

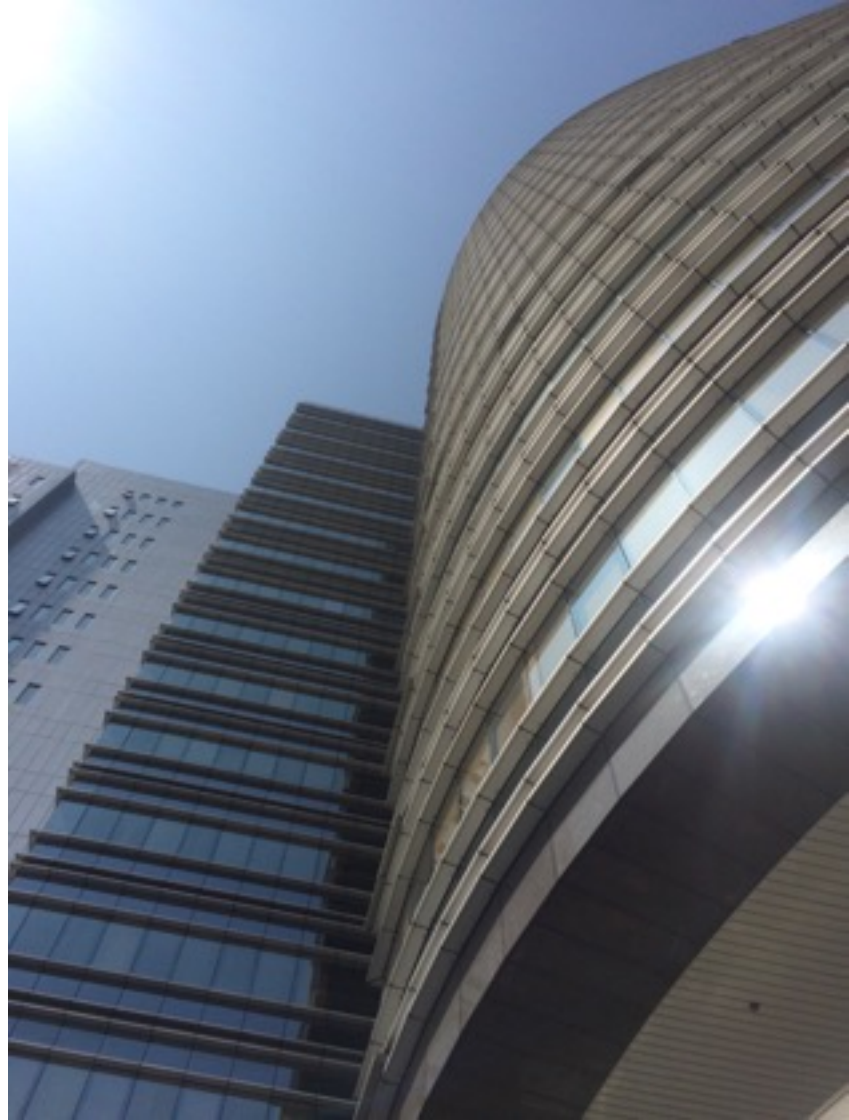
# UrVOLT

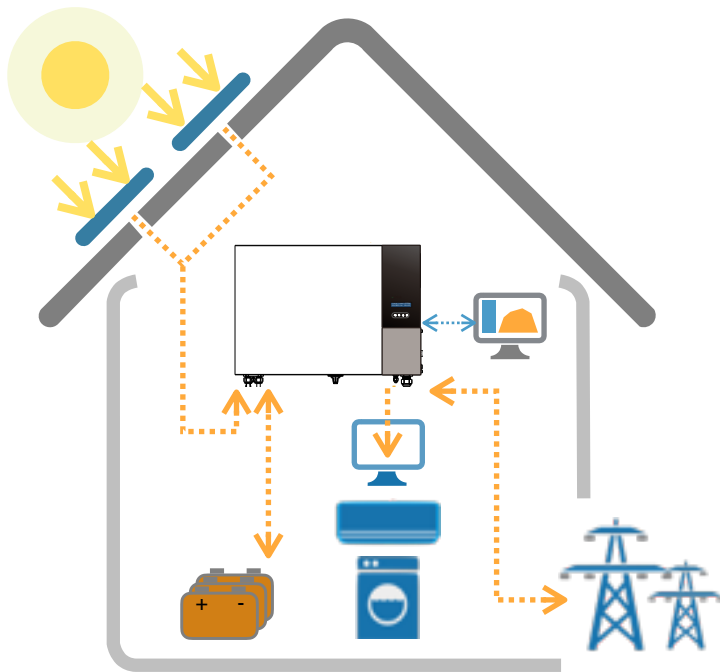


## Products & Service

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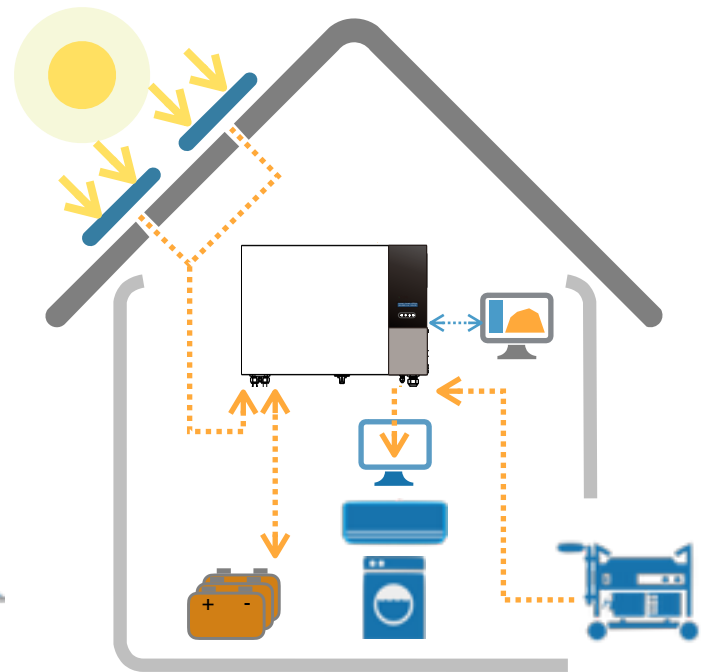




### Hybrid PV System\*

- ➡ Supplying loads from PV and/or grid
- ➡ Feed-in surplus PV or None to grid
- ➡ Providing power during blackout

\* -D models only



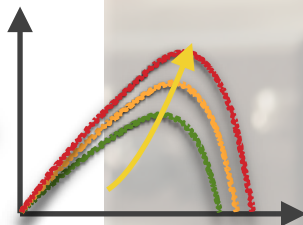
### Off-grid PV System

- ➡ Supplying loads from PV and/or battery
- ➡ Charging battery with surplus PV power
- ➡ Generator as the backup

# Hybrid/Off-grid PV Systems

## Features

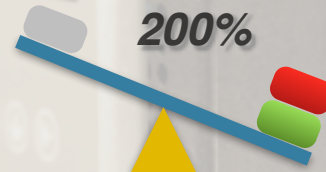
Dual MPPT



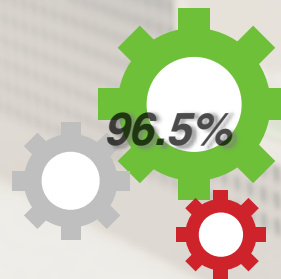
100A Charging



200% Overload



96.5% Efficiency



Grid Feed-in\*



\* Available for -D models



# Specification

Model		PH-3600N-SA/PH-3600N-D	PH-6000N-SA/PH-6000N-D
Input (PV)			
Max. Power	W	3600	6000
MPPT Range	V	150 ~ 500	150 ~ 450
Max. Voltage	V	550	500
Max. Current	A	10	10 x 2
MPP Tracker Number		1	2
Input (AC)			
Nominal Voltage, Frequency	V/Hz	230, 50/60	
Max. Voltage	V	300	
Maximum Current	A	15	25
Input (Battery)			
Nominal Voltage	V	48	48
Max. Charging Current	A	60	100
Output (AC)			
Nominal Power	W/VA	3000	5000
Nominal Voltage, Frequency	V/Hz	230, 50/60	
Over-Load Capacity	%	200	
Waveform		Pure Sinusoidal	

General			
Temperature Range	°C	-20 ~ 55 <sup>1</sup>	
Environment		Indoor (IP20)	
Cooling		Forced Air-Cooling	
Humidity	%	0 ~ 95, non-condensing	
Battery Type		Lead-Acid or LiFePO <sub>4</sub> , 40~1000Ah	
Interface & Mechanical			
Display		16 x 2 Text Display	
Ccommunication Interface		RS485, USB and Generator remote control	
Dimension (W / H / D)	mm	580/408/168	580/408/168
Weight	kg	22	23.8
Installation		Wall / Rack Mount	
Certificate and Regulation <sup>2</sup>			
Safety	IEC 62109-1 & IEC 62109-2		
EMC	IEC/EN 61000-3-2 IEC/EN 61000-3-3		IEC/EN 61000-3-11 IEC/EN 61000-3-12
	IEC/EN 61000-6-2, IEC/EN 61000-6-4		
	VDE 0126-1-1/A1		

1. For  $T > 40^{\circ}\text{C}$ , AC power may need to be reduced 2. The design meets listed safety and EMC standards. Third party certificate is upon request  
3. Specifications are subject to change without prior notice.

# Applications

## No/Unstable Utility

- ➔ Rural areas, islands
- ➔ Utility is not available/stable
- ➔ Diesel fuel is expensive
- ➔ PV is main source
- ➔ Large battery bank
- ➔ Diesel generator as backup

## Expensive Elec. Fee

- ➔ Urban areas
- ➔ High electricity cost
- ➔ Feed in tariff is available
- ➔ Grid feed-in (D model)
- ➔ Solar & grid supply power
- ➔ Smaller PV and battery

## Indep. Power Station

- ➔ Mobile, Radio stations
- ➔ No utility
- ➔ Premium power required
- ➔ Minimum maintenance
- ➔ Larger PV and battery
- ➔ Diesel generator as backup

Hybrid PV/Off-grid Inverter



 **MPPT**

 **All in One**

 **95%+ Efficiency**

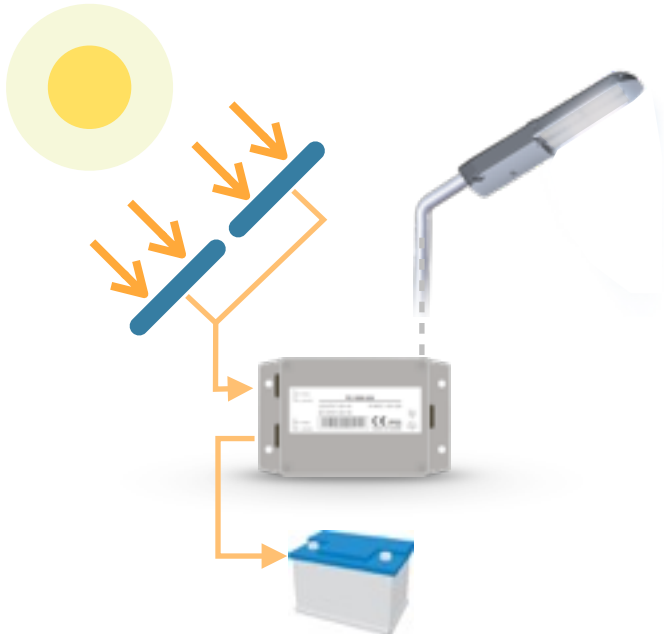
 **IP65, Die-casting Case**

 **Customized on your Applications**

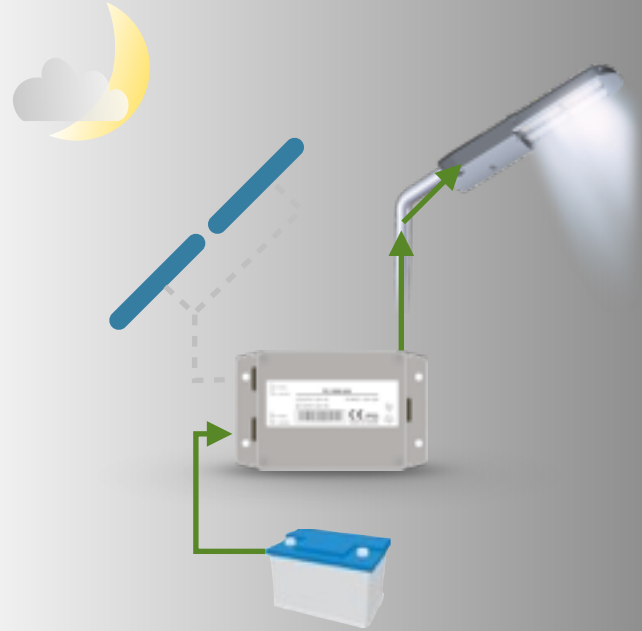
 **Programmable Brightness v.s. Time**







**Day**



**Night**

**PV LED Controller**

# Working & Connection

# Specification

Model		PC-60N-U24/U24H		PC-80N-U24/U24H		PC-100N-U24/U24H	
Input (PV)							
Max. Power	W	360					
Nominal Voltage	V	18 for U24; 30 for U24H					
Max. Voltage	V	30 for U24; 50 for U24H					
Max. Current	A	20 for U24; 10 for U24H					
MPP Tracker		Yes					
Input/Output (Battery)							
Nominal Voltage	V	24					
Max. Voltage	V	29					
Maximum Chg. Current	A	15	15	15			
Protection		OVP, OCP, Over Charge/Discharge					
Output (LED)							
Nominal Power	W	60	80	100			
Nominal Voltage	V	20	20	20			
Max. Current	A	3	4	5			
Current Regualtion	%	±1					
Protection		Short Circuit, OVP, OCP					

Model		PC-60N-U24/U24H	PC-80N-U24/U24H	PC-100N-U24/U24H
General				
Temperature Range	°C	-10 ~ 50		
Environment		Outdoor		
Cooling		Convection		
Humidity	%	0 ~ 100		
Battery Type		Lead-Acid/LiFePO <sub>4</sub>		
Efficiency	%	95 (PV/BAT), 95 (BAT/LED)		
Power Saving Mode		Yes, by reducing LED current		
Mechanical				
Casing		Die-casting Aluminum case		
Protection		IP65		
Dimension (W / H / D)	mm	147/92/55		
Weight	kg	1.9		
Regulation <sup>1</sup>				
Safety		CE		
EMC		EN 55015, EN 61547, EN 61000-4-2, 3, 6, 8, Class A Light Industry		

1. The design meets listed safety and EMC standards. Third party certificate is upon request

2. Specification other than above is upon request

3. Specifications are subject to change without prior notice.



## Production Losses

- ➔ Blackouts
- ➔ Insufficient Power
- ➔ Unstable Electricity

## High Electricity Cost

- ➔ Utility is expensive
- ➔ Diesel is expensive
- ➔ Energy cost is higher and higher



## Power Problems

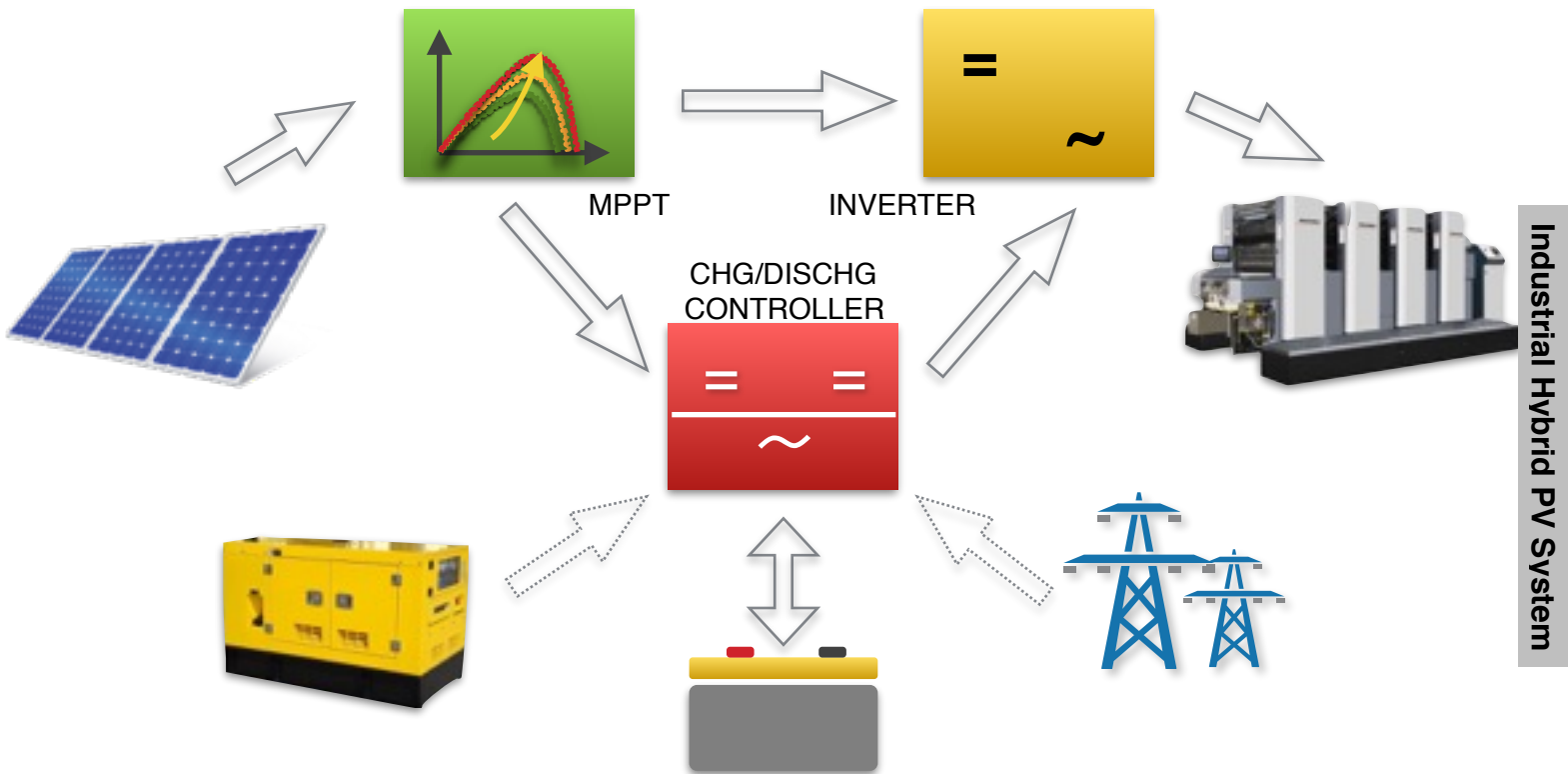
- ➔ Surges
- ➔ Brownouts
- ➔ High Voltages

## Generator Troubles

- ➔ Noisy
- ➔ Fuel Adding
- ➔ Frequent Maintenance



# Problems in Your Plant ?



## System Configuration

## Features

- ➔ **Solar Power from \$0.1/kWh**
- ➔ **Flexible Battery Size from ZERO**
- ➔ **High Efficiency**
- ➔ **Automatic Charge Control**
- ➔ **Customized on your Facility**
- ➔ **200% Over-load Capability**
- ➔ **Power Range from 100 to 800kVA**



# About UrVOLT



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