

## HYBRID INVERTER

LXP 3K/3.6K/4K/4.6K/5K Hybrid



Free Remote Monitoring and Management

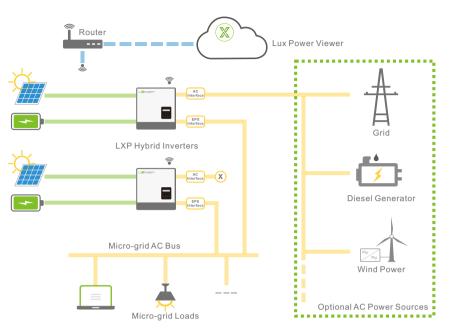
\* The model with parallel function is different from standard one, it is MG model.



		2.417		4 4 5 7 7 7 7 7
Solar Input	3K	3.6K	4K	4.6K/5K
Max. DC Input Power	6600W	7000W	7000W	8000W
Nominal DC Input Voltage	360V.d.c	360V.d.c	360V.d.c	360V.d.c
DC Input Voltage Range	100 - 550V.d.c	100 - 550V.d.c	100 - 550V.d.c	100 - 550V.d.c
MPPT Voltage Range	120 - 500V.d.c	120 - 500V.d.c	120 - 500V.d.c	120 - 500V.d.c
Start-up Voltage	I 40V.d.c	140V.d.c	140V.d.c	I 40V.d.c
MPPT Number	2	2	2	2
Max. DC Input Current	12.5A/12.5A	12.5A/12.5A	12.5A/12.5A	12.5A/12.5A
Battery Input/O	utput			
Compatible Battery Type	Lithium-ion/Lead-Acid	Lithium-ion/Lead-Acid	Lithium-ion/Lead-Acid	Lithium-ion/Lead-Acid
Nominal Battery Voltage	48V.d.c	48V.d.c	48V.d.c	48V.d.c
Battery Voltage Range	40 - 60V.d.c	40 - 60V.d.c	40 - 60V.d.c	40 - 60V.d.c
Max. Charge/Discharge Current	66A/66A	66A/66A	66A/66A	66A/66A
Max. Charge/Discharge Power	3600W/3600W	3600W/3600W	3600W/3600W	3600W/3600W
Charging Curve	3 stages	3 stages	3 stages	3 stages
Max. Charge Voltage	59V	59V	59V	59V
Capacity of Battery	2-20kWh	2-20kWh	2-20kWh	2-20kWh
AC Input/Outpu	it			
Nominal AC Output Power	3000W	3600W	4000W	4600W/5000W
Max. AC Output Power	3000VA	3600VA	4000VA	4600VA/5000VA
Max. AC Output Current	15A	16A	20A	25A
Nominal AC Voltage	230V.a.c	230V.a.c	230V.a.c	230V.a.c
AC Voltage Range	180 - 270V.a.c	180 - 270V.a.c	180 - 270V.a.c	180 - 270V.a.c
Nominal AC Frequency	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz
AC Frequency Range	45 - 55Hz / 55 - 65Hz	45 - 55Hz / 55 - 65Hz	45 - 55Hz / 55 - 65Hz	45 - 55Hz / 55 - 65Hz
Power Factor		ljustable 0.8 overexcited to 0.8 underexcite		
THDI	<3%	<3%	<3%	<3%
<b>UPS Output - wi</b>	th Battery			
UPS Max. Output Power without Sola	r 3000W	3600W	3600W	3600W
UPS Max. Output Power with Solar	3000W	3600W	4000W	4800W
UPS Nominal Output Voltage	230V.a.c	230V.a.c	230V.a.c	230V.a.c
UPS Nominal Output Frequency	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz
UPS Nominal Output Current	13A	I3A	13A	13A
Peak Power Without Solar	4500W, 30s	4500W, 30s	4500W, 30s	4500W, 30s
THDV	<5%	<5%	<5%	<5%
Switching Time	Typical 0.01s	Typical 0.01s	Typical 0.01s	Typical 0.0 Is
Efficiency				
Europe Efficiency	97.5%	97.5%	97.5%	97.5%
Max. Efficiency	97.9%	97.9%	97.9%	97.9%
Battery Charge/Discharge Efficiency	94.5%	94.5%	94.5%	94.5%
Protection				
Reverse Polarity Protection	Yes	Yes	Yes	Yes
Over Current/Voltage Protection	Yes	Yes	Yes	Yes
Anti-islanding Protection	Yes	Yes	Yes	Yes
AC Short-ciruit Protection	Yes	Yes	Yes	Yes
Leakage Current Protection	Yes	Yes	Yes	Yes
Ground Fault Monitoring	Yes	Yes	Yes	Yes
Grid Monitoring	Yes	Yes	Yes	Yes
Ingress Protect Degree	IP65 / NEMA4X	IP65/NEMA4X	IP65 / NEMA4X	IP65 / NEMA4X
DC Switch	Yes	Yes	Yes	Yes
General Data				
Dimensions (W/H/D)	455 / 476 (565) / 181	455 / 476 (565) / 181	455 / 476 (565) / 181	455 / 476 (565) / 181
Weight	20 kg	20 kg	20 kg	20 kg
Topology	Tranformerless (solar), HF (Battery)	Tranformerless (solar), HF (Battery)	Tranformerless (solar), HF (Battery)	Tranformerless (solar), HF (Battery)
Cooling Concept	Natural Convection	Natural Convection	Natural Convection	Natural Convection
Relatively Humidity	0-100%	0-100%	0-100%	0-100%
Operating Temperature Range	-25 - 60 <b>℃</b>	-25 - 60 <b>°C</b>	-25 - 60 <b>℃</b>	-25 - 60 <b>°C</b>
Altitude	<2000m	<2000m	<2000m	<2000m
Noise Emission	<25dB	<25dB	<25dB	<25dB
Standby Consumption	<5W	<5W	<5W	<5W
Display & Communication Interfaces	LCD, RS485, Wi-Fi, Ethernet	LCD, RS485, Wi-Fi, Ethernet	LCD, RS485, Wi-Fi, Ethernet	LCD, RS485, Wi-Fi, Ethernet

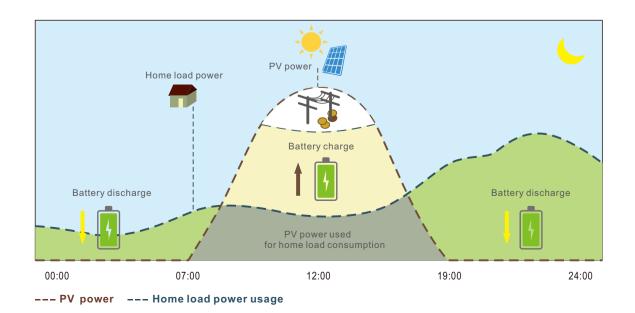
### **System Connection**

A newly designed solar and energy storage hybrid inverter, capable to install in on-grid solar, off-grid solar and back-up systems. LXP Hybrid enables a programable and schedulable smart solar energy storage system to help increase your solar energy self-consumption rate, protect your home appliances from grid shortage, and balance your energy usage strategy to save energy bill.



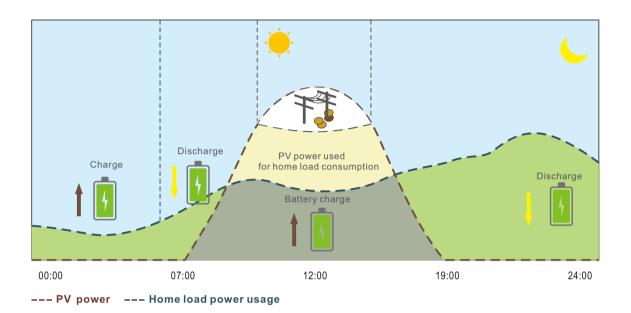
### **Self Consumption**

Under Self Use mode the energy generated by PV will be mainly used by local loads, and rest will be stored in the battery, excessive power will be feed back into the grid. This is the default mode which will increase the self consumption rate and reduce the energy bill significantly



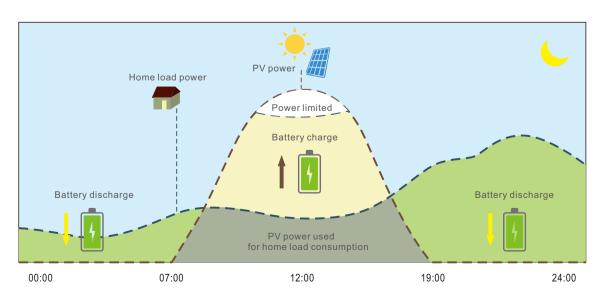
### **Force Time Use**

This mode suits for situation where the price difference of energy is big. User can set the charging and discharging time and priority of energy use under Force Time Use mode. The user can also choose whether to charge the battery using grid power if the regulations permitted.



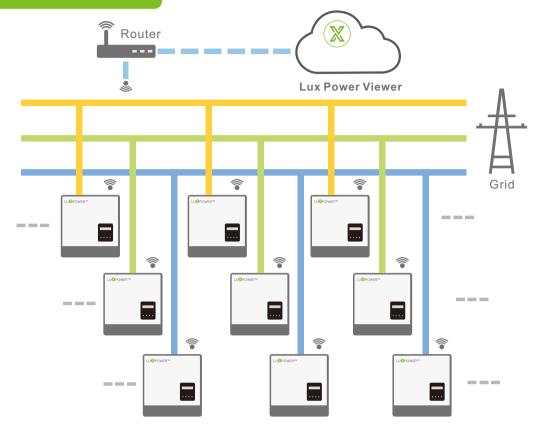
### Off grid Working Mode

If enabled UPS function, once the grid is protected accidently, the UPS mode will be automatically and seamlessly activated to ensure your important loads keep working without any black out. Due to the specially designed function, it can support the system to work as a back-up power system or off-grid system. Offgrid working mode can also work when there is only PV.



### **Paralleling Extensions**

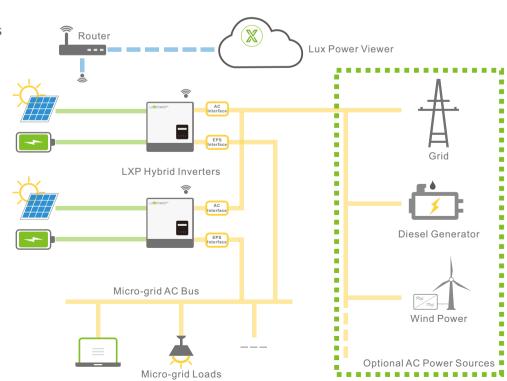
- Paralleling LXP inverters in one phase to extend the single phase system capacity for either hybrid or AC coupled energy storage applications.
- Paralleling LXP inverters (single phase inverters) to build a three phase system for either hybrid or AC coupled energy storage applications.
- Smart paralleling algorithm enable multiple configurable working modes under on-grid, off-grid or micro-grid applications.



**LXP Hybrid or LXP ACS inverters** 

### **Micro-grid Systems**

- Capable with micro-grid applications with various AC power sources
- Multiple configuration available to various applications of micro-grid solution
- Support multiple type of loads,
   Such as air conditioner, refrigerator
- Flexible programmable working modes, support scheduling on system operation
- System extendable
- Support purely off-grid installation



# ALL-IN-ONE Hybrid

Size: 600\*860\*1400mm



## HYBRID US-Model

LXP-US 3K/4K/5K Hybrid



Brilliant choice for hybrid solar energy storage system

Solar Input	3K US	4K US	5K US
Max. DC Input Power	6000W	7000W	8000W
Nominal DC Input Voltage	360V.d.c	360V.d.c	360V.d.c
DC Input Voltage Range	100 - 550V.d.c	100 - 550V.d.c	100 - 550V.d.c
MPPT Voltage Range	235- 500V.d.c	245- 500V.d.c	255 - 500V.d.c
Start-up Voltage	140V.d.c	I 40V.d.c	140V.d.c
MPPT Number	2	2	2
Max. DC Input Current	12.5A/12.5A	12.5A/12.5A	12.5A/12.5A
Battery Input/Output	t		
Compatible Battery Type	Lithium-ion/Lead-Acid	Lithium-ion/Lead-Acid	Lithium-ion/Lead-Acid
Nominal Battery Voltage	48V.d.c	48V.d.c	48V.d.c
Battery Voltage Range	40 - 60V.d.c	40 - 60V.d.c	40 - 60V.d.c
Max. Charge/Discharge Current	66A/66A	66A/66A	66A/66A
Max. Charge/Discharge Power	3600W/3600W	3600W/3600W	3600W/3600W
Charging Curve	3 stages	3 stages	3 stages
Max. Charge Voltage	59V	59V	59V
Capacity of Battery	2-20kWh	2-20kWh	2-20kWh
AC Input/Output			
Nominal AC Output Power	3000W	4000W	5000W
·			
Max. AC Output Current	15A	20A	25A
Nominal AC Output Current	12.5A	17A	21A
Default AC Voltage	240V Split phase	240V Split phase	240V Split phase
Optional AC Voltage Type	208V/240V Single phase	208V/240V Single phase	208V/240V Single phase
Optional AC Voltage Range	183-229V/211-264V	183-229V/211-264V	183-229V/211-264V
Nominal AC Frequency	50/60Hz	50/60Hz	50/60Hz
AC Frequency Range	45-55Hz/55-65Hz	45-55Hz/55-65Hz	45-55Hz/55-65Hz
Power Factor THDI	<3%	>0.99@rated power 0.8lagging-0.8 leading Adjustable <3%	<3%
		< 3 76	< 3 %
UPS Output - with Ba	ittery		
UPS Max. Output Power without Solar	3000W	3600W	3600W
UPS Max. Output Power with Solar	3000W	4000W	5000W
UPS Nominal Output Voltage	240V	240V	240V
UPS Opt Voltage Type	120V/208V/240V	120V/208V/240V	I 20V/208V/240V
UPS Nominal Output Frequency	60Hz	60Hz	60Hz
UPS Nominal Output Current	I3A	13A	13A
Peak Power Without Solar	4500W, 30s	4500W, 30s	4500W, 30s
THDV	<3%@R-load	<3%@R-load	<3%@R-load
Switching Time	Typical 0.01s	Typical 0.01s	Typical 0.01s
Efficiency			
Europe Efficiency	96.5%	96.5%	96.5%
Max. Efficiency	97.5%	97.5%	97.5%
Battery Charge/Discharge Efficiency	96%/94.5%	96%/94.5%	96%/94.5%
Protection			
Reverse Polarity Protection	Yes	Yes	Yes
Over Current/Voltage Protection	Yes	Yes	Yes
Anti-islanding Protection	Yes	Yes	Yes
AC Short-ciruit Protection	Yes	Yes	Yes
Leakage Current Protection	Yes	Yes	Yes
Ground Fault Monitoring	Yes	Yes	Yes
Grid Monitoring	Yes	Yes	Yes
Ingress Protect Degree	IP65 / NEMA4X	IP65 / NEMA4X	IP65 / NEMA4X
DC Switch	Yes	Yes	Yes
Arc Detection	External Box	External Box	External Box
General Data			
Dimensions (W/H/D)	455 / 476 (565) / 181	455 / 476 (565) / 181	455 / 476 (565) / 181
Weight	20 kg	20 kg	20 kg
Topology	Tranformerless (solar), HF (Battery)	Tranformerless (solar), HF (Battery)	Tranformerless (solar), HF (Battery)
Cooling Concept	Natural Convection	Natural Convection	Natural Convection
Relatively Humidity	0-100%	0-100%	0-100%
Operating Temperature Range	-25 - 60 <b>°C</b>	-25 - 60 <b>°C</b>	-25 - 60 <b>℃</b>
Altitude	<2000m	<2000m	<2000m
Noise Emission Standby Consumption	<25dB <5W	<25dB <5W	<25dB <5W
Display & Communication Interfaces	LCD, LED, RS485, Wi-Fi, CAN	LCD, LED, RS485, Wi-Fi, CAN	LCD, LED, RS485, Wi-Fi, CAN
sp.a, a communication interfaces	200, 220, 10 100, WITH, CAN	200, 220, 10 100, WHII, CAN	205, 225, 10 105, WI-H, CAN
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## HYBRID HB-Model

LXP-HB 4K/5K/6K Hybrid



Brilliant choice for hybrid solar energy storage system

Solar Input	4K HB	5K HB	6K HB
Max. DC Input Power DC Input Voltage Range	7000W 90-550V.d.c	8000W 90-550V.d.c	8000W 90-550V.d.c
Grid Full-load MPPT Voltage	200 - 500V.d.c	250- 500V.d.c	150 - 500V.d.c
Start-up Voltage	120V.d.c	120V.d.c	120V.d.c
MPPT Number	2	2	2
String per MPPT	1/1	1/1	1/1
Max. DC Input Current	IIA/IIA	I I A/I I A	HA/HA
,			
Battery Input/Outp	4		
Compatible Battery Type	Lead-Acid, Li-on etc.	Lead-Acid, Li-on etc.	Lead-Acid, Li-on etc.
Nominal Battery Voltage	250V.d.c	250V.d.c	250V.d.c
Battery Voltage Range	90 - 450V.d.c	90 - 450V.d.c	90 - 450V.d.c
Max. Charge/Discharge Current	20A/20A	20A/20A	25A/25A
Max. Charge/Discharge Power	5000W/5000W	5000W/5000W	6000W/6000W
Charging Curve	3-stages	3-stages	3-stages
AC Input/Output			
<u> </u>			
Nominal AC Output Power	4000W	5000W	6000W
Nominal AC Output Current	17.5A	21.7A	26A
Max. AC Output Current  Nominal AC Voltage	22A	27A	30A
Optional AC Voltage Range	230V 183~264V	230V 183~264V	230V 183~264V
Nominal AC Frequency	183~264V 50/60Hz	50/60Hz	50/60Hz
AC Frequency Range Power Factor	45-55Hz/55-65Hz >0.99@rated power 0.8lagging-0.8 leading Adjustable	45-55Hz/55-65Hz	45-55Hz/55-65Hz
THDI	<3%	<3%	<3%
<b>UPS</b> Output - with l	Battery		
UPS Nominal Power	4000W	5000W	6000W
UPS Nominal Voltage	230Vac	230Vac	230Vac
UPS Opt Voltage Type	120/208/240Vac	120V/208V/240Vac	120/208/240Vac
UPS Nominal Frequency	50/60Hz	50/60Hz	50/60Hz
UPS Nominal Current	17.5A	21.7A	26A
Peak Power	5000W, 30s	6200W, 30s	6200W, 30s
THDV	<3%@R-load	<3%@R-load	<3%@R-load
Switching Time	Typical 0.01s	Typical 0.01s	Typical 0.01s
Efficiency			
MPPT Efficiency	>99%	>99%	>99%
Europe Efficiency	96.5%	96.3%	96.3%
Max. Efficiency	97.5%	97.5%	97.5%
Max. Charge/Discharge Efficiency	97%/96.6%	97%/96.6%	97%/96.6%
Protection			
Reverse Polarity Protection	Yes	Yes	Yes
Over Voltage, Over Current	Yes	Yes	Yes
Anti-islanding Protection	Yes	Yes	Yes
AC Short-ciruit Protection	Yes	Yes	Yes
Leakage Current Protection	Yes	Yes	Yes
Ground Fault Monitoring	Yes	Yes	Yes
Grid Monitoring	Yes	Yes	Yes
Ingress Protect Degree	IP65	IP65	IP65
DC Switch	Integrated	Integrated	Integrated
Company I Dodge			
General Data			
Dimensions (W/H/D)	455 / 476 / 181	455 / 476 / 181	455 / 476 / 181
Weight	20 kg	20 kg	20 kg
Topology	Transformerless	Transformerless	Transformerless
Cooling Concept	Natural Convection	Natural Convection	Natural Convection
Relatively Humidity	0-100%	0-100%	0-100%
Altitude	<2000m	<2000m	<2000m

 $Noise\ Emission$ 

Standby Consumption

Display/Communication Interface

<25dB

< 10 W

LCD/LED/RS485/Wi-Fi/CAN

5years

<25dB

< 10W

LCD/LED/RS485/Wi-Fi/CAN

5years

<25dB

<10W

LCD/LED/RS485/Wi-Fi/CAN

5years

# AC COUPLED ESS INVERTER

LXP 3600 ACS

#### **HIGH PERFORMANCE**

Up to 70A Charge/Discharge current of battery

Up to 3600W Charge/Discharge power of grid

Up to 96% Efficiency of Charge/Discharge With High Frequency Isolation



#### **ENHANCE UPS**

Seamless switching within 0.0 ls with stronger back-up output

Schedulable working modes, easy installation and setting

Up to 36kW capacity of UPS in parallel (MG)\*



#### EASY TO USE

\* The model with parallel function is different from standard one, it is MG model.



### REMOTE MONITORING & MAINTENANCE

Remote monitoring and upgrade



#### OPTIMIZED HEAT CONTROL

Much better heat dispassion, and much lower derating



#### SAFER OPERATION

Protected connection area, multiple protection devices



#### **IP65 PROTECTION**

Designed for both outdoor and indoor installation



### AC coupled energy storage inverter, specially designed for retrofitting

solar system. By simply install an AC coupled energy storage system based on this inverter at the AC output of on-grid solar system, you could retrofit your existed on-grid solar system to a solar energy storage system and increase the solar self-consumption rate, enhanced UPS back-up function and reduce energy bill.

#### **Battery Input/Output**

Compatible Battery Type

Nominal Battery Voltage

Max. Charging Voltage(V)

Max. Charge/Discharge Current

Battery Capacity(Ah)

Charging Mode for Li-Ion Battery

Charging for Lead-acid Battery

Battery Back Feed Current

#### **3.6K ACS**

Lithium-ion, Lead-Acid etc.

<=60 V(Configurable)

70A /70A

Self-adaption to BMS

3-stage adaptive with maintenance

#### **AC Input/Output**

Nominal AC Output Power to Utility

Max. AC Output Power to Utility

Max. AC Input Power from Utility

Max. AC Output Current to Utility

Max. AC Input Current From Utility

Nominal Output Voltage AC Voltage Range Nominal AC Frequency

AC Over Current Protection

Power Factor

THDI

AC Over Voltage Category

220/230V.a.c 180 - 270V.a.c

50Hz/60Hz

I (adjustable 0.8leading -0.8lagging)

Category III

#### **UPS** Output

Max. Output Power

Nominal Output Voltage

Nominal Output Frequency

50Hz / 60Hz

Max. Output Current

Peak Power THDV(linear load) 4500VA, 30s

Switching Time

Typical 0.01s

Back-up Over Current Protection

#### **Efficiency**

Max. Charge/Discharge Efficiency

#### **Protection**

Reverse Polarity Protection

Over Current/Voltage Protection

Anti-islanding Protection

AC Short-circuit Protection

Leakage Current Protection Ground Fault Monitoring

Grid Monitoring

Ingress Protection Degree

IP65 / NEMA4X

#### General Data

Dimension (W/H/D)

565/324/171

Weight Topology

Cooling Concept

Relatively Humidity

Altitude

Noise Emission

Standby Consumption

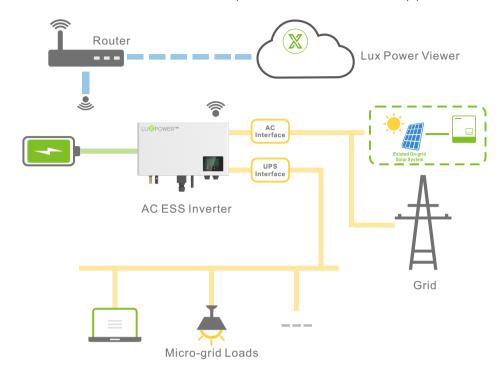
Display & Communication Interfaces

Natural Convection

LCD, LED, RS485, Wi-Fi, CAN

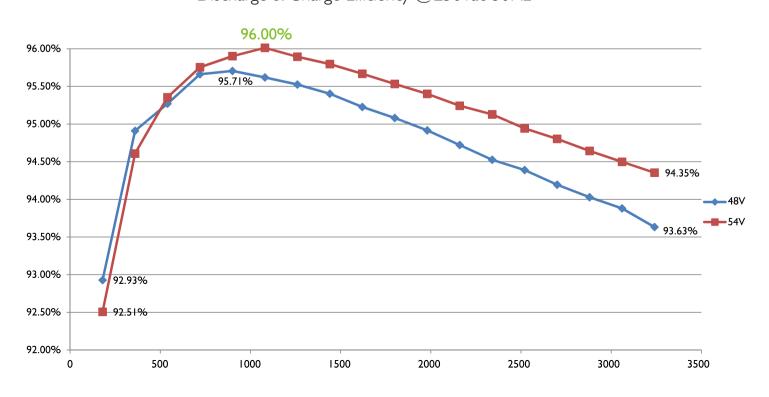
### System Connection

To retrofit existed on-grid solar system to solar energy storage hybrid system could not be easier than install a LXP AC series inverter coupled on AC side with a battery pack.



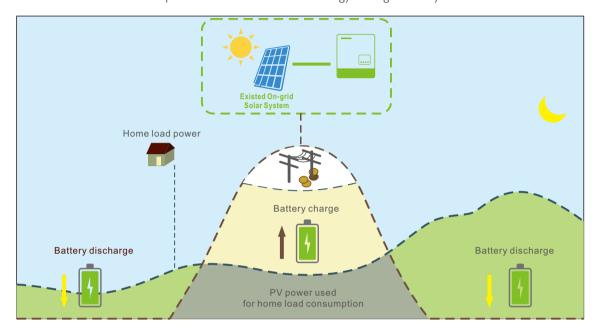
### **Charge/Discharge Efficiency Cuv**

Discharge & Charge Efficiency @230Vac 50Hz



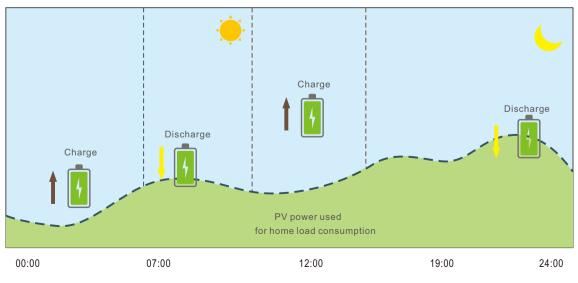
### **Self Consumption**

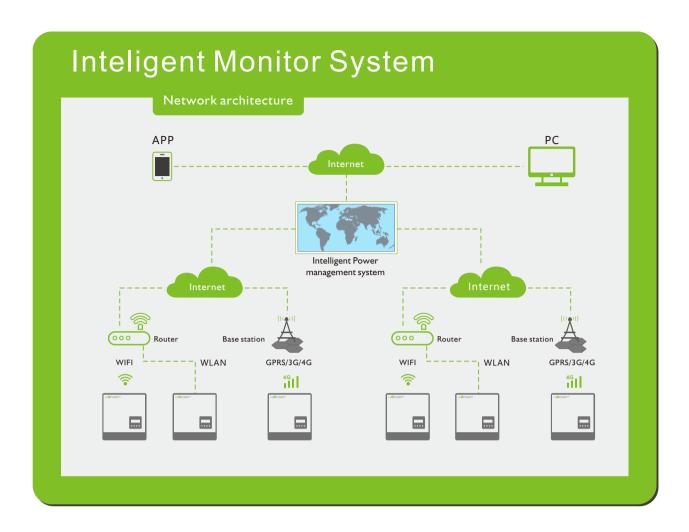
Under Self Use mode, AC coupled inverter will detect the power of on-grid inverter generated, which will be used by local loads first, and rest will be stored in the battery by using AC coupled inverter, excessive power will be feed back into the grid. This is the default mode which will increase the self consumption rate and reduce the energy bill significantly



### **Force Time Use**

This mode suits for situation where the price difference of energy is big. User can set the charging and discharging time and priority of energy use under Force Time Use mode. The user can also choose whether to charge the battery using grid power if the regulations permitted.





### LuxPower View



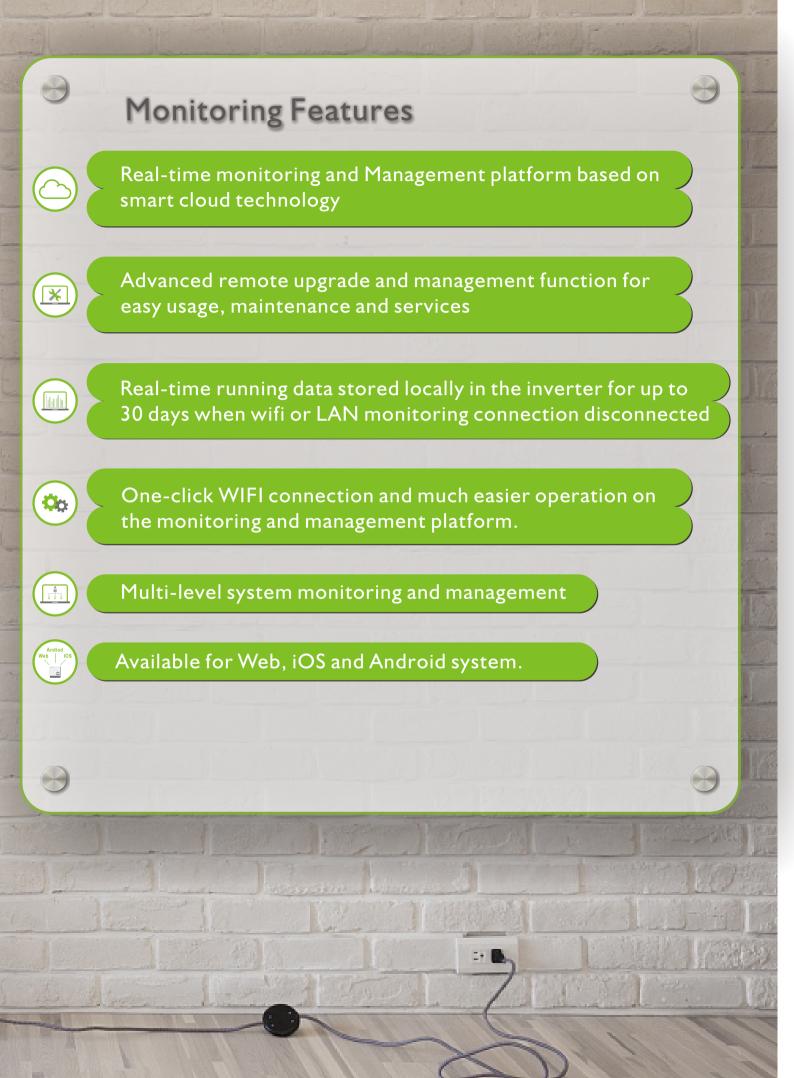




Android APP



**IOS APP** 





### Certificate















# Application









"

# Where sun shined Power always on

"

