

AKKON AG

the TOTAL SOLUTION provider

off-grid systems

2011

off-grid

Sunny Island System S

Robust and powerful 12 Volt DC off-grid photovoltaic system, made in Switzerland. Portability coupled with good performance - ideal for lighting, radio and laptops, in huts and small shops.

Advantages:

- Ease of use: Plug and Play, ready for operation after plug in of the photovoltaic module
- Robustness: Developed to withstand harsh climatic conditions, solid stackable aluminum design guarantees no damage to internal electronics even under large mechanical loads
- Quality: All connectors protected against water and dust. Inside the SolarSystem a fully encapsulated industrial charge controller guarantees the optimum performance of a maintenance-free, sealed solar gel-battery for many years
- Modular: Possibility to extend the system by connecting additional SolarSystems or photovoltaic-modules in parallel
- Flexibility: Possibility to connect an external DC-AC Inverter
- Mobile



Features	
System voltage	12 V _{DC}
Battery	540 Wh
Incl.	1 water resistant DC- lamp
Weight	18 kg
Guarantee	2 Years
Photovoltaics	30 Wp
Price	1.220,-US \$ *

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Technical Specifications

Sunny Island System "S"	
System voltage	12 V _{DC}
Battery technology	Maintenance free solar gel battery
Battery capacity	540 Wh 45 Ah C10 12 V
Max. PV input	300 Wp
Charge controller	Morningstar
Max load	20 A _{DC}
Protection	Low and high voltage protection
Low Voltage disconnect/reconnect	11.4 / 12.6 V
Weight	18 kg
Dimensions	0.3 x 0.25 x 0.25 m
Connectors	1 x PV-In (polarity protected) 1 x PV-In / Out battery direct (polarity protected) 3 x Out 12 V cigarette lighter connector
Extension possibilities	Yes, modules or SolarSystems
Inverter connection	Yes / external
Charger connection	Yes / external
Photovoltaicmodule (external)	
PV-Module	30 Wp (monocrystallin, aluminum frame)
Weight	3.5 kg
Dimensions	0.63 x 0.43 x 0.03 m
Cable	Double coated Radox solar cables
DC Lamp	
Technology	9 W _{DC} energy saving lamp, water resistant, electronic ballast integrated in lamp (not bulb)
Weight	0.87 kg
Dimensions	0.26 x 0.33 x 0.05 m
Cable	5 m with cigarette lighter connector
Guarantee	
Solarsystem	2 years
Charge controller	5 years
PV-Module	7 years / 25 years performance

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Sunny Island System M

Robust and powerful 12 Volt DC off-grid photovoltaic-system, made in Switzerland, ideal for applications where several operating hours of e.g. lights, radios, television or medicinal cooling is required, in buildings, small shops and small offices, household appliances.

Advantages:

- **Ease of use:** Plug and Play, ready for operation after plug in of the photovoltaic module
- **Robustness:** Developed to withstand harsh climatic conditions, solid stackable aluminum design guarantees no damage to internal electronics even under large mechanical loads
- **Quality:** All connectors protected against water and dust. Inside the SolarSystems a fully encapsulated industrial charge controller guarantees the optimum performance of a maintenance-free, sealed solar gel-battery for many years
- **Modular:** Possibility to extend the system by connecting additional SolarSystem or photovoltaic-modules in parallel
- **Flexibility:** Possibility to connect an external DC-AC Inverter
- **Mobile**



Features	
System voltage	12 V _{DC}
Battery	2400 Wh
Incl.	1 water resistant DC- lamp
Weight	68 kg
Guarantee	2 Years
Photovoltaics	130 Wp 260 Wp
Price	2.460,- US \$* 3.290,- US \$*

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Technical Specifications

Sunny Island System "M"	
System voltage	12 V _{DC}
Battery technology	Maintenance free solar gel battery
Battery capacity	2400 Wh 200 Ah C10 12 V
Max. PV input	300 Wp
Charge controller	Morningstar
Max load	20 A _{DC}
Protection	Low and high voltage protection
Low Voltage disconnect/reconnect	11.4 / 12.6 V
Weight	68 kg
Dimensions	0.64 x 0.29 x 0.29 m
Connectors	1 x PV-In (polarity protected) 1 x PV-In / Out battery direct (polarity protected) 3 x Out 12 V cigarette lighter connector
Extension possibilities	Yes, modules or Solarsystems
Inverter connection	Yes / external
Charger connection	Yes / external
Photovoltaicmodule (external)	
PV-Module	130/260 Wp (polycrystallin, aluminum frame)
Weight	12.5 kg
Dimensions	1.49 x 0.67 x 0.04 m
Cable	Double coated Radox solar cables
DC Lamp	
Technology	9 W _{DC} energy saving lamp, water resistant, electronic ballast integrated in lamp (not bulb)
Weight	0.87 kg
Dimensions	0.26 x 0.33 x 0.05 m (packed)
Cable	5 m with cigarette lighter connector
Guarantee	
Solarsystem	2 years
Charge controller	5 years
PV-Module	7 years / 25 years performance

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Sunny Island System L

Robust and powerful off-grid photovoltaic-system, made in Switzerland, ideal for applications where several operating hours of e.g. lights, radios, television or medicinal cooling is required, in buildings, with 2 bedroom house of apartment, small shop and offices.

Advantages:

- Ease of use: Plug and Play, ready for operation after plug in of the photovoltaic module
- Robustness: Developed to withstand harsh climatic conditions, solid stackable aluminum design guarantees no damage to internal electronics even under large mechanical loads
- Quality: All connectors protected against water and dust. Inside the SolarSystem a fully encapsulated industrial charge controller guarantees the optimum performance of a maintenance-free, sealed solar gel-battery for many years
- Modular: Possibility to extend the system by connecting additional SolarSystem or photovoltaic-modules in parallel
- Flexibility: Possibility to connect an external battery charger
- Mobile



Features	
System voltage	230 V _{AC}
Battery	2400 Wh
Incl.	1 water resistant DC- lamp
Weight	85 kg
Guarantee	2 Years
Photovoltaics	130 Wp 260 Wp
Inverter 200 W _{AC}	3.650,- US \$* 4.480,- US \$*
Inverter 500 W _{AC}	4.050,- US \$* 4.880,- US \$*

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Technical Specifications

Sunny Island System "L"	
System voltage	12 V _{DC} / 230 V _{AC}
Battery technology	Maintenance free solar gel battery
Battery capacity	2400 Wh 200 Ah C10 12 V
Max. PV input	300 Wp
Inverter	Studer Innotec
Continuous power	200 W
Charge controller	Morningstar
Max load	20 A _{DC}
Protection	Safety and protection to Swiss standards. Low and high voltage protection, low voltage reconnect, overheating-, overload- and short circuit protection, RCD-protection
Weight	85 kg
Dimensions	0.78 x 0.34 x 0.35 m
Connectors	1 x PV-In (polarity protected) 1 x PV-In / Out battery direct (polarity protected) 2 x Out 12 V cigarette lighter connector 1 x Out 230 V _{AC}
Extension possibilities	Yes, modules or solarsystems
Charger connection	Yes / external
Photovoltaicmodule (external)	
PV-Module	130 Wp (monocrystallin, aluminum frame)
Weight	12.5 kg
Dimensions	1.49 x 0.67 x 0.04 m
Cable	Double coated Radox solar cables
Guarantee	
Solarsystem	2 years
Charge controller	5 years
PV-Module	7 years / 25 years performance
Inverter	2 years

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Sunny Island System XL 20 kWh /48 V_{DC}

Modular and robust solar off-grid system, made in Switzerland. Consisting of SolarSystem Control Unit and Battery Units. Ideal PV stand-alone solution for large energy requirements - households, offices, schools, hospitals, telecom installations... UPS (Uninterrupted Power Supply) on request.

Advantages:

- **Ease of use:** Plug and Play, ready for operation after plug in of the photovoltaic module
- **Robustness:** Developed to withstand harsh climatic conditions, solid IP 66 control cabinets
- **Quality:** Optimised quality components. All connectors are protected against water and dust
- **Modular:** Possibility to extend the system by connecting additional Solarsystem Control Units and Battery Units in parallel
- **UPS:** on request



Features

1 x Solarsystem Control Unit	rated voltage: 48 V _{DC} / 230 V _{AC} 50 Hz safety & protection Swiss standard 1x Grid/ Off-grid inverter with Display Inverter 2,6/2kW, 30A, Dim: 0,6 x 0,6 x 0,4m /weight: 50 kg
4 x Solarsystem Battery-Unit total 20 kWh C10	rated voltage: 24 V _{DC} battery capacity: 5 kWh each C 10 sealed maintenance free SolarBatteries design life 15 years (Oerlikon Akkus Switzerland), Dim: 0,6 x 0,6 x 0,4m each / weight: 180 kg each
9 x PV-Modules	Polycrystallin PV-Module 235 Wp Dim: 1,7 x 1,0 x 0,04m (each) weight: 17,5 kg (each)
Aluminium Structure for module mounting	Aluminum structure Radox solar cable Plugs div. Installation Materials
price (sample) for PV power: 2115 Wp Akku 20 kWh	30.500,- US \$ *

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Technical Specifications

Sunny Island System "XL" 20 kWh /48 V _{DC}	
System voltage	24 V _{DC} 48 V _{DC} 230 V _{AC}
Inverter	Studer Innotec
Continuous power	> 200 W
Charge controller	Morningstar
PV Input	> 200 Wp
UPS	on request
Connectors	1 x PV-In (IP66 /IP 68) 1 x PV-In 230 V _{AC} UPS Connectors (IP 66/IP68) 2 x Out 230 V _{AC} (IP 57/IP66)
Weight	> 50 kg
Dimensions	0.60 x 0.60 x 0.4 m
Connectors	Safety and protection to Swiss standard. Low and high voltage protection, low voltage reconnect, overheating-, overload- and short circuit protection, RCD-protection



Solarsystem Battery-Unit	
Batteries	Maintenance free Oerlikon solar batteries design life 15 years
Battery-Capacity	5 kWh C10
Weight	180 kg
Dimensions	0.60 x 0.60 x 0.40 m
PV- Module	
PV-Modul	> 2 x 235 Wp (poly-Si)
Weight	17,5 kg
Dimensions	1.7 x 1.00 x 0.04 m
Cable	double coated Radox solar cables
Guarantee	
Solarsystem	2 years
Charge controller	5 years
PV-Module	7 years / 25 years performance
Inverter	2 years



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Sunny Island System XL 130 kWh /24 V_{DC}

Modular and robust solar off-grid system, made in Switzerland. Consisting of SolarSystem Control Unit and Battery Units. Ideal PV stand-alone solution for large energy requirements - households, offices, schools, hospitals, telecom installations... UPS (Uninterrupted Power Supply) on request.

Advantages:

- **Ease of use:** Plug and Play, ready for operation after plug in of the photovoltaic module
- **Robustness:** Developed to withstand harsh climatic conditions, solid IP 66 control cabinets
- **Quality:** Optimised quality components. All connectors are protected against water and dust
- **Modular:** Possibility to extend the system by connecting additional Solarsystem Control Units and Battery Units in parallel
- **UPS:** on request



Features

1 x Solarsystem Control Unit	rated voltage: 24 V _{DC} / 230/400 V _{AC} 50 Hz safety & protections to Swiss standards 1x Grid/ Off-grid inverter with Display Inverter 3 x 2,9 kW, Dim: 1,2 x 1,6 x 0,4m / weight: 400 kg
1 x Solarsystem Battery-Unit total 130 kWh C10	rated voltage: 48 V _{DC} battery capacity: 130 kWh each C 10 sealed maintenance free SolarBatteries), Dim: 30,2 x 19 x 8 m each /weight: 5520 kg each
60 x PV-Modules	Polycrystallin PV-Module 235 Wp Dim: 1,7 x 1,0 x 0,04m (each) weight: 17,5 kg (each)
Aluminium Structure for module mounting	Aluminum structure Radox solar cable Plugs div. Installation Materials
price (sample) for PV power: 14 100Wp Akku 130 kWh	148.086,- US \$ *

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Technical Specifications

Sunny Island System "XL" 130 kWh / 24 V _{DC}	
System voltage	24 V _{DC} 230 V _{AC}
Inverter	SMA
Continuous power	> 14.100 W
Charge controller	SMA
PV Input	> 14.100 Wp
UPS	on request
Connectors	1 x PV-In (IP66 /IP 68) 1 x PV-In 230 V _{AC} UPS Connectors (IP 66/IP68) 2 x Out 230 V _{AC} (IP 57/IP66)
Weight	400 kg
Dimensions	1.20 x 1.60 x 0.4 m
Connectors	Safety and protection to Swiss standard. Low and high voltage protection, low voltage reconnect, overheating-, overload- and short circuit protection, RCD-protection



Solarsystem Battery-Unit	
Batteries	Hoppecke
Battery-Capacity	130 kWh C10
Weight	5520 kg
Dimensions	30.20 x 19 x 8 m
PV- Module	
PV-Modul	60 x 235 Wp (poly-Si)
Weight	17,5 kg
Dimensions	1.7 x 1.00 x 0.04 m
Cable	double coated Radox solar cables
Guarantee	
Solarsystem	2 years
Charge controller	5 years
PV-Module	7 years / 25 years performance
Inverter	5 years



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Sunny Island System XL 130 kWh/ 48 V_{DC}

Modular and robust solar off-grid system, made in Switzerland. Consisting of SolarSystem Control Unit and Battery Units. Ideal PV stand-alone solution for large energy requirements - households, offices, schools, hospitals, telecom installations... UPS (Uninterrupted Power Supply) on request.

Advantages:

- **Ease of use:** Plug and Play, ready for operation after plug in of the photovoltaic module
- **Robustness:** Developed to withstand harsh climatic conditions, solid IP 66 control cabinets
- **Quality:** Optimised quality components. All connectors are protected against water and dust
- **Modular:** Possibility to extend the system by connecting additional Solarsystem Control Units and Battery Units in parallel
- **UPS:** on request



Features

1 x Solarsystem Control Unit	rated voltage: 48 V _{DC} / 230/400 V _{AC} 50 Hz safety & protections to Swiss standards 1x Grid/ Off-grid inverter with Display Inverter 3 x 5 kW, Dim: 1,2 x 1,6 x 0,4m / weight: 400 kg
1 x Solarsystem Battery-Unit total 130 kWh C10	rated voltage: 48 V _{DC} battery capacity: 130 kWh each C 10 sealed maintenance free SolarBatteries), Dim: 30,2 x 19 x 8 m each /weight: 5520 kg each
60 x PV-Modules	Polycrystallin PV-Module 235 Wp Dim: 1,7 x 1,0 x 0,04m (each) weight: 17,5 kg (each)
Aluminium Structure for module mounting	Aluminum structure Radox solar cable Plugs div. Installation Materials
price (sample) for PV power: 14 100Wp Akku 130 kWh	155.384,- US \$ *

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Technical Specifications

Sunny Island System "XL" 130 kWh/ 48 V _{DC}	
System voltage	48 V _{DC} 230 V _{AC}
Inverter	SMA
Continuous power	> 14.100 W
Charge controller	SMA
PV Input	> 14.100 Wp
UPS	on request
Connectors	1 x PV-In (IP66 /IP 68) 1 x PV-In 230 V _{AC} UPS Connectors (IP 66/IP68) 2 x Out 230 V _{AC} (IP 57/IP66)
Weight	400 kg
Dimensions	1.20 x 1.60 x 0.4 m
Connectors	Safety and protection to Swiss standard. Low and high voltage protection, low voltage reconnect, overheating-, overload- and short circuit protection, RCD-protection

Solarsystem Battery-Unit	
Batteries	Hoppecke
Battery-Capacity	130 kWh C10
Weight	5520 kg
Dimensions	30.20 x 19 x 8 m

PV- Module	
PV-Modul	60 x 235 Wp (poly-Si)
Weight	17,5 kg
Dimensions	1.7 x 1.00 x 0.04 m
Cable	double coated Radox solar cables

Guarantee	
Solarsystem	2 years
Charge controller	5 years
PV-Module	7 years / 25 years performance
Inverter	5 years



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Sunny Island System XL 150 kWh/ 24 V_{DC}

Modular and robust solar off-grid system, made in Switzerland. Consisting of SolarSystem Control Unit and Battery Units. Ideal PV stand-alone solution for large energy requirements - households, offices, schools, hospitals, telecom installations... UPS (Uninterrupted Power Supply) on request.

Advantages:

- **Ease of use:** Plug and Play, ready for operation after plug in of the photovoltaic module
- **Robustness:** Developed to withstand harsh climatic conditions, solid IP 66 control cabinets
- **Quality:** Optimised quality components. All connectors are protected against water and dust
- **Modular:** Possibility to extend the system by connecting additional Solarsystem Control Units and Battery Units in parallel
- **UPS:** on request



Features

1 x Solarsystem Control Unit	rated voltage: 24 V _{DC} / 230/400 V _{AC} 50 Hz safety & protections to Swiss standards 1x Grid/ Off-grid inverter with Display Inverter 3 x 2,9 kW, Dim: 1,2 x 1,6 x 0,4m / weight: 400 kg
1 x Solarsystem Battery-Unit total 150 kWh C10	rated voltage: 24 V _{DC} battery capacity: 150 kWh each C 10 sealed maintenance free SolarBatteries), Dim: 37 x 19 x 8 m each /weight: 6500 kg each
72 x PV-Modules	Polycrystallin PV-Module 235 Wp Dim: 1,7 x 1,0 x 0,04m (each) weight: 17,5 kg (each)
Aluminium Structure for module mounting	Aluminum structure Radox solar cable Plugs div. Installation Materials
price (sample) for PV power: 14 100Wp Akku 130 kWh	169.345,- US \$ *

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Technical Specifications

Sunny Island System "XL" 150 kWh/ 24 V _{DC}	
System voltage	24 V _{DC} 230 V _{AC}
Inverter	SMA
Continuous power	> 16.900 W
Charge controller	SMA
PV Input	> 16.900 Wp
UPS	on request
Connectors	1 x PV-In (IP66 /IP 68) 1 x PV-In 230 V _{AC} UPS Connectors (IP 66/IP68) 2 x Out 230 V _{AC} (IP 57/IP66)
Weight	400 kg
Dimensions	1.20 x 1.60 x 0.4 m
Connectors	Safety and protection to Swiss standard. Low and high voltage protection, low voltage reconnect, overheating-, overload- and short circuit protection, RCD-protection



Solarsystem Battery-Unit	
Batteries	Hoppecke
Battery-Capacity	150 kWh C10
Weight	6500 kg
Dimensions	37 x 19 x 8 m
PV- Module	
PV-Modul	72 x 235 Wp (poly-Si)
Weight	17,5 kg
Dimensions	1.7 x 1.00 x 0.04 m
Cable	double coated Radox solar cables
Guarantee	
Solarsystem	2 years
Charge controller	5 years
PV-Module	7 years / 25 years performance
Inverter	5 years



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Sunny Island System XL 197 kWh/ 48 V_{DC}

Modular and robust solar off-grid system, made in Switzerland. Consisting of SolarSystem Control Unit and Battery Units. Ideal PV stand-alone solution for large energy requirements - households, offices, schools, hospitals, telecom installations... UPS (Uninterrupted Power Supply) on request.

Advantages:

- **Ease of use:** Plug and Play, ready for operation after plug in of the photovoltaic module
- **Robustness:** Developed to withstand harsh climatic conditions, solid IP 66 control cabinets
- **Quality:** Optimised quality components. All connectors are protected against water and dust
- **Modular:** Possibility to extend the system by connecting additional Solarsystem Control Units and Battery Units in parallel
- **UPS:** on request



Features

1 x Solarsystem Control Unit	rated voltage: 48 V _{DC} / 230/400 V _{AC} 50 Hz safety & protections to Swiss standards 2 x Grid/ Off-grid inverter with Display Inverter 3 x 5 kW, Dim: 1,2 x 1,6 x 0,4m / weight: 400 kg
1 x Solarsystem Battery-Unit total 150 kWh C10	rated voltage: 48 V _{DC} battery capacity: 197 kWh each C 10 sealed maintenance free SolarBatteries), Dim: 43 x 19 x 8 m each /weight: 7639 kg each
94 x PV-Modules	Polycrystallin PV-Module 235 Wp Dim: 1,7 x 1,0 x 0,04m (each) weight: 17,5 kg (each)
Aluminium Structure for module mounting	Aluminum structure Radox solar cable Plugs div. Installation Materials
price (sample) for PV power: 22.900 Wp Akku 197 kWh	207.072,- US \$ *

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Technical Specifications

Sunny Island System "XL" 197 kWh/ 48 V _{DC}	
System voltage	24 V _{DC} 230 V _{AC}
Inverter	SMA
Continuous power	> 16.900 W
Charge controller	SMA
PV Input	> 16.900 Wp
UPS	on request
Connectors	1 x PV-In (IP66 /IP 68) 1 x PV-In 230 V _{AC} UPS Connectors (IP 66/IP68) 2 x Out 230 V _{AC} (IP 57/IP66)
Weight	400 kg
Dimensions	1.20 x 1.60 x 0.4 m
Connectors	Safety and protection to Swiss standard. Low and high voltage protection, low voltage reconnect, overheating-, overload- and short circuit protection, RCD-protection



Solarsystem Battery-Unit	
Batteries	Hoppecke
Battery-Capacity	150 kWh C10
Weight	6500 kg
Dimensions	37 x 19 x 8 m
PV- Module	
PV-Modul	72 x 235 Wp (poly-Si)
Weight	17,5 kg
Dimensions	1.7 x 1.00 x 0.04 m
Cable	double coated Radox solar cables
Guarantee	
Solarsystem	2 years
Charge controller	5 years
PV-Module	7 years / 25 years performance
Inverter	5 years



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Sunny Radio

The Sunny Radio with solar module and a hand crank allows you to be independent of electrical connection and batteries.

Features:

- Batteries are rechargeable with solar energy
- Hand crank may be used at lack of sunshine
- USB connector to charge with notebook
- Headphone connection
- FM and AM reception

Free energy:

Power supply will not be a problem. This radio can be charges by three different methods.

1. When the sun is shining the built in solar module will charge the rechargeable battery automatically
2. If there is no sunlight, use the hand crank to charge the radio.
3. The radio is also chargeable with any notebook via the USB cable.



Features	
FM tuning range	88-108 mHz
AM tuning range	530-1650 KHz
Radio frequency	>100
Listen to radio after 1 minute cranking	about 20 min
Listen to radio after 1 hour of solar charging	about 40 min
Maximum current after solar charging	40 mA
Listen radio with fully charged batterie	about 7 h
Dimensions (l x w x h)	130 x 73 x 41 mm
Weight	220 g
Price	22,- US \$ *

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