

Product overview
a-TroniX Solar storage solution



a-TroniX AX

The future of renewable energy supply

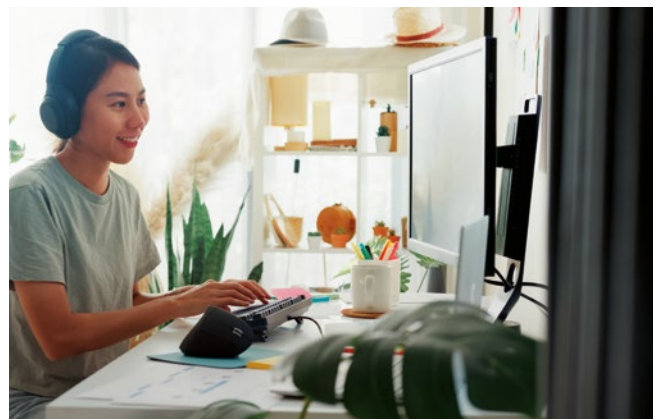
a-TroniX AX

The future of renewable energy supply

The modular solar storage solution that can be expanded at any time

The brand new range of single and three-phase hybrid inverters and solar power storage systems from our a-TroniX brand offers a high-quality modular solution for private homes and small business buildings. At AKKU SYS, we pride ourselves on continually developing innovative renewable energy solutions, and this new product line is no exception.

In a world increasingly reliant on clean energy, our new hybrid inverters and solar power storage systems offer the ideal answer to the challenges of modern energy production and use. With outstanding safety features, fail-safe and intelligent control, the product line is designed to achieve grid independence for the entire home.



What makes the new a-Tronix AX product range so special?

500 V

Our new high-voltage battery has lower power losses and can therefore achieve a higher efficiency and can therefore achieve a higher efficiency.



20.16 kWh

Easy battery expansion at any time, up to 20.16 kWh.



12 kW

3-phase emergency power supply.



Protection class IP65

Suitable for outdoor installation.



Black start capability

Supports black start in case of power failure to restore system operation.



UPS functionality

Switch to EPS mode in less than 20 ms within the uninterruptible power supply (UPS).

Parallel connection

Max. 10 hybrid inverters can be connected in parallel.

High quality components

High-quality and highly reliable components.

Easy to install

Battery modules can be added later at any time.

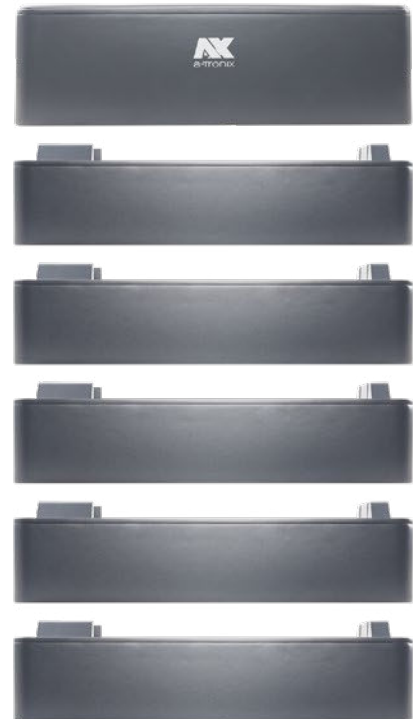
10 years warranty*

Due to our warehouse in Germany, we can guarantee a quick exchange.

*Warranty conditions at www.a-tronix.de.

a-TroniX LFP battery

The innovative high-voltage plug-and-play solution



The solar storage system saves installers valuable working time thanks to its simple modular design. The battery modules can be expanded as required up to 20.16 kWh.

2,88kWh per battery module

In combination with the single-phase hybrid inverters, one to six AX 2.88 kWh high-voltage battery modules can be operated with an AX 2.88 kWh high-voltage solar storage system with BMS, depending on requirements (5.76 kWh to 20.16 kWh). Together with the three-phase hybrid inverters, combinations from two to six battery modules and solar storage with BMS are possible (8.64 kWh to 20.16 kWh).

6.000+*

Life cycles

10**

years warranty

LFP battery

Reliable and long battery life.

*6.000+ Life cycles until degradation to 70%. ** Warranty conditions at www.a-tronix.de.



A powerful and scalable battery storage system

- The modular design allows for maximum flexibility, making it suitable for a wide range of storage applications.

Easy battery expansion at any time, up to 20.16 kWh

- The new battery is perfectly compatible with existing units.

Black start capability

- Supports black start in case of power failure to restore system operation.

IP65 protection

- The entire system has protection class IP65.



a-TroniX AX Hybrid inverter

3-phase hybrid inverter with 12 kW reserve power

The a-TroniX AX hybrid inverter enables highly efficient use and storage of solar energy to make your home off-grid.

The 3-phase inverter is equipped with a backup module and provides up to 12 kW of power to run your essential appliances in the event of a grid failure.

12 kW output power

With an output power of up to 12 kW, you can supply power to the important household appliances.



Bypass circuit to ensure a stable power supply

If the inverter detects a fault, it switches to bypass mode and allows the mains current to flow through instead.

Easy installation

Flexible configuration, plug-and-play setup and built-in security..

Protection class IP65

Designed for long life with maximum flexibility. Suitable for indoor and outdoor use.

Max. 10 hybrid inverters can be connected in parallel

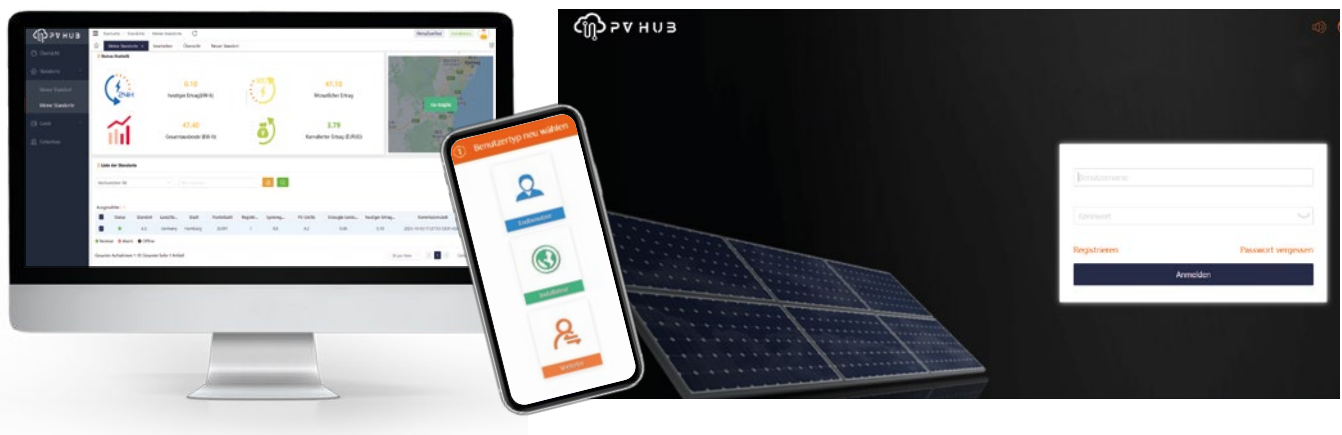
This allows you to expand the system size depending on the installation requirements.

Easier and faster installation

- Modules can be added during the life of the system.
- Wireless battery installation.
- Ultra-fast commissioning in 3 steps.

Compact and exquisite design

- Robust and reliable matt aluminium alloy material.
- No screws and hidden handle. The overall design is elegant and clean.



For users, installers and dealers:

- Visualise current and past electricity generation in different time periods.
- Monitor the current power output and consumption in the household.
- Check daily error status and view historical error records.
- Setting battery charging times.
- Access to a comprehensive map view.
- Time-of-use mode settings to automatically switch between different time periods for buying and selling electricity, and to respond to changing electricity prices.

For installers and dealers:

- Remotely configure unit settings such as time, language and mode.

For dealers:

- Remote upgrade function for inverters/collectors/batteries/meters Gateways.
- Extended access to inverter data.
- Visual representation of the installation status through diagrams.

Technical Data

Specification

a-TroniX Hybridpower AX1ph	3.0 kW	3.7 kW	4.6 kW	5.0 kW*	6.0 kW*
Order number	9890450	9890451	9890452	9890453	9890454
PV input					
Max. input power (kW)	3.9	4.7	5.98	6.5	7.8
Switch-on voltage (V)	100				
Max. DC Input voltage (V)	600				
Nominal DC input voltage (V)	360				
MPPT voltage range (V)	80 ~ 550				
Number of MPP trackers	2				
Number of PV inputs	1 / 1				
Max. input current (A)	13.5 / 13.5				
Max. short circuit current (A)	15 / 15				
Battery					
Battery type	Lithium battery (LiFePO4)				
Battery Communication mode	CAN / RS485				
Battery voltage range (V DC)	85 ~ 450				
Max. charge/discharge current (A)	40				
Output (grid)					
Max. AC input power (VA)	7000	7680	9600	10000	12000
Max. AC input current (per phase) (A)	31.8	34.9	43.6	45.5	54.5
AC nominal power (W)	3000	3680	4600	5000	6000
Max. AC power (VA)	3300	4080	5060	5500	6600
Nominal output current (per phase) (A)	13	16	20	21.7	26.1
Max. output current (A)	14.3	17.6	22	23.9	28.7
Nominal output voltage (Vac)	220 / 230 / 240				
Power factor / reactive power factor (cos phi)	1 (setting range from 0.8 kap to 0.8 ind)				
Distortion factor (THDi) (%)	< 3 @ Nominal power				
Ausgang (Backup)					
Max. AC power (VA)	5000		6000		
Max. AC power (60s) (VA)	6000		7200		
UPS max. current (A) (per phase) (A)	21.7		26.1		
UPS nominal voltage (V)	220 / 230 / 240				
Nominal mains frequency (Hz)	50 / 60				
Power factor / reactive power factor (cos phi)	1 (setting range from 0.8 kap to 0.8 ind)				
Distortion factor (THDv) (linear load) (%)	< 2 @ Nominal power				
Switching time (ms)	< 20				

*Not for the German market

Specification

a-TroniX Hybridpower AX1ph	3.0 kW	3.7 kW	4.6 kW	5.0 kW*	6.0 kW*
Order number	9890450	9890451	9890452	9890453	9890454
Efficiency					
Max. efficiency (%)	97.8 %				
European efficiency (%)	97 %				
Safety					
Insulation monitoring	integrated				
Residual current monitoring	integrated				
DC reverse polarity protection	integrated				
Anti-islanding protection	integrated				
AC short-circuit protection	integrated				
AC output overcurrent / overvoltage protection	integrated				
DC switch (only for hybrid)	integrated				
Surge protection (SPD)	DC: Typ II. AC: Typ III				
General data					
Black-start capability	from 1 BMS + 2 batteries onwards				
Installation	wall-mounted				
Dimensions (mm) W x H x D	430 x 410 x 178				
Weight (kg)	23				
Topology	fan				
Cooling	natural cooling				
Normal noise emission (dB)	35				
Max. Operating height (m)	2000				
Operating temperature range (°C)	-25 ~ +60				
Humidity (%)	0 ~ 100				
Protection class (according to IEC 60529)	IP65				
Own consumption (night) (W)	< 10				
Communication	Wifi, LAN, 4G, GPRS (optional), externally via dongle				
Interfaces	2 x RS485, DRM, Ripple Control, USB				
Display	LCD, app, website				
Certificates	VDE-AR-N 4105:2018; EU2016/631(RfG) CEI 0-21:2022; Tor producer type A; CE-LVD 2014/35EU; CE-EMC 2014/30 EU; RoHS Directive 2011/65/EU; REACH 1907/2006/EC				

*Not for the German market

Technical Data

Specification

a-TroniX Hybridpower AX3ph	5 kW	6 kW	8 kW	10 kW	12 kW
Order number	9890427	9890446	9890447	9890448	9890449
PV input					
Max. input power (kW)	A: 4,0 B: 4,0	A: 4,5 B: 4,5	A: 8,0 B: 5,0	A: 8,0 B: 5,0	A: 9,0 B: 6,0
Switch-on voltage (V)	160				
Max. DC Input voltage (V)	1000				
Nominal DC input voltage (V)	720				
MPPT voltage range (V)	160 ~ 950				
Number of MPP trackers	2				
Number of PV inputs	1 / 1		2 / 1		
Max. input current (A)	14 / 14		26 / 14		
Max. short circuit current (A)	16 / 16		32 / 16		
Battery					
Battery type	Lithium battery (LiFePO4)				
Battery Communication mode	CAN / RS485				
Battery voltage range (V DC)	135 ~ 600				
Max. charge/discharge current (A)	26.0				
Output (grid)					
Max. AC input power (VA)	10000	12000	16000	16000	16000
Max. AC input current (per phase) (A)	15.2	18.2	24.2	24.2	24.2
AC nominal power (W)	5000	6000	8000	10000	12000
Max. AC power (VA)	5500	6600	8800	11000	13200
Nominal output current (per phase) (A)	7.2	8.7	11.6	14.5	17.4
Max. output current (A)	8.8	10.6	14.1	17.6	21.2
Nominal output voltage (Vac)	3L/N/PE 380/2200; 400/230; 415/240				
Power factor / reactive power factor (cos phi)	1 (setting range from 0.8 kap to 0.8 ind)				
Distortion factor (THDi) (%)	< 3 @ Nominal power				
Output (Backup)					
Max. AC power (VA)	5000	6000	8000	10000	12000
Max. AC power (60s) (VA)	10000	12000	14000	15000	15000
UPS max. current (A) (per phase) (A)	7.2	8.7	11.6	14.5	17.4
UPS nominal voltage (V)	3L/N/PE 400/230				
Nominal mains frequency (Hz)	50 / 60				
Power factor / reactive power factor (cos phi)	1 (setting range from 0.8 kap to 0.8 ind)				
Distortion factor (THDv) (linear load) (%)	< 3 @ Nominal power				
Switching time (ms)	< 20				

Specification

a-Tronix Hybridpower AX3ph	5 kW	6 kW	8 kW	10 kW	12 kW
Order number	9890427	9890446	9890447	9890448	9890449
Efficiency					
Max. efficiency (%)	98 %				
European efficiency (%)	97.3 %				
Safety					
Insulation monitoring	integrated				
Residual current monitoring	integrated				
DC reverse polarity protection	integrated				
Anti-islanding protection	integrated				
AC short-circuit protection	integrated				
AC output overcurrent / overvoltage protection	integrated				
DC switch (only for hybrid)	integrated				
Surge protection (SPD)	integrated				
AFCI Protection	integrated				
General data					
Black-start capability	from 1 BMS + 2 batteries onwards				
Installation	wall-mounted				
Dimensions (mm) W x H x D	449 x 519 x 198				
Weight (kg)	28				
Topology	transformerless				
Cooling	natural cooling			fan	
Normal noise emission (dB)	35			45	
Max. Operating height (m)	2000				
Operating temperature range (°C)	-25 ~ +60				
Humidity (%)	0 ~ 100				
Protection class (according to IEC 60529)	IP65				
Own consumption (night) (W)	10				
Communication	Wifi, LAN, 4G, GPRS (optional), externally via dongle				
Interfaces	2 x RS485, DRM, Ripple Control, USB				
Display	LCD, app, website				
Certificates	VDE-AR-N 4105:2018; EU2016/631(RfG) CEI 0-21:2022; G98-1 Amd7:2022; Tor producer type A; EN50549-1:2019				
	CE-LVD 2014/35/EU; CE-EMC 2014/30/EU; Rohs Directive 2011/65/EU				

Specification

a-Tronix BMS							
Electrical characteristics							
Battery type		LiFePO4 Prismatic cells					
Battery modules	Battery Master Order no. 9890455	1 x AX2.88kWhBM					
	Battery Slave Order no. 9890456	1 x AX2.88kWhBS	2 x AX2.88kWhBS	3 x AX2.88kWhBS	4 x AX2.88kWhBS	5 x AX2.88kWhBS	6 x AX2.88kWhBS
Nominal capacity (Wh)		5760	8640	11520	14400	17280	20160
Nominal voltage (V)		115.2	172.8	230.4	288	345.6	403.2
Operating voltage (V)		97.2 ~ 131.4	145.8 ~ 197.1	194.4 ~ 262.8	243 ~ 328.5	291.6 ~ 394.2	340.2 ~ 459.9
Recommended discharge current (A)		25					
Max. charge/discharge current (A)		50					
Peak charging current (A)		65 @ 30 sec					
Efficiency (%)		> 95					
Depth of discharge (%) (DoD Depth of discharge)		90					
Charging cycles		> 6000					
Communication		CAN. RS485					
Display		BM LED*6 BS LED*1					
Scalability		max. 7 modules in a row (stacked)					
Operating conditions							
Installation site		Outdoor / Indoor (standing)					
Protection class		IP65					
Operating temperature(°C)		Charge 0 ~ 55 / Discharge -10 ~ +55					
Storage temperature (°C)		-20 ~ +55					
Cooling		Natural convection cooling					
Humidity(%)		5 ~ 95 (non-condensing)					
Operating height (m)		max. 2000					
Mechanical characteristics							
Dimension (W x H x D)		570 x 350 x 380	570 x 470 x 380	570 x 590 x 380	570 x 710 x 380	570 x 830 x 380	570 x 950 x 380
Net weight (kg)		67.1	99.5	131.9	164.3	196.7	229.1
Certificates							
CE-LVD 2014/35/EU; CE-EMC 2014/30/EU; UN38.3; Battery quality Report IEC 62619; RoHS Directive 2011/65/EU + (EU) 2015/863							
Battery Directive 2006/66/EC							