



# USE ENERGY, STORE IT, OR FEED IT INTO THE GRID, IT IS NOW POSSIBLE WITH X-HYBRID.

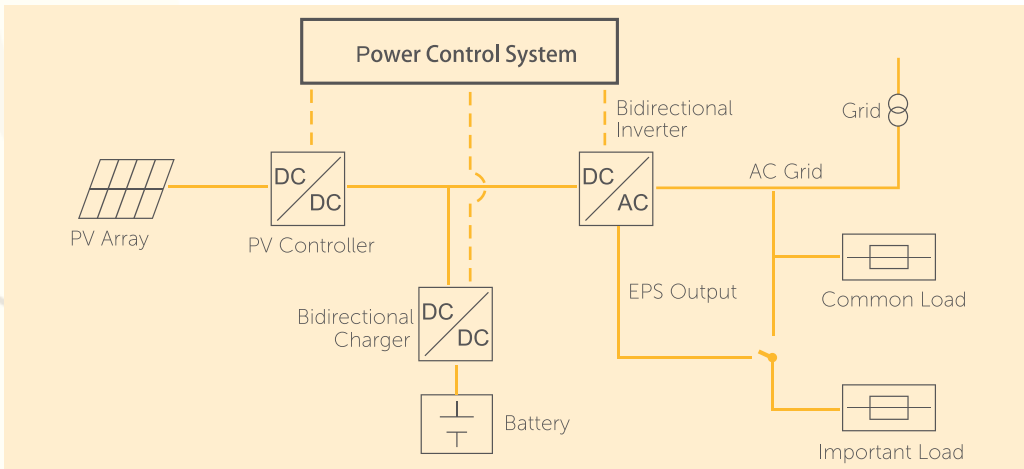
Achieve your independence from traditional power providers considering the intelligent Suntria Hybrid Series System (with charger).

As we know, Solar panels generate the most energy during the day when the sun is shining and when you and your family/co-workers tend to use the least energy or have the lowest consumption levels.

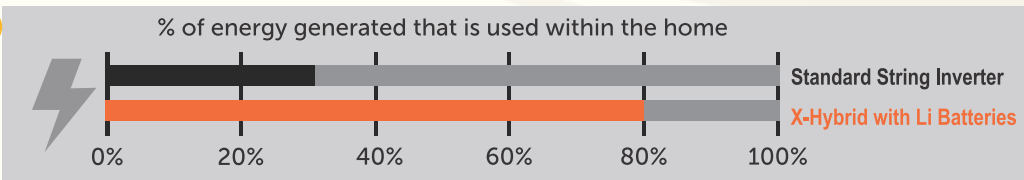
With ongoing increasing energy prices and the continual decrease of the feed-out tariff (available in select states), you must make the most out of your solar energy. Our X-Hybrid "Self-use Energy System" is the perfect solution to solve this problem and to get the most of your solar energy both today and in the future. Our Hybrid solution makes it possible to utilize solar power time-independently by storing unused capacity. It converts and directs solar power to where it is needed; when it is needed.

# HYBRID WORKING THEORY

X-Hybrid Self-use Energy Storage System converts DC electricity generated by solar panels to AC electricity for grid and load to DC for the battery. The electricity will be provided for load first, and the excessive electricity will be stored in the battery, after the battery is fully charged, the electricity will be fed into the grid. Once the power goes down, the inverter will activate the Emergency Power Supply (EPS) to ensure the energy from the panels and batteries can be used to power the home.



X-Hybrid Advantages



## COMPARED TO TRADITIONAL GRID-TIED SOLAR SYSTEM

- Save money on your power bills by increasing the proportion of self-use electricity generated by your solar system from 30% to more than 80%.
- Save money by becoming independent from ever increasing energy prices & frequent breakdowns.
- Reduce stress on the grid by reducing your solar power feed.
- Manage property consumption and generation remotely via built-in CT & WIFI monitoring solution.



# X-Hybrid Advantages

## COMPARED TO OTHER BRANDS

### Reliable

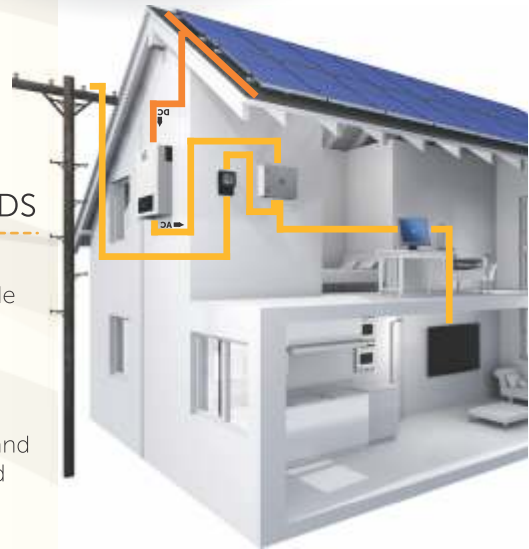
- European, American and Japanese made key components.

### Efficient

- Highly effective solar power utilization and long battery life by intelligently designed charging module.

### User-friendly

- Intelligent man-machine interaction mode.





# X-Hybrid Self-Use\*\* Flexible System

HYSU-FL3000 / HYSU-FL3700 /HYSU-FL5000

Single phase, expandable to three phase

\*\*Self-use only with external battery management unit.

TECHNICAL DATA

Model	HYSU-FL3000	HYSU-FL3700	HYSU-FL5000
<b>► PV Modules</b>			
Number of modules	10	13	17
Company and series	Vikram Solar, Eldora Grand 300P		
<b>► Inverter general specifications</b>			
No of units (single phase/three phase)	1/3	1/3	1/3
Company and series	Solax, X-hybrid SK-TL(E) series		
Number of MPP trackers / Strings per MPP	1/1	2/1	2/1
AC nominal power [W]	3000	3680	4600
Nominal AC voltage; range [V]	230VAC 50/60HZ; 180~270VAC		
AC nominal current [A] / Max AC current [A]	13 / 14.4	16 / 16	20 / 21.1
MPPT efficiency, Euro-efficiency, Max.	99.9%, 97.0%, 97.6%		
Display	LCD, Back-light 16*4 character		
Communication interfaces	Ethernet/Dry contact /WIFI		
Max. No. of supported external BMU	1		
Noise emission (typical) [dB] / Altitude [m]	<40dB / <2000m		
Operating temperature range [°C]	-10~+50 (derating at 40)		
Cooling concept / Humidity [%]	Forced airflow / 0~95 (non-condensing)		
Protection class / Topology	IP 20 (for indoor use) / Transformer-less		
EMC standard / Weight [kg]	IEC61000-6-1/2/3/4 / 23.5 kg		
Dimensions (W / H / D) [mm]	490 x 595 x 167		
Standard Warranty [years]	5 (10 optional)		
<b>► Inverter specifications on EPS mode only with external BMU</b>			
EPS rated power [VA]* / EPS rated current [A]*	3000 / 13	3680 / 16	4000 / 17.3
EPS rated voltage / Frequency	230VAC 50/60HZ		
EPS peak power [VA]	1.5xPrated, 10s	1.5xprate, 10s	1.5xPrated, 10s
Total harmonic distortion (THD) / Switch Time	<3% / <5sec		

\*can work with 100A external charger only.  
EPS voltage and current will drop with lowering from 100A charger

# X-Hybrid Battery Management Unit for Flexible System



HY-BMU1300 / HY-BMU2500 / HY-BMU4600

The battery manager can be used with HY-FL system series for extending the battery capability of self use. Three options gives your flexibilities when build up your own energy storage system.

Model	HY-BMU1300	HY-BMU2500	HY-BMU5000
-------	------------	------------	------------

## ► Battery Management Unit (general)

Company and series	Solax, X-Hybrid SK-BMU series		
Future support for lithium Batteries	Yes		
Charging curve	3-stage adaptive with maintenance		
Battery nominal voltage [V]	48		
Battery voltage range [V]	40-60		
Battery capacity [KWh] / Max supported [Ah]	4.8 / 100Ah	10 / 200Ah	20 / 400Ah
Over current / temperature protection	Yes		
Communication interfaces	Can/RS232		
Battery reverse polarity protection	Yes		
Battery anti-shock design	Yes		
Operating temperature range [°C]	-10~+50 (derating at 40)		
Cooling concept	Forced airflow		
Protection class	IP20 (for indoor use)		
EMC standard	IEC61000-6-1/2/3/4		
Dimensions (W / H / D) [mm]	289 x 595 x 167		460 x 595 x 167
Weight [kg]	13		23
Standard Warranty on Inverter	5 (10 optional)		

## ► Battery Management Unit-Charge/Discharge

Maximum power [KWh]	1300	2500	4600
Maximum current (charge/discharge) [A]	25	50	100
Depth of discharge	80% for lithium battery 50% for lead-acid battery (adjustable)		

## ► Batteries

Type of batteries	lead-acid tubular batteries
No of batteries	4
Battery capacity at STC [Ah] / Voltage [V]	200Ah / 12V
Low maintainenece	Yes
Warranty	3 years