



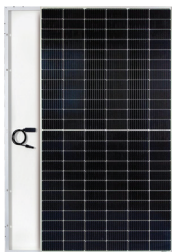
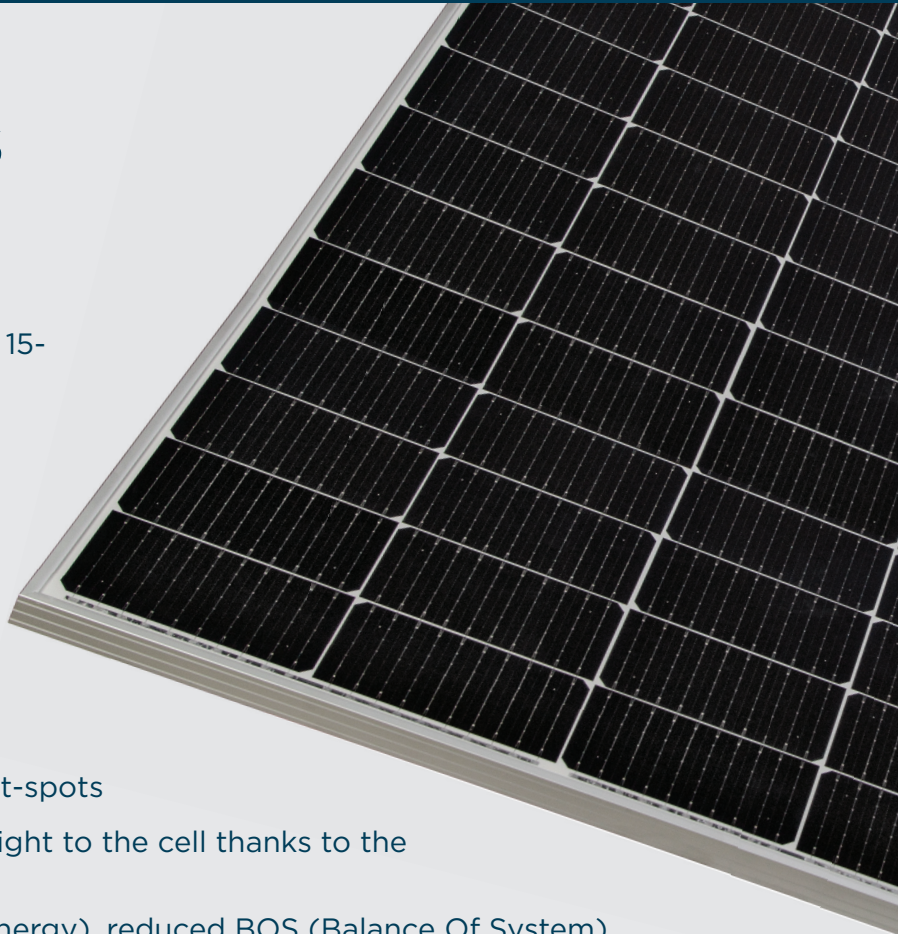
SOLAR SOLUTIONS **OVERVIEW**



Rethinking Water

Solar PV Panels 420/540W

- 25-year performance guarantee & 15-year product warranty
- Up to 21.28 % module efficiency equal to 212.8 Wp/m²
- Two independent section design secures a higher energy yield under shaded conditions
- Half-cut design in combination with multi-busbar reduces operating current and internal resistance
- Lower risk of micro-cracks and hot-spots
- Less shading and more reflected light to the cell thanks to the round ribbon design
- Lower LCOE (Levelized Cost Of Energy), reduced BOS (Balance Of System) cost, shorter payback time
- Long cable as standard suitable for landscape configurations. The 420W PV panel has a 1100mm length cable and the 540W PV panel has a 1400mm length cable



Solar PV Panel (25 Year Warranty)

MODEL	STOCK CODE	PRICE	POWER	OPEN CIRCUIT VOLTAGE	SHORT CIRCUIT CURRENT	MODULE EFFICIENCY	WEIGHT
		€	W	(Voc) V	(Isc) A	%	KG
Futurasun							
540 W PV Panels (Aluminium Frame)	1199685	POA	540	49.66	13.77	20.89	28.2
420 W PV Panels (Black Frame)	1200819	POA	420	38.06	14.09	21.80	20.8
540 W PV Panels (Black Frame)	1200818	POA	540	49.66	13.77	20.89	28.2



Inverters

The solar inverter or PV inverter is a vital component of a solar photovoltaic (PV) system. It converts the direct current (DC) electricity captured by solar panels, into alternating current (AC), which is the standard flow of electricity required for electrical circuits and domestic appliances.

Hybrid Inverter

A hybrid inverter is essentially a combination of an inverter, a charge controller, and a grid-tie function. A solar inverter can intelligently handle power coming from your PV panels, batteries, and the utility grid all at the same time. It will allow you to export to the Grid when there is surplus power available.

All-in-One Inverter & Battery

This is the premium hybrid all-in-one system, with an inverter and battery rolled into one. It combines the functionality of a standard PV inverter with the added benefits of a battery storage system. These are designed aesthetically for both indoor or outdoor installation with the relevant IP rating.

Grid Tied Inverter

A grid-tied PV inverter is a device that converts the direct current into alternating current. The converted power can be used to power household appliances when there is sufficient light on the PV panel during the day. You cannot store any of the solar energy in Batteries with these inverters. Some types of this inverter will allow export to the Grid if there is surplus solar power.



Single Phase Hybrid Inverter (10 Year Warranty)

MODEL	STOCK CODE	PRICE €	MAX. INPUT POWER W	NOMINAL OUTPUT POWER W	NOMINAL OUTPUT CURRENT A	MAX INPUT VOLTAGE V	WEIGHT KG
Livoltek							
5kW Hybrid Inverter	1199930	POA	7500	5000	23.9	600	30
Ecactus							
5kW Hybrid Inverter	1200923	POA	6650	5000	26.1	600	19.8
6kW Hybrid Inverter	1200924	POA	8000	6000	31.3	600	19.8

Technical Data: Single Phase Hybrid Inverter

MODEL	NO. OF MPPT	STRINGS PER MPPT	NOMINAL VOLTAGE V	EFFICIENCIES %	IP RATING
Livoltek					
5kW Hybrid Inverter	2	1	360	97.8	65
Ecactus					
5kW Hybrid Inverter	2	1	360	97.6	65
6kW Hybrid Inverter	2	1	360	97.6	65



Single Phase All-in-One Inverter & Battery (10 Year Warranty)

MODEL	STOCK CODE	PRICE	MAX INPUT POWER	NOMINAL OUTPUT POWER	NO. OF MPPT	STRINGS PER MPPT	MAX OUTPUT CURRENT
		€	W	W			A
Livoltek							
5kW Hybrid Inverter + 5kW Battery	1200205	POA	7500	5000	2	1	21.7
5kW Hybrid Inverter + 10kW Battery	1200206	POA	7500	5000	2	1	21.7
Ecactus							
5kW Hybrid Inverter + 5kW Battery	1200855	POA	6650	4600	2	1	23.9
5kW Hybrid Inverter + 10kW Battery	1200886	POA	6650	5000	2	1	23.9
6kW Hybrid Inverter + 10kW Battery	1199660	POA	8000	6000	2	1	28.7

Technical Data: Single Phase All-in-One Inverter & Battery

MODEL	INVERTER	MAX PV INPUT VOLTAGE	EFFICIENCIES	WEIGHT OF INVERTER & BATTERY	BATTERY	DEPTH OF DISCHARGE	CELL TYPE	CYCLE LIFETIME	MAX CHARGE CURRENT	MAX DISCHARGE CURRENT	BATTERY VOLTAGE
	NOMINAL VOLTAGE				IP RATING OF INVERTER & BATTERY						
	V	V	%	KG		%			A	A	V
Livoltek											
5kW Hybrid Inverter + 5kW Battery	51.2	600	97.8	87	21 / 65	90	LFP	6000	50	100	40-60
5kW Hybrid Inverter + 10kW Battery	51.2	600	97.8	87	21 / 65	90	LFP	6000	50	100	40-60
Ecactus											
5kW Hybrid Inverter + 5kW Battery	204.8	600	97.6	79	65	90	LiFePO4	6500	25	25	204.8
5kW Hybrid Inverter + 10kW Battery	409.6	600	97.6	131	65	90	LiFePO4	6500	25	25	409.6
6kW Hybrid Inverter + 10kW Battery	409.6	600	97.6	131	65	90	LiFePO4	6500	25	25	409.6



Three Phase All-in-One Inverter & Battery (10 Year Warranty)

MODEL	STOCK CODE	PRICE	MAX. INPUT POWER	NOMINAL OUTPUT POWER	NOMINAL VOLTAGE	MAX INPUT VOLTAGE	MAX OUTPUT CURRENT
		€	W	W	V	V	A
KSTAR							
10kW Hybrid Inverter & 10kWh Battery (2*5kWh)	1200937		20000	10000	720	1100	16

Technical Data: Three Phase All-in-One Inverter & Battery

MODEL	INVERTER	STRINGS PER MPPT	EFFICIENCIES	WEIGHT OF INVERTER & BATTERY	IP RATING OF INVERTER & BATTERY	BATTERY	CELL TYPE	CYCLE LIFETIME	MAX CHARGE CURRENT	MAX DISCHARGE CURRENT	BATTERY VOLTAGE
	NO. OF MPPT					DEPTH OF DISCHARGE					
			%	KG		%			A	A	V
KStar											
10kW Hybrid Inverter & 10kWh Battery (2*5kWh)	2	1	97.6	103	65	90	LFP	10000	50	80	51.2

Battery Energy Storage System (BESS)

Battery Energy Storage Systems, or BESS, are rechargeable batteries that can store energy from different sources and discharge it when needed. A BESS consists of one or more batteries and can be used to balance the electric grid, provide backup power and improve grid stability. The energy released by the batteries during discharge can power homes, vehicles, and export to the grid (depending on the battery capacity).

BESS Types:

1. Low Voltage Batteries (BLF51): Low voltage batteries typically have a voltage of below 100V. As the batteries have less pressure, they also have less power. Low voltage battery systems are great for off-grid systems, and users looking for large capacity potential with a medium to low energy demand.
2. High Voltage Batteries (LiFePo4): High voltage solar batteries offer a higher discharge rate to support higher load demands. High voltage battery systems are usually rated around 400V. These systems can charge and discharge faster than the low voltage batteries and can cover those quick demand surges from starting equipment. A LiFePo4 Battery is known as the safest, most stable, and reliable battery type due to the lithium iron phosphate having a better thermal and structural stability. It can withstand high temperatures without decomposing. It's not prone to thermal runaway and will keep cool at room temperature.

Low Voltage Energy Storage Batteries (10 Year Warranty)



MODEL	STOCK CODE	PRICE	DEPTH OF DISCHARGE	CELL TYPE	CYCLE LIFETIME	MAX CHARGE CURRENT	MAX DISCHARGE CURRENT	BATTERY VOLTAGE	WEIGHT	IP RATING
		€	%			A	A	V	KG	
Livoltek										
5kW Battery for All-In-One	1199928	POA	90	LFP	6000	50	100	51.2	55	21/65



KStar										
5.12kW Battery Storage for All-In-One	1200935	POA	90	LFP	10000	50	80	51.2	54	65

High Voltage Energy Storage Batteries (10 Year Warranty)



MODEL	STOCK CODE	PRICE	DEPTH OF DISCHARGE	CELL TYPE	CYCLE LIFETIME	MAX CHARGE CURRENT	MAX DISCHARGE CURRENT	BATTERY VOLTAGE	WEIGHT	IP RATING
		€	%			A	A	V	KG	
EACTUS										
LiFePo4 5.12kWh Battery for All-In-One	1200852	POA	90	LiFePO4	6500	25	25	204.8	52	65



Single Phase EV Chargers (2 Year Warranty)

MODEL	STOCK CODE	PRICE	RATED VOLTAGE	RATED CURRENT	VEHICLE CONNECTOR	WEIGHT
Wall Mounted		€	VAC	A		KG
Livoltek						
7.3kW EV Charger (Card Reader Not Included)	1200207	POA	230Vac + - 10%	6~32A	Type: 2 5m Cable	3.7
EPS						
7kW Home EV Wallbox CT-Version (Card Reader Included)	1200961	POA	230Vac + - 20%	32A	Type: 2 5m Cable	5.1

Three Phase EV Chargers (2 Year Warranty)

MODEL	STOCK CODE	PRICE	RATED VOLTAGE	RATED CURRENT	VEHICLE CONNECTOR	WEIGHT	IP DEGREE	RATED FREQUENCY
Wall Mounted		€	VAC	A		KG		Hz
Livoltek								
22kW EV Charger (Card Reader Not Included)	1199931	POA	400 Vac + - 10%	6~32A	Type: 2 5m Cable	5.1	54	50/60
Wall Mounted								
EPS								
11kW EV Charger Wall-Mounted (Card Reader Included)	1200962	POA	400 Vac + - 20%	16A	Type: 2 Socket: 2 5m Cable	5.5	54	50/60
44kW (22kW*2) EV Charger Wall-Mounted For 2 Cars (Card Reader Included)	1200963	POA	401 Vac + - 20%	16A*2	Type: 2 Socket: 2 5m Cable	33	65	50/60
Floor Mounted								
EPS								
22kW (11kW*2) EV Charger Floor-Mounted For 2 Cars (Card Reader Included)	1200964	POA	402 Vac + - 20%	32A*2	Type: 2 Socket: 2 5m Cable	13.5	54	50/60
44kW (22kW*2) EV Charger Floor-Mounted For 2 Cars (Card Reader Included)	1200960	POA	403 Vac + - 20%	32A*2	Type: 2 Socket: 2 5m Cable	35	54	50/60

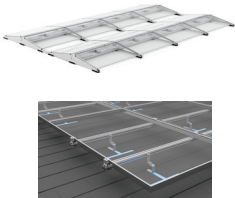




Accessories

MODEL	STOCK CODE	PRICE
		€
Livoltek Charging Pedestal	1200208	POA

Mounting Systems (10 Year Warranty) (Made in Germany)



MODEL	STOCK CODE	PRICE	TOTAL POWER OUTPUT WITH 540WP PANELS
		€	kWp
Sample Pricing for Slate Mounting Systems			
7 Panels Slated Roof Mounting	1200188	POA	3.78
9 Panels Slated Roof Mounting	1200189	POA	4.86
11 Panels Slated Roof Mounting	1200191	POA	5.94
16 Panel Flat Roof Mounting	1200223	POA	8.64

NOTE: Prices will depend on design of mounting system & materials used for each house. This will depend on the orientation of house, wind, snow and rain resistance calculations.

Mounting Systems (10 Year Warranty) (Made in Germany)



MODEL	STOCK CODE	PRICE	SEGMENTS	DIMENSIONS	TOTAL POWER OUTPUT WITH 540WP PANELS (PV NOT INCLUDED)
		€		TOTAL SEGMENTS	kWp
Sample Pricing for Carport Mounting Systems					
20 cars Solar E-Port	1200970	POA	10	52m x 6.2m x 3.58m	10.8kWp
30 cars Solar E-Port	1200971	POA	15	78m x 6.2m x 3.58m	16.2kWp
40 cars Solar E-Port	1200972	POA	20	104m x 6.2m x 3.58m	21.6kWp
110 cars Solar E-Port	1200973	POA	55	287m x 6.2m x 3.58m	59.4kWp

NOTE: Prices will depend on design of each E-Port & materials used for each E-Port, dependent on location, orientation of E-Port, wind, snow, & rain resistance calculations. Please note that panels are not included in the above E-Port pricing.





Rethinking Water

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