

PYTES

JS Series Hybrid Inverters

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- 02 Overview
- 03 Packing List
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>>> 01 MODELS



JS3PL10K

JS3PL12K

JS3PL15K

Model

JS

OEM Manufacturer

3P

Three Phase

L

Low Voltage

15K

Rated Output Power

>>> 02 OVERVIEW



Right
Top



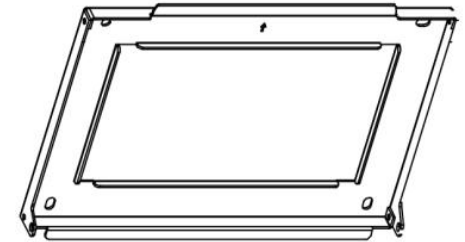
Back
Left



>>> 03 PACKING LIST



JS Series Hybrid x1pc



Back panel
bracket x1pc



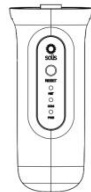
Parallel cable x1pc



Meter
communication
cable x1pc



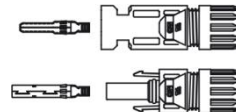
Bluetooth
Antenna x1pc



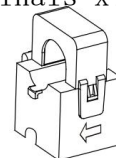
WiFi Plug
x1pc



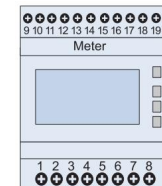
RJ45 x6pcs



Photovoltaic
Terminals x4pcs



CT x3pcs



meterx1pc



Manual x1pc



Backplane to inverter
fastening screws x2pcs



Back panel to wall
expansion screws x4pcs

>>> 04 PARAMETERS

Models	JS3PL8K	JS3PL10K	JS3PL12K	JS3PL15K
Input DC (PV side)				
Max. usable PV input power	12.8 kW	16 kW	19.2 kW	24 kW
Max. input voltage	1000 V			
Rated voltage	550 V			
Start-up voltage	160 V			
MPPT voltage range	200 – 850 V			
Max. input current	20A / 40A			40A / 40A
MPPT number / Max. input strings number	2 / 3			2 / 4
Battery				
Battery type	Li-ion / Lead-acid			
Battery voltage range	40 – 60 V			
Max. charge / discharge current	180A	220A	250A	290A
Communication	CAN / RS485			
Output AC (Grid side)				
Rated output power	8 kW	10 kW	12 kW	15 kW
Max. apparent output power	8 kVA	10 kVA	12 kVA	15 kVA
Operation phase	3/N/PE			
Rated grid voltage	220V/380 V , 230V/400 V			
Rated grid frequency	50 Hz / 60 Hz			
Rated grid output current	12.2A / 11.5A	15.2A / 14.4A	18.2A / 17.3A	22.8A / 21.7A
Max. output current	12.2A / 11.5A	15.2A / 14.4A	18.2A / 17.3A	22.8A / 21.7A
Power factor	> 0.99 (0.8 leading – 0.8 lagging)			
THDi	< 3%			
Input AC (Grid side)				
Input voltage	3/N/PE, 220V/380 V , 230V/400 V			
Max. input current	18.3A / 17.3A	22.8A / 21.7A	27.3A / 26.0A	34.2A / 32.5A
Frequency range	45 – 55 Hz / 55 – 65 Hz			

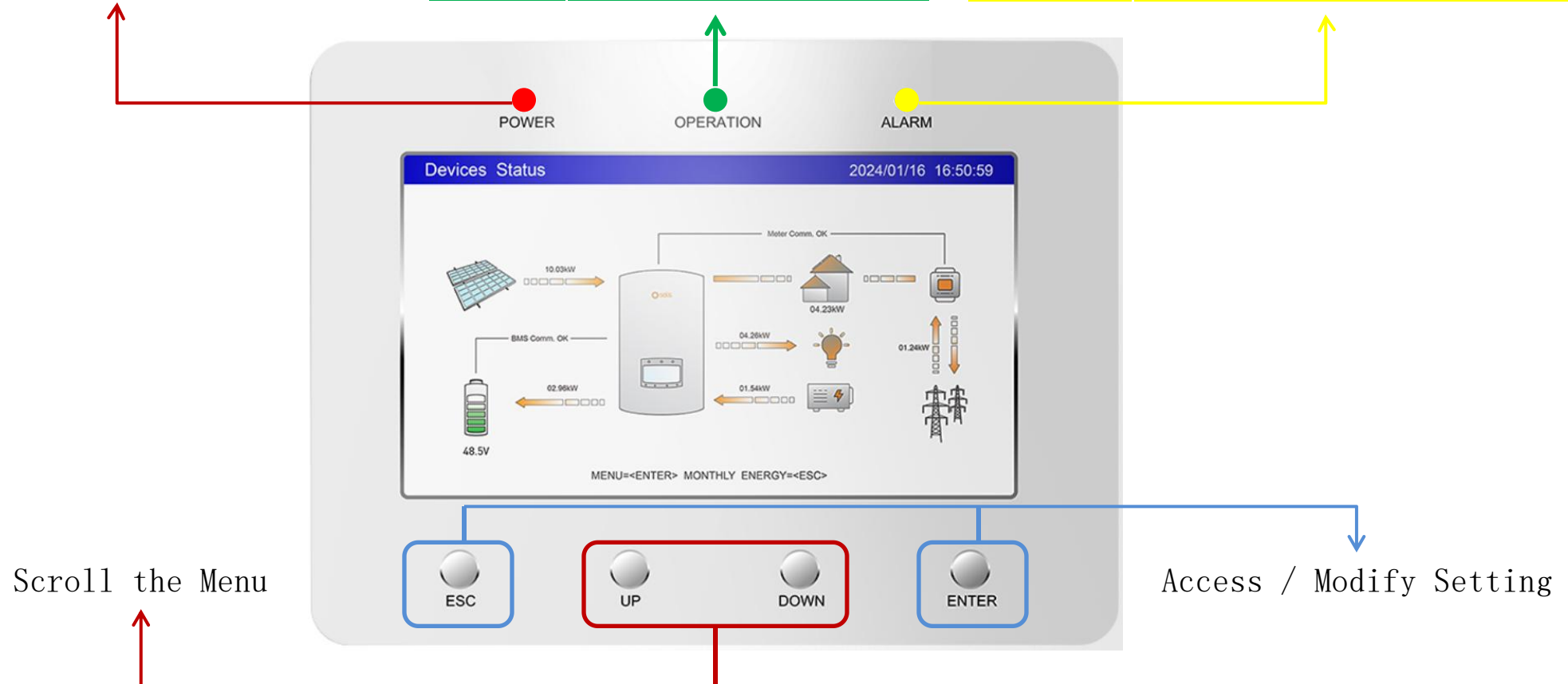
Models	JS3PL8K	JS3PL10K	JS3PL12K	JS3PL15K
Input Generator				
Max. input power	8 kW	10 kW	12 kW	15 kW
Max. input current	12.2A	15.2A	18.2A	22.8A
Rated input voltage	3/N/PE, 220V/380 V , 230V/400 V			
Rated input frequency	50 Hz / 60 Hz			
Output AC (Back-up)				
Rated output power	8 kW	10 kW	12 kW	15 kW
Max. apparent output power	2 times of rated power, 10 s			
Back-up switch time	< 10 ms			
Rated output voltage	3/N/PE, 220V/380 V , 230V/400 V			
Rated frequency	50 Hz / 60 Hz			
Rated output current	12.2A / 11.5A	15.2A / 14.4A	18.2A / 17.3A	22.8A / 21.7A
Max. continuous output current	12.2 A	15.2 A	18.2 A	22.8 A
Max. continuous AC passthrough current	50 A			
THDv (@linear load)	< 3%			
Efficiency				
Max. efficiency	97.60%			
Protection	Anti-islanding , Output over current, Short circuit, DC reverse-polarity, Surge			
General Data				
Dimensions (W × H × D)	430 × 660 × 305 mm			
Weight	42 kg			
Operating ambient temperature	-40 ~ +60℃			
Ingress protection	IP66			
Noise emission (typical)	< 65 dB(A)			
Cooling	Intelligent fan-cooling			
Max. operation altitude	4000 m			
Features				
Display	7.0" LCD display & Bluetooth + APP			
Communication	CAN, RS485, Ethernet, Wi-Fi, Cellular, LAN			

>>> 05 OPERATION PANEL

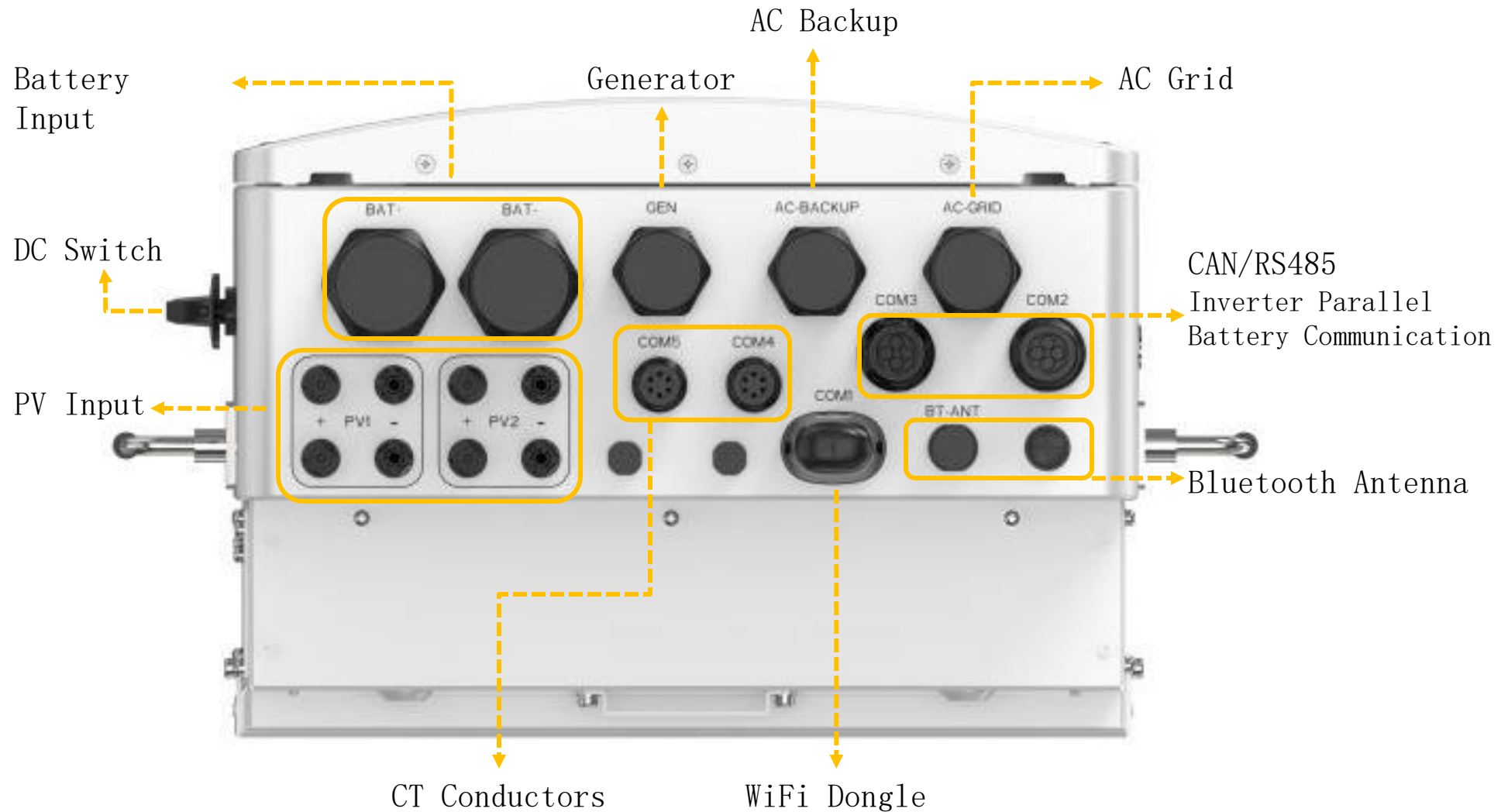
ON	Inverter detects DC power
OFF	No DC Power

ON	Running normally
OFF	Stopped running
Flashing	Inverter is initializing

ON	Emergency Fault
OFF	No Fault Detected
Flashing	Warning and Normal Fault



>>> 06 CONNECTION INTERFACE



ICATES



Safety

IEC 62109-2:2011
EN 62109-2:2011
IEC 62109-1:2010
EN 62109-1:2010
IEC 62477-1:2012+A1
EN 62477-1:2012+A11+A1+A12

Grid-connected island

IEC 61727:2004
IEC 62116:2014

Environmental efficiency

IEC 60068-2-1:2007
IEC 60068-2-2:2007
IEC 60068-2-14:2023
IEC 60068-2-30:2005
IEC 60068-2-27:2008
IEC 60068-2-64:2008+A1
IEC 61683:1999
EN 50530:2010+A1

flicker harmonics

IEC 61000-3-11:2017
IEC 61000-3-12:2011+A1
IEC 61000-3-2:2018+A1+A2/03.24
IEC 61000-3-3:2013+A1+A2

CE

EMC
RED



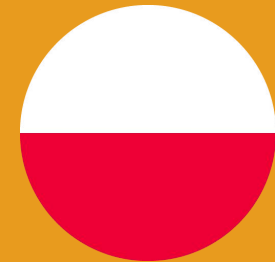
EN 50549-1: 2019
EN 50549-1: 2019/A1
EN 50549-10: 2022



VDE-AR-N 4105:2018
2-1:2024



NRS 097-



2016/631 EU (NC RfG)
PSE 2018-12-18

08 FEATURES

- Reliable
- Diesel generator input
- AC coupling, upgrade the existing photovoltaic system to an energy storage system.
- Smart load – load classification priority
- 200% 10s instantaneous load when off-grid
- <10ms UPS-level switching from Grid to battery
- Three-phase unbalanced load, each phase has a maximum of 50% rated power output
- Up to 6 custom charging and discharging time settings
- Maximum 6 units in parallel
- Maximum 20A PV input current, suitable for high-current output photovoltaic panels
- 290A battery charge and discharge current, faster charging speed, greater output power
- Communication with multiple battery models
- Low-voltage system investment, high safety, easy installation
- Main electricity price AI access, realize intelligent adjustment of charge and discharge time- under test

>>> 08 FEATURES

✓ Reliable

STÄUBLI

Photovoltaic
Terminals

Littelfuse

IGBT

MAGNETICS

DCDC

nichicon

Capacitors



wieland

AC connector



santon

DC Switch



**TEXAS
INSTRUMENTS**

CHIP

NXP

CONVERTER



ZETTLER

Display

VAC
VACUUMSCHMELZE

Sensor

infineon

TOSHIBA

VISHAY

EPCOS

NCC株式会社

Rubycon

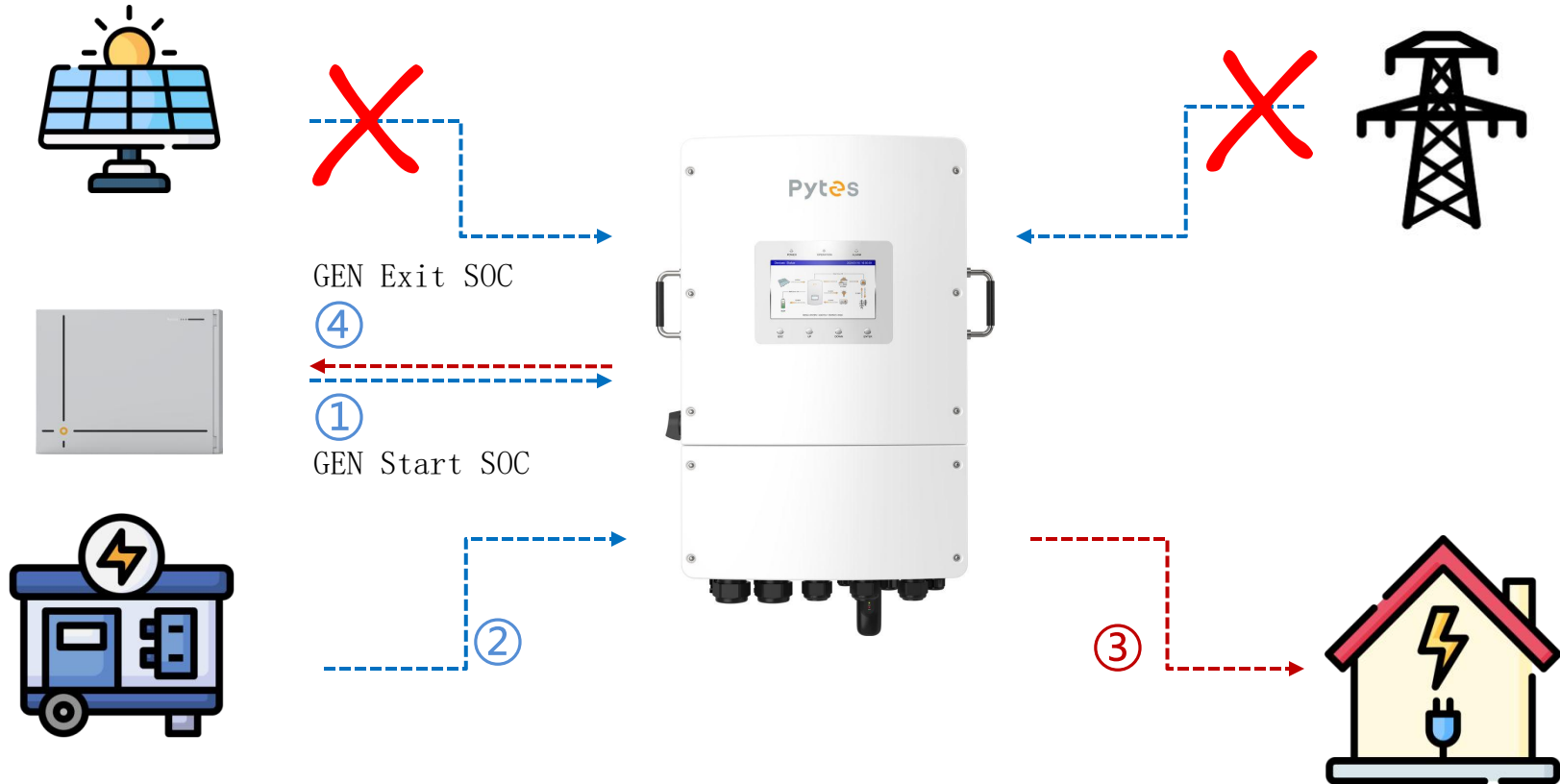
TDK

SiTime

ST
life.augmented

>>> 08 FEATURES

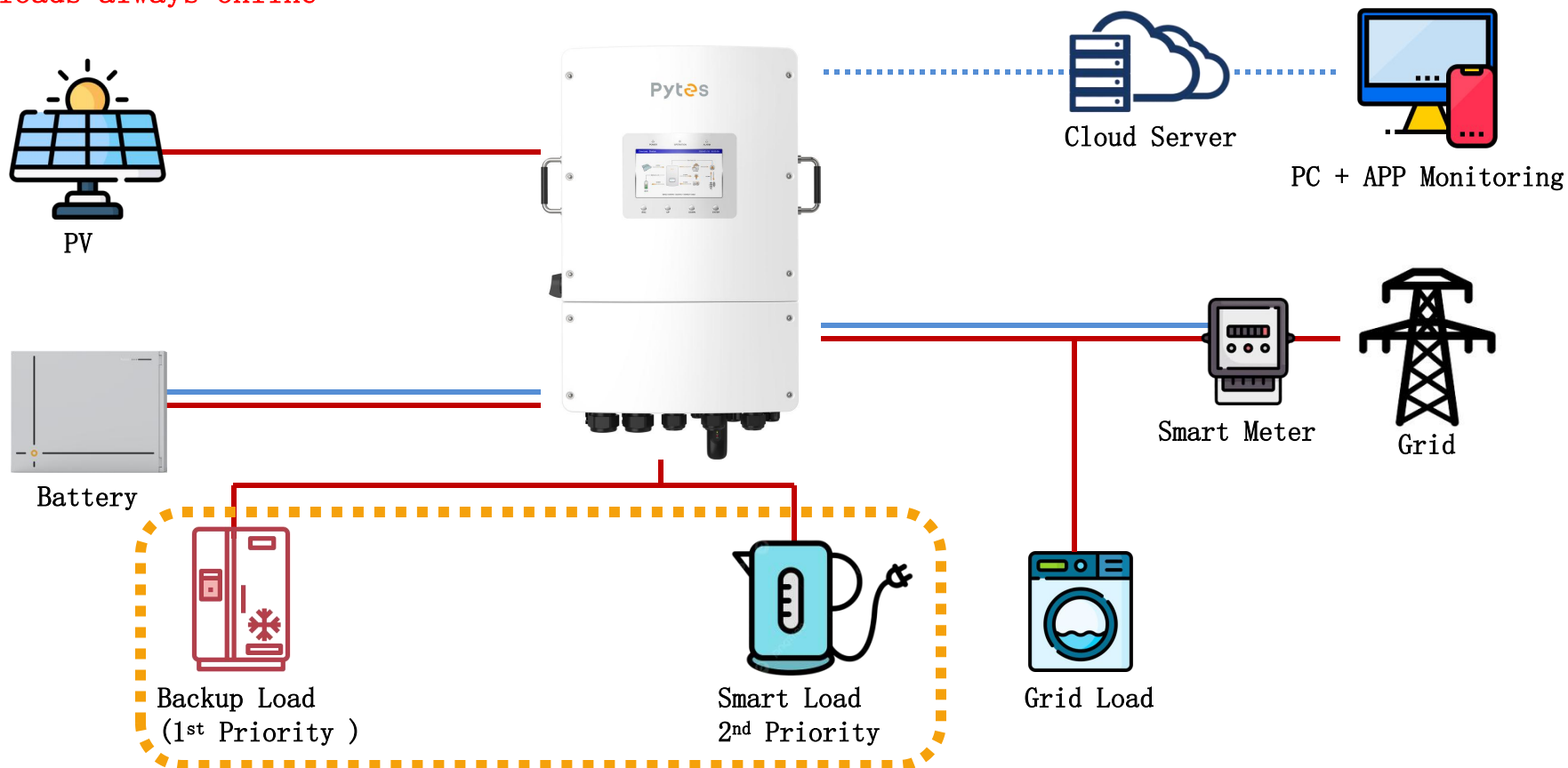
✓ Gen input
Battery+Generator



>>> 08 FEATURES

✓ Dual output

Customize load types to keep critical loads always online



GEN port can be used as load output port.

Select Smart Load Output as Smart Port type on APP

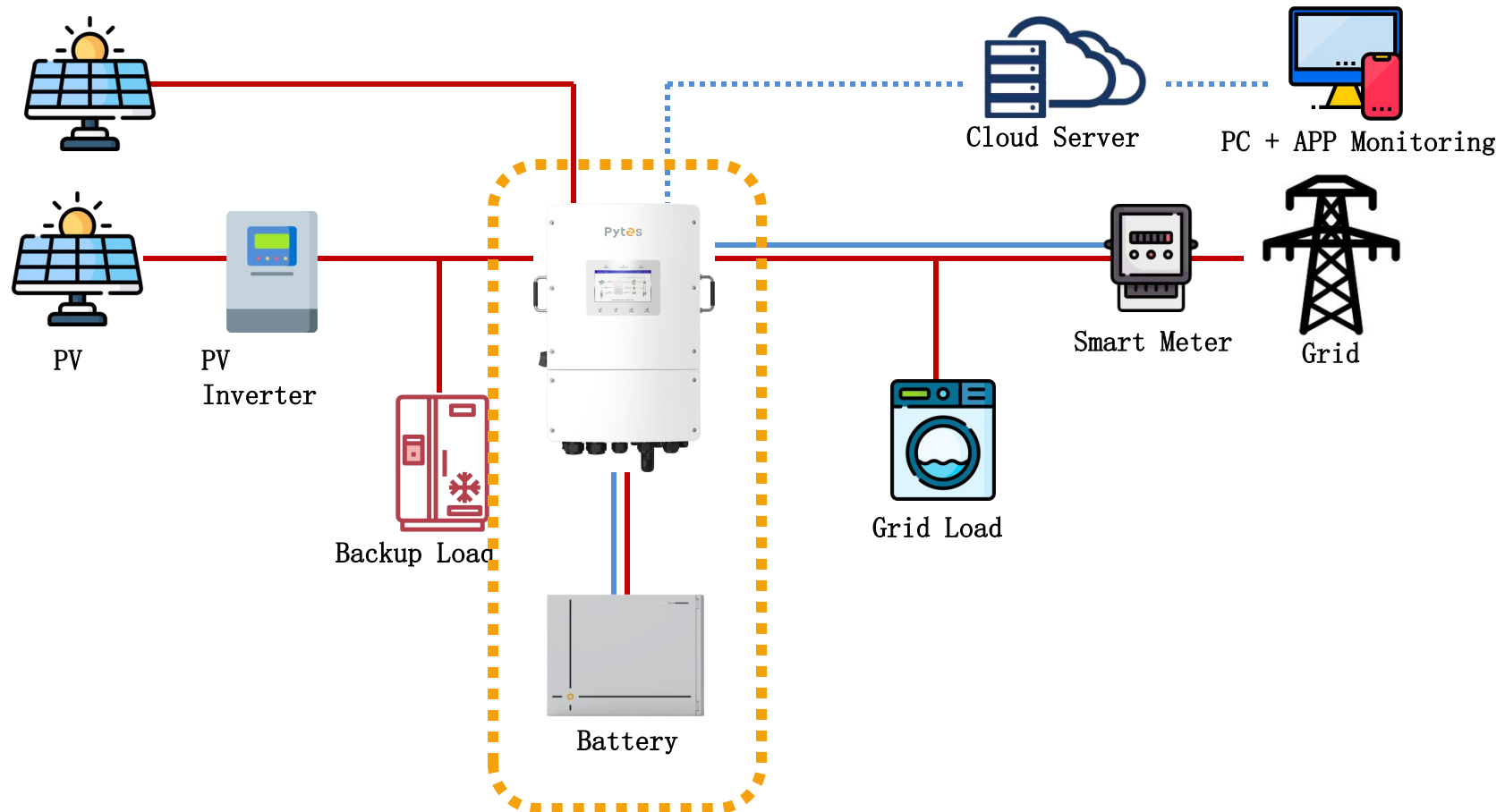
When the battery SOC/voltage is above the preset value, Smart Load output is closed

When the battery SOC/voltage reaches the preset low value, Smart Load output is disconnected and only outputs to Backup Load

>>> 08 FEATURES

✓ AC couple

✓Exist On-grid system could add Energy storage



Support integration into existing photovoltaic systems to increase energy storage
PV inverter connected to the Backup port. Off-grid systems can also choose to connect to the GEN port

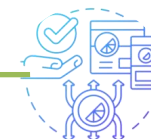
>>> 08 FEATURES

✓ 2 times instantaneous load of rated power
10s

Meet the high power application at the moment of load startup



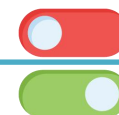
Handle different loads such as inductive, resistive and capacitive



Save equipment costs and avoid upgrading to a higher power inverter



When the power grid goes out, switch the energy source seamlessly and stably



Improve system stability and extend inverter service life



>>> 08 FEATURES

✓ Three-phase unbalanced load

Maximum 50% rated power output per phase

In a three-phase circuit, the load is not always evenly distributed across the phases. A washing machine or electric car charger is connected to one phase, and light loads such as lighting and small appliances are connected to another phase.



Improve load operation efficiency



Save the cost of purchasing and installing phase balancing devices; ensure the quality of load power supply and extend the service life of loads

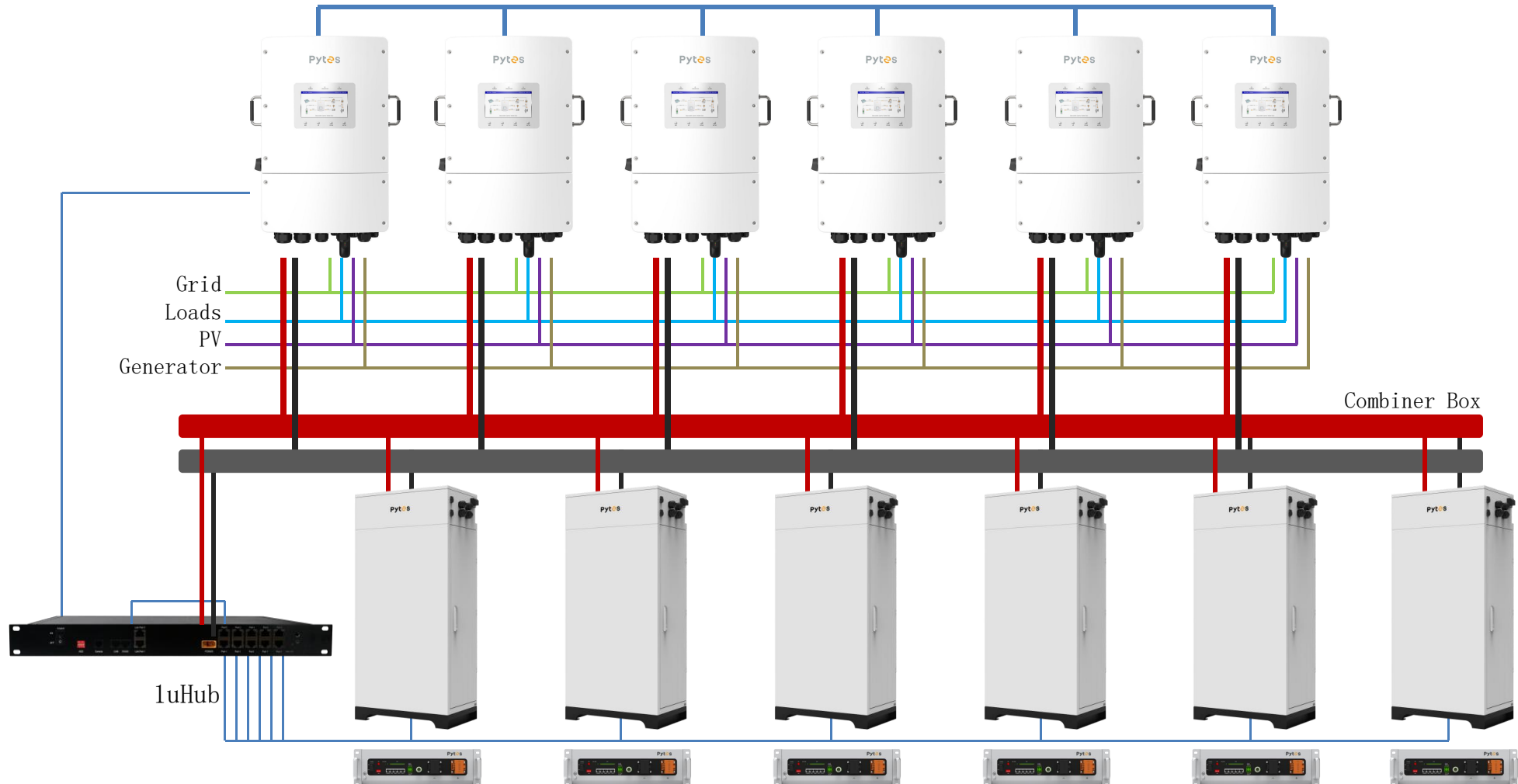


Faster system installation

>>> 08 FEATURES

✓ Parallel expansion

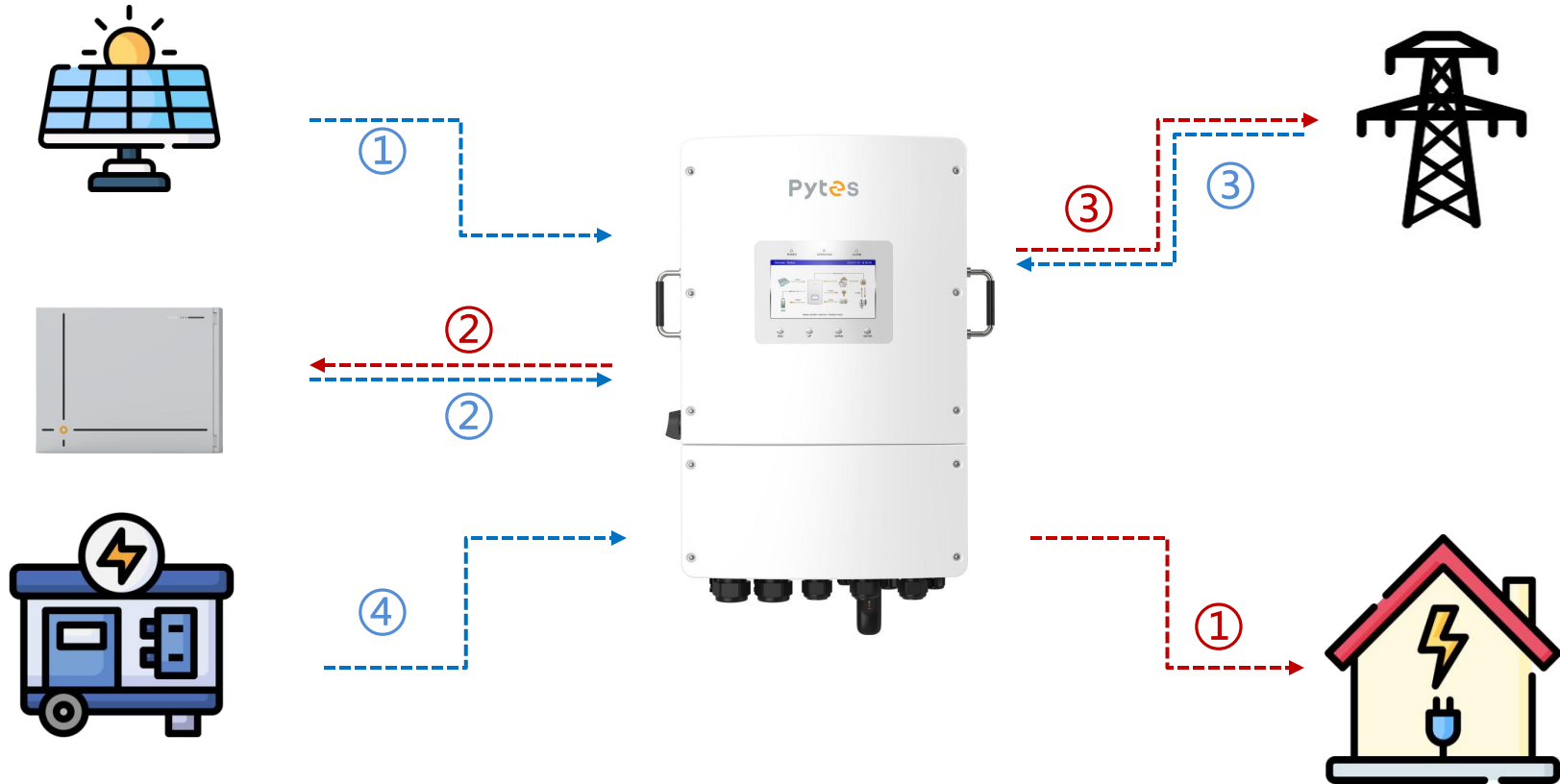
✓ Maximum 6 units, 90kW large system microgrid operation



Remarks: A DC Breaker should be installed between each battery cluster and inverter. DC Breaker is integrated in V-BOX-OC.

>>> 09 WORKING MODES

Self Use Mode

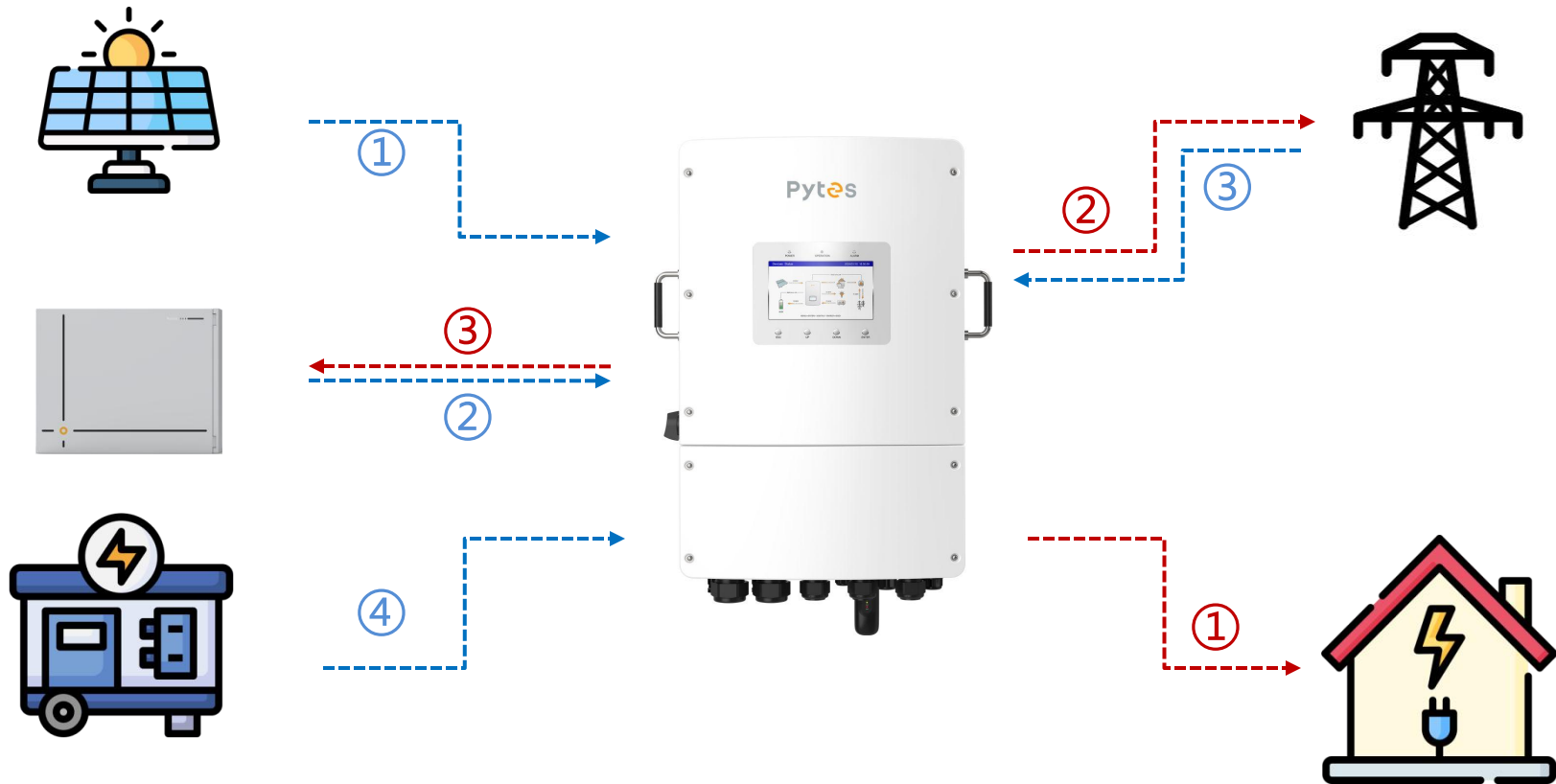


Applicable to areas with high grid output prices and low grid feeder prices

- In areas with large peak-valley price differences, 6 battery charging and discharging time segments can be set through TOU to reduce peaks and fill valleys to save electricity costs

>>> 09 WORKING MODES

Selling First Mode

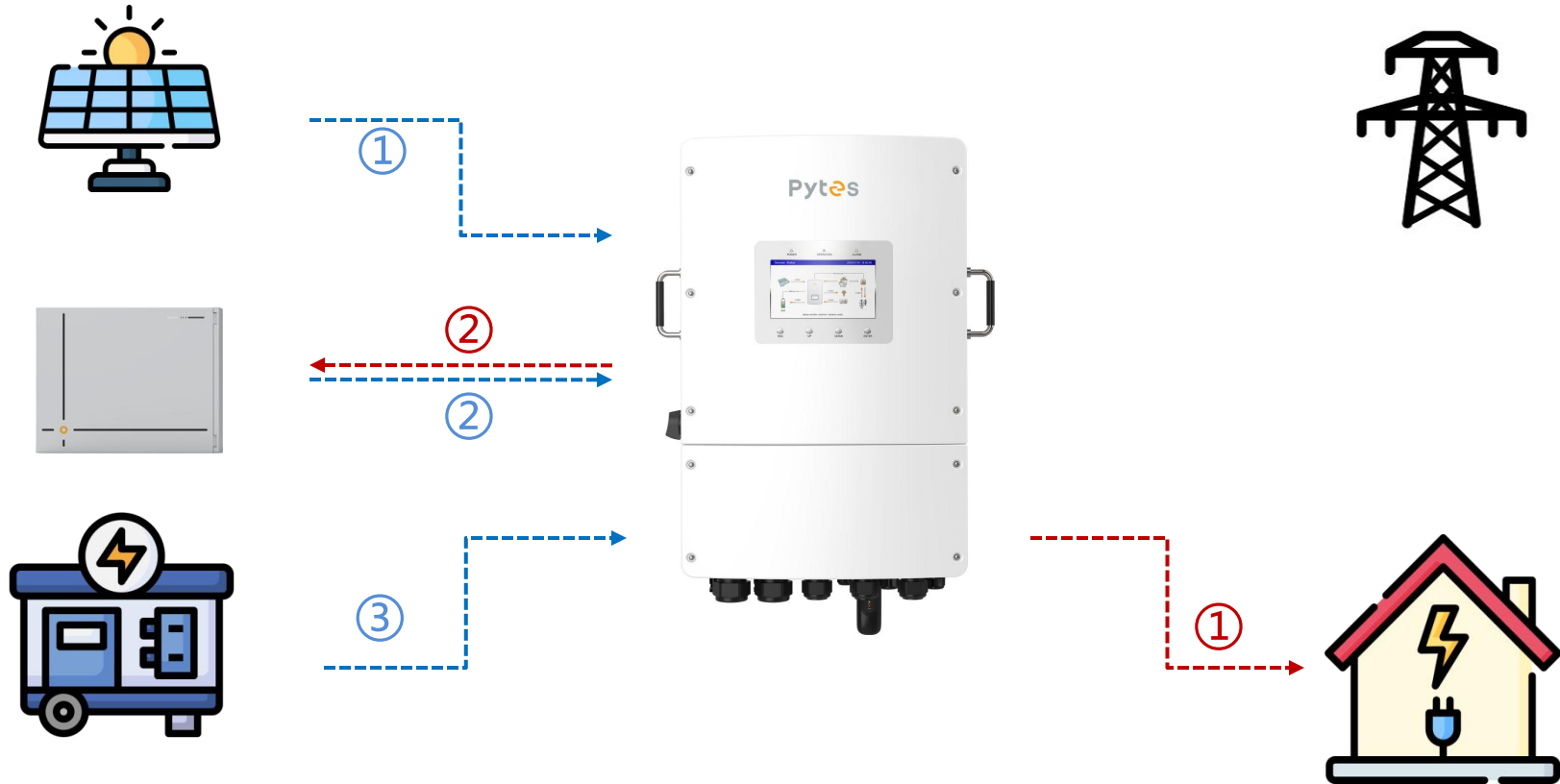


Applicable to areas with high grid prices

- In areas with large peak-valley price differences, 6 battery charging and discharging time segments can be set through TOU to reduce peak loads and fill valleys to save electricity costs

>>> 09 WORKING MODES

Off Grid Mode



Applicable to markets without grid coverage or unstable grid

>>> 10 COMPETITOR COMPARISON

PV input

Support More PV power

Models								Advantages
	8K	10K	12K	15K	8K	10K	12K	
Max. usable PV input power	12.8kW	16kW	19.2kW	24kW	12kW	15kW	18kW	1. Better use of solar energy Matching larger PV systems, better use of solar energy During peak solar output, avoid loss of solar energy due to inability to handle higher input, improve energy utilization Manage power fluctuations and optimize PV energy extraction during shade or cloudy days, and achieve more consistent performance in different weather conditions 2. Convenient adaptation of PV systems New installation: Combine more panels in different directions or configurations Expansion: Can handle increased PV power without replacing the inverter Update: Higher power and efficiency solar panels are becoming more common. Inverters with higher input capacity are more suitable for new panels 3. Higher efficiency at higher loads Inverters operate more efficiently when close to rated power output. As PV input increases, the inverter can operate at higher efficiency
Max. input voltage	1000V				800V			
Rated voltage	550V				550V			
Start-up voltage	160V				160V			
MPPT voltage range	200 - 850V				200 - 650V			
Max. input current	20 A / 40A		40A / 40A		13+13	26+13		
Max. short circuit current	30 A / 50A		50A / 50A		17+17	34+17		
MPPT Number. / Max. input strings Number	2 / 3		2 / 4		2/1+1	2/2+1		

>>> 10 COMPETITOR COMPARISON

Battery side

10K, 12K models have greater output power

Dual battery ports

Models								Advantages
	8K	10K	12K	15K	8K	10K	12K	
Battery type	Li-ion / Lead-acid				Lead-acid or Lithium-ion			Greater output power More flexible in energy storage system design and planning Higher battery charging efficiency Supports higher power load requirements for off-grid applications Dual-channel battery interface More flexible installation When the first group fails, the second group of batteries can be charged and discharged, with higher system reliability Supports lithium battery + lead acid connection
Battery voltage range	40 - 60V				40-60			
Max. charge / discharge current	180A	220A	250A	290A	190	210	240	
Communication	CAN/RS485				RS485/RS232/CAN			
Number of Battery Input	2				1			

>>> 10 COMPETITOR COMPARISON

AC side

Bigger AC current

Models								Advantages
	8K	10K	12K	15K	8K	10K	12K	
Rated output power	8 kW	10 kW	12 kW	15 kW	8 kW	10 kW	12 kW	1. Allows for a smooth transition when switching from solar power or battery to grid power, providing a stable and continuous power supply to the load 2. Handles large loads and reduces the risk of inverter overload 3. The inverter does not need to switch frequently or run at full load to adapt to high-power loads, extending the service life of the inverter
Operation phase	3/N/PE				3L+N+PE			
Rated grid voltage	220/380V, 230/400V				220/380V, 230/400V 0.85Un-1.1Un			
Rated grid frequency	50/45-55, 60/55-65Hz				50/45-55, 60/55-65			
Rated grid output current	12. 2A/11. 5A	15. 2A/14. 4A	18. 2A/17. 3A	22. 8A/21. 7A	12. 1/11. 6	15. 2/14. 5	18. 2/17. 4	
Max. output current	12. 2A/11. 5A	15. 2A/14. 4A	18. 2A/17. 3A	22. 8A/21. 7A	13. 4/12. 8	16. 7/15. 9	20/19. 1	
Max. input current	18. 3A/17. 3A	22. 8A/21. 7A	27. 3A/26. 0A	34. 2A/32. 5A				
Power factor	> 0.99 (0.8 leading - 0.8 lagging)				0.8 leading to 0.8 lagging			
THDi	< 3%				<3% (of nominal power)			
Max. continuous AC passthrough current	50 A				45			
Max. apparent output power	2 times of rated power, 10s				2 times of rated power, 10s			

>>> 10 COMPETITOR COMPARISON

General

Models								Advantages
	8K	10K	12K	15K	8K	10K	12K	
Dimensions (W × H × D)	430 × 660 × 305 mm				422×658×254 (Excl. Connectors & Brackets)			IPX6 waterproof Rainstorm-level protection solution Larger display screen Visualization, convenient operation, faster installation and debugging
Weight	42 kg				38			
Ingress protection	IP66				IP 65			
Display Screen	7.0"				3.0"			

>>> FULL SCENARIO SOLUTIONS

Grid-tie or Off-grid Living, DC or AC Coupled?
Indoor or Outdoor Installation, Wall or Floor Mounted?

Full-scenario solution



8kW + 15kWh



12kW + 30kWh



10kW + 20kWh



15kW + 40kWh

Thank You!