Three-phase Hybrid Introduction MHT 25-50KW

www.solinteg.com

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INTEGRATE SOLAR INTELLIGENTLY

CONTENT

1 Advantages & Highlights

2 Appearance

3 Key Parameters

4 Work Modes

5 Application Scenarios

6 Compatible Batteries

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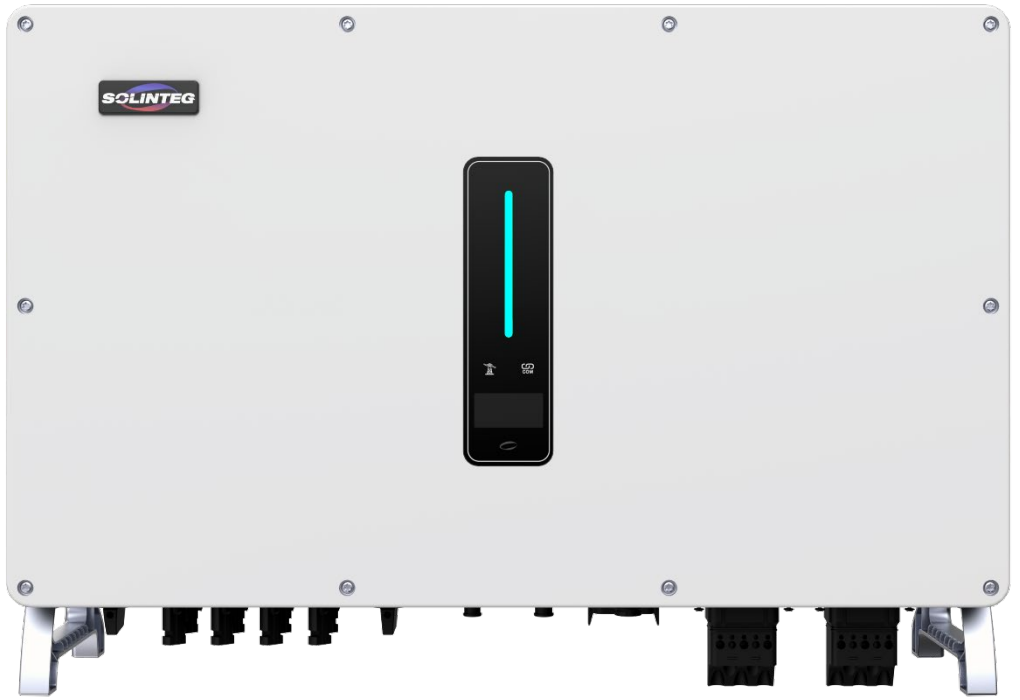
01 Advantages & Highlights

MHT25-50K Advantages At A Glance

- Industry-leading power range for hybrid inverters from 25-50K.
- Max charging & discharging power of up to 100A/75000W.
- 135-750V wide battery voltage range offers flexibility battery capacity from 7.1-96.61kWh.
- Multi-function OLED display, easy operation and configuration.
- 110% Continuous AC overloading, up to 1.5 times DC/AC ratio.
- 24/7 Loads consumption monitoring.
- Advanced heat dissipation ensures long-life operation.
- Within 20ms UPS switching time, ensuring energy security for critical loads.
- 15A PV inputs, 30A MPPT inputs, compatible with 182/210mm high-power panels.
- Support max 10 units paralleling connection to extend system up to 500kW.



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MHT25-50K Highlights

15A PV INPUT
Compatible with 182/210mm PV panels
30A MPPT INPUT

100A/100A
Meet higher energy demands
CHARGING/DISCHARGING

7.1-96.61kWh
Battery Capacity

Breathe Light
Inverter working status at a glance

< 20MS
On/off grid switching over, harmless to loads
UPS

IP65
For indoor and outdoor use

APP/OLED
Two ways of configuration offers operation flexibility

10UNITS
Extend the application from 50kW to 500kW
PARALLELING

135-750V
Wide battery voltage offers flexibility
BATTERY VOLT

HIGH POWER DENSITY
Much smaller compared with most same power inverter in the market

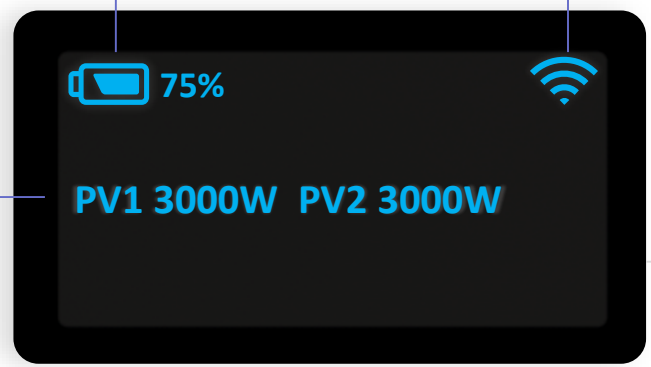
02 Appearance

Appearance

1. I-LIGHT - INTELLIGENT POWER & ALARM INDICATOR
2. GRID STATUS LED INDICATOR
3. COMMUNICATION INDICATOR
4. MULTI-FUNCTION OLED DISPLAY
5. OPERATION BUTTON
6. SOLINTEG LOGO

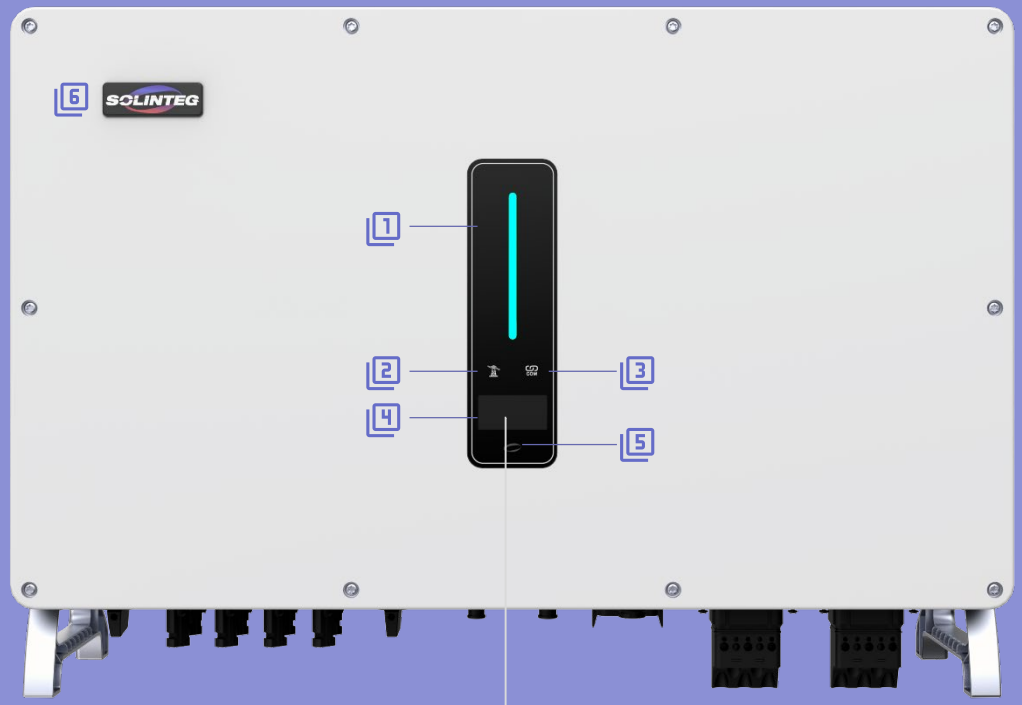
BATTERY LEVEL INDICATOR

SIGNAL STRENGTH



PARAMETER

Integ M
MHT 25-50KW



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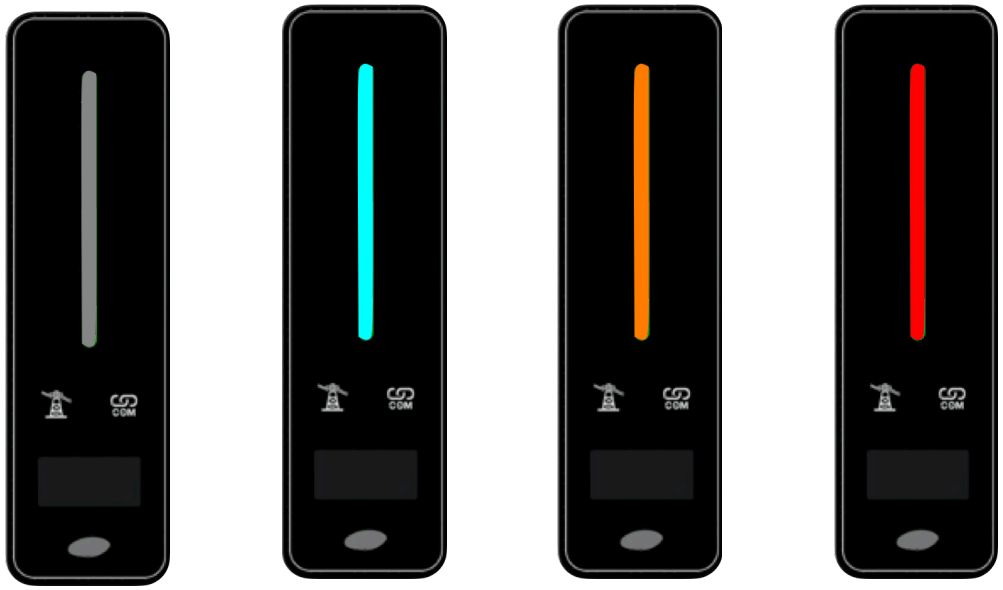
Appearance-I-Light



NO AC OUTPUT POWER

NORMAL

LOW BATTERY WARNING

FAULT OCCURS

Integ M
MHT 25-50KW

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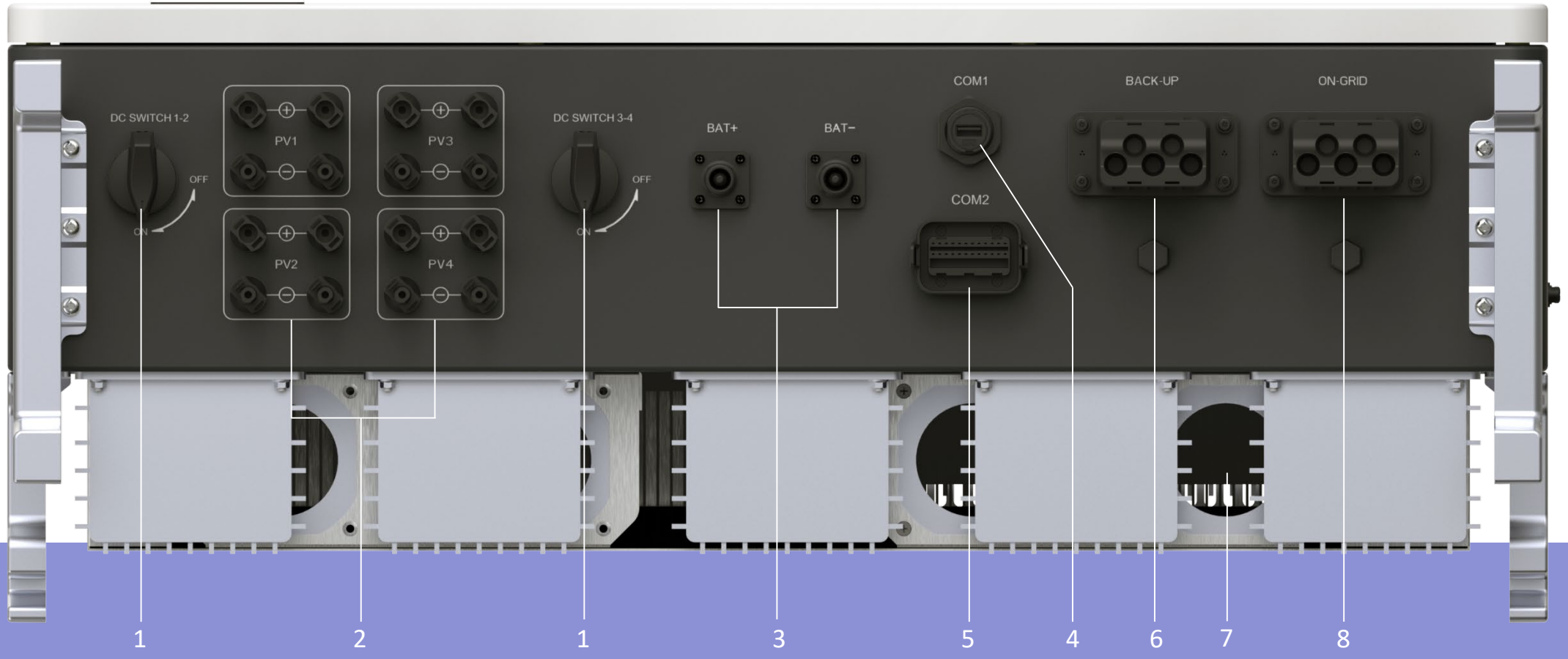
Appearance-Right Side/Dimensions

Integ M
MHT 25-50KW

Weight：56kg

Appearance-Terminal



1 DC Switches(Optional) 2 PV Terminals 3 Battery Terminals 4 Communication Port(WiFi/LAN/4G)

5 Multi-function Connector(METER/BMS/RS485/DRED/RRCR) 6 Back-up Connector 7 Fan 8 On-grid Connector

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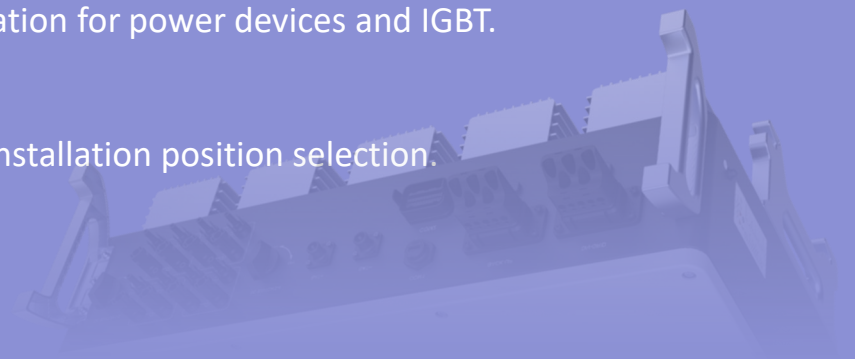
Our Strengths In Product Design

- Plug & Play terminals connection, convenient and time-saving on installation, avoid IP degree reduced by improper operation.
- Horizontal layout, more space for wiring & maintenance, and shorter air duct for quick heat dissipation.
- An OLED multi-function display offers higher convenience for no internet area and avoids any possibilities of data leakage.
- 24Hours led indicators for important status grab at a glance, convenient and time-saving.
- Independent external AL heat sinks ensure quick and high-efficiency heat dissipation for power devices and IGBT.
- Customized side and bottom holders offer convenience during installation.
- The IP65 Wall-mounted design industrial hybrid inverter offers flexibility in the installation position selection.



Convenient Installation

Easy to hang on the wall with only two persons, save time and money on the installation

Solinteg 50kW Hybrid

Others 50kW Hybrid

Need to use **forklift** to install the inverter

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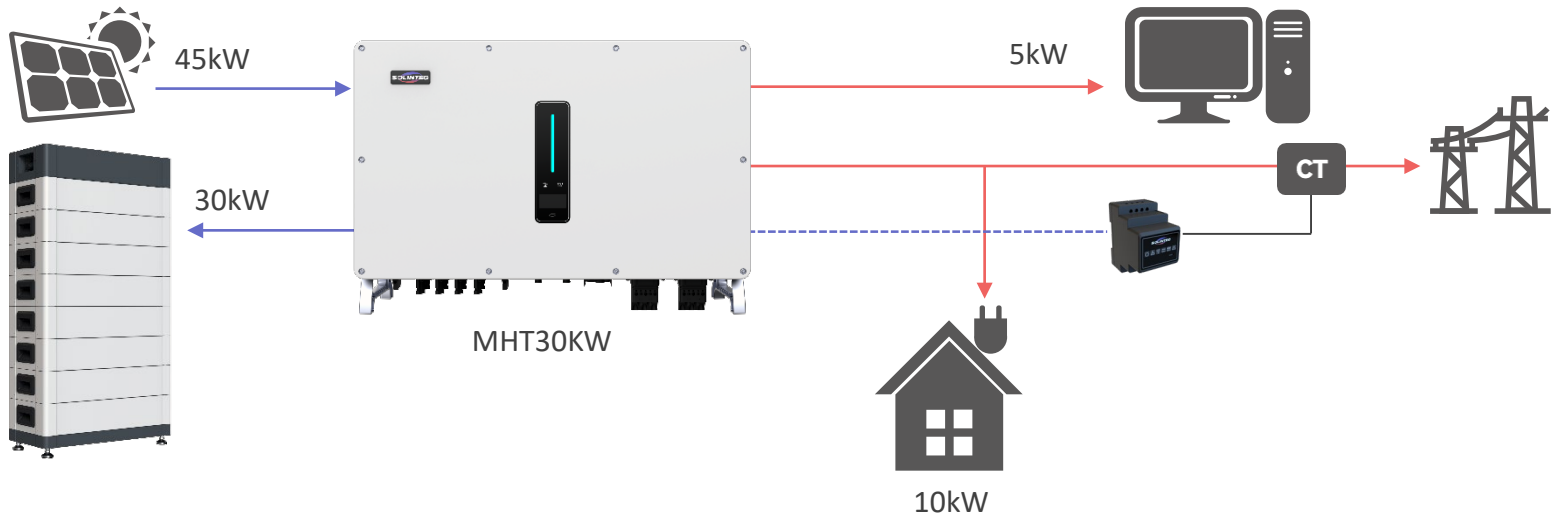
Indoor And Outdoor Installation

Indoor Only

03 Key Parameters

Parameters-150% PV Oversizing

PV Input	MHT-25K-100	MHT-30K-100	MHT36K-100	MHT40K-100	MHT50K-100
Max Input Power (kW)	37.5	45	54	60	75
Start-up Voltage (V)	135	135	135	135	135
Max. DC Input Voltage (V)*	1000	1000	1000	1000	1000
Rated DC Input Voltage (V)	620	620	620	620	620
MPPT Voltage Range (V)	200-950	200-950	200-950	200-950	200-950
No. of MPP Trackers	4	4	4	4	4
No. of DC Inputs per MPPT	2	2	2	2	2
Max. MPPT Input Current (A)	30*4	30*4	30*4	30*4	30*4



150%

PV oversizing, more power from the PV to supply loads and charge battery. More power generation in the low irradiation weather.

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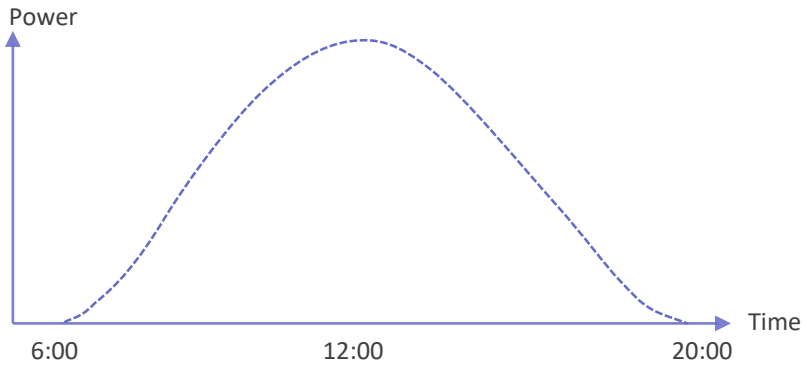
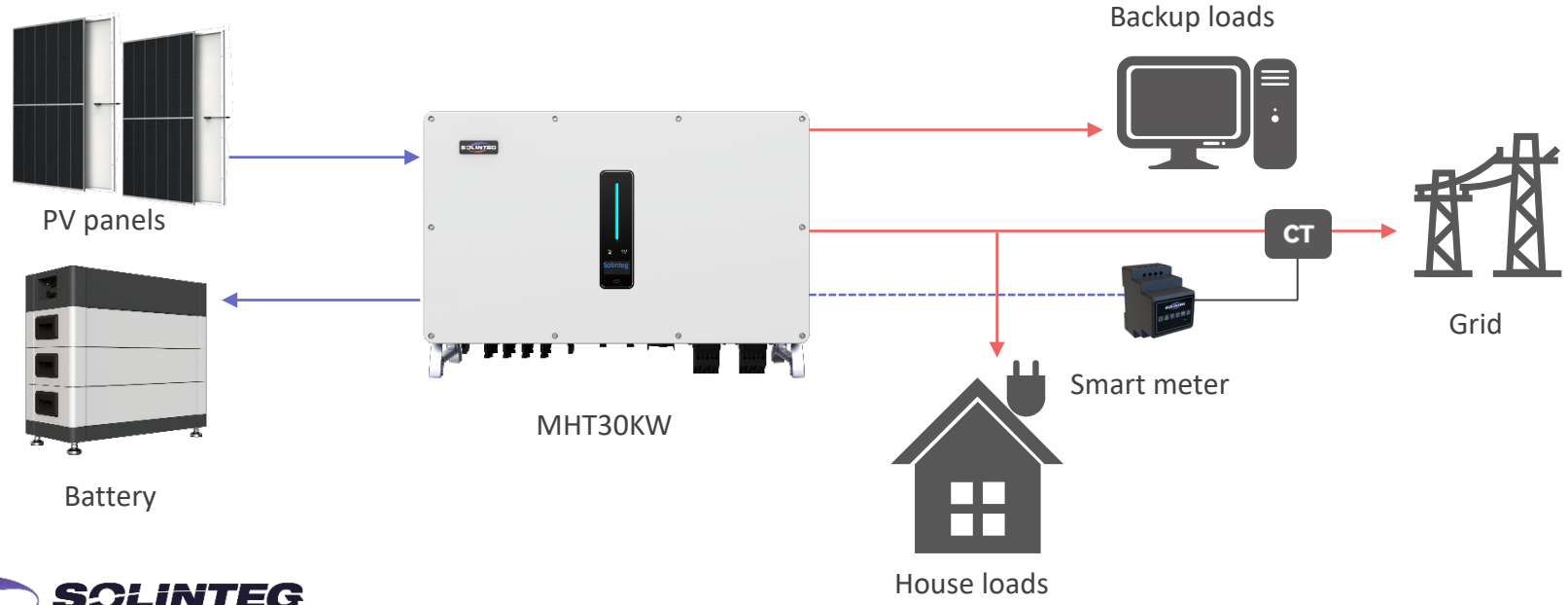
Parameters-135V Start-up Voltage

PV Model	STP570S-C72/Nmh+	
Testing Condition	STC	NMOT
Peak Power (Pmax/W)	570	433.8
Optimum Operation Voltage (V)*	42.72	39.7
Open Circuit Voltage-Voc (V)	50.55	47.8



Lower start-up voltage enables longer PV working hours a day



Start-up voltage is lower to 135V

3PCS

PV panels can wake up inverter PV generation module, PV generation hours longer than others

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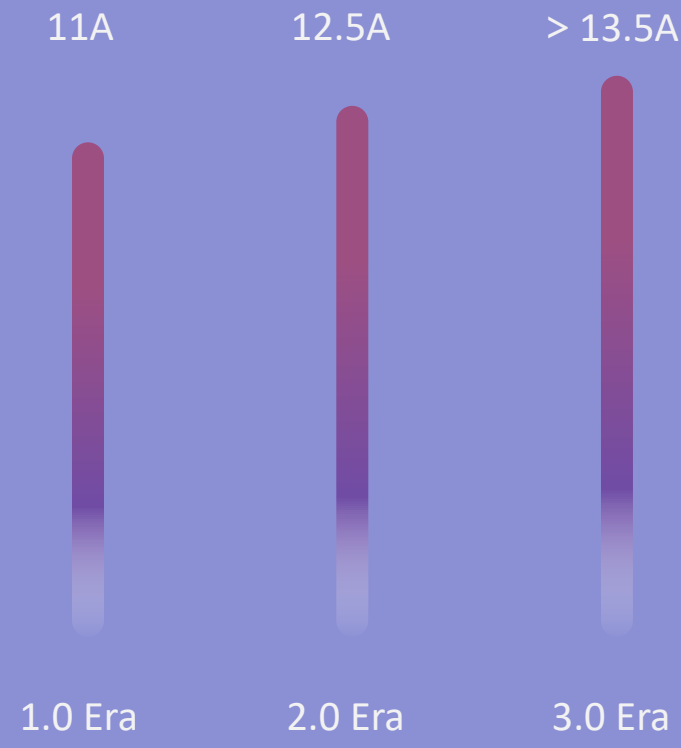
Parameters-15A PV Input

More Power Generation

Compatible with high-power PV panels



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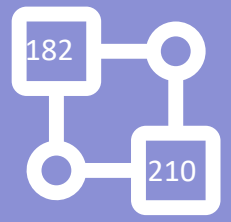
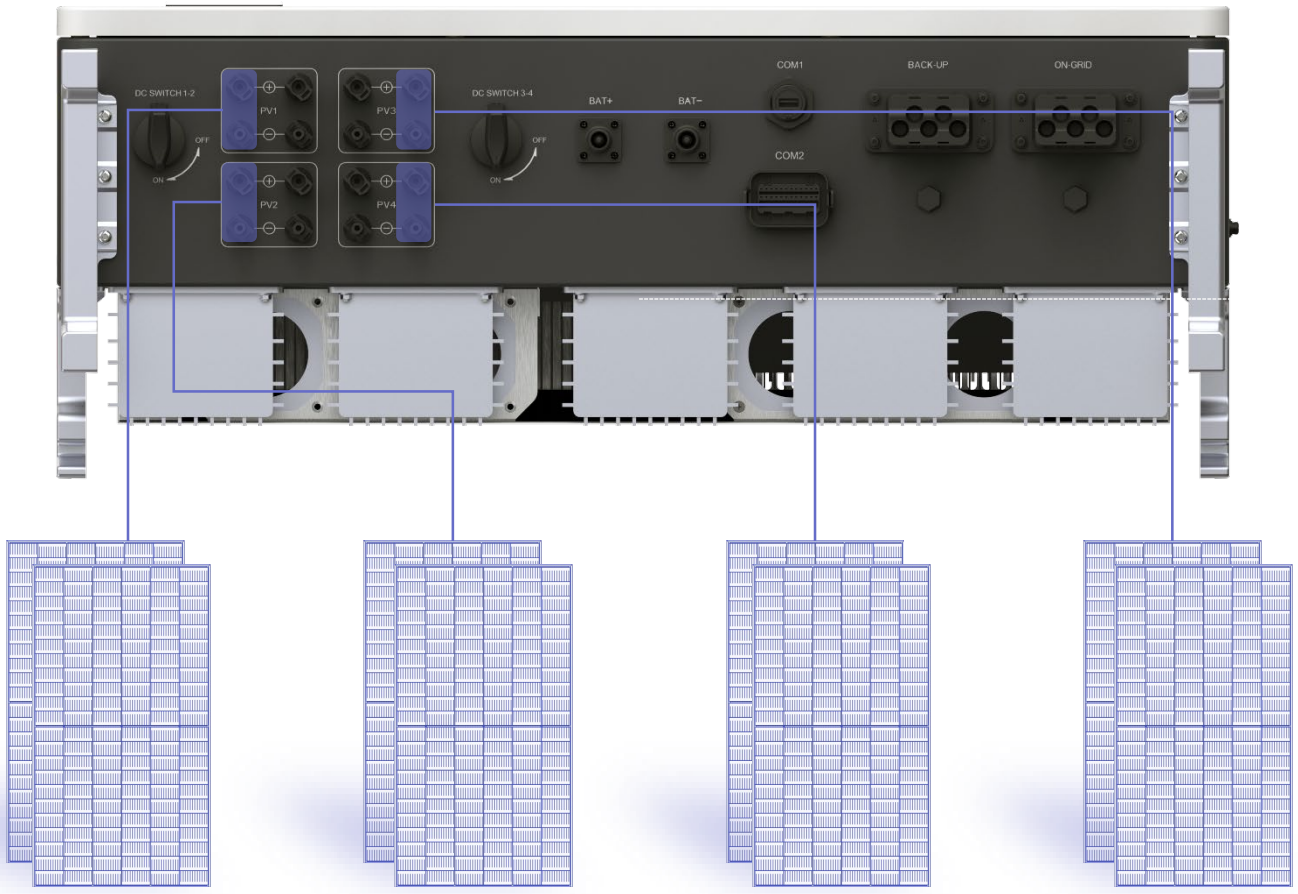
Parameters-30A MPPT Input Current

MHT25-36K Big Current Solution



Compatible With 182/210mm PV Panels

MHT25-36K can connect big current (>15A) panels by using one of two PV strings in a MPPT



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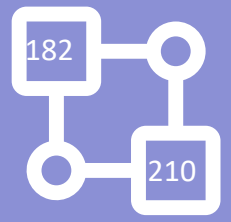
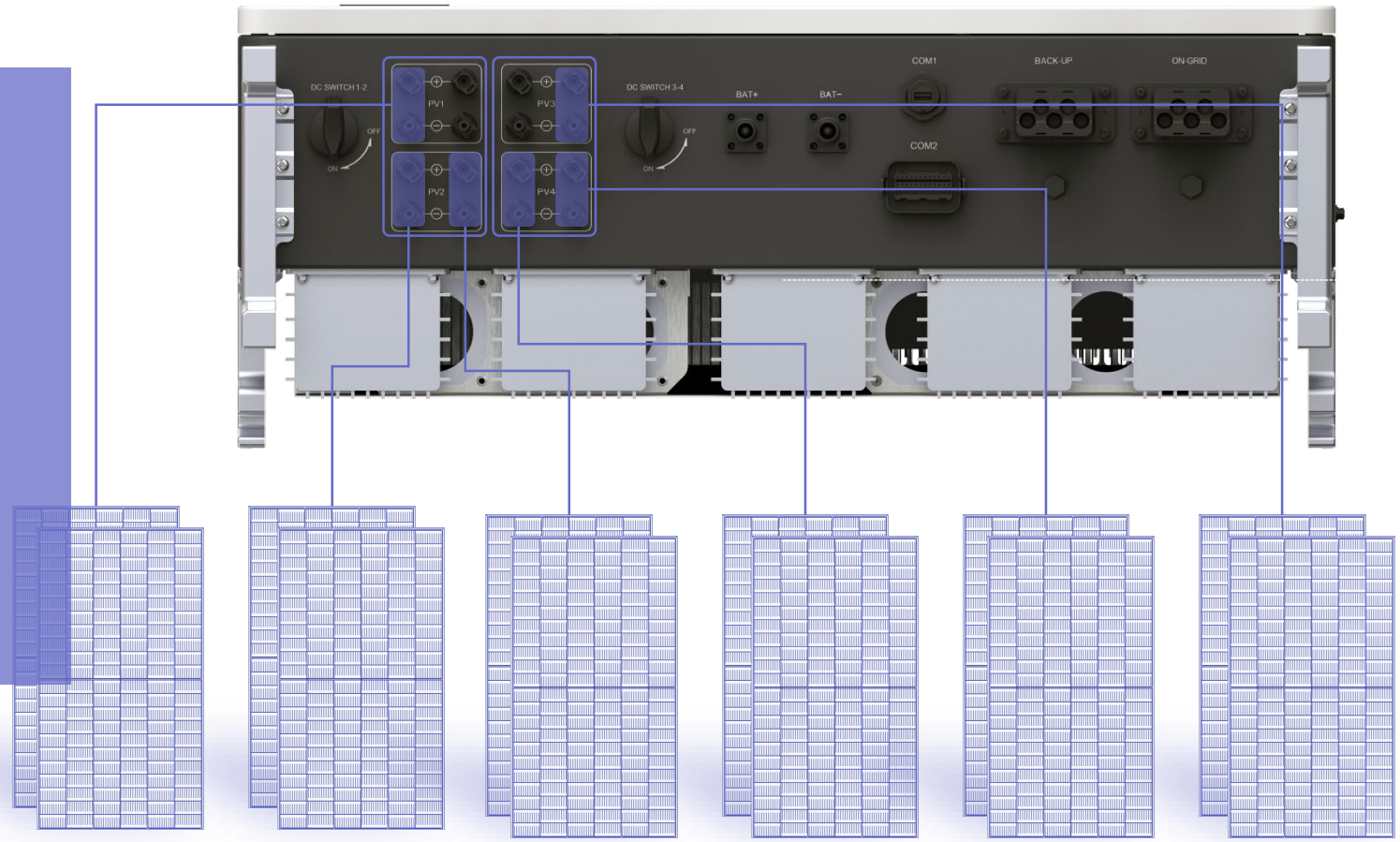
Parameters-30A MPPT Input Current

MHT40-50K Big Current Solution



Compatible With 182/210mm PV Panels

MHT40-50K integrates MPPT parallel function, allowing big current (>15A) panels connection to three of four PV strings in two paralleled MPPTs.



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Parameters-AC Output

Grid	MHT-25K-100	MHT-30K-100	MHT36K-100	MHT40K-100	MHT50K-100
Rated Output Power (kW)	25.0	30.0	36.0	40.0	50.0
Max Output Apparent Power(kVA)	27.5	33.0	39.6	44.0	55.0
Max Input Apparent Power(KVA)	30.0	36.0	43.5	48.0	60.0
Max Battery Charging Power (kW)	25.0	30.0	36.0	40.0	50.0
Rated AC Voltage(V)	3L/N/PE; 220/380V; 230/400V; 240/415V				
Rated AC Frequency(Hz)	50/60				
Max. Output Current (A)	42.0	50.0	60.0	66.0	83.0

Backup	MHT-25K-100	MHT-30K-100	MHT36K-100	MHT40K-100	MHT50K-100
Rated Output Power (kW)	25.0	30.0	36.0	40.0	50.0
Max Output Apparent Power(kVA)	27.5	33.0	39.6	44.0	55.0
Max. Output Current (A)	42.0	50.0	60.0	66.0	83.0
UPS Switching Time	<20ms	<20ms	<20ms	<20ms	<20ms
Rated Output Voltage(V)	3L/N/PE; 220/380V; 230/400V; 240/415V				
Rated Output Frequency(Hz)	50/60				
Peak Output Apparent Power(kVA)	30.0, 60s	36.0, 60s	43.5, 60s	48.0, 60s	60.0, 60s

110%

Support continuous 110% AC overloading

120%

Support 120% Backup overloading for 60s

120%

Up to 120% power injection from the grid to supply backup loads and battery

UPS

UPS switching over within 20ms, backup for your critical loads

Wide grid adaptability

100%

100% unbalanced output on both on-grid and backup port

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Parameters-Battery & Efficiency

Model	MHT-25K-100	MHT-30K-100	MHT36K-100	MHT40K-100	MHT50K-100
Battery Type			Lithium Battery (With BMS)		
Battery Voltage Range (V)	135-750	135-750	135-750	135-750	135-750
Battery Capacity (kWh)	7.1-96.61	7.1-96.61	7.1-96.61	7.1-96.61	7.1-96.61
Max. Charge/Discharge Current (A)	100/100	100/100	100/100	100/100	100/100
Max Efficiency	98.8%	98.8%	98.8%	98.8%	98.8%
European Efficiency	98.3%	98.3%	98.3%	98.3%	98.3%

Support remote control and upgrade of inverter and batteries, convenient for O&M

Compatible with main-stream battery brands Pylon, Aobo, Weco, Wattsonic, Dyness

Wide battery voltage from 135-750V for flexible battery capacity configuration

98.8%

More energy generation with industrial-leading efficiency

≦1H

100A fast charging and discharging, battery is fully charged within 1hour

EMS

Integrate EMS for intelligent energy management

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Highlights-Full Protection

Integrated full protection for the equipment, house loads and people, ensure your electrical safety.

DC Reverse Polarity Protection	Battery Input Reverse Connection Protection
Insulation Resistance Protection	Surge Protection
Over-temperature Protection	Residual Current Protection
Islanding Protection	AC Over-voltage Protection
Overload Protection	AC Short-circiut Protection

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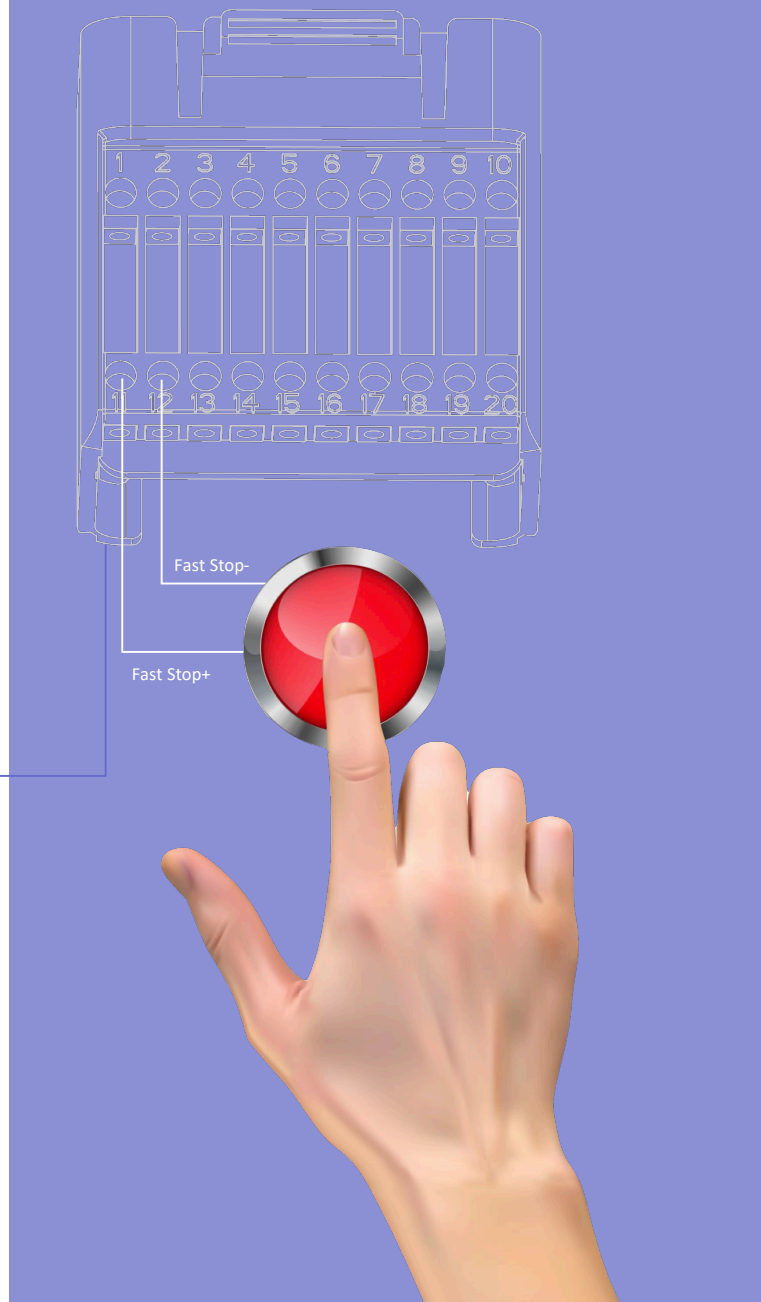
Highlights-Fast Stop

Increase System Safety

Solinteg hybrid inverter comes to stand with a fast stop function which can stop the inverter with a press when an accident occurs and avoid system damage being enlarge.



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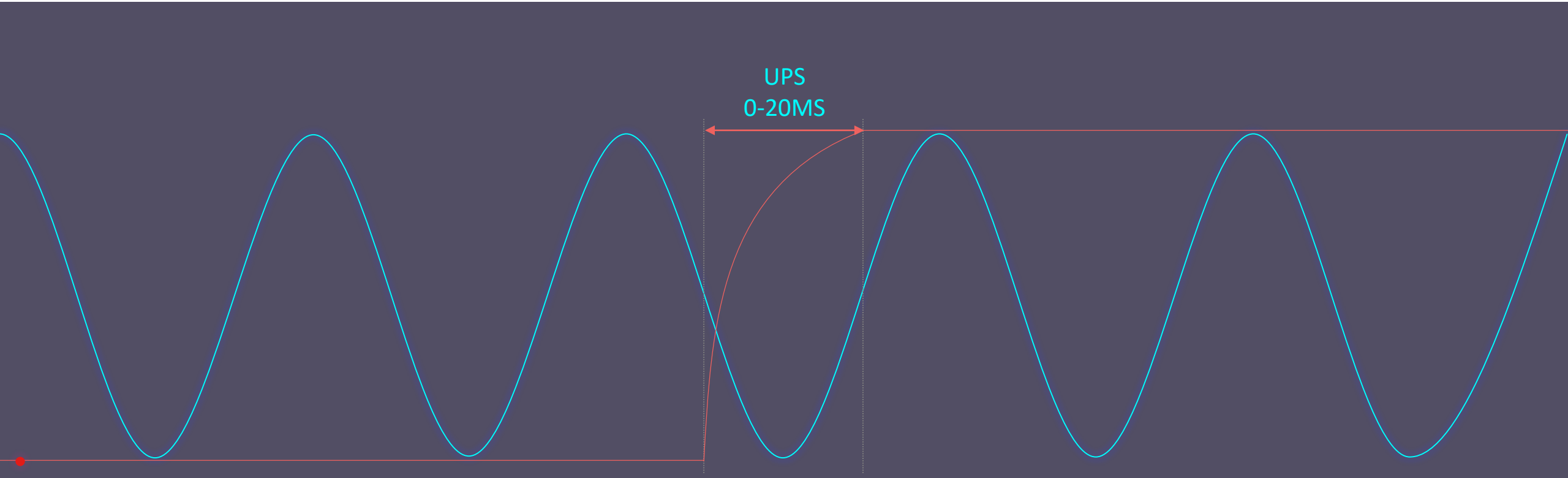
Highlights-20ms UPS Switching Time



UPS level switching over within 20ms, when the power grid blackouts, inverter will switchover from on-grid to back-up mode with 20ms, security for your critical loads

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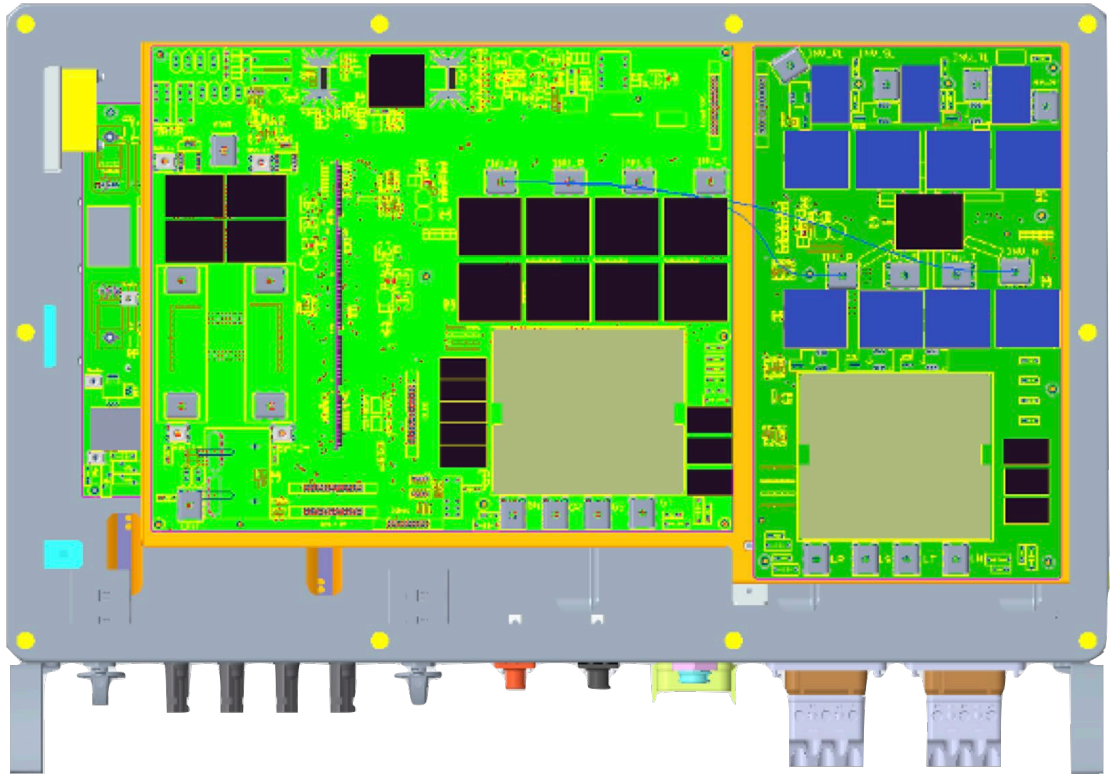
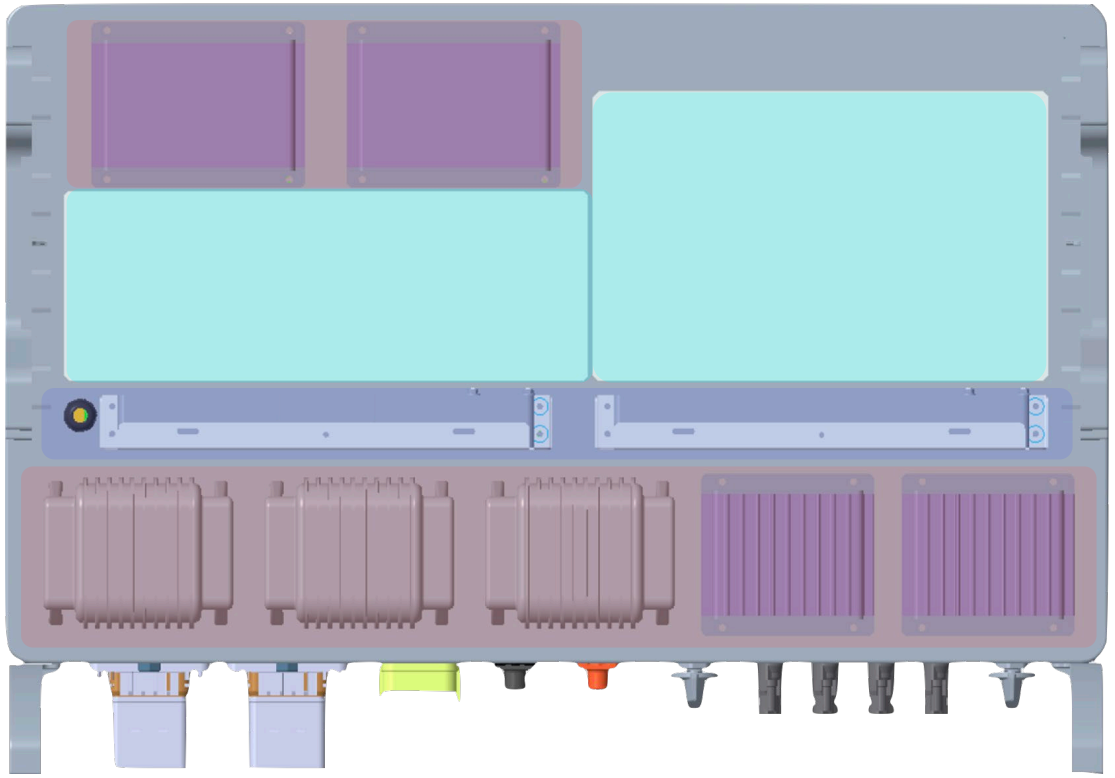
Excellent Heat Dissipation





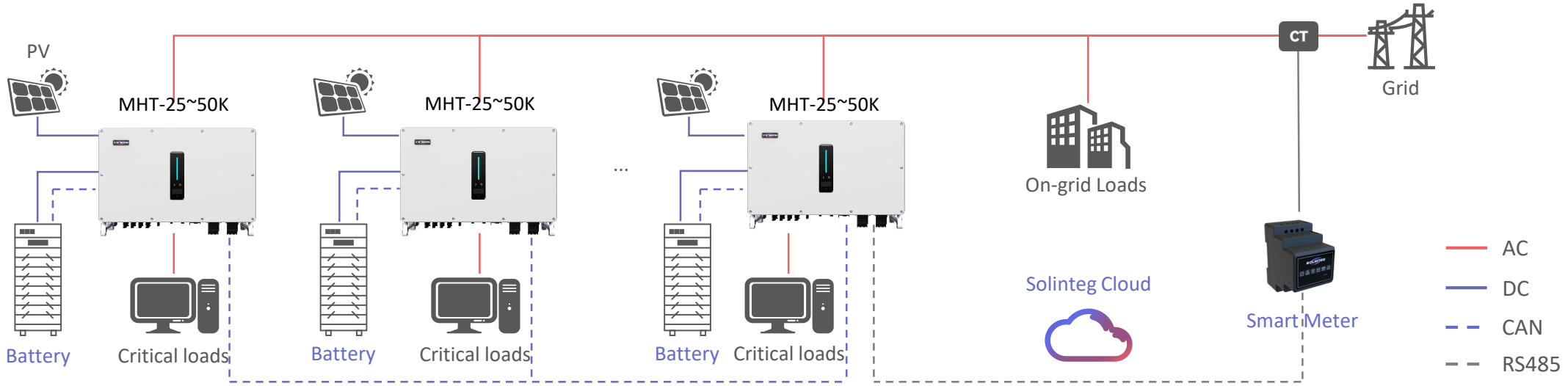
The core components such as the boost power device and IGBT use high thermal conductivity Al heat sink for quick heat dissipation

Each inductor has its inductor box with thermal conductive silicone grease filled for good heat dissipation

Six internal intelligent fans ensures the fast heat dissipation and equalize the inverter chamber temperature

Shorter heat dissipation duct accelerates heat dissipation

Highlights-Paralleling Up To 10 Units



Meet Various Applications Commercial To Industrial

Solinteg hybrid inverter offers up to 10 units of paralleling connection with master-slave controlling technology, which can expand a three-phase hybrid system from 25kW to 500kW with a wide battery capacity from 7.1kWh to 966.1kWh *, suitable for commercial and small industrial projects.

Up to 500kW

* Calculated on Pylontech PowerCube battery

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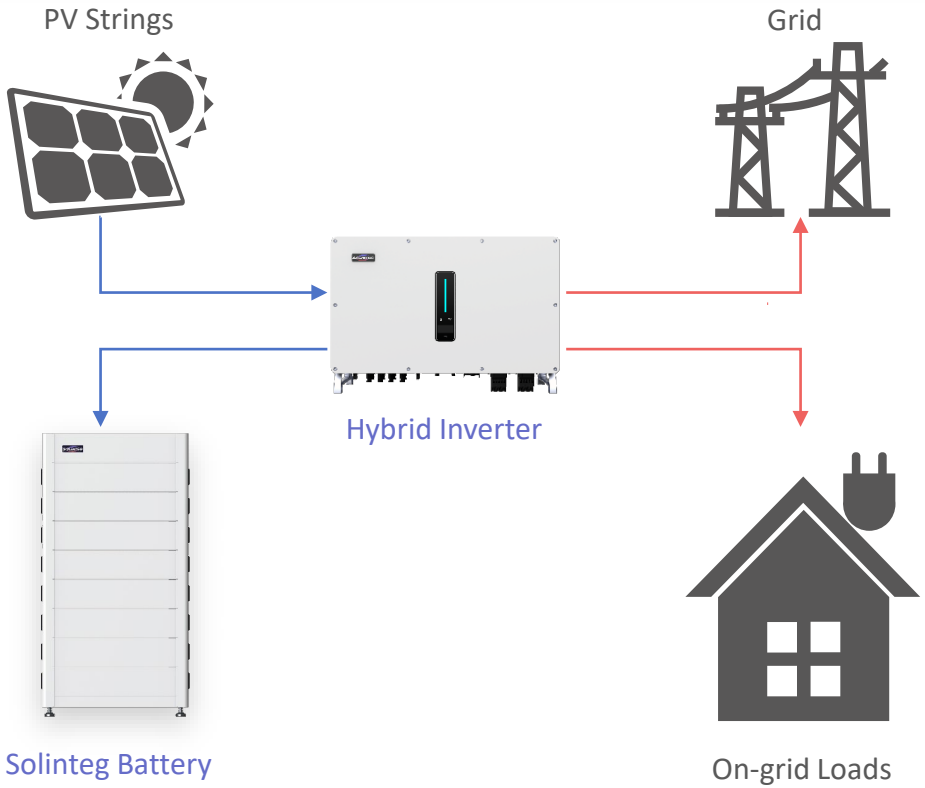
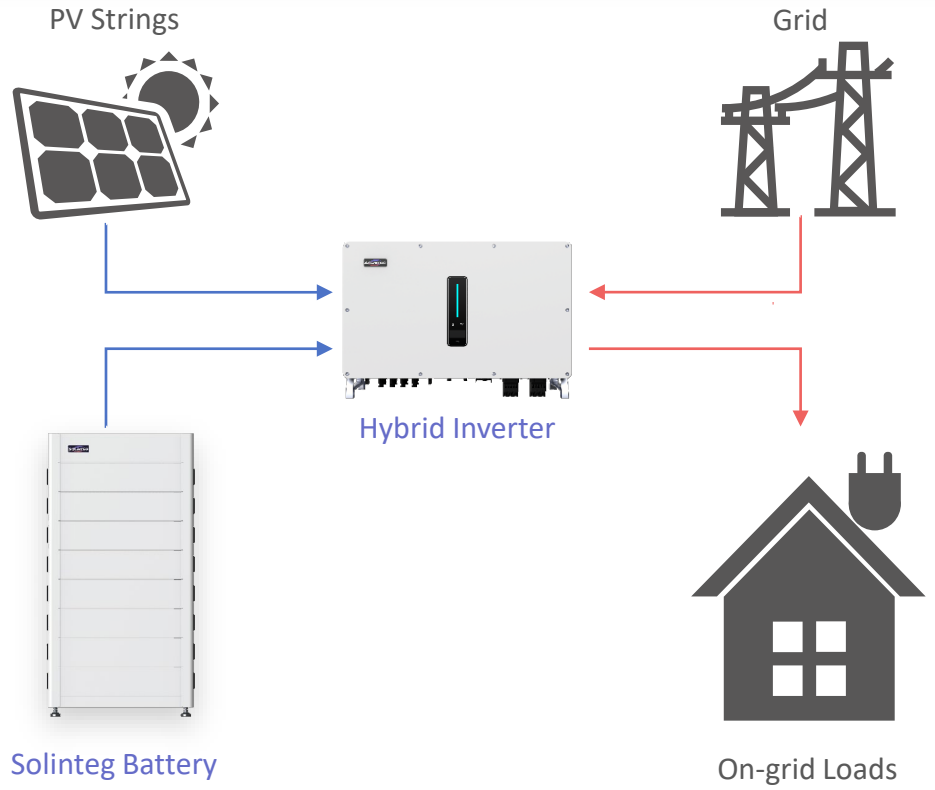
04 Work Modes

Work Modes-General Mode

In general mode, when the PV power is sufficient, power from the PV will firstly supply loads, then excess power charge battery, and any surplus power will be fed to the grid.



In general mode, when the PV power is insufficient to satisfy loads, the battery will discharge power to fill the power gap, and the grid will join in if it's still not enough.



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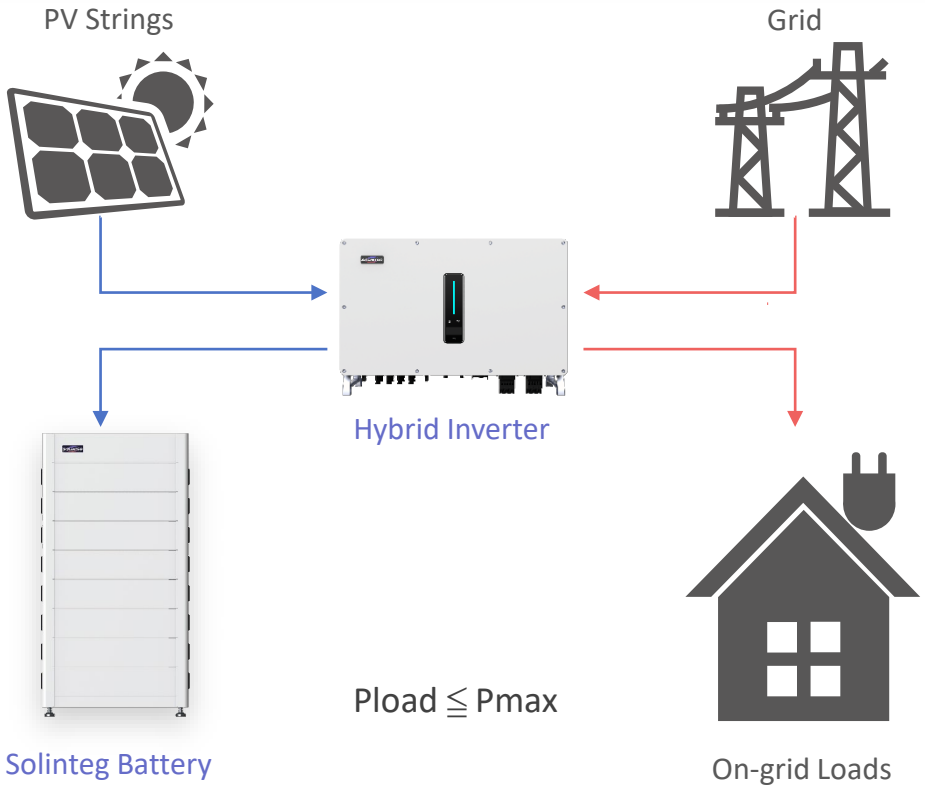
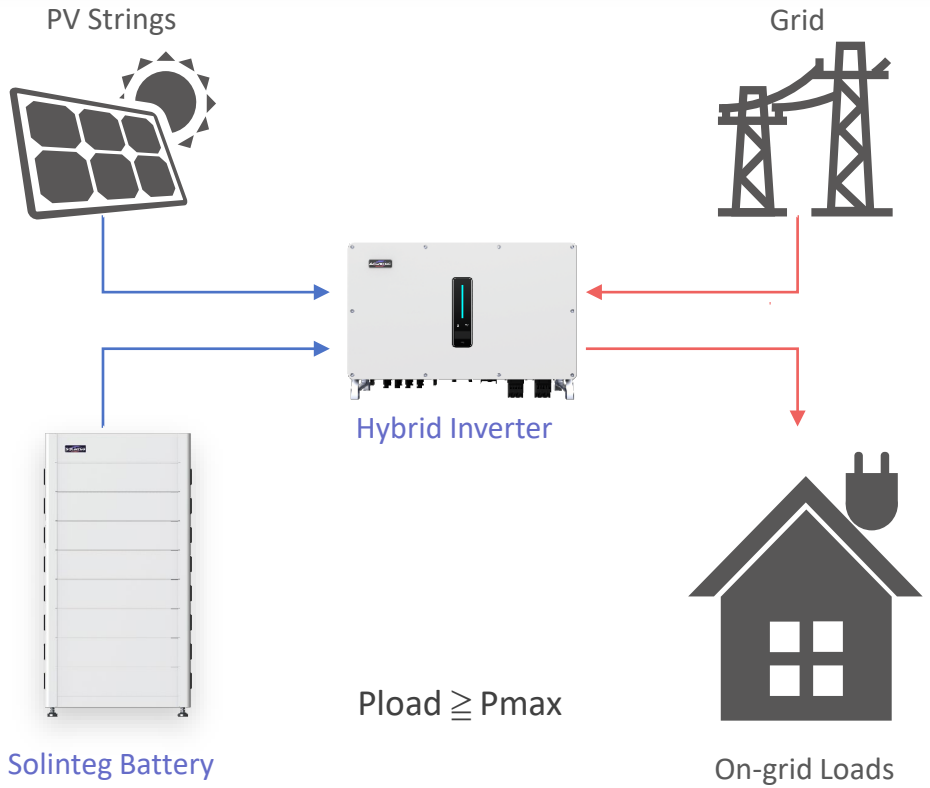
Work Modes-Peak Load Shifting

When the Pload ≦ Pmax(Power contracted with the grid), PV power will charge battery first and the load is supplied by the grid; when the battery is full, PV will supply the load together with grid while battery doesn't.



When the Pload ≧ Pmax(Power contracted with the grid), the inverter will take power from PV, battery and grid to offset the gap power between Pmax and Pload.



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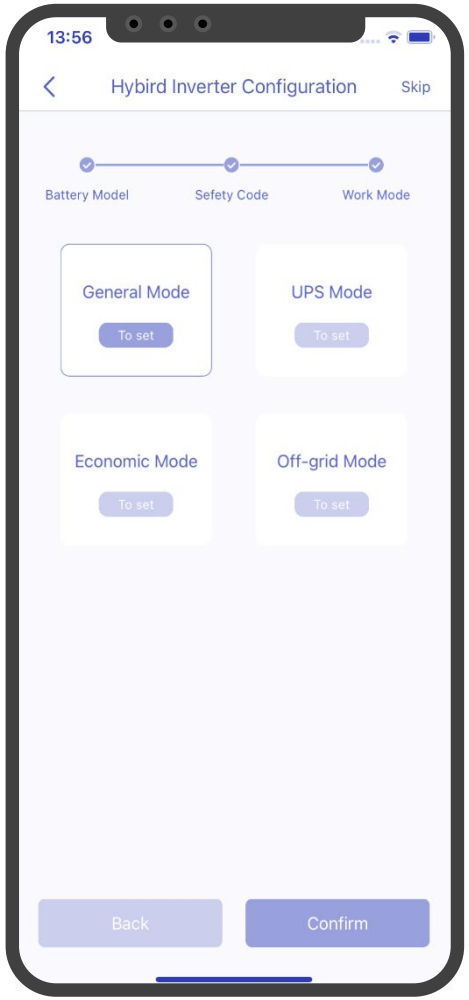
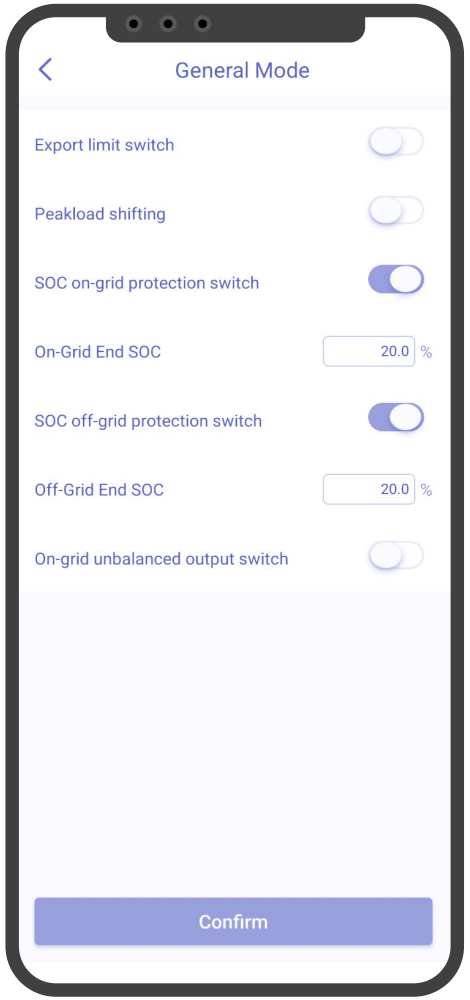
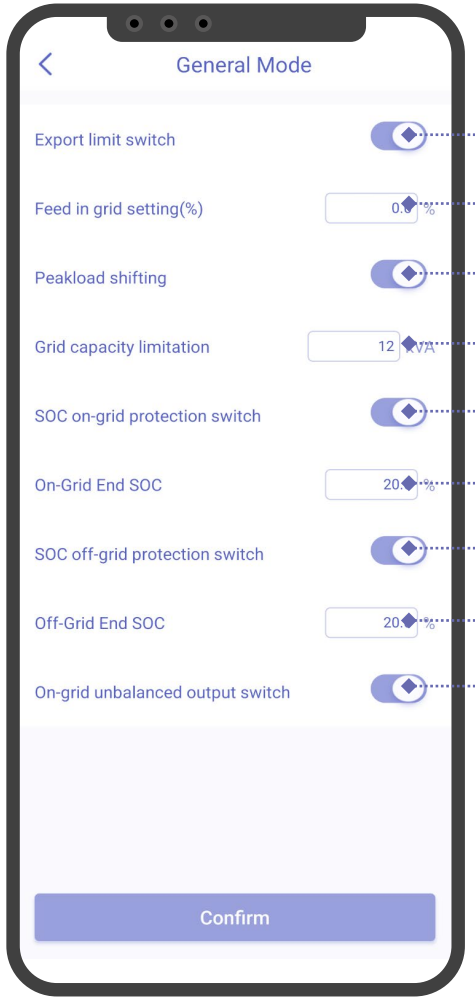
General Mode Settings On The App







- Export limit function ON/OFF switch
- Set the percentage of power allow exported to the grid
- Peak load shifting function ON/OFF switch
- Set the max power that signed with the grid
- On-grid SOC ON/OFF switch
- On-grid SOC percentage setting
- Off-grid SOC ON/OFF switch
- Off-grid SOC percentage setting
- Three-phase unbalanced output ON/OFF switch

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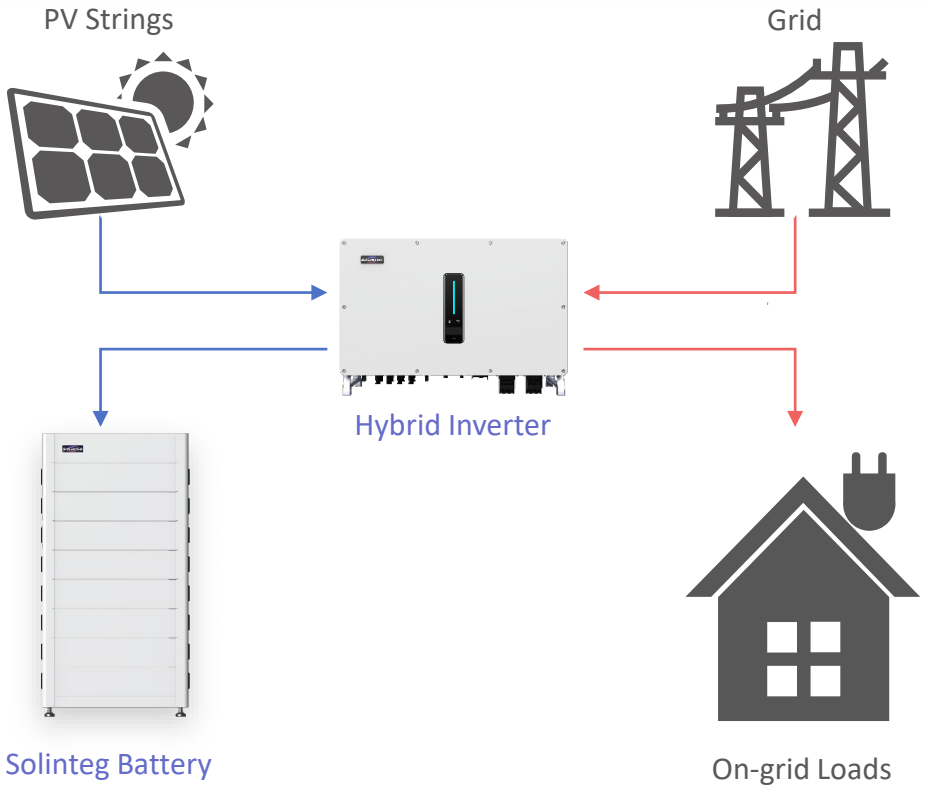
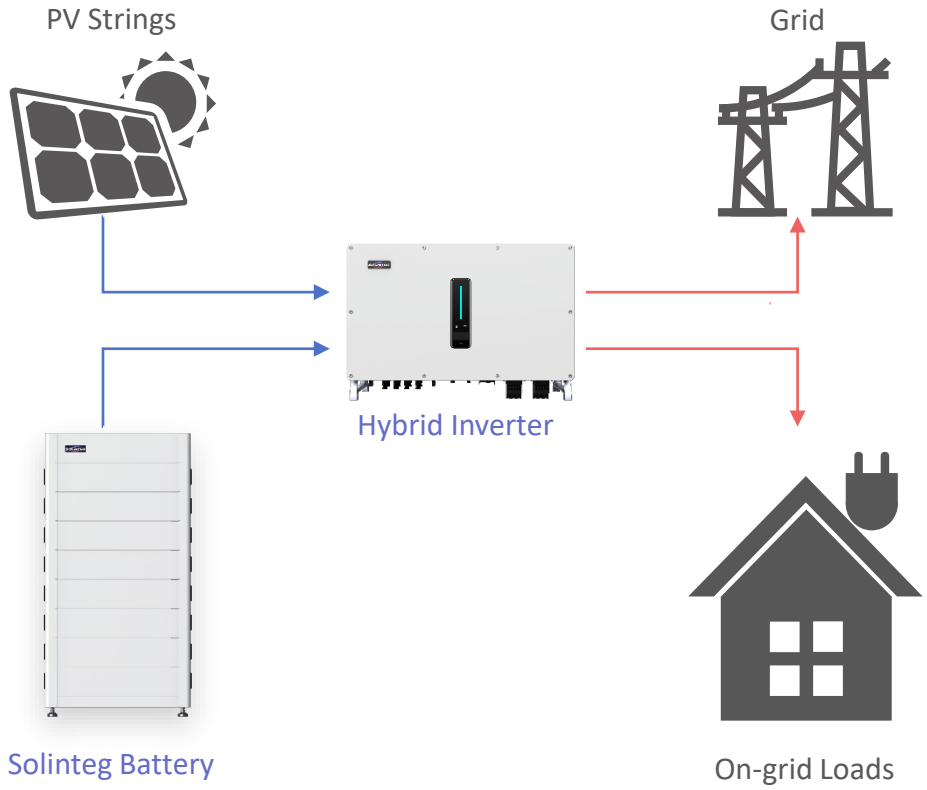
Work Modes-Economic Mode

This mode usually uses in the places where has peak and valley electricity prices to help customers optimize their energy cost. Customer can charge power from grid or PV in valley hours by setting on the App.



Customer can also discharge power in peak hours by setting on the App, and in this case, battery will discharge power to supply loads or feed to grid.



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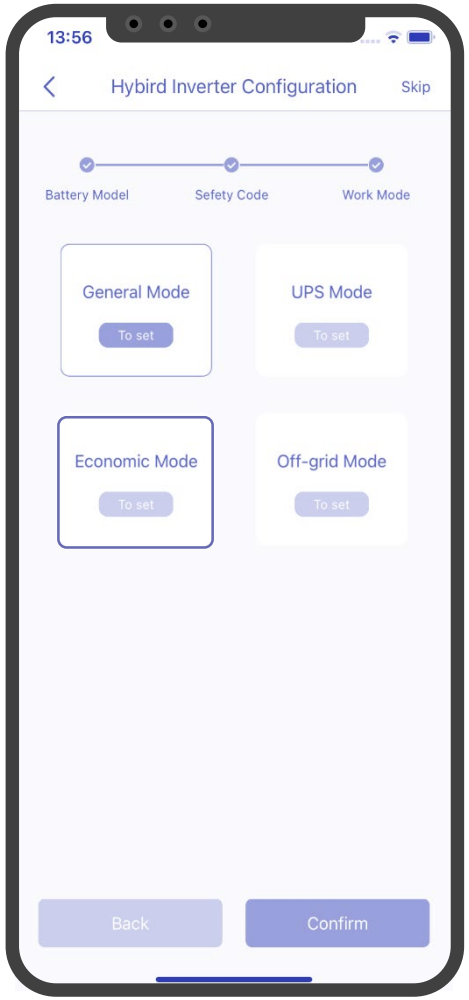
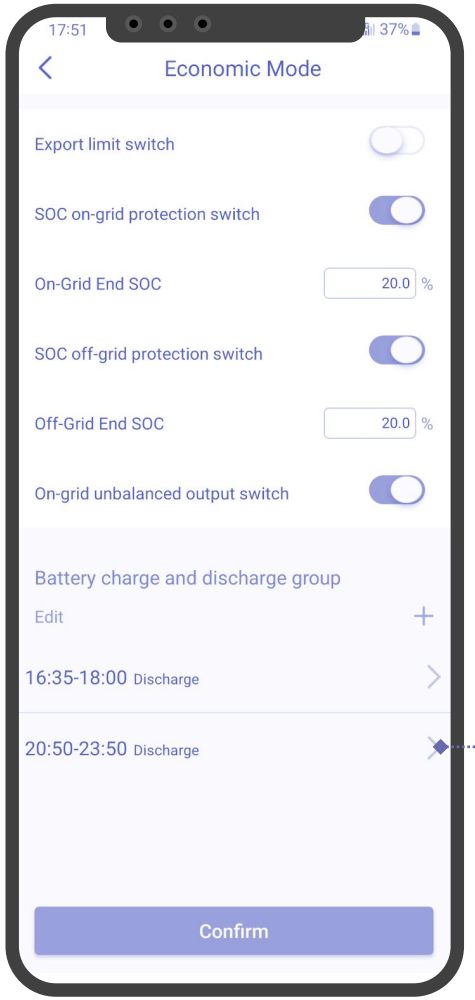
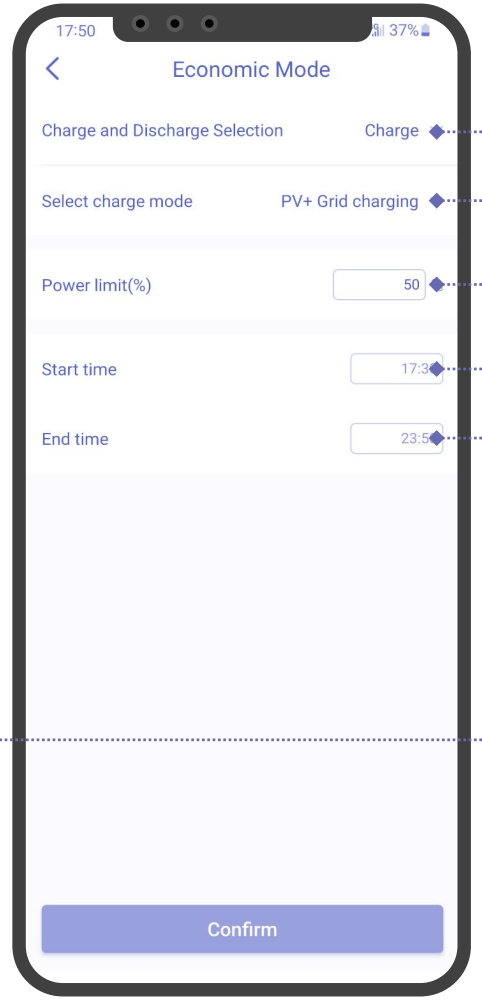
Economic Mode Settings On The App







Select charge or discharge to set the detail param.

Select battery charge sources

Set the max charge power percentage (calculated on the inverter rated output power)

Set the force charge starts time

Set the force charge ends time

Note: The end time must bigger than the start time. Eg. The start time from 17:30, the end time must less than 23:59, if you want to continue charge the battery, you can set a new charge period from 0:00 to a new end time.

You can set up to 6 charging & discharging periods in total.

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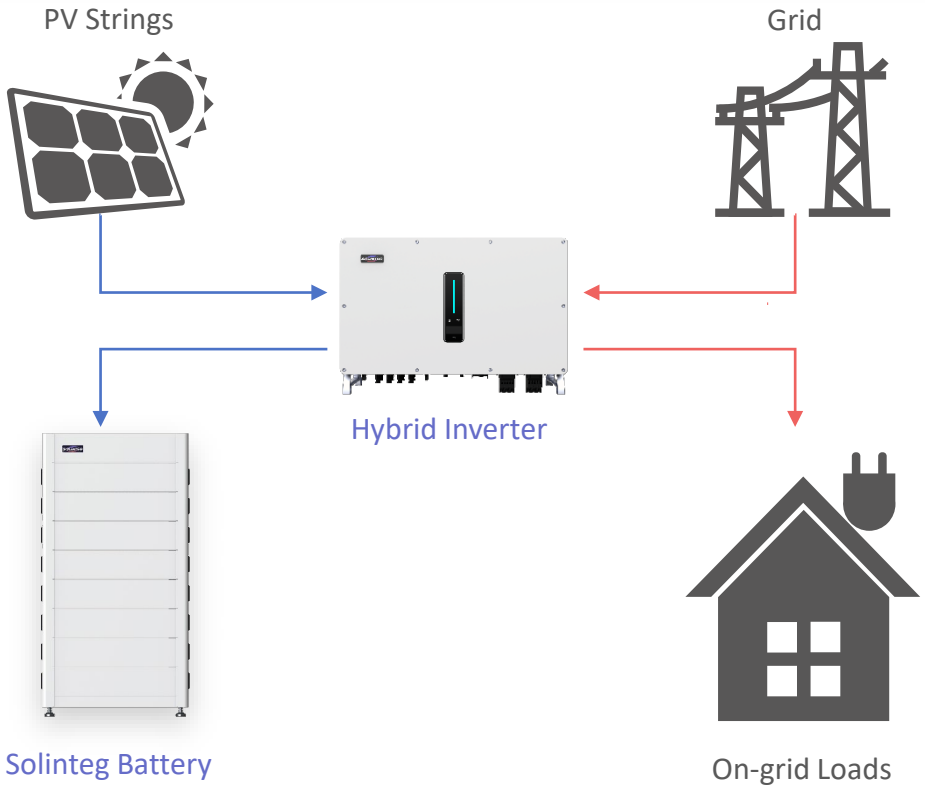
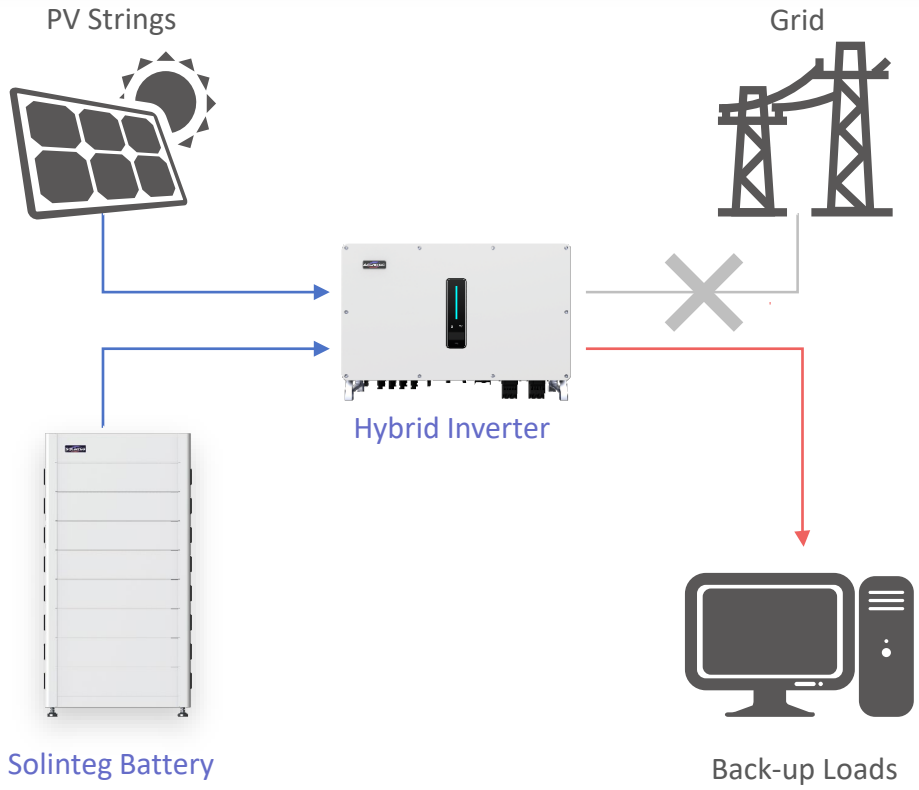
Work Modes-UPS Mode

In this working mode, power from PV will firstly charge the battery until it’s full, and loads will be supplied by the grid during charging period. Battery will not discharge power as long as grid is connected.



When the grid fails, and PV power is insufficient to meet the loads' consumption, the battery will take part in discharging power to supply loads connected to the back-up port.



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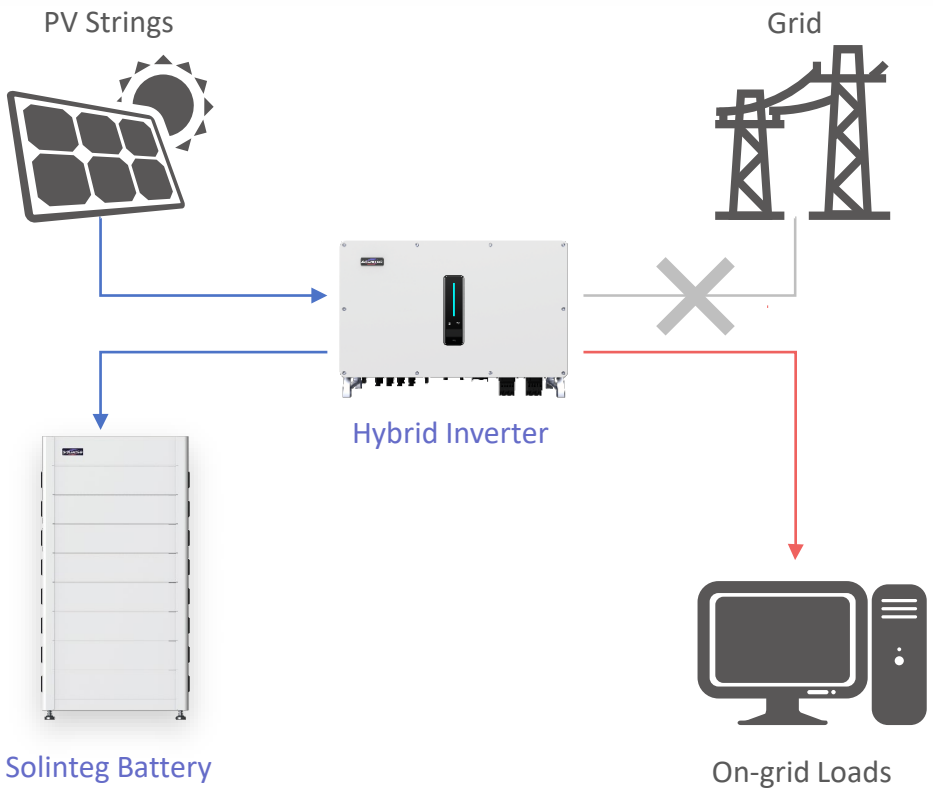
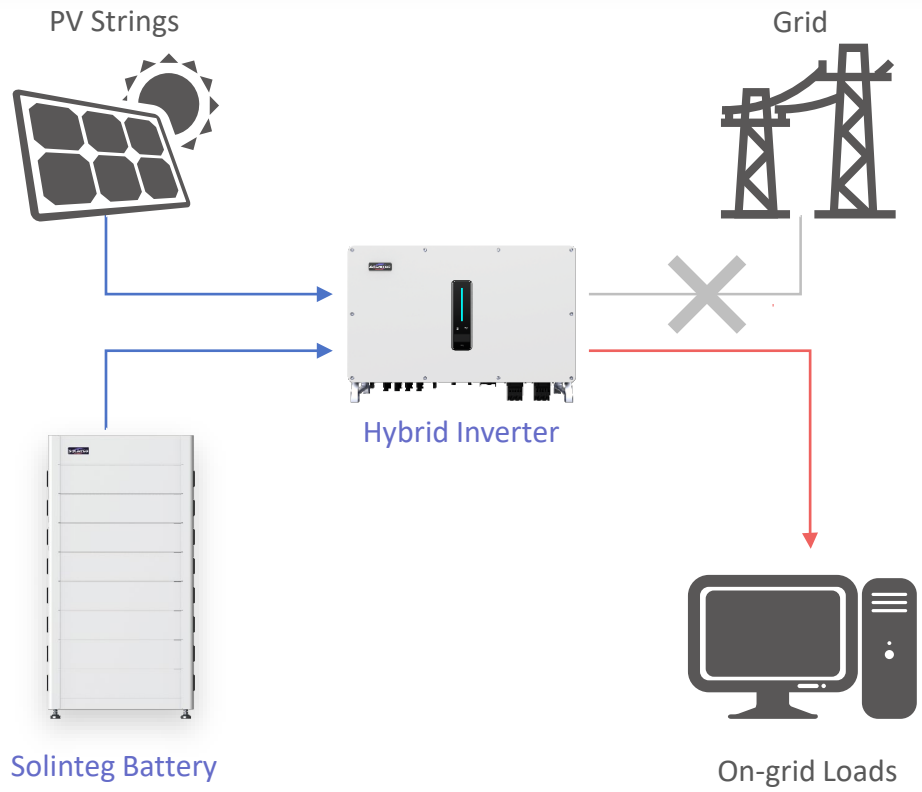
Work Modes-Off-grid Mode

In the purely off-grid mode, power from PV will supply the back-up loads first and then charge the battery if there's surplus power.



When the power from PV isn't enough, the battery will discharge to supply back-up loads together with PV.



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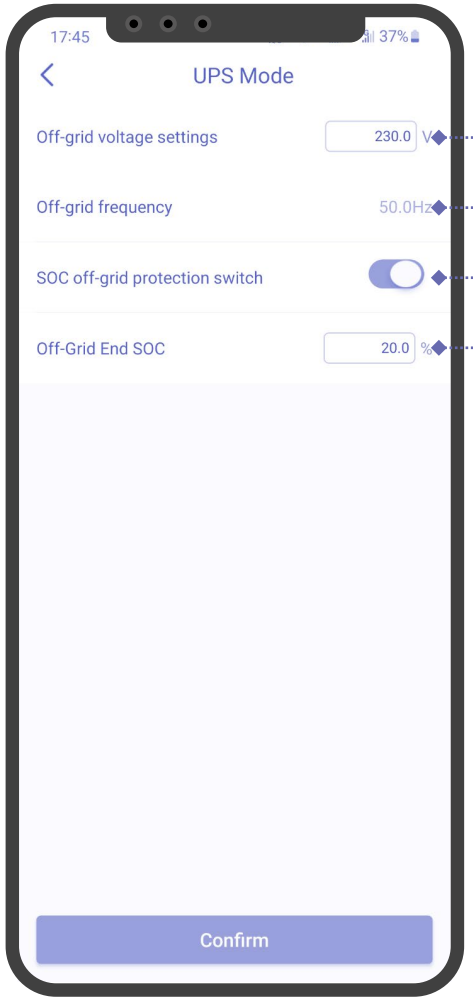
UPS & Off-grid Modes Setting On The App



Set the output voltage according to the local grid regulation

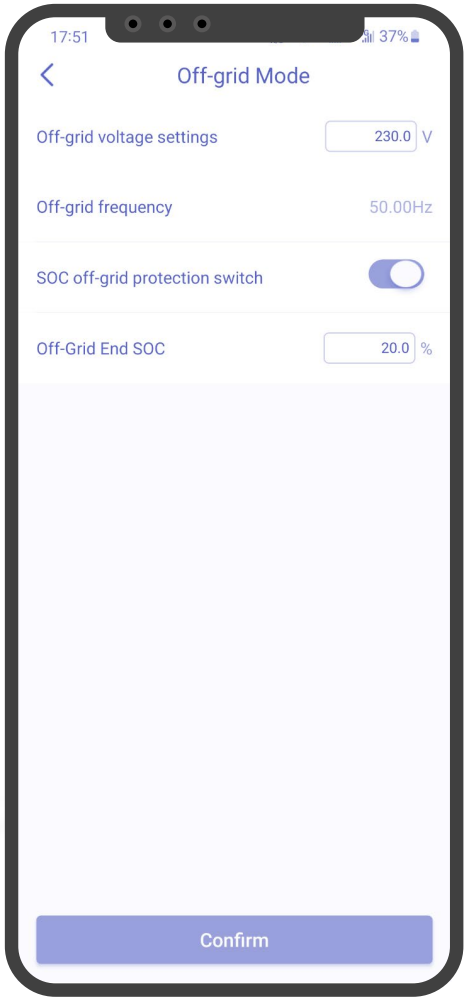
Set the output frequency according to the local grid regulation

Off-grid SOC ON/OFF switch

Off-grid SOC percentage setting

Did you know?

Off-grid settings are the same as UPS mode, both can be used as backup power when the grid fails, and off-grid mode usually suits for a long time with no power grid.



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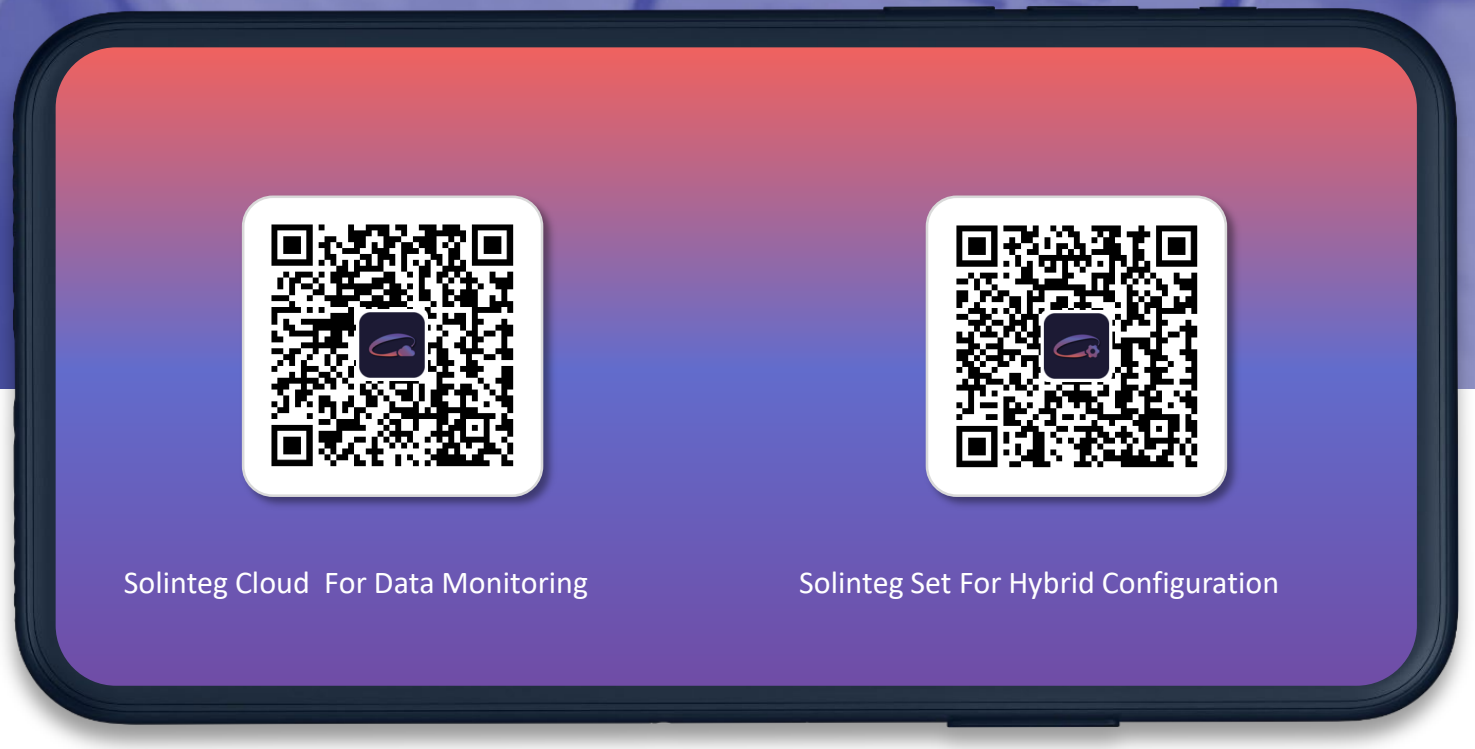
Solinteg Energy Management Platform

Web Monitoring Portal

www.solinteg-cloud.com



Solinteg Cloud For Data Monitoring

Solinteg Set For Hybrid Configuration

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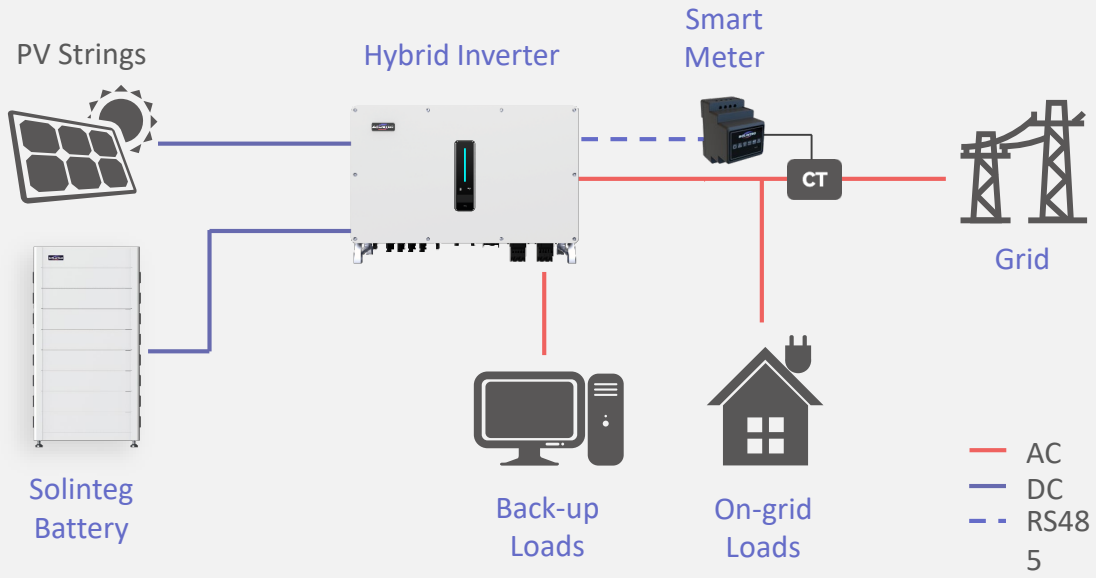
05

Application Scenarios

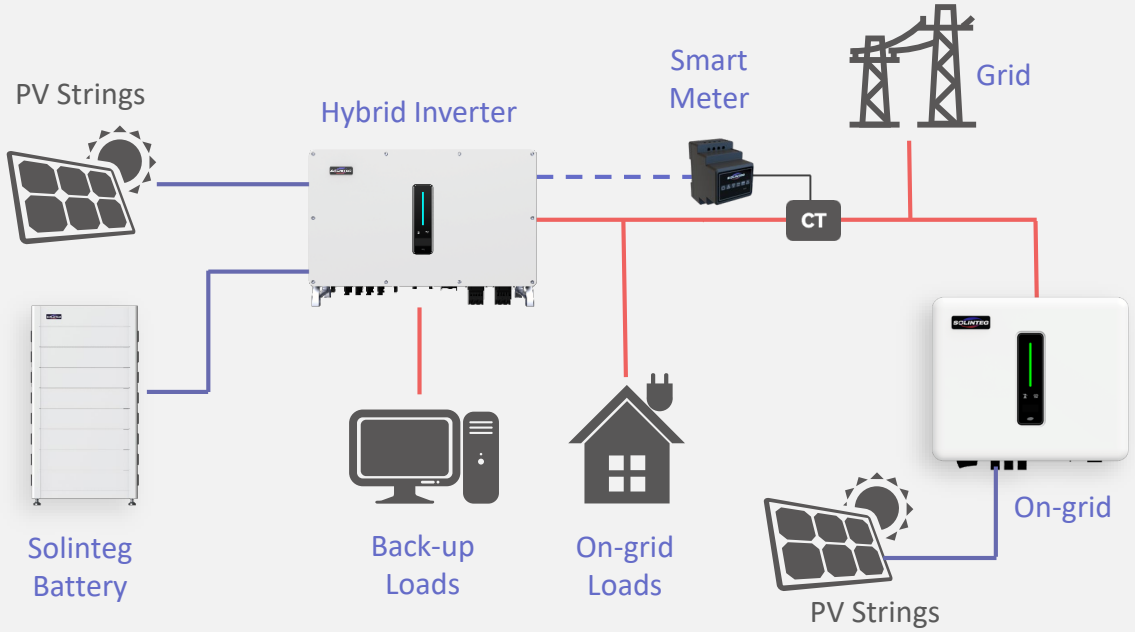
Application Scenarios

NEW INSTALLATION

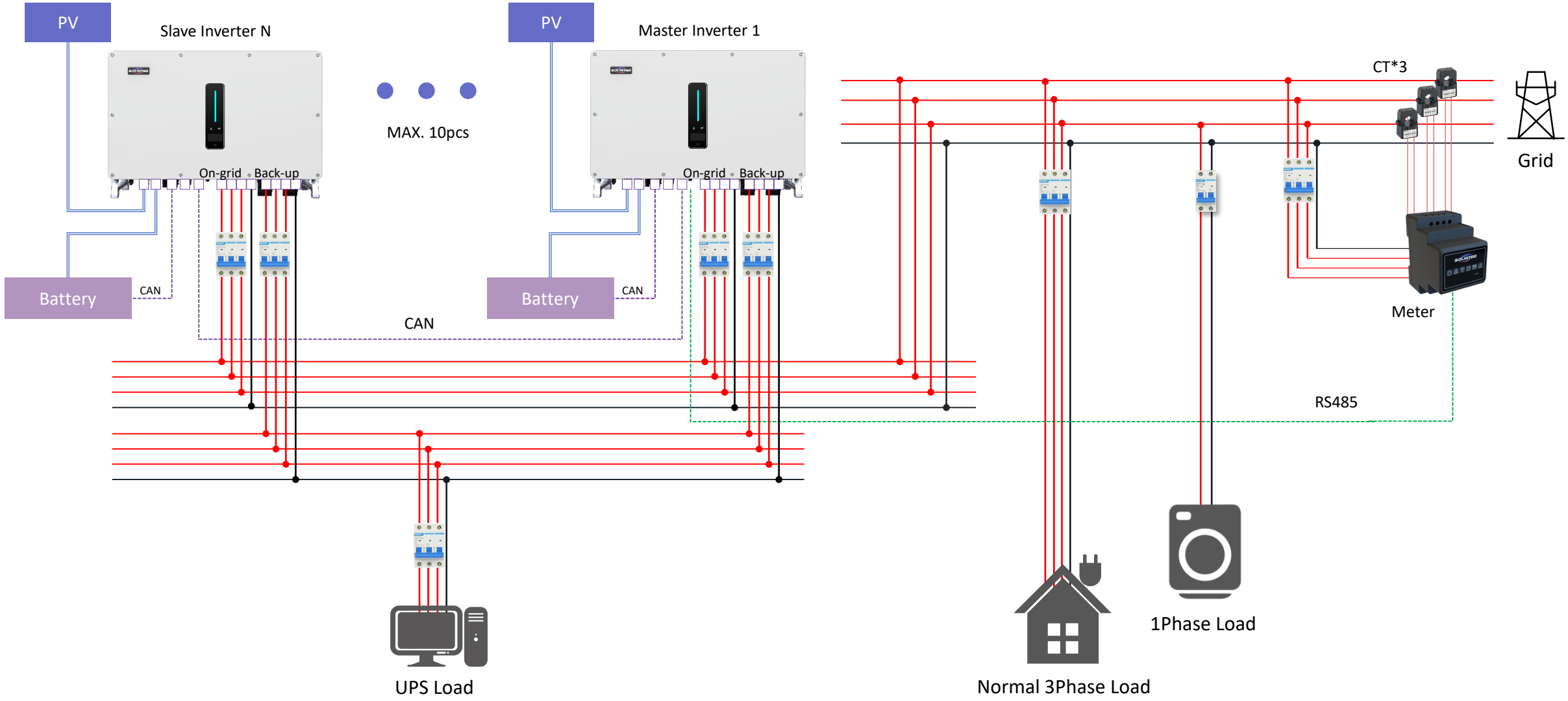


EXISTING INSTALLATION

Suitable For New or Existing Installation



Paralleling Connection-Master Slave Controlling



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06 Compatible Batteries

Model MHT25-50K Compatible Battery

SOLINTEG	PYLONTECH	DYNESS
EBS-5150-7	Force H1 & H2	Tower Series T10-T21
EBS-5150-10	Force H2 2-4pcs (3.55kWh)	H3 Series 3.55kWh
EBS-5150-12	LiPower-U400 (56.8kWh)	Powercube H3-7~H3-17
EBS-5150-15	Powercube-X2 (24.9kWh)	RACK H3-7~H3-24
EBS-5150-17	Powercube-H2 (42.62kWh)	
EBS-5150-20	Powercube-M1 (94.72kWh)	
	Powercube-M2A (96.61kWh)	
	Powercube-M3A (96.61kWh)	

- More batteries are being tested for protocol compatibility debugging.

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THANK YOU

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