

# Renewable energy storage

## PYLONTECH® ENERGYRACK - INDUSTRIAL

Battery Supplies can offer you the AQ-LITH® EnergyBox batteries for residential use and the Pylontech® EnergyRack systems for industrial use.



- ➔ 15 UP TO 77 KWH  
EXTENDABLE X4 TO 308 KWH
- ➔ FAN-COOLED CABINET
- ➔ LONG SERVICE LIFE (LIFEPO4)

### SUITABLE FOR:

- INCREASED SELF-CONSUMPTION
- REDUCED PEAK CONSUMPTION
- GRID SUPPORT SERVICES
- INCREASED POWER AT LIMITED GRID CONNECTION
- EMERGENCY SUPPLY

COMPATIBLE WITH



## INDUSTRIAL BATTERIES

### Pylontech® EnergyRack 29 - 48 - 67 - 77 kWh

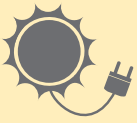
This battery is suitable for consumers with an annual consumption < 500 MWh/yr. This battery consists of several modules of 48V 5kWh and is installed in a sturdy closed fan-cooled cabinet.

Model	SOL/48ER29PT	SOL/48ER48PT	SOL/48ER67PT	SOL/48ER77PT
Battery type	LiFePO4			
Capacity (kWh)	29	48	67	77
Number of 5kWh modules BAT/51035	6	10	16	16
Nominal capacity (Ah)	600	1000	1400	1600
Power (kW)	23040	38400	53760	61440
Nominal voltage (Vdc)	48			
Dimensions (mm)	660 x 650 x 2185		1320 x 650 x 1985	
Weight (kg)	358,6 ± 2%	517,4 ± 2%	771,2 ± 2%	864,4 ± 2%
D.O.D. (%)	95			
Cycle life	> 8000 @ 25°C			
Communication port	RS485, CAN			
Waranty	10 years (warranty) daily cycle*			

\* Subject to registration of Pylontech EnergyRack at: <https://en.pylontech.com.cn/service/support/>

# FOR PROFESSIONAL USE

The use of batteries for storing renewable energy for industry has been growing enormously in recent years. These batteries have multiple savings/opportunities.



## INCREASED SELF-CONSUMPTION

The excess of solar or wind energy is stored and later used in case of shortages. This increases the company's own consumption and less energy is injected and taken from the grid. This decrease is the most important profit factor of the battery.



## REDUCED PEAK CONSUMPTION

Companies are heavily penalized financially for their peak consumption. A battery controlled by an intelligent EMS (Energy Management System) can smooth out these peaks (peak-shaving).



## CHEAP ENERGY

Energy prices react very erratically to general consumption, but also to the presence of sun and wind. This battery can store cheap energy from the grid to use itself at peak moments when energy is more expensive again.



## GRID SUPPORT SERVICES

With an intelligent EMS system as the YUSO-inside EMS, the battery can also be used for opportunities of day-ahead prices and even for volatile prices in the imbalance market.



## INCREASED POWER AT LIMITED GRID CONNECTION

In case of grid power limits, the battery can be used to add extra power during consumption peaks. Similar principle can be used to cope with injection limits.



## EMERGENCY SUPPLY

The battery can be used as emergency power supply in case of grid problems.

This battery is particularly interesting for companies

- with a sufficiently large installation of solar panels (30 - 500 kW peak installation of solar panels (production is min 50% of total consumption))
- with an annual consumption of 30 to 500.000 kWh
- with sufficient consumption after solar hours, e.g. in the case of several shifts or cooling groups, etc.



YUSO is an energy aggregator based in Belgium but also active in the Netherlands and some parts of UK. The energy prices are transparent and based on EPEX prices. In case of opportunities in the volatile imbalance market, they take over the control of the EnergyRack battery to stabilize the grid which gives the opportunity to buy energy at negative / reduced prices. This results in a better payback-time of your energy storage system.

As first saving, the EnergyRack battery will help to increase your self-consumption. To optimize all functions, we advise to connect the battery with an intelligent Energy Management System (EMS). These systems will use the battery in case of opportunities in the spot market, imbalance market, peak shaving and will optimize and visualize the energy between battery, EV chargers and other consumers. The EMS systems compatible with the EnergyRack are: Smartgrid One, DTplan, Homate, Loxone, Mint...

For our standard EMS options, turn to page 48.

We can help you determine the right battery size and calculate the payback time of your battery. Feel free to provide us with information on your yearly consumption and production volume, then we can make a simulation with different battery sizes and their savings

For more information, please contact us at : [info@batterysupplies.be](mailto:info@batterysupplies.be).

We always recommend Li-ion for renewable energy storage based on the Total Cost of Ownership ratio. If you require a different technology for your solar storage system, we are happy to provide you with an offer.

# Renewable energy storage

## EMS : THE AQ-SMART® CONTROLS

# AQ-SMART®

### 1. AQ-SMART® Multi-EnergyRack - BAT/51016

This control ensures that multiple Pylontech® EnergyRack batteries with Victron inverters and GX controls are all controlled together and form one battery. This configuration also requires only one power meter to control all batteries.

### 2. AQ-SMART® Dynamic – Multi EnergyRack - BAT/51017

The basic technical control for a use of multiple Pylontech® EnergyRack batteries within one installation. In addition, this controller looks at Day-Ahead prices via an Internet link so that the controller can control the battery according to variable prices. This allows the battery to be charged and discharged a second time overnight if price differences allow. To take advantage of this functionality, the user must have a variable energy contract with an energy supplier or have the intension to enter into a variable contract in the near future. The AQ-SMART® EMS works independently of the choice of energy provider.

### 3. AQ-SMART® Yuso® Inside - BAT/51018



This control supports all the functions of the basic control and the dynamic control, supplemented by a Yuso® Inside protocol, in order to take advantage of imbalance market opportunities. This requires a specific Yuso® energy contract. The conclusion of an energy contract is done through the independent company Yuso®. Only available in BENELUX and UK.

## PYLONTECH® ENERGYRACK MODULE - RESIDENTIAL

Batteries for green renewable energy are important in the energy transition and the reduction of energy costs. These batteries for residential use will increase the self-consumption but also reduce peak consumption. With a compatible EMS, residential batteries can also be used to gain profits from the variable prices. Battery Suppliers can offer you the AQ-LITH® EnergyBox batteries for residential use and the Pylontech® EnergyRack systems for in

## PYLONTECH® ENERGYRACK MODULE



Can be used with all kits for the EnergyBox

Model	BAT/51035
Battery type	LiFePO4
Capacity (kWh)	5
Nominal capacity (Ah)	100
Power (kW)	3840
Nominal voltage (Vdc)	48
Dimensions (mm)	442 x 420 x 161
Weight (kg)	39,7
D.O.D. (%)	95
Cycle life	> 8000 @ 25°C
Communication port	RS485, CAN
Waranty	10 years (warranty) daily cycle*

\* Subject to registration of Pylontech EnergyRack at: <https://en.pylontech.com.cn/service/support/>

## PYLONTECH® ENERGYRACK CABINET WITH NATURAL VENTILATION INCLUDING BUSBAR AND FUSES.



BAT/51152: empty cabinet for max 4 modules.

Model	SOL/48ER15PT	SOL/48ER20PT
Battery type	LiFePO4	
Capacity (kWh)	15	20
Number of 5kWh modules BAT/51035	3	4
Nominal capacity (Ah)	300	400
Power (kW)	11520	15360
Nominal voltage (Vdc)	48	
Dimensions (mm)	600 x 600 x 700	585 x 510 x 860
Weight (kg)	147,5 ± 1%	190,8 ± 1%
D.O.D. (%)	95	
Cycle life	> 8000 @ 25°C	
Communication port	RS485, CAN	
Waranty	10 years (warranty) daily cycle*	

\* Subject to registration of Pylontech EnergyRack at: <https://en.pylontech.com.cn/service/support/>

## AQ-LITH® ENERGYBOX - RESIDENTIAL

### AQ-LITH® ENERGYBOX



Store your solar energy on a battery from Battery Supplies.

We offer 3 types of EnergyBox batteries, according to your energy consumption: 3, 5 and 7kWh. These batteries can also be connected in parallel up to 14kWh.

The EnergyBox consists of LiFePO4 cells: this ensures an increased lifespan and a high degree of safety.

Ref	SOL/48EB3	SOL/48EB5	SOL/48EB7	2 x SOL/48EB5	2 x SOL/48EB7
Battery type	LiFePO4				
Nominal voltage (V)	51,2				
Capacity (kWh)	3	5	7	10	14
Max. Output (KW)	1,5	2,5	2,5	5	5
Dimensions (mm)	523 x 679 x 152.5	564.5 x 650 x 212	662 x 717 x 205	2 x 564.5 x 650 x 212	2 x 662 x 717 x 205
Weight (kg)	45	66	89	132	178
Charging voltage (V)	56,8				
Warranty	10 years				
Operating temperature	Discharge: -15°C – 50°C Charge: 0°C – 45°C				
IP	IP54				

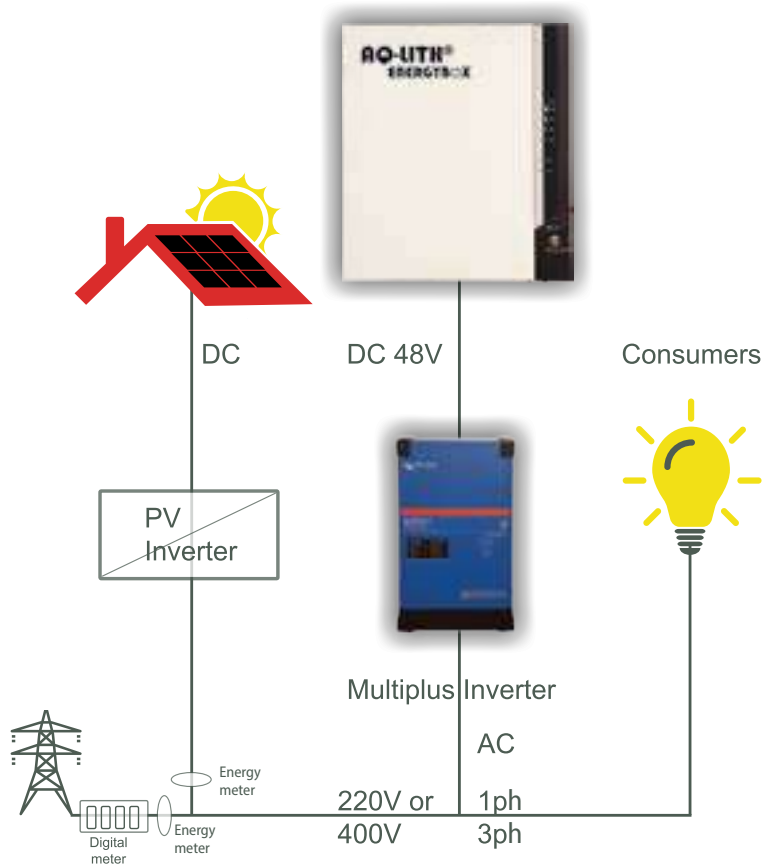
# Renewable energy storage

## RETROFIT - INVERTER KITS

### ADVANTAGES

- Can be added to existing installations, because it does not interfere with existing installation.
- Low cost if the PV-installation already exists
- Fits all brands of PV installation
- Meets the regulations of the grid operator

! The kits can be used for a 3x400V and 3x230V grid. The kit contains one monophase inverter connected to onephase. The power meter, however, is a three phase version and the controller will reduce the sum of the currents of ALL phases (so called phase compensation)



## VICTRON INVERTERS MULTIPLUS II

### ADVANTAGES

- High-quality European brand
- Superior UPS system
- Excellent app and support via cloud



	For single-phase grid	For three-phase grid
For 1 battery based on Multiplus II 3 kVA	SOL/VIC1R3M1	SOL/VIC1R3T1
For 2 batteries based on Multiplus II 5 kVA	SOL/VIC1R5M2	SOL/VIC1R5T2

## AQ-TRON® INVERTER

### ADVANTAGES

- Easy and quick installation
- Economic solution
- Plug & play



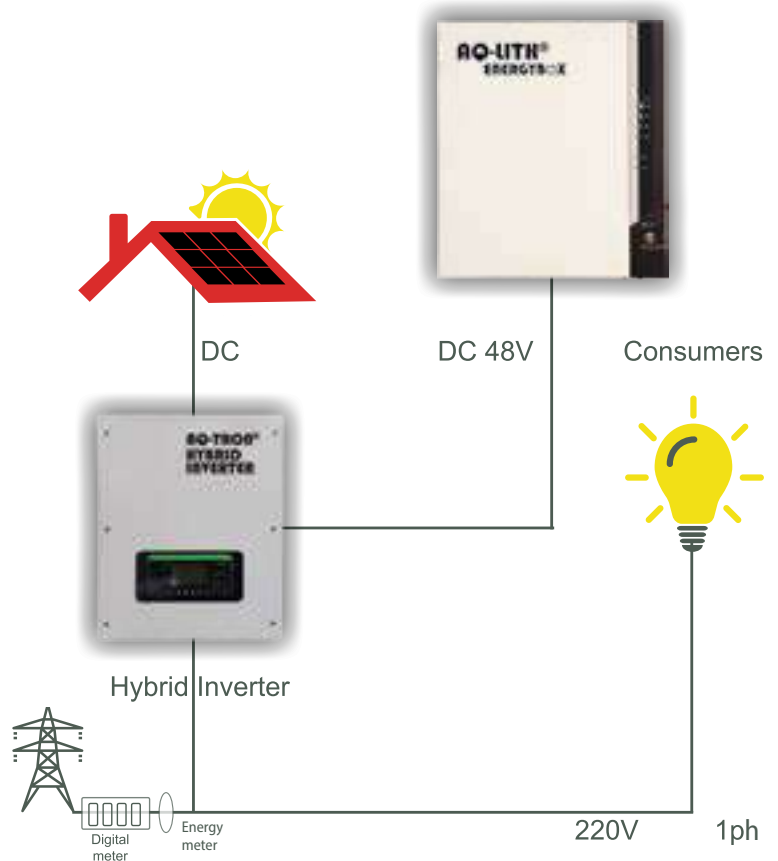
	For single-phase grid	For three-phase grid
For 1 battery based on AQ-TRON® RETROFIT 3 kVA	SOL/AQT1R3M1	-

# HYBRID - INVERTER KITS

## ADVANTAGES

- The best solution for a total new PV-installation with battery
- Higher energy efficiency

• The kits can be used for a 3x400V and 3x230V grid. The kit contains one monophase inverter connected to onephase. The power meter, however, is a three phase version and the controller will reduce the sum of the currents of ALL phases (so called phase compensation)



# VICTRON INVERTERS EASYSOLAR II

## ADVANTAGES

- Including MPPT & GX inside one casing.
- fan-ventilated



	For single-phase grid	For three-phase grid
For 1 battery based on Easysolar II 3 kVA	SOL/VIC1H3M1	SOL/VIC1H3T1
For 1 battery based on Easysolar II 5 kVA	SOL/VIC1H5M1	SOL/VIC1H5T1
For 2 batteries based on Easysolar II 5 kVA	SOL/VIC1H5M2	SOL/VIC1H5T2

# AQ-TRON® HYBRID INVERTER

## ADVANTAGES

- Easy and quick installation
- Economic solution
- Plug & play



	For single-phase grid	For three-phase grid
For 1 battery based on AQ-TRON® HYBRID 3 kVA	SOL/AQT1H3M1	SOL/AQT1H3T1
For 1 battery based on AQ-TRON® HYBRID 5 kVA	SOL/AQT1H5M1	SOL/AQT1H5T1
For 2 batteries based on AQ-TRON® HYBRID 5 kVA	SOL/AQT1H5M2	SOL/AQT1H5T2

# Renewable energy storage

## OVERVIEW INVERTERS

	Retrofit		
Belongs to kit	SOL/VIC1R3M1 - SOL/VIC1R3T1 SOL/VIC3R3T1 - SOL/VIC3R5T1	SOL/VIC1R5M2 - SOL/VIC1R5T2	SOL/AQT1R3M1
Product series	Victron Multiplus II 3kVA	Victron Multiplus II 5kVA	AQ-TRON® Inverter
Model name	48/3000/35-32	48/5000/70-50	BAT/50759
Control	External Cerbo GX		
MPPT Model	-	-	-
Restrictions	-	-	-
BATTERY			
DC Battery Connection	Nominal 51,2V		Nominal 51,2V
PV (DC)			
Maximum DC PV Voltage	-	-	-
PV Start-up voltage	-	-	-
Number of trackers	-	-	-
Max. input power per MPPT	-	-	-
Max. input power for total MPPT	-	-	-
Max. efficiency (MPPT)	-	-	-
GRID (AC)			
AC Input Voltage	Input voltage range: 187-265 VAC / Input frequency: 45 - 65 Hz		180 - 276 VAC
AC Output	230 VAC ±2% / 50Hz ± 0,1% (60Hz)		180 - 276 VAC - 50/60Hz
AC Phase connection	Single		Single
Suitable for 1x 230V powergrid	Yes	Yes	Yes
Suitable for 3x 230V powergrid	Yes, Monophase connected - Phase Compensation Protocol		Yes, Monophase connected - Phase Compensation Protocol
Suitable for 3x 400V powergrid	Yes, Monophase connected - Phase Compensation Protocol		Yes, Monophase connected - Phase Compensation Protocol
Cont. Output power at 25°C	3000 VA/ 2400 W	5000 VA/ 4000W	3000 VA / 3000 W
Max. AC input current	32A	50A	13,7 A
Auxilliary output	32A	32A	13 A
Maximum efficiency (Inverter)	95%	96%	97,2%
GENERAL			
Interfaces	BMS-can, USB Ethernet, VE.Direct, Wi-Fi		RS485, Wifi/Ethernet/GPRS, SD, can
Operating temp. Range	-40 to +65°C (fan assisted cooling)		-30 to +60°C (natural design cooling) Max. altitude 2000m
Humidity (non-condensing)	max 95%		max 100%
Protection category	IP22		IP65
Battery connection	M8 bolts		M6 bolts
PV connection	no direct PV connection		no direct PV connection
230 VAC connection	Screw terminals 13mm <sup>2</sup> (6 AWG)		Screw terminals 13mm <sup>2</sup> (6 AWG)
Weight	19 kg	30 kg	16 kg
Dimensions (h x w x d) mm	506 x 275 x 147	565 x 323 x 148	532 x 360 x 172
Warranty	5 years (upgradable to 10 years)		5 years
Preprogramming	Possible	Possible	Plug & Play

	Retrofit		MPPT (for hybrid installation)	
Belongs to kit	SOL/VIC3R8T1	SOL/VIC3R10T1	-	-
Product series	Victron Quattro 8kVA	Victron Quattro 10kVA	Victron SmartSolar MPPT RS	Victron SmartSolar MPPT RS
Model name	48/8000/110-100/100	48/10000/140-100/100	RS450/100	RS450/200
Control	External Cerbo GX			
MPPT Model	-	-	MPPT RS 450/100	MPPT 450 RS 450/200
Restrictions	-	-	Only in combination with Victron Multiplus II or other Victron product	
<b>BATTERY</b>				
DC Battery Connection	Nominal 48V		-	-
<b>PV (DC)</b>				
Maximum DC PV Voltage	-	-	450V	
PV Start-up voltage	-	-	120V	
Number of trackers	-	-	2	4
Max. input power per MPPT	-	-	4000 W	4000 W
Max. input power for total MPPT	-	-	5760 W	11520 W
Max. efficiency (MPPT)	-	-	96%	96%
<b>GRID (AC)</b>				
AC Input Voltage	2x Input voltage range: 187-265 VAC / Input frequency: 45 - 65 Hz		-	-
AC Output	230 VAC $\pm$ 2% / 50Hz $\pm$ 0,1% (60Hz)		-	-
AC Phase connection	Single		-	-
Suitable for 1x 230V powergrid	Yes	Yes	-	-
Suitable for 3x 230V powergrid	Yes, Monophase connected - Phase Compensation Protocol		-	-
Suitable for 3x 400V powergrid	Yes, Monophase connected - Phase Compensation Protocol		-	-
Cont. Output power at 25°C	8000 VA/ 6400 W	10000 VA/ 8000 W	-	-
Max. AC input current	2x 100 A	2x 100 A	-	-
Auxilliary output	50 A	50 A	-	-
Maximum efficiency (Inverter)	96%	96%	-	-
<b>GENERAL</b>				
Interfaces	VE.Direct port, VE.Can port & Bluetooth			
Operating temp. Range	-40 to +65°C Max. altitude 3500m		-40 to +60°C (fan assisted cooling)	
Humidity (non-condensing)	max 95%		max 95%	
Protection category	IP22		IP21	
Battery connection	4x M8 bolts (2+ & 2- connections)		M8 bolts	
PV connection	no direct PV connection		2x Power terminals 16 mm <sup>2</sup>	
230 VAC connection	M6 bolts		no direct AC connection	
Weight	41 kg	51 kg	7,9 kg	13,7 kg
Dimensions (h x w x d) mm	470 x 350 x 280	470 x 350 x 280	440 x 313 x 126	487 x 434 x 146
Warranty	5 years (upgradable to 10 years)		5 years (upgradable to 10 years)	
Preprogramming	Possible	Possible	-	-



# Renewable energy storage

## OVERVIEW INVERTERS

	All-in-one Hybrid			
Belongs to kit	SOL/VIC1H3M1 - SOL/VIC1H3T1	SOL/VIC1H5M1 - SOL/VIC1H5T1 SOL/VIC1H5M2 - SOL/VIC1H5T2	SOL/AQT1H3M1 - SOL/AQT1H3T1	SOL/AQT1H5M1 - SOL/AQT1H5T1 SOL/AQT1H5M2 - SOL/AQT1H5T2
Product series	Victron EasySolar II	Victron EasySolar II	AQ-TRON® Hybrid Inverter	AQ-TRON® Hybrid Inverter
Model name	48/3000/35-32 MPPT 250/70 GX	48/5000/70-50 MPPT 250/100 GX	BAT/50556	BAT/50567
MPPT Model	MPPT 250/70-Tr	MPPT 250/100-Tr	-	-
Restrictions	-	-	-	-
<b>BATTERY</b>				
DC Battery Connection	38 - 66VDC		Nominal 51,2V	Nominal 51,2V
<b>PV (DC)</b>				
Maximum DC PV Voltage	250V		600V	
PV Start-up voltage	61V		120 V	
Number of trackers	1	1	2	2
Max. input power per MPPT	4000 W	5800 W	2000 W	3000 W
Max. input power for total MPPT	4000 W	5800 W	3990 W	6650 W
Max. efficiency (MPPT)	0,99		0,99	
<b>GRID (AC)</b>				
AC Input Voltage	Input voltage range: 187-265 VAC / Input frequency: 45 - 65 Hz		180 - 276 VAC	
AC Output	230 VAC ±2% / 50Hz ± 0,1% (60Hz)		180 - 276 VAC - 50/60Hz	
AC Phase connection	Single		Single	
Suitable for 1x 230V powergrid	Yes	Yes	Yes	Yes
Suitable for 3x 230V powergrid	Yes, Monophase connected - Phase Compensation Protocol		Yes, Monophase connected - Phase Compensation Protocol	
Suitable for 3x 400V powergrid	Yes, Monophase connected - Phase Compensation Protocol		Yes, Monophase connected - Phase Compensation Protocol	
Cont. Output power at 25°C	3000 VA / 2400 W	5000 VA / 4000 W	3000 VA / 3000 W	5000 VA / 3000 W
Max. AC input current	32A	50A	13,7 A	22,8 A
Auxilliary output	32A	50A	13 A	13 A
Maximum efficiency (Inverter)	95%	96%	97,2%	97,3%
<b>GENERAL</b>				
Interfaces	BMS-can, USB Ethernet, VE.Direct, Wi-Fi		RS485, Wifi/Ethernet/GPRS, SD, can	
Operating temp. Range	-20 to +45°C (fan assisted cooling) Max. altitude 2000m		-30 to +60°C (natural design cooling) Max. altitude 2000m	
Humidity (non-condensing)	max 95%		max 100%	
Protection category	IP21		IP65	
Battery connection	M8 bolts		M6 bolts	
PV connection	M6 bolts		4 - 6mm <sup>2</sup> connectoren	
230 VAC connection	Screw terminals 16mm <sup>2</sup> (6 AWG)		Screw terminals 16mm <sup>2</sup> (6 AWG)	
Weight	26 kg	38,6 kg	20,5 kg	20,5 kg
Dimensions (h x w x d) mm	499 x 268 x 237	604 x 323 x 253	566 x 394 x 173	
Warranty	5 years (upgradable to 10 years)		5 years	
Preprogramming	Possible	Possible	Plug & Play	Plug & Play

## HYBRID SOLUTIONS DC-DC - RESIDENTIAL (FOR NEW INSTALLATIONS)

### BATTERIES

### INVERTER KIT\*

ENERGYBOX &  
ENERGYRACK MODULE



SOL/48EB3 3kWh  
SOL/48EB5 5kWh  
SOL/48EB7 7kWh  
BAT/51035 5kWh



SINGLE-PHASE NET

THREE-PHASE NET,  
SINGLE-PHASE INVERTER

Based on AQ-TRON® hybrid

Based on AQ-TRON® hybrid

SOL/AQT1H3M1 3kVA  
SOL/AQT1H5M1 5kVA

SOL/AQT1H3T1 3kVA  
SOL/AQT1H5T1 5kVA



2 x SOL/48EB5 10kWh (2x5kWh)  
2 x SOL/48EB7 14kWh (2x7kWh)

2 x BAT/51035 10kWh (2x5kWh)

SOL/AQT1H5M2 5kVA

SOL/AQT1H5T2 5kVA



SOL/48EB3 3kWh  
SOL/48EB5 5kWh  
SOL/48EB7 7kWh  
BAT/51035 5kWh



Based on Victron EasySolar II

Based on Victron EasySolar II

SOL/VIC1H3M1 3kVA  
SOL/VIC1H3M1-L 3kVA  
SOL/VIC1H5M1 5kVA  
SOL/VIC1H5M1-L 5kVA

SOL/VIC1H3T1 3kVA  
SOL/VIC1H3T1-L 3kVA  
SOL/VIC1H5T1 5kVA  
SOL/VIC1H5T1-L 5kVA



2 x SOL/48EB5 10kWh (2x5kWh)  
2 x SOL/48EB7 14kWh (2x7kWh)

2 x BAT/51035 10kWh (2x5kWh)

SOL/VIC1H5M2 5kVA  
SOL/VIC1H5M2-L 5kVA

SOL/VIC1H5T2 5kVA  
SOL/VIC1H5T2-L 5kVA

References with additional "L" at the end are inverters with pre-programmation for easy and quick installation.

\* All inverter kits include: inverter, control gx, meters, cables,...

# Renewable energy storage

RETROFIT SOLUTIONS AC-AC - RESIDENTIAL (FOR EXISTING SOLAR PANEL INSTALLATIONS)

## BATTERIES

ENERGYBOX & ENERGYRACK MODULE



SOL/48EB3 3kWh  
SOL/48EB5 5kWh  
SOL/48EB7 7kWh  
BAT/51035 5kWh



2 x SOL/48EB5 10kWh (2x5kWh)  
2 x SOL/48EB7 14kWh (2x7kWh)



2 x BAT/51035 10kWh (2x5kWh)

## INVERTER KIT\*



SINGLE-PHASE NET

Based on AQ-TRON® retrofit

SOL/AQT1R3M1 3kVA

Based on Victron Multiplus II

SOL/VIC1R3M1 3kVA

SOL/VIC1R3M1-L 3kVA

SOL/VIC1R5M2 5kVA

SOL/VIC1R5M2-L 5kVA

THREE-PHASE NET,  
SINGLE-PHASE INVERTER

Based on AQ-TRON® retrofit

*In development*

Based on Victron Multiplus II

SOL/VIC1R3T1 3kVA

SOL/VIC1R3T1-L 3kVA

SOL/VIC1R5T2 5kVA

SOL/VIC1R5T2-L 5kVA

## BATTERIES

ENERGYRACK MODULES



SOL/48ER15PT 14.4kWh 1 x

SOL/48ER20PT 19.2kWh 3 x

## INVERTER KIT\*



SINGLE-PHASE NET

Based on Victron Multiplus II

SOL/VIC1R5M2 5kVA

SOL/VIC1R5M2-L 5kVA

-

THREE-PHASE NET,  
SINGLE-PHASE INVERTER

Based on Victron Multiplus II

SOL/VIC1R5T2 5kVA

SOL/VIC1R5T2-L 5kVA

SOL/VIC3R3T1 3 x 3kVA

## RETROFIT SOLUTIONS AC-AC - INDUSTRIAL (FOR EXISTING SOLAR PANEL INSTALLATIONS)

### BATTERIES

#### ENERGYRACK



SOL/48ER29PT 29kWh

SOL/48ER48PT 48kWh



SOL/48ER67PT 67kWh

SOL/48ER77PT 77kWh

### INVERTER KIT\*

3 x



3 x



3 x

### THREE-PHASE NET, SINGLE-PHASE INVERTER

Based on Victron Multiplus II

SOL/VIC3R3T1 3 x 3kVA

SOL/VIC3R5T1 3 x 5kVA

SOL/VIC3R8T1 3 x 8kVA

SOL/VIC3R8T1 3 x 8kVA  
OR  
SOL/VIC3R10T1 3 x 10kVA

To increase the capacity, the EnergyRacks can be placed in parallel up to 4x at AC-side by using the AQ-SMART® EMS, you only need one grid meter.

## HYBRID SOLUTIONS AC-AC - INDUSTRIAL (FOR NEW INSTALLATIONS)

All kits can be extended with separate MPPT excl. busbar.

Smartsolar MPPT RS450/100TR - 5,8kW -> BAT/50375

Smartsolar MPPT RS450/200TR - 11,6kW -> BAT/50623

### GRID AND PV METERS

	With RS485 connection	With ethernet connection
Single-phase version, for currents <100A	ET 112 : BAT/49149	
Version 3 x 230V and 3 x 400V, for currents <65A	EM24 DINAV23XISX : BAT/49982	EM24DIN AV2 3X E1 X : BAT/51187
Version 3 x 400V, for currents >65A(*)	EM24 DIN.AV5.3D.IS.X : BAT/50228	EM24 DIN AV5 3X E1 X : BAT/50840
To be ordered separately : RS485/USB adaptor	BAT/49630	
Optional: USB-HUB at 2 meters and built-in GX	BAT/50857	

(\*) For currents > 65A, current transformers CT's are placed on the power cables and connected separately to the meter. These CT's are not included and are sought by the installer on the local market. Secondary current 5A. More info at [www.gavazzionline.com/pdf/EM24DINDS.pdf](http://www.gavazzionline.com/pdf/EM24DINDS.pdf)

# Renewable energy storage

## RES SOPZS & RES SOPZV

RES SOPzS is an advanced cost-effective solution, ideal for energy storage applications, that demand long cycle life and increased watering intervals.

RES SOPzV is an exceptional combination of benefits for autonomous systems where there is demand for no water refilling.

Available as stand-alone 2V cells as well as complete system solutions in 12V, 24V, and 48V configurations, with specially designed metallic trays for trouble-free installation.

\*SOPzS are vented lead-acid batteries with tubular plates for energy storage applications

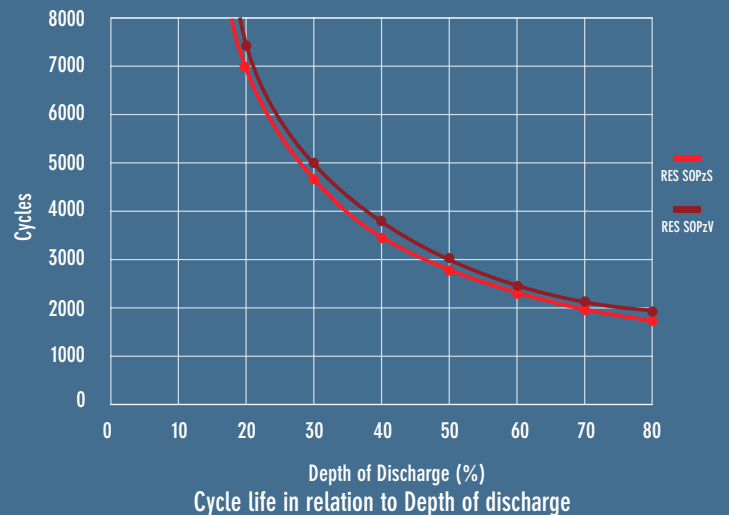
\*SOPzV are valve-regulated lead-acid batteries with tubular plates and GEL electrolyte for energy storage applications



## BENEFITS

- Minimum Maintenance Requirements
- Operational Safety
- High Capacity Performance
- Long Cycle Life: up to 2400 cycles at 50% DoD
- Fully Recyclable Product
- Circular Economy Enabler
- Modular Solution
- Complete System Installation
- Available as Option

SERVICE LIFE: 2500 (RES SOPZV) & 2300 (RES SOPZS) CYCLES DOD 60%



## APPLICATIONS



Solar

## TECHNICAL INFORMATION

For more details about layouts & terminals, flip to page 75 for more information.

## RES SOPzS



Ref.	Voltage (V)	Capacity (Ah/ C120)	CELLS			Weight (kg)
			Dimensions (mm)			
			X	Y	H	
2 RES SOPzS 215	2	215	198	65	432	11,5
3 RES SOPzS 310	2	310	198	83	432	15,4
4 RES SOPzS 390	2	392	198	83	502	18,4
5 RES SOPzS 500	2	503	198	101	502	23,3
6 RES SOPzS 605	2	605	198	119	637	28,0
5 RES SOPzS 720	2	721	198	101	637	30,5
6 RES SOPzS 860	2	860	198	119	637	36,9
7 RES SOPzS 965	2	969	198	137	637	43,4
12 RES SOPzS 1270	2	1271	198	174	637	51,6
14 RES SOPzS 1380	2	1382	198	192	637	58,1

## RES SOPzV



Ref.	Voltage (V)	Capacity (Ah/ C120)	CELLS			Weight (kg)
			Dimensions (mm)			
			X	Y	H	
2 RES SOPzV 150	2	150	198	343	367	9,0
3 RES SOPzV 225	2	225	198	343	367	12,7
4 RES SOPzV 280	2	284	198	568	592	15,4
5 RES SOPzV 425	2	426	198	568	592	22,0
6 RES SOPzV 565	2	568	198	568	592	28,7
5 RES SOPzV 710	2	710	198	568	592	35,3
6 RES SOPzV 850	2	852	198	568	592	42,1
7 RES SOPzV 990	2	994	198	568	592	48,8
8 RES SOPzV 1135	2	1136	198	568	592	55,5
7 RES SOPzV 1190	2	1190	198	713	737	60,0
8 RES SOPzV 1360	2	1360	198	713	737	68,1

