ISO 9001 QUALITY ASSURANCE

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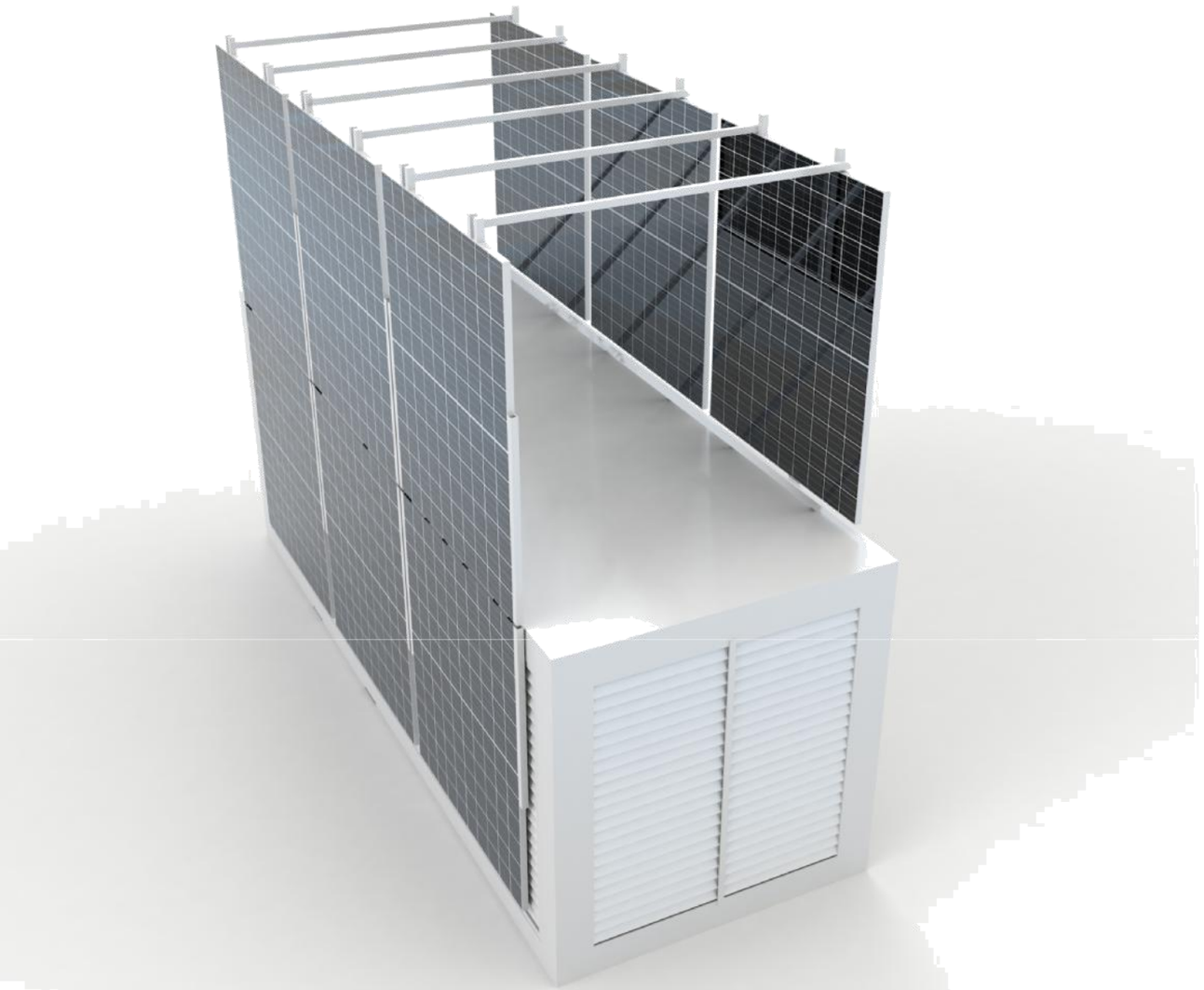
OFF GRID BOX SYSTEMS



INTRODUCTION

OFF GRID BOX SYSTEMS

is registered with the International Bureau of the World Intellectual Property Organization (WIPO), also qualifies as the patent in all member states of the Patent Cooperation Treaty

Battery

- Nominal Capacity 200 Ah C100 (20'c).
- 32 Pcs.
- 6V.
- Excellent cycling performance - 800 cycles at 60% Depth of Discharge C10 (at 20'c).
- dry fit Gel - VRLA technology
- Lowest energy consumption - saving costs.
- Robust design - resilient in harsh conditions.
- Proof of deep discharge - greater long-term energy delivery.
- Completely recyclable - low CO2 footprint.
- Long shelf life up to 2 years at 20"c without recharge due to the very low self-discharge rate.
- Designed in accordance with EC 61427 and IEC 60896-21/22.
- Manufactured in Europe in our ISO 9001 certified production plants.
- Trouble-free transport of operational blocks, no restrictions for rail, road, sea and air transportation (IATA, DGR, clause A67).
- Approval: UL (Underwriter Laboratories), DNV GL (Germanischer Loyd).

Inverters

SinusMax - Superior engineering

The design criteria produces *a pure* sine wave inverter with optimized efficiency but without compromise in performance. *The result is a top quality product with compact dimensions - Employing hybrid HF technology,* light in weight and capable of supplying power, problem-free, to any load.

Extra start-up power

A unique feature of the SinusMax technology is very high start-up power. *Inverters* are well suited to power up difficult loads such as refrigeration compressors, electric *motors,* and similar appliances.

Virtually unlimited power thanks to parallel and 3-phase operation capability

Up to 6 units inverters can operate in parallel to achieve higher power output. Six 24/5000 units, for example, *provides* 24kW / 30kVA output power. Operation in 3-phase configuration is also possible.

In *base,* operation is one 5.000kVA output power

Computer interface

All models have *an RS-485* port. All you need to connect to your PC is our MK2 interface. This interface takes care of galvanic isolation between the inverter and the *computer* and converts from RS-485 to RS-232. *An RS-232* to USB conversion cable is also available. Together with our *software, all* parameters of the inverters can *be customized. This includes* output voltage and frequency, over and under voltage settings and programming the relay. This relay *can, for example,* be used to signal several alarm *conditions* or to start a generator. The inverters can also be connected to *VENet*, the new power control network, or to other computerized monitoring and *oversight* systems.

Solar photovoltaic panels

- Solar photovoltaic modules *are designed* for large electrical power requirements.
- With a 30-year warranty, offers higher-powered, more reliable performance for the *off-grid* solar box.
- High module conversion efficiency up to 15.67% through superior manufacturing technology.
- *Low* degradation and excellent performance under high temperature and low light conditions.
- Robust aluminum frame ensures the modules to withstand wind loads up to 2400Pa and snow loads up to 5400Pa.
- Positive power tolerance of 0 ~ +3 %.
- High ammonia and salt mist resistance.
- IEC61215. IEC61730, IEC62716, IEC61701, UL1703, CE, MCS, CEC, Israel Electric, Kemco.
- IS0900L2008: Quality management system.
- IS01400L2004: Environmental management system.
- OHSAS1800L2007: Occupational health and safety management system.
- 12 year limited product warranty.
- Limited power warranty: 12 years 91.2% of the nominal power output, 30 years 80.6% of the nominal power output.
- Cell type Polycrystalline.
- Operating Temperature -40 c to +85 c.

Self-production water for *cleaning* solar panels

Water is a precious, energy-intensive commodity, and is not always readily available.
Our product saving water from Air conditioning units (cooler units)
This water is the result *of* condensing moisture on a cold surface. There is not much salt or any other substance to contaminate this water, so it can *be considered* as best water for cleaning solar panels.

Remote mining camps

In most places where located, mining camps have a problem with power supply.
This is the perfect solution for simple and quick power supply.
In addition to power supply mining camps also received cold rooms, ambulance, toilets, hot water, air-conditioning offices, sleeping rooms, and all necessary comfort.
All this without expensive oil, generators, and logistics.

- Simple installation
- Simple adjustment of sun angle from 0-180
- Simple transport

Humanitarian Aid/ Refuge/ Disaster relief camps

Any temporary settlement built to receive refugees, people in refugee-like situations, *people* who *were affected* by a *natural* disaster. Refugee camps usually accommodate displaced persons who have fled their home country, but there are also camps for internally displaced *persons*.

In most places where *located*, a *problem* with power supply is emerging.
This is the perfect solution for simple and quick power supply.

In addition to the *power supply,* these camps also receive cold rooms, ambulance, toilets, hot water, air-conditioning offices, sleeping rooms, and all necessary comfort.
All this without expensive oil, generators, and logistics.

- Simple installation
- Simple adjustment of sun angle from 0-180
- Simple transport

LE MODULE

LivingEnergy module – LE

LivingEnergy module in one box contains *cca* 9 m2 of the *air* conditioned *area for* different purposes including living and working space. It consists of entrance doors, low emission windows and everything necessary for *pleasant* living or work.

It is composed of small off *solar grid* plant, air conditioned ducted unit. *In addition*, it possesses a power supply plug for up to 3.000 W that can *be used* for power supply of appliances such as computers, lighting, ultrasounds, *EEG*, small laboratories.

The module has batteries for unlimited power *supply* in case of an *insufficient number* of sun hours. It can run for up to 36 hours without the *sun*. Furthermore, the *system* can run during cloudy periods with reduced amount of accumulated energy in batteries.

Top of the module has about 30 m2 of solar cells.(18 Pcs). Solar cells can *be bent* for transportation purpose.

CE MODULE

ColdRoomEnergy module - CE

ColdRoom Energy module in one box contains *cca* 15m32 of cooled space between 0 and 5 degrees Celsius *suitable for* storage of food and medications.

It is composed of small off *solar grid* plant, cooling units, and *walk-in* freezer, with *a good* volume of *cca* 15m3.
Self-sustainable cold *room* can maintain *0-celsius* degrees, all the time without external power, and maintenance
The module has batteries for unlimited power supply in case of an *insufficient number* of sun hours. It can run for up to 36 hours without the *sun*. Furthermore, the *system* can run during cloudy periods with reduced amount of accumulated energy in batteries.

Top of the module has about 30 m2 of solar cells.(18 Pcs). Solar cells can *be bent* for transportation purpose.

ME MODULE

MedicalEnergy module - ME

MedicalEnergy module in one box contains *cca* 9 m2 of air conditioned space for a *variety* of purposes including *ambulance*, examination room, *diagnostic and treatment rooms*. It consists of entrance doors, low emission windows and everything necessary for pleasant work.

It is composed of small off *solar grid* plant, air conditioned ducted unit. *In addition*, it possesses a power supply plug for up to 3.000 W that can *be used* for power supply of appliances such as computers, lighting, ultrasounds, EEG, small laboratories.

The module has batteries for unlimited power *supply* in case of an *insufficient number* of sun hours. It can run for up to 36 hours without the *sun*. Furthermore, the *system* can run during cloudy periods with reduced amount of accumulated energy in batteries.

Top of the module has about 30 m2 of solar cells (18 Pcs). Solar cells can *be bent* for transportation purpose.

LR MODULE

LivingRoom module – LR

LivingRoom module in one box contains *cca* 11 m2 of air conditioned space for living, offices, *etc*. It consists of entrance doors, low emission windows and everything necessary for *pleasant* living or work.

It is composed of air conditioned ducted units and must *be combined* with Energy Module. Depending on the size of Energy module, in addition to air conditioning, it possesses a power supply plug from 3.000 to 30.000 W, that can *be used* for power supply of computers, lighting, ultrasounds, *EEG*, small laboratories, *etc*.

The module uses batteries from Energy module for unlimited power *supply* in case of an *insufficient number* of sun hours. Depending on the size of energy module, it can run for up to 5 days without the *sun*. Furthermore, the *system* can run during cloudy periods with reduced amount of accumulated energy in batteries.

More Energy modules can be combined with one Living module thus increasing strength and self-sustainability. Also, more Living modules can *be connected* to one Energy module.
Top of the module has about 30 m2 of solar cells.(18 Pcs). Solar cells can *be bent* for transportation purpose.

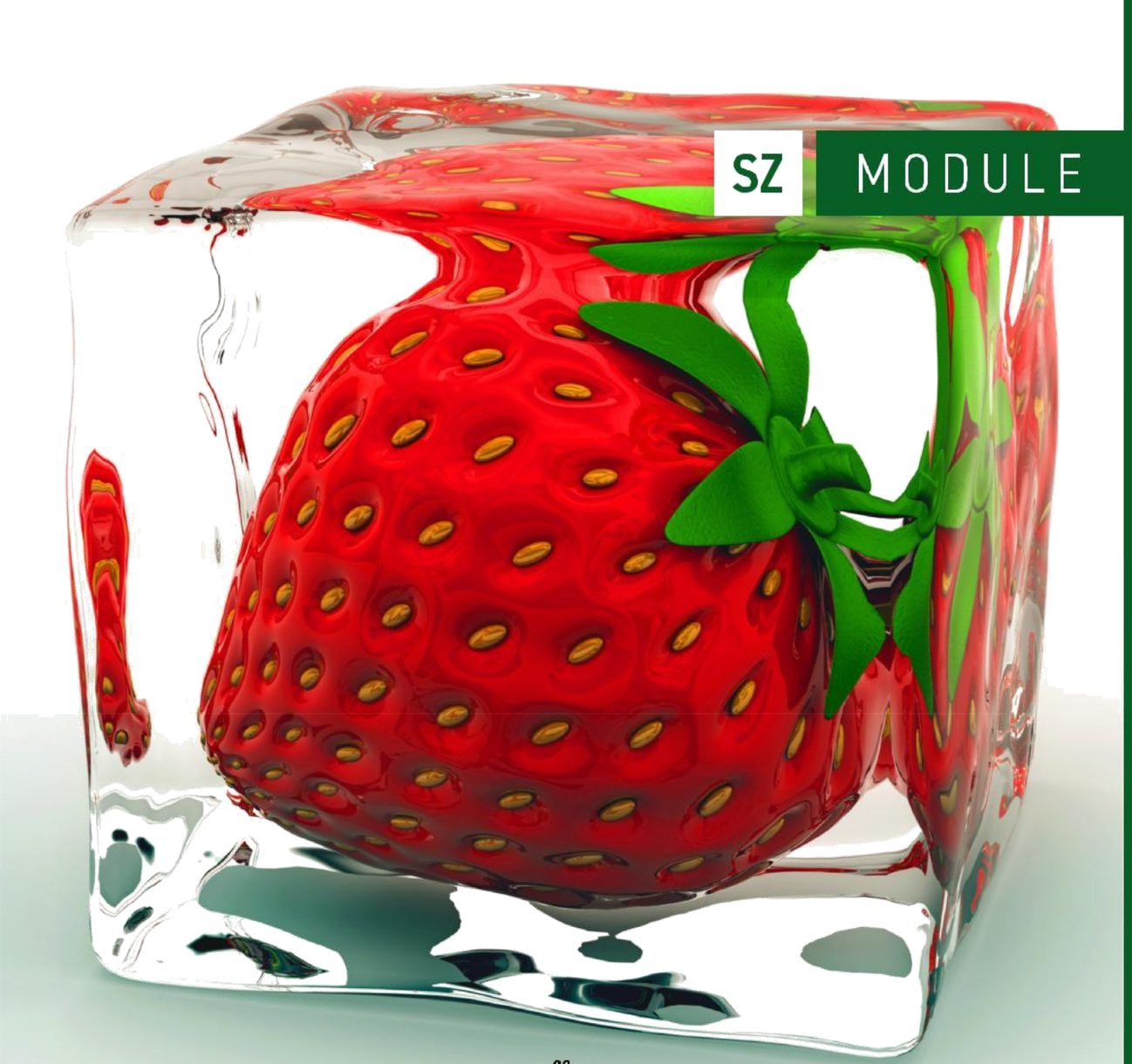
CR MODULE

ColdRoom module - CR

ColdRoom module in one box contains *cca* 18 m3 of cooled space between 0 and 5 degrees Celsius *suitable for* storage of food and medications.
It is composed of, cooling units, and *walk-in* freezer, with usable volume of *cca* 15m3

The module uses batteries from Energy module for unlimited power supply in case of an *insufficient number* of sun hours. Depending on the size of energy module, it can run for up to 3 days without the *sun*. Furthermore, the *system* can run during cloudy periods with reduced amount of accumulated energy in batteries.
More Energy modules can be combined with one ColdRoom module thus increasing strength and self-sustainability. Also, more ColdRoom modules can *be combined* with one Energy module.

Top of the module has about 30 m2 of solar cells.(18 Pcs). Solar cells can *be bent* for transportation purpose.



SZ MODULE

SubZero module - SZ

The SubZero module in one box contains *cca* 20m3 of cooled space below 0 degrees, up to -20 degrees Celsius *suitable for* storage of frozen food and medications that *acquire* lower temperature storage.

It is composed of cooling units and must *be combined* with Energy Module. *The module* uses batteries from Energy module for unlimited power supply in case of an *insufficient number* of sun hours. Depending on the size of energy module, it can run for up to 36 hours without the *sun*. Furthermore, the *system* can run during cloudy periods with reduced amount of accumulated energy in batteries.
Self-sustainable walk in *freezer* can maintain *-20-celsius* degrees, all the time without external power, and maintenance

More Energy modules can be combined with one SubZero module thus increasing strength and self-sustainability. Also, more SubZero modules can *be combined* with one Energy module.

Top of the module has about 30 m2 of solar cells.(18 Pcs). Solar cells can *be bent* for transportation purpose.

Medical module – M

The Medical module in one box contains *cca* 11 m2 of air conditioned space for an *ambulance*, medical room, *etc*. It consists of entrance doors, low emission windows and everything necessary for pleasant work.

It is composed of air conditioned ducted units and must *be combined* with Energy Module. Depending on the size of Energy module, in addition to air conditioning, it possesses a power supply plug from 3.000 to 30.000 W, that can *be used* for power supply of computers, lighting, ultrasounds, EEG, small laboratories, *etc*.

The module uses batteries from Energy module for unlimited power *supply* in case of an *insufficient number* of sun hours. Depending on the size of energy module, it can run for up to 5 days without the *sun*. Furthermore, the *system* can run during cloudy periods with reduced amount of accumulated energy in batteries.

More Energy modules can be combined with one Living module thus increasing strength and self-sustainability. Also, more Living modules can *be combined* with one Energy module.

Top of the module has about 30 m2 of solar cells.(18 Pcs). Solar cells can *be bent* for transportation purpose.

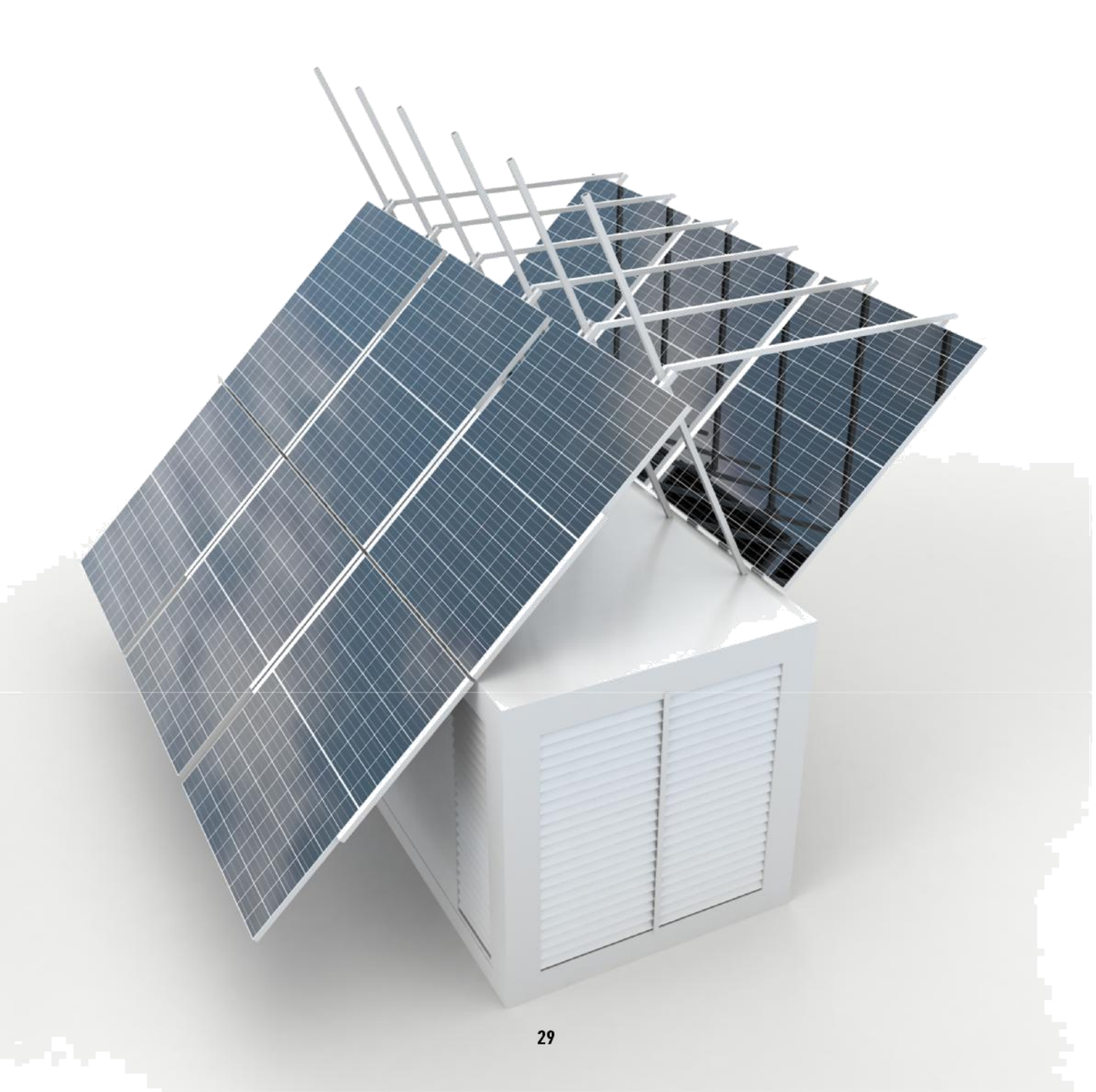
E MODULE

Energy module - E

Energy module is one box composed only **of** battery and equipment necessary for the **production** of AC 1 phase 220V power (E1 module). It can also produce AC 3 phase, 380V (E3 module)

Module size depends on the number of **batteries** and can vary from 6.400Ah/6V, up to 38.400Ah/6V. They can produce from 5.000kVA up to **30.000kVA, power** supply, per one Energy module, depending on the number of attached modules with solar panels.
Energy modules can **be combined** with SubZero modules and Living modules.

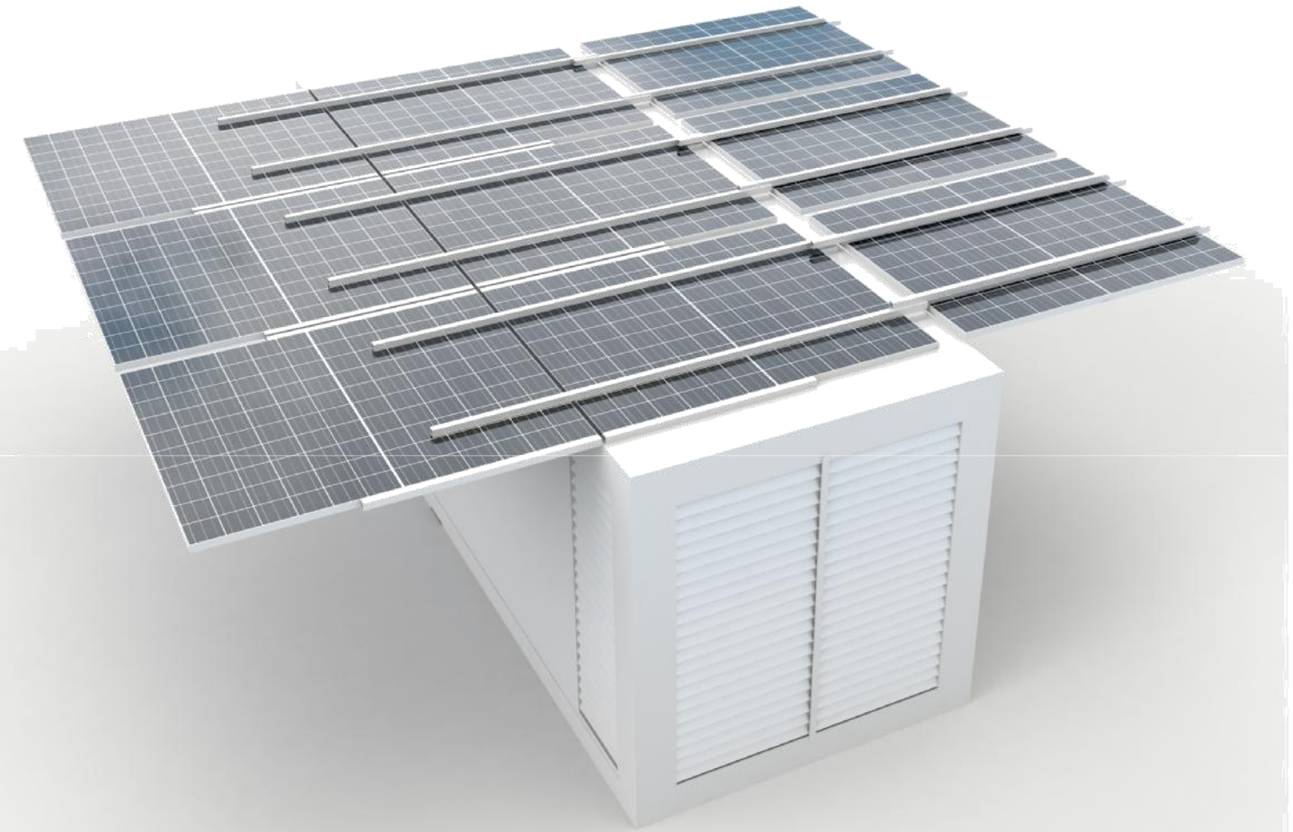
Top of the module has about 30 m2 of solar cells.(18 Pcs). Solar cells can **be bent** for transportation purpose.



TECHNICAL

Technical specifications

Module	Outside dimensions (dimension without solar cell holder)			Inside usable dimension (without mechanical space)			Number of solar cells/total	Number/Size of batteries	Inverter power AC
	W [mm]	*H [mm]*	*L [mm]*	*W [mm]*	*H [mm]*	*L [mm]*	*[Pcs/W]*	*[Pcs/Ah(V)]*	*[VA]*
LE	2.300 (2.166)	2.300 (2.250)	5.860	2.150	2.000	4.100	18/4.600W	32/200Ah (6V)	5.000
CE				1.950	1.900	4.000		32/200Ah (6V)	5.000
ME				2.150	2.000	4.100		32/200Ah (6V)	5.000
LR				2.150	2.000	5.100		X	X
CR				1.950	1.900	5.000		X	X
SZ				1.900	1.900	4.600		X	X
M				2.150	2.000	5.100		X	X
E				X	X	X		32-192/200Ah (6V)	5.000-30.000



Solar kit for existing containers

Furthermore, we offer solar kits, which can *be installed* to the existing containers. In such way, *containers* become *self-sustainable*.

- Simple installation
- Simple disassembling
- Simple adjustment of sun angle from 0-180

Can be installed for the *energy* supply of the w*hole* camp.