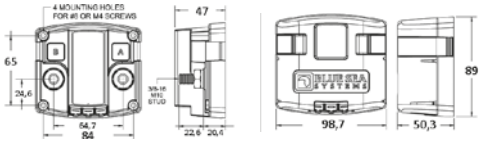
CHARGING RELAY

The Mini Automatic Charging Relay (M-ACR) is designed to manage the charging current from alternators up to 65 Amps found on most outboards and many inboard engines. Start Isolation (SI) protects sensitive electronics by temporarily isolating house loads from the engine circuit during engine cranking, protecting the house circuit from voltage sags and spikes.The compact design allows for three mounting styles: surface, rear, or panel mount. The M-ACR is also available as a module in a Custom 360 Panel.

Model	Voltage supply	Close contacts	Open contacts	Max power continuous	Max power 5 min	Protection	Weight	Code
7601	12-24V	13,6-27,2V	12,35-24,7V	65 A	115A	IP 67	0,43 kg	RE 60405

SI SERIES AUTOMATIC CHARGING RELAY

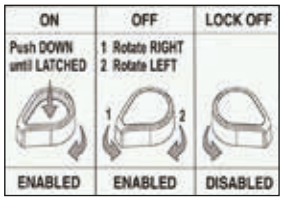
Hermetically sealed contacts/vaporproof
Automatically combines battery banks during the charging cycle and isolates under discharge
Activates whether the charging source is an alternator or battery charger
Automatic control for charging more batteries
Output for ON indicating led

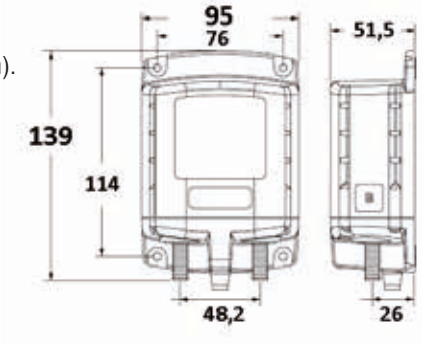


Input voltage	Close contacts	Open contacts	Max power continuous	Max power 2 min	Max power 5"	Dimensions mm	Studs size	Code
9-36 Vdc	13,5 - 27 V	12,7 - 25,4 V	120 A	210 A	280 A	98,7x88,9x50,3	M 10	RE 60402

HEAVY DUTY AUTOMATIC CHARGING RELAY IP66

Automatically manages the charging of two large battery bank.
Very low current in the ON or OFF position and in exchange position.
Model without manual emergency knob (RE60400 - RE60401).
Model with manual emergency knob (RE60403 - RE60404).
Combine (30 sec) with voltage 13.5V DC or 27,0 V DC.
Combine (60sec) with voltage 13,0 V DC or 26 V DC.
Open (10 sec) with voltage 12.35V DC or 24.75 V DC.
Open (30sec) with voltage 12,75V DC or 25,5 V DC.
Open high with voltage 16,2V DC or 32.4V DC (System protection).
Meets ISO 8846 and SAE J1171 requirements.





Model	Voltage supply V	Emergency Manual control	Continuous rating Max	Intermittent rating 5 min	Crancking rating 5 sec	Absorption Momentary mA	Absorption On/Off state mA	Studs size	Code
7620	12 V	NO	300 A	500 A	2500 A	10	40	M10	RE 60400
7621	24 V	NO	300 A	500 A	2500 A	10	40	M10	RE 60401
7622	12 V	YES	300 A	500 A	2500 A	10	40	M10	RE 60403
7623	24 V	YES	300 A	500 A	2500 A	10	40	M10	RE 60404

VOLTAGE REDUCERS

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BLUE POWER

ORION-TR DC-DC CONVERTERS ISOLATED

All models are short circuit proof and can be paralleled to increase output current.
An unlimited number of units can be connected in parallel.

IP43 protection: when installed with the screw terminals oriented downwards.

Screw terminals: no special tools needed for installation.

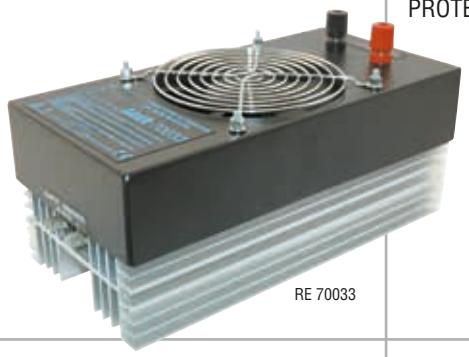
Input fuse: on 12V and 24V input models only.

Model	Input voltage	Output voltage	Nominal output voltage	Max output current (10s)	Weight Kg	Dimensions mm	Code
Orion-Tr 24/12-9 (110 W)	16 - 35 V	12,2 V	9 A (25° C)	12,5 A	0,42	100 x 113 x 47	RE 70076
Orion-Tr 24/12-20 (240 W)	16 - 35 V	12,2 V	20 A (40° C)	25 A	1,3	130 x186 x 70	RE 70077
Orion-Tr 24/12-30 (360 W)	20 - 35 V	12,2 V	30 A (40° C)	45 A	1,8	130 x 186 x 80	RE 70078

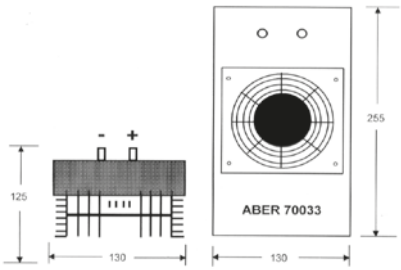
VOLTAGE REDUCER

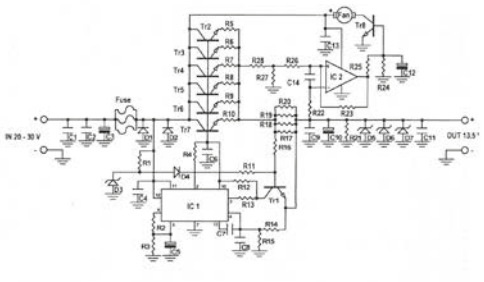
aber marine

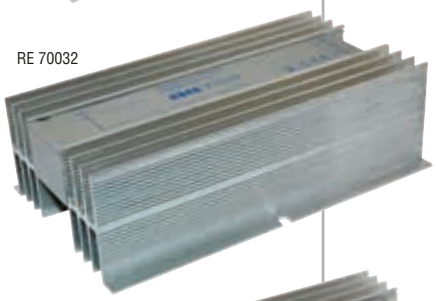
Designed for nautical applications.
Cooling: natural. 30A model is equipped with controlled fan.
With internal fuses.
PROTECTION: Short circuits - Reverse polarity - Output overvoltage - Overheating.



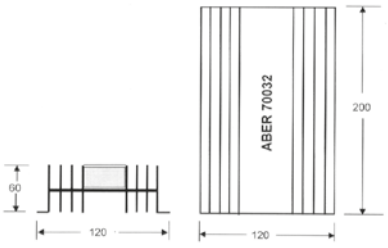
RE 70033

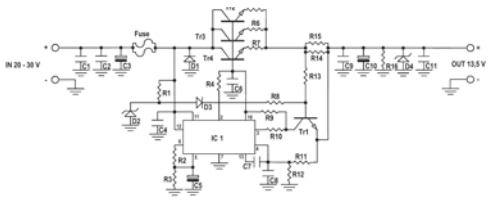


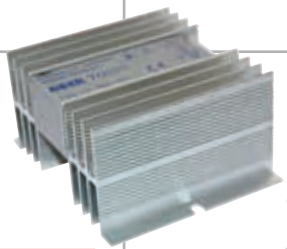




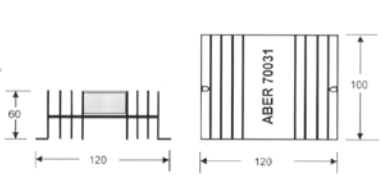
RE 70032

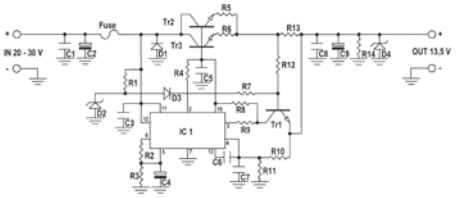






RE 70031





Voltage supply Vdc	Output voltage Vdc	Max output current	Max load 1'	Internal Fuse	Weight gr	Lenght mm	Width mm	Height mm	Code
20 -30	13,5	7A	10A	-	340	100	100	60	RE 70031
20 -30	13,5	12A	16A	-	670	200	100	60	RE 70032
20 -30	13,5	25A	35A	3x12A	2100	255	130	125	RE 70033

FOR A CORRECT COOLING IS NECESSARY TO MOUNT THE VOLTAGE REDUCER IN VERTICAL WITH THE ALLUMINIUM SQUANDERER TABS IN VERTICAL

TAKE CARE OF POLARITY: DO NOT INVERT

VOLTAGE REDUCERS

SWITCHING VOLTAGE REDUCERS

Switching technology for higher performance in a little case.
Special alloy aluminium for a better squandering.
Low residual output fluctuation: ripple lower than 50mV RMS.
EMC class: EN55022. Output voltage stability: 1%.
Input and output connection through cable pre-installed.
Installation: vertical.
Protections: Short circuit, overvoltage, reverse output polarity.
Cooling system: natural (on all model).

Model	Voltage supply Vdc	Output voltage Vdc	Max output current	Max load 1'	Max absorption A	Weight gr	Fuse A	Length mm	Width mm	Height mm	Code
VRS 10	20 -30	13,5	A 7	A 10	A 7,5	325	6	160	75	35	RE 70034
VRS 16	20 -30	13,5	A 12	A 16	A 12,5	500	10	170	105	35	RE 70035
VRS 23	20 -30	13,5	A 18	A 23	A 18,5	700	12	200	116	41	RE 70036

SWITCHING VOLTAGE REDUCERS

Switching technology for higher performance in a little case.
Special alloy aluminium for a better squandering.
Low residual output fluctuation: ripple lower than 15mV RMS.
EMC class: EN55022.
Input and output connection through cable pre-installed.
Output voltage stability: 1%. Installation: vertical.
Protections: Short circuit, overvoltage, reverse output polarity.
Cooling system: natural (on all model).

Model	Voltage supply Vdc	Output voltage Vdc	Max output current A	Max absorption A	Weight gr	Length mm	Width mm	Height mm	Code
VRS HE	18 - 32	13,5	A 30	A 24	500	120	157	40	RE 70067

SWITCHING VOLTAGE REDUCERS

Switching technology for higher performance in a little case.
Special alloy aluminium for a better squandering.
Low residual output fluctuation: ripple lower than 10mV RMS.
Input and output connection through cable pre-installed.
Output voltage stability: +-0,5 Vcc.
Installation: vertical.
Protections: Short circuit, overvoltage, reverse output polarity.
Cooling system: natura (mod. VR30SW e VR60SW) - fan cooling (mod.VR120SW).

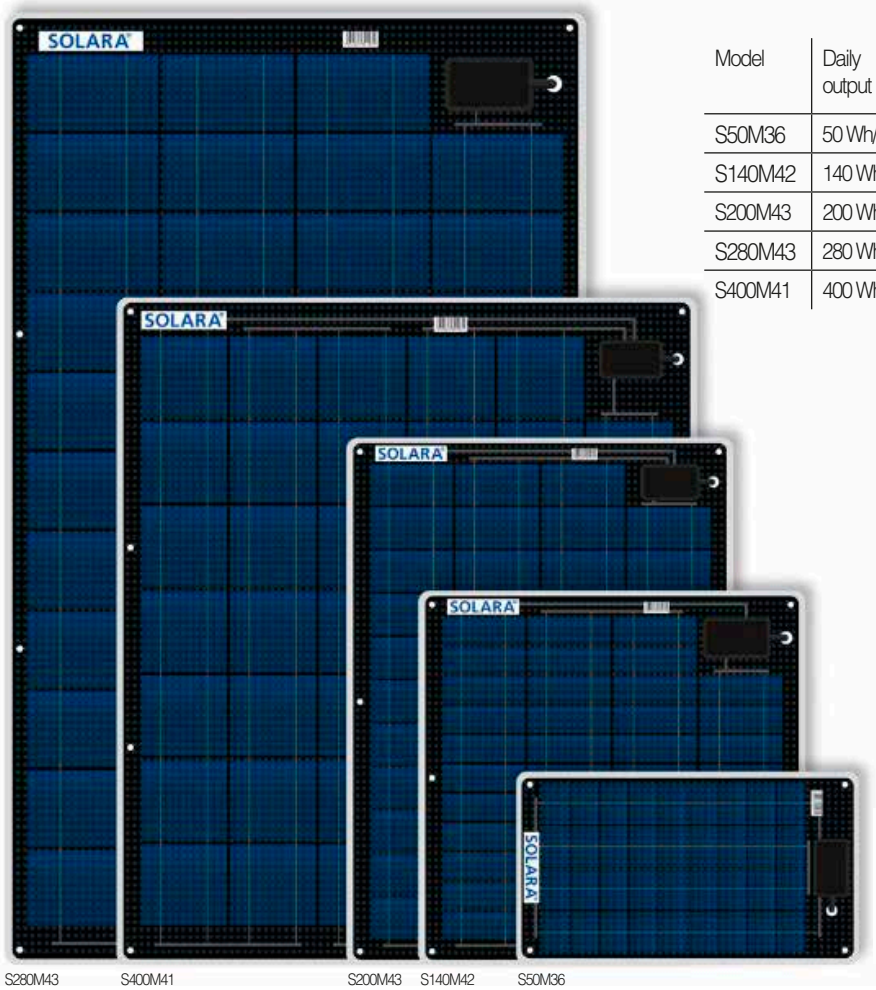
Model	Voltage supply Vdc	Output voltage Vdc	Max output current A	Fuse input A	Fuse output A	Max power output W	Length mm	Width mm	Height mm	Code
VR30SW	22-32	13,4	30	20	30	405	120	100	40	RE 70051
VR60SW	22-32	13,4	60	2x30	3x30	810	320	190	65	RE 70052
VR120SW	22-32	13,4	120	3x30	4x30	1620	320	190	75	RE 70053

FLEXIBLE SOLAR MODULES

SOLARA®
module. komponenten. systeme

FLEXIBLE SOLAR MODULES M-SERIES

In stainless steel: back side is covered by a double layer of powder coating.
Walkable surface, photovoltaic high efficiency cell.
Sea and salt resistant, high transparence, self cleaning high tech surface
1,5 m pre-mounted cable, flat, miniaturized, watertight, robust, with cover.



S280M43 S400M41 S200M43 S140M42 S50M36

Model	Daily output	Rated output	Circuit voltage	Short-circuit current	Voltage V	Current A
S50M36	50 Wh/d	15 Wp	24,48 V	0,72 A	20.88	0.69
S140M42	140 Wh/d	35 Wp	28,56 V	1,44 A	24.36	1.38
S200M43	200 Wh/d	50 Wp	29,24 V	2,15 A	24.94	2.05
S280M43	280 Wh/d	70 Wp	29,24 V	2,85 A	24.94	2.72
S400M41	400 Wh/d	100 Wp	27,88 V	4,29 A	23.87	4.10

No. of cells	Cell dimensions	Dimensions mm (LxWxH)	Weight Kg	Code
36	52x35 mm	431x243x4	0,9	RE 90531
42	104x35 mm	464x481x4	1,7	RE 90533
43	104x52 mm	654x481x4	2,2	RE 90534
43	104x69 mm	844x481x4	2,8	RE 90535
41	104x104 mm	798x695x4	3,7	RE 90536

Quality
Made in Germany


SR 60 UL

SR 85 TL


SR 180/350

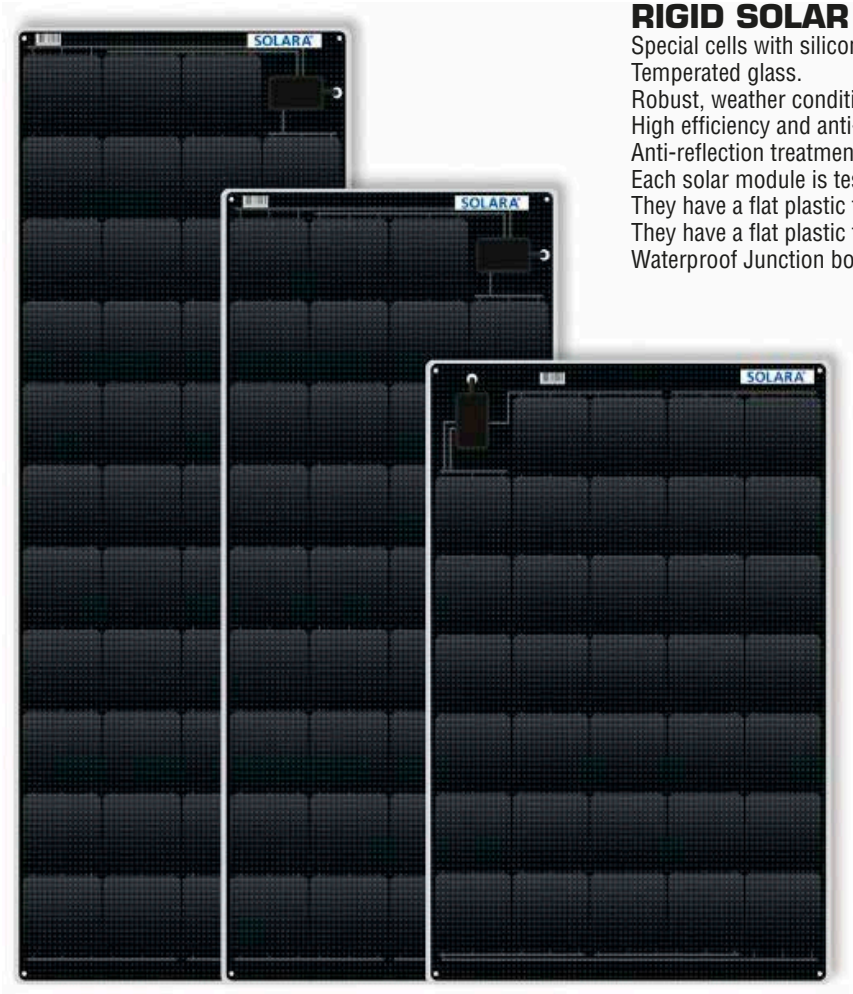
CHARGE CONTROLLERS

Our charge controllers guarantee high reliability, the latest technology and easy installation at low costs.
The regulated PWM characteristic guarantees optimized charging. All Solara controllers are so-called series regulators (no shunt) and thus very efficient. The load output protects your battery from deep discharge.
A large and informative LCD display shows the current system status.
The SR 350 DUO also offers the possibility to charge two independent battery circuits.

Model	Solar panel power	Current	Voltage	Battery status indicator	Code
SR 60 UL	to 60 Wp	4 A	12 V	LED	RE 90537
SR 85 TL	90/180 Wp	5 A	12/24 V	LED	RE 90538
SR 180	180/360 Wp	10 A	12/24 V	LCD	RE 90539
SR 350	350/700 Wp	20 A	12/24 V	LCD	RE 90540

RIGID SOLAR MODULES

SOLARA®
module. komponenten. systeme



RIGID SOLAR MODULES POWER M-SERIES

Special cells with silicon technology.
Temperated glass.
Robust, weather condition resistant, with a rigid hollow-profile aluminium frame.
High efficiency and anti-reflection-layer photovoltaic cells with
Anti-reflection treatment.
Each solar module is tested and certified.
They have a flat plastic frame.
They have a flat plastic frame.
Waterproof Junction box.

Model	Daily output	Rated output	Circuit voltage	Short-circuit current	Voltage V
S515M31	515 Wh/d	115 Wp	22,63 V	6,4 A	19,22
S555M34	555 Wh/d	125 Wp	24,82 V	6,4 A	21,08
S575M35	575 Wh/d	130 Wp	25,55 V	6,4 A	21,7
S705M43	705 Wh/d	160 Wp	31,39 V	6,4 A	26,66

Current A	No. of cells	Cell dimensions	Dimensions mm (LxWxH)	Weight Kg	Code
6,04	31	125x125	1120x545x4	3,6	RE 90546
6,04	34	125x125	990x660x4	4,2	RE 90547
6,04	35	125x125	1250x545x4	4,4	RE 90548
6,04	43	125x125	1510x545x4	5,2	RE 90549

Quality
Made in Germany

MOUNTED SPOILER FOR RIGID MODULES

They simplify the installation of the solar modules
Material: white ABS

Model	Type	Length	Materials	Code
HS35/W	STRAIGHT	35 cm	White ABS	RE 90550
HS45/W	STRAIGHT	45 cm	White ABS	RE 90551
HS55/W	STRAIGHT	55 cm	White ABS	RE 90552
HS68/W	STRAIGHT	68 cm	White ABS	RE 90553
HSE/W	ANGULAR	-	White ABS	RE 90554

SOLAR PANELS

CBE

The CBE SOLAR PANELS are made of monocrystalline or polycrystalline silicon cells. The special non-reflecting treatment these cells are exposed to, stops the mirror effect of the sun-rays on the cells' surface and increases the efficiency of the modules. The tempered glass is a high performance shock resistant and weatherproof material. A white "Tedlar" sheet protects the rear of the module: it prevents any water or humidity infiltration and isolates the electrical contacts thus avoiding oxidation. The module's frame is made of anodized aluminium and the junction box installed on the rear of the module holds the by-pass diodes and the straight fitting necessary for the connection. The CBE photovoltaic modules are manufactured using highly advanced technologies and comply with the Eu-Norms. Their declared power is covered by a 25 years warranty.

Model	N° cells	Rated voltage V	Max power W	Toll. %	Open circuit voltage V	Short circuit voltage A	Voltage at max power V	Current at max power A	Dimensions mm	Weight kg	Code
MF100	36	12	100	+/-3	22,95	5,85	18,4	5,43	1200 X 540 X 30	7,8	RE 90560
MF120	32	12	120	+/-3	20,3	7,7	16,5	7,26	1313 X 663 X 35	11	RE 90561

KIT SOLAR BOOSTER CBE

The new CBE Solar Booster Set, consisting of the special MFB90 photovoltaic module and the PBS90 booster solar charge regulator, allows to fully exploit the current the 90W photovoltaic module can supply, enabling thus to obtain the best performance occupying less space. The MFB90 photovoltaic module is made of 21 high quality cells and operates at a voltage of approximately 11V. Combined with the PBS90 solar charge regulator provided with a "booster" technology, namely equipped with a system that enables to boost the voltage and to control the current, its performance over a day can be compared to that of a 120W photovoltaic module. It is possible to connect the PT642 test panel (optional) to the new PBS90 booster solar charge regulator, in order to display the charging current and the battery voltage

Model	N° cells	Rated voltage V	Max power W	Toll. %	Open circuit voltage V	Short circuit voltage A	Voltage at max power V	Current at max power A	Dimensions mm	Weight kg	Code
kit 90 booster	21	12	90	+/-3	13,28	8,08	11,8	7,62	1209 X 553 X 35	8,4	RE 90562

PRS 110 SOLAR CHARGE REGULATOR

Suitable for photovoltaic solar modules up to max 110W. The 2 LEDs show the current battery charging status.

Voltage Vdc	Max power W	Modules number	Automatic Shutdown	End-of charge Voltage	Float Voltage	Number of charge	Desulphatation	Reverse polarity protection	Test panel connection	Dimens. mm	Code
12	110	1	YES	14,1	13,5	1	NO	YES	NO	15x90x37	RE 90563

PRS 300 SOLAR CHARGE REGULATOR

The new solar charge regulator PRS300 has been studied and manufactured in order to obtain the best possible performance of 12V photovoltaic modules up to 300W. It can be connected to the new test panel PT642 which is necessary in order to check the charging current of the photovoltaic modules and the battery's voltage. PRS 300 works with lead-acid, lead-gel and AGM batteries and is able to maintain the ideal charging line (to be manually selected thanks to the commutator installed inside the solar charge regulator).
There is also a battery desulphatation function which is automatically enabled when the battery needs it.
The four LEDs indicate: Battery charging with maximum current until the end-charge voltage is reached
Charge maintenance at constant voltage - Wrong connection alarm - Solar charge regulator ON
(in case of no solar light, the solar charge regulator turns automatically off).

Voltage Vdc	Max power W	Modules number	Automatic Shutdown	End-of charge Voltage	Float Voltage	Number of charge	Desulphatation	Reverse polarity protection	Test panel connection	Dimens. mm	Code
12	300	2	YES	14.1V (A) 14.3 (B) - 14.7 (C)	13.5V (A) 13.8 (B) - 13.5 (C)	3	YES	YES	PT 642	115x90x37	RE 90564

12V TOUCH TEST PANEL

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 "PRS300" solar charge regulator.

Colors: G Grey RAL 7015 - M Brown RAL 8016
Dimensions: 60x60 mm

RE 90565