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ESS INVERTER AND MICROGRID HYBRID INVERTER SOLUTIONS

Shenzhen Yunt Digital Power Co., Ltd.



About us

Shenzhen Yunt Digital Power Co., Ltd.

Shenzhen Yunt Digital Power Co., Ltd. focuses on microgrid hybrid inverters, C&I energy storage converter, and microgrid solution. Concentrated on inverter technology, YUNT is committed to delivering efficient, safe, and modular products and MW level solutions for the C&I energy storage market.



1.5 GW/year
production capacity



27,600 m² industrial park



PCS Cumulative
Shipments 25000+

50⁺

Worldwide shipments to
over countries and territories



Proportion of
R&D personnel

16⁺

16 years
power electronics experience

Milestone



2022

Company Establishment

Shenzhen, China

2023

C&I Energy Storage Inverter

The Mars-125KT was launched to the market

2024

Product Certification

The inverter obtained TUV + SGS system certifications

2025

Market Recognition

Top 5 module PCS Supplier in China

Index

Module Product



Air-cooling PCS Module
100kW/110kW/125kW



Liquid-cooling PCS Module
100kW/110kW/125kW

MPPT module
40kW/50kW/60kW



DCDC module
40kW/50kW/60kW

STS module
750kW/1000kW



STS module
250kW



Monitoring

EMS Controller



EMMS CLOUD



PCS Inverter without transformer
Neptune-P250/P375/P500



PCS Inverter with transformer
Neptune-P125T/P250T/P375T/P500T



MPPT Cabinet
Neptune-M120/M180/M240/M300/M360

STS/ATS Cabinet
Neptune-D375/D500/D750/D1000



Microgrid Hybrid Inverter
Neptune-H125T



C&I Energy Storage Modular Product



25,000+

YUNT delivers comprehensive energy storage solutions featuring high-efficiency PCS converters, DC/DC MPPT modules, and seamless STS transfer switches - all internationally certified for commercial/industrial energy storage, PV-storage-charging systems, and mission-critical power applications.



50+ Countries and Regions

Our solutions have been successfully implemented in over 50 countries and regions worldwide



30+ Grid Connection Certification by Country

IEC 62109Austria ; OVE-Richtlinie R25+TORIEC 62477;
Spain UNE 217001 & NTS 631 V2.1;
Spain UNE 217002 & RD 217002IEC 61000;
Germany VDE-AR-N 4105; UK G9911-10;
Germany VDE-AR-N 4110CE-LVD&EMC;
Germany VDE-AR-N 4120
etc.

Mars Series (Air-cooling) PCS Module

Mars-100KT/110KT/125KT

Features

-  Three-level topology with up to 98.9% conversion efficiency
-  Supports stable operation under weak grid conditions
-  Advanced grid-forming interconnection technology
-  Supports AC coupling of up to 32 units
-  Supports SVG function



	Mars-100KT	Mars-110KT	Mars-125KT
DC side			
Maximum DC voltage	1000V	1000V	1000V
Minimum DC voltage	580V	580V	580V
DC voltage operating range	580~1000V	580~1000V	580~1000V
Maximum current on DC side	173A	190A	216A
AC side(on-grid)			
Rated charge/discharge power	100kW	110kW	125kW
Maximum charge/discharge power	120kW	132kW	150kW
Rated charge/discharge current	145A	160A	182A
Maximum charge/discharge current	174A	192A	217A
Rated grid voltage	400V	400V	400V
Grid voltage range	300~460V	300~460V	300~460V
Rated grid frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
THDi	<3%(at rated power)	<3%(at rated power)	<3%(at rated power)
Power factor	>0.99	>0.99	>0.99
Power factor range	-1~1	-1~1	-1~1
Over load capacity	1.2Pn for 1minute	1.2Pn for 1minute	1.2Pn for 1minute
AC side(off-grid)			
Rated output voltage	400V	400V	400V
Voltage deviation	±2%	±2%	±2%
THDu	<3%(linear load)	<3%(linear load)	<3%(linear load)
Efficiency			
Maximum efficiency	98.9%	98.9%	98.9%
Protection			
DC reverse connection protection	Yes	Yes	Yes
AC short circuit protection	Yes	Yes	Yes
AC output over current protection	Yes	Yes	Yes
Surge protection	Type II	Type II	Type II
Insulation impedance monitoring	Yes	Yes	Yes
Temperature protection	Yes	Yes	Yes
Basic parameters			
Dimensions (H*W*D)	220mmx444mmx720mm	220mmx444mmx720mm	220mmx444mmx720mm
Weight	58kg	58kg	58kg
Topology	Transformerless	Transformerless	Transformerless
Ambient	-40~+60℃	-40~+60℃	-40~+60℃
IP rating	IP20	IP20	IP20
Cooling mode	Intelligent air cooling	Intelligent air cooling	Intelligent air cooling
Maximum working altitude	4,000m(>3,000m,derated)	4,000m(>3,000m,derated)	4,000m(>3,000m,derated)
Characteristic			
DC port	OT terminal	OT terminal	OT terminal
AC port	OT terminal	OT terminal	OT terminal
Display	LED	LED	LED
Communication mode	Ethernet、RS485、CAN	Ethernet、RS485、CAN	Ethernet、RS485、CAN
Certificate			
EN/IEC 62477-1, EN/IEC 61000-6-2, EN/IEC 61000-6-4, EN 50549-1, EN 50549-10, G99/1-10/03.24, VDE-AR-N 4105, VDE-AR-N 4110, VDE-AR-N 4120, NRS 097-21-1, NTS631, UNE 217001, UNE 217002			

Mars Series (Liquid-cooling) PCS Module

Mars-100KT/110KT/125KT-LP

Features

-  Adapt to various harsh environments
-  Supports SVG function
-  Noise < 60 dB
-  IP 66



	Mars-100KT-LP	Mars-110KT-LP	Mars-125KT-LP
DC side			
Maximum DC voltage	1000V	1000V	1000V
Minimum DC voltage	580V	580V	580V
DC voltage operating range	580~1000V	580~1000V	580~1000V
Maximum current on DC side	173A	190A	216A
AC side(on-grid)			
Rated charge/discharge power	100kW	110kW	125kW
Maximum charge/discharge power	120kW	132kW	150kW
Rated charge/discharge current	145A	160A	182A
Maximum charge/discharge current	174A	192A	217A
Rated grid voltage	400V	400V	400V
Grid voltage range	300~460V	300~460V	300~460V
Rated grid frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
THDi	<3%(at rated power)	<3%(at rated power)	<3%(at rated power)
Power factor	>0.99	>0.99	>0.99
Power factor range	-1~1	-1~1	-1~1
Over load capacity	1.2Pn for 1minute	1.2Pn for 1minute	1.2Pn for 1minute
AC side(off-grid)			
Rated output voltage	400V	400V	400V
Voltage deviation	±2%	±2%	±2%
THDu	<3%(linear load)	<3%(linear load)	<3%(linear load)
Efficiency			
Maximum efficiency	98.9%	98.9%	98.9%
Protection			
DC reverse connection protection	Yes	Yes	Yes
AC short circuit protection	Yes	Yes	Yes
AC output over current protection	Yes	Yes	Yes
Surge protection	Type II	Type II	Type II
Insulation impedance monitoring	Yes	Yes	Yes
Temperature protection	Yes	Yes	Yes
Basic parameters			
Dimensions (H*W*D)	245mmx505mmx850mm	245mmx505mmx850mm	245mmx505mmx850mm
Weight	78kg	78kg	78kg
Topology	Transformerless	Transformerless	Transformerless
Ambient	-40~+60℃	-40~+60℃	-40~+60℃
IP rating	IP66	IP66	IP66
Cooling mode	Liquid Cooling	Liquid Cooling	Liquid Cooling
Maximum working altitude	4,000m(>3,000m,derated)	4,000m(>3,000m,derated)	4,000m(>3,000m,derated)
Characteristic			
DC port	Plug-in Terminal	Plug-in Terminal	Plug-in Terminal
AC port	Plug-in Terminal	Plug-in Terminal	Plug-in Terminal
Display	LED	LED	LED
Communication mode	Ethernet、RS485、CAN	Ethernet、RS485、CAN	Ethernet、RS485、CAN
Certificate			
EN/IEC 62477-1, EN/IEC 61000-6-2, EN/IEC 61000-6-4, EN 50549-1, EN 50549-10, G99/1-10/03.24, VDE-AR-N 4105, VDE-AR-N 4110, VDE-AR-N 4120, NRS 097-21-1, NTS631, UNE 217001, UNE 217002			

Mercury Series MPPT Module

Mercury-40K-PV / Mercury-50K-PV / Mercury-60K-PV

Features

-  Four-channel independent input, boosting photovoltaic utilization
-  Reducing the number of combiner boxes and lowering costs
-  Designed with a standard 3U module for ease of maintenance and scalability
-  SiC-MOS for higher efficiency — up to 99% peak conversion rate



Mercury-40K-PV Mercury-50K-PV Mercury-60K-PV

PV Side			
Rated power	4-way *10kW	4-way *12.5kW	4-way *15kW
Rated current	4-way *30A	4-way *37.5A	4-way *45A
Rated voltage	350V	350V	350V
Maximum voltage	1,000 V	1,000 V	1,000 V
Voltage range	150-1000 V	150-1000 V	150-1000 V
Minimum voltage at full power	340V	340V	340V
PV side start-up voltage	150V	150V	150V

Bat Side			
Rated power	40kW	50kW	60kW
Rated current	67A	83A	100A
Rated voltage	600V	600V	600V
Maximum voltage	1,000 V	1,000 V	1,000 V
Voltage range	350-1000 V	350-1000 V	350-1000 V
Full power voltage range	600-950 V	600-950 V	600-950 V
Bat side start-up voltage	350V	350V	350V

Protection Features	
Reverse connection detection	Yes
Fuse protection	Yes
Overcurrent protection	Yes
Overvoltage/undervoltage protection	Yes
Overheat protection	Yes
Low-voltage side short circuit detection	Yes
Insulation resistance testing	Yes
Over-voltage level	Type II
Surge protection level	Type II
Basic operating modes	MPPT, power limit operation
Circuit operation mode	4-way independent MPPT, any 2-way parallel MPPT

System Parameters	
Topology structure	Non-isolated
Protection level	IP20
Operating temperature	-30°C to +60°C (> 45°C derated)
Humidity	< 95% (non-condensing)
Maximum operating altitude	4,000m (derating when > 3,000m)
Maximum efficiency	99%
Cooling method	Intelligent air cooling
Communication mode	RS485/CAN/Ethernet
Display	LED

Mechanical Parameters	
Weight	25kg
Dimensions (H*W*D)	444mm*130mm*550mm (excluding terminals)
Installation method	Cabinet-style fixed installation (left and right mounting ears)

Standards
IEC62109-1, IEC 61000-6-2, IEC 61000-6-4

Mercury Series DCDC Module

Mercury-40K / Mercury-50K / Mercury-60K

Features

-  Interleaved parallel design reduces ripple current, prolonging battery life
-  Supports multi-scenario battery charging and discharging applications
-  Designed with a standard 3U module for ease of maintenance and scalability
-  SiC-MOS for higher efficiency — up to 99% peak conversion rate



Mercury-40K		Mercury-50K		Mercury-60K	
Low-Voltage DC Side					
Rated power	40kW	50kW	60kW		
Rated current	120A	150A	180A		
Rated voltage	350V	350V	350V		
Maximum voltage	1,000 V	1,000 V	1,000 V		
Voltage range	150-1000 V	150-1000 V	150-1000 V		
Minimum voltage at full power	340V	340V	340V		
Voltage requirements for low-voltage	150V ≤ LV ≤ (HV - 30V), maximum 1000V				
Low-voltage side start-up voltage	150V	150V	150V		
High-Voltage DC Side					
Rated power	40kW	50kW	60kW		
Rated current	67A	83A	100A		
Rated voltage	600V	600V	600V		
Maximum voltage	1,000 V	1,000 V	1,000 V		
Voltage range	350-1000 V	350-1000 V	350-1000 V		
Full power voltage range	600-950 V	600-950 V	600-950 V		
Voltage requirements for high-voltage	(LV+30V) ≤ HV ≤ 1000V, minimum 350V				
High-voltage side start-up voltage	350V	350V	350V		
Protection Features					
Reverse connection protection	Yes				
Fuse protection	Yes				
Overcurrent protection	Yes				
Overvoltage/undervoltage protection	Yes				
Overheat protection	Yes				
Low-voltage side short-circuit protection	Yes				
Over-voltage level	Type II				
Basic operating modes	Bi-directional constant power, bi-directional constant current, bi-directional constant voltage				
Forward and reverse switching time	Full-load switching time 30ms				
System Parameters					
Topology structure	Non-isolated				
Protection level	IP20				
Operating temperature	-30℃ to +60℃ (>45℃ derated)				
Humidity	<95% (non-condensing)				
Maximum operating altitude	4,000m (derating when > 3,000m)				
Maximum efficiency	>99%				
Cooling method	Intelligent air cooling				
Communication mode	RS485/CAN/Ethernet				
Display	LED				
Maximum parallel operation number	8				
Mechanical Parameters					
Weight	25kg				
Dimensions (H*W*D)	444mm*130mm*550mm (excluding terminals)				
Installation method	Cabinet-style fixed installation (left and right mounting ears)				
Standards					
IEC62477-1, IEC 61000-6-2, IEC 61000-6-4					

Static Transfer Switch

STS-200KS/250KS/750KS/1000KS

Features

-  Support TN/TT/IT grid system
-  Standard modular design
-  Switching time<10ms
-  Intelligent switch



STS-250KSSTS-750KSSTS-1000KS

Electrical specifications			
Power on the rated grid side	250kW	750kW	1000kW
Current on the rated grid side	380A	1140A	1520A
Power on the PCS&Load	250kW	750kW	1000kW
Rated grid voltage	380V/400V		
Grid voltage range	±15%		
Rated grid frequency	50Hz/60Hz		
Grid frequency range	±5Hz		
Over load capability	110%(ambient temperature less than 40℃)		
On-grid to off-grid time	≤10ms		
Wiring mode	3P+PE		
Maximum efficiency	99.5%		
System parameters			
Topology	Non-isolated		
IP rating	IP20		
Operating temperature range	-40℃ to +60℃(>45℃ derated)		
Storage temperature range	-40~70℃		
Relative humidity	0~95%,no condensation		
Maximum operating altitude	4,000m(>3,000m derated)		
Cooling mode	Intelligent air cooling		
Display	LED		
Communication mode	RS485/CAN/EtherNet/DIO		
Installation method	Rack Mount Installation for Modular Systems		
Noise	<75dB @1m	<85dB @1m	<85dB @1m
Weight	27kg	110kg	110kg
Dimensions(W*H*D)	444mm*175mm*550mm	460mm*872mm*700mm	460mm*872mm*700mm

Certificate
IEC 61439-1、IEC 61439-2

Microgrid Hybrid Solution

- PCS Inverter
- MPPT Cabinet
- STS & ATS Cabinet
- Hybrid Inverter

Naming Rules

Neptune

Neptune Series

-H125T

H: Hybrid cabinet P: PCS cabinet M: MPPT cabinet D: STS&ATS cabinet

125: System power

T: Isolation transformer

-SA2

S: Optional STS

A: Optional ATS

1: STS/ATS power equals 1× PCS power

2: STS/ATS power equals 2× PCS power

-2

-M Model: Default is empty, indicating module output ports are not paralleled. Numbers 1–4 indicate 1–4 independent DC outputs after paralleling.

-P Model: Default is empty, indicating battery input ports are not paralleled. 1–2 indicate 1–2 battery cluster inputs after paralleling.

-H Model: Default is empty, indicating fully equipped with 3 MPPT modules. Numbers 1–2 indicate optional 1–2 MPPT modules.

PCS Inverter without transformer

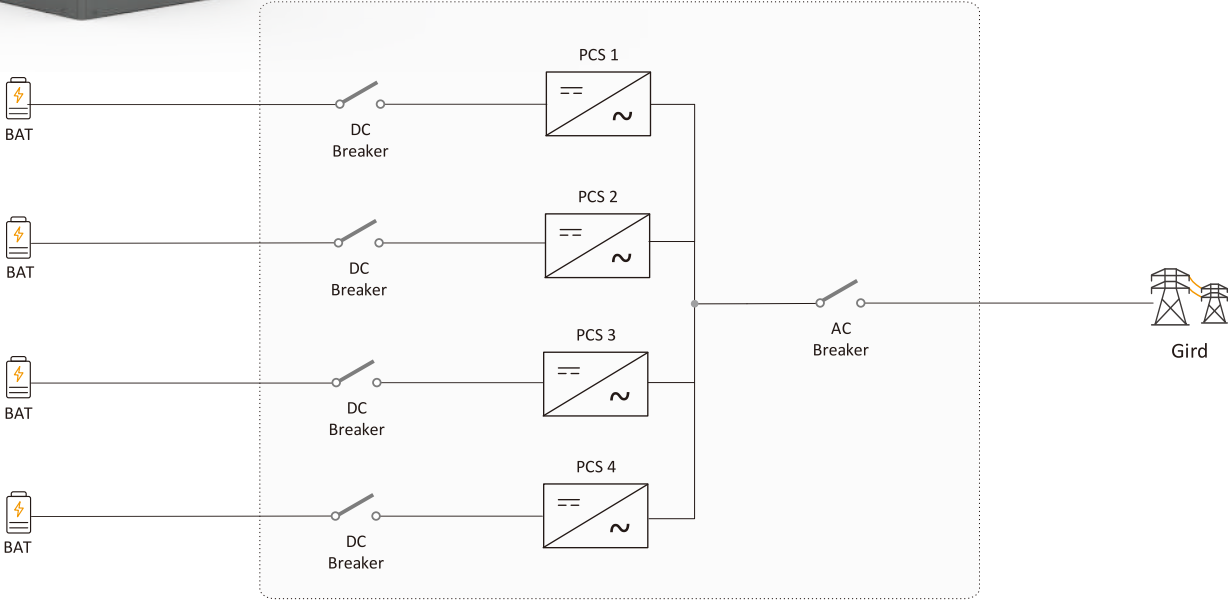
Neptune-P250/P375/P500

Bidirectional PCS cabinet without transformer from 250kW to 500kW, can be used alone as inverter /rectifier or with solar MPPT cabinet and STS/ATS cabinet for engineering customized photovoltaic and energy storage systems.



Features

- Supports DC-coupled with PV and battery DC coupling
- Supports battery cluster access to extend battery cycle life
- Modular design for easy maintenance
- IP54 design



PCS Inverter

	Neptune-P250	Neptune-P375	Neptune-P500
DC(BAT input)			
DC voltage range	600-1000V(Min.680V for off-grid)	600-1000V(Min.680V for off-grid)	600-1000V(Min.680V for off-grid)
Max. Num. of battery input	2	3	4
Max. charge/discharge current	216A*2	216A*3	216A*4
Max. charge/discharge power	125kW*2	125kW*3	125kW*4
AC side(on-grid)			
Rated output apparent power	250kVA	375kVA	500kVA
Rated output current	364A	546A	728A
Max. input apparent power	250kVA	375kVA	500kVA
Max. AC input current	364A	546A	728A
Rated voltage	400V	400V	400V
AC voltage range	360-440V	360-440V	360-440V
Rated frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
Frequency range	45-55Hz/55-65Hz	45-55Hz/55-65Hz	45-55Hz/55-65Hz
PF	>0.99 (-0.8~0.8)	>0.99 (-0.8~0.8)	>0.99 (-0.8~0.8)
THDi	<3%(@rated power)	<3%(@rated power)	<3%(@rated power)
AC connection	3W+N+PE	3W+N+PE	3W+N+PE
AC side(off-grid)			
Rated output power	250kW(@resistive load)	375kW(@resistive load)	500kW(@resistive load)
Rated output voltage	400V	400V	400V
Rated output current	364A	546A	728A
Rated frequency	50/60Hz	50/60Hz	50/60Hz
THDu	<3%(@linear load)	<3%(@linear load)	<3%(@linear load)
Overload capability	120%-1min	120%-1min	120%-1min
System data			
Build-in transformer	No		
IP level	IP54		
Cooling method	Intelligent air cooling		
Operating temperature range	-40~60℃ (45~60℃ derating, derating factor 5%/℃)		
Storage temperature range	-40~70℃ (no condensation)		
Relative humidity	0~95% (no condensation)		
Noise	<75dB @1m		
Maximum operating altitude	4000m (derating above 3000m,derating factor 1%/100m)		
AC lightning protection	Type II		
BMS communication	RS485/CAN		
Meter communication	RS485		
Remote communication	WLAN/4G/Ethernet		
Display	LED+LCD+APP		
Dimensions(W*D*H)	1000*1100*2100mm	1000*1100*2100mm	1000*1100*2100mm
Weight	890kg	945kg	1000kg
Certificate			
IEC 62477-1、IEC 61000-6-2、IEC 61000-6-4、NRS 097-2-1			

PCS Inverter with transformer

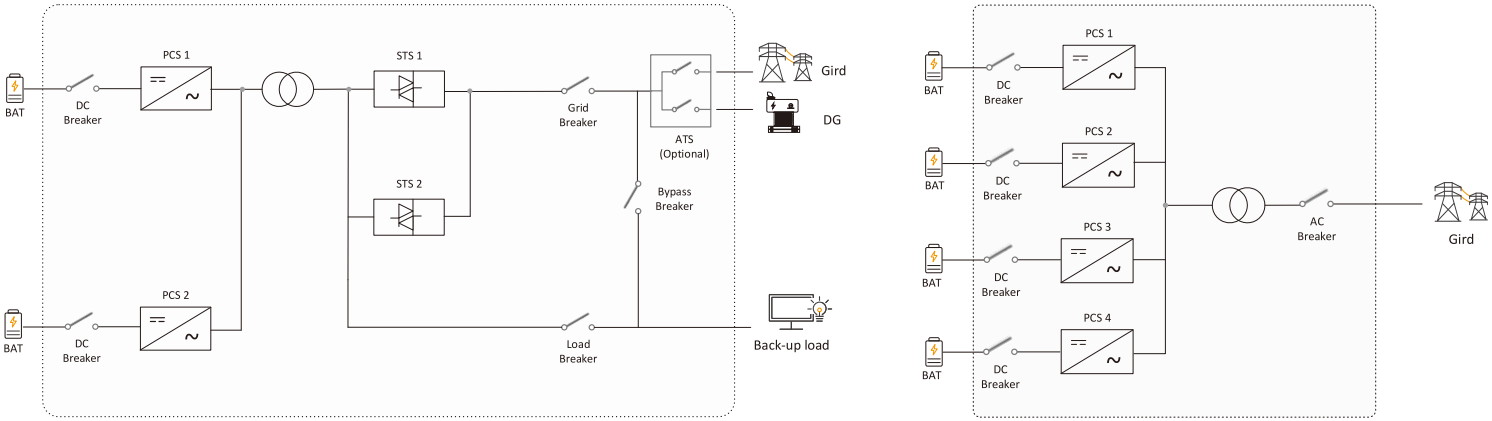
Neptune-P125T/P250T/P375T/P500T

PCS cabinet from 125kW to 500kW, can be used alone or with solar MPPT cabinet and STS/ATS cabinet for customized photovoltaic and energy storage systems.



Features

- Supports PV-storage DC coupling
- Supports battery cluster access to extend battery cycle life
- Built-in isolation Transformer
- Modular design for easy maintenance
- IP54 design



	Neptune-P125T-S2	Neptune-P250T-S1/ Neptune-P250T-S2	Neptune-P375T	Neptune-P500T
DC(BAT input)				
DC voltage range	600-1000V(Min.680V for off-grid)			
Max. Num. of battery input	1	2	3	4
Max. charge/discharge current	216A	216A*2	216A*3	216A*4
Max. charge/discharge power	125kW	125kW*2	125kW*3	125kW*4
AC(on-grid)				
Rated output apparent power	125kVA	250kVA	375kVA	500kVA
Rated output current	182A	364A	546A	728A
Max. input apparent power	250kVA	250kVA/500kVA	375kVA	500kVA
Max. AC input current	364A	364A/728A	546A	728A
Rated voltage	400V	400V	400V	400V
Rated frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz
PF	>0.99 (-0.8~0.8)	>0.99 (-0.8~0.8)	>0.99 (-0.8~0.8)	>0.99 (-0.8~0.8)
THDi	<3%(@rated power)	<3%(@rated power)	<3%(@rated power)	<3%(@rated power)
AC connection	3W+N+PE	3W+N+PE	3W+N+PE	3W+N+PE
AC(off-grid)				
Rated output power	125kW(@resistive load)	250kW(@resistive load)	375kW(@resistive load)	500kW(@resistive load)
Rated output voltage	400V	400V	400V	400V
Rated output current	182A	364A	546A	728A
Rated frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz
THDu	<3%(@linear load)	<3%(@linear load)	<3%(@linear load)	<3%(@linear load)
Overload capability	120%-1min	120%-1min	120%-1min	120%-1min
System data				
Build-in transformer	Yes	Yes	Yes	Yes
Build-in STS	Yes	Yes	No	No
Transfer between on/off grid with STS	<10ms	<10ms	/	/
IP level	IP54			
Cooling method	Intelligent air cooling			
Operating temperature range	-40~60℃ (45~60℃ derating, derating factor 5%/℃)			
Relative humidity	0~95% (no condensation)			
Noise	<75dB @1m			
Maximum operating altitude	4000m (derating above 3000m,derating factor 1%/100m)			
AC lightning protection	Type II			
Communication	RS485/CAN for BMS, RS485 for meter			
Remote communication	WLAN/4G/Ethernet			
Display	LED+LCD+APP			
Dimensions(W*D*H)	1200*1100*2100mm	1300*1100*2100mm	1300*1100*2100mm	1300*1100*2100mm
Weight	1350kg	1700kg/1730kg	2450kg	2500kg

Certificate				
IEC 62477-1、IEC 61000-6-2、IEC 61000-6-4、NRS 097-2-1				

Expand models				
Expand models	Neptune-P125T-SA2	Neptune-P250T-SA1 Neptune-P250T-SA2		
	Neptune-P125T-A2	Neptune-P250T-A1 Neptune-P250T-A2	/	/
	Neptune-P125T	Neptune-P250T		

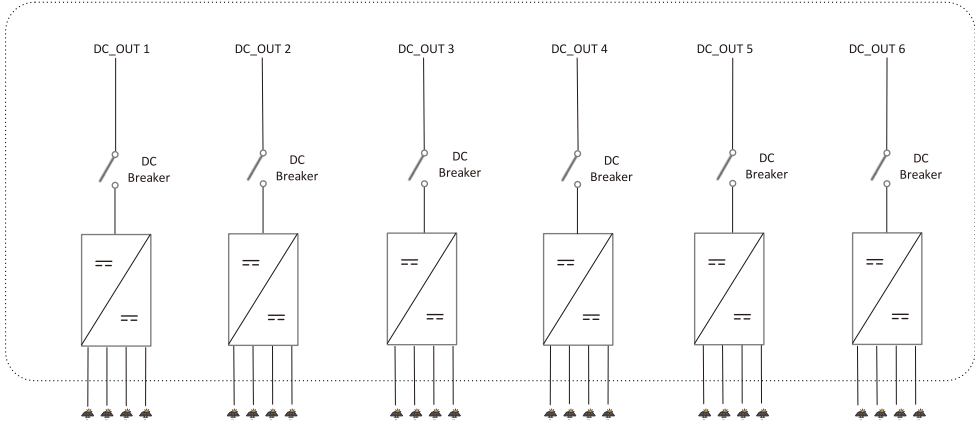
MPPT Cabinet

Neptune-M120/M180/M240/M300/M360



Features

- SiC-MOS in the MPPT module
- Four independent MPPTs in one module
- Compatible with 2-6 modules
- Each module has a output circuit breaker
- Modular design for easy maintenance
- IP54 design



	Neptune-M120	Neptune-M180	Neptune-M240	Neptune-M300	Neptune-M360
PV Input					
Input voltage range	150-1000	150-1000	150-1000	150-1000	150-1000
Full load MPPT voltage range	340-950	340-950	340-950	340-950	340-950
Max. Num.of modular	2	3	4	5	6
Max. PV Power	120kW(60kW*2)	180kW(60kW*3)	240kW(60kW*4)	300kW(60kW*5)	360kW(60kW*6)
Num. of MPPT's per modular	4	4	4	4	4
Max. Num. of strings per MPPT	1	1	1	1	1
Rated current per MPPT	45A	45A	45A	45A	45A
Rated power per MPPT	15kW	15kW	15kW	15kW	15kW
DC Output					
Output voltage range	350-1000V	350-1000V	350-1000V	350-1000V	350-1000V
Full load output voltage	600-950V	600-950V	600-950V	600-950V	600-950V
Max. output total current	200A(100A*2)	300A(100A*3)	400A(100A*4)	500A(100A*5)	600A(100A*6)
Num. of DC output	2	3	4	4	4
Rated output total power	120kW(60kW*2)	180kW(60kW*3)	240kW(60kW*4)	300kW(60kW*5)	360kW(60kW*6)
System data					
DC reverse polarity protection	Yes				
DC output fuse protection	Yes				
DC output breaker protection	Yes				
PV input switch	Yes				
Over current protection	Yes				
Over/Under voltage protection	Yes				
Insulation monitoring	Yes				
Over-heat protection	Yes				
IP level	IP54				
Max. efficiency	>99.2%				
Cooling method	Intelligent air cooling				
Operating temperature range	-40~60℃ (45~60℃ derating, derating factor 5%/℃)				
Storage temperature range	-40~70℃ (no condensation)				
Relative humidity	0~95% (no condensation)				
Noise	<75dB @1m				
Maximum operating altitude	4000m (derating above 3000m,derating factor 1%/100m)				
PV lightning protection	Type II				
Communication	Ethernet、RS485				
Display	LED				
Dimensions(W*D*H)	650*900*2100mm				
Weight	280kg	305kg	330kg	355kg	380kg
Certificate					
IEC 62109-1、IEC 61000-6-2、IEC 61000-6-4					

STS/ATS Cabinet

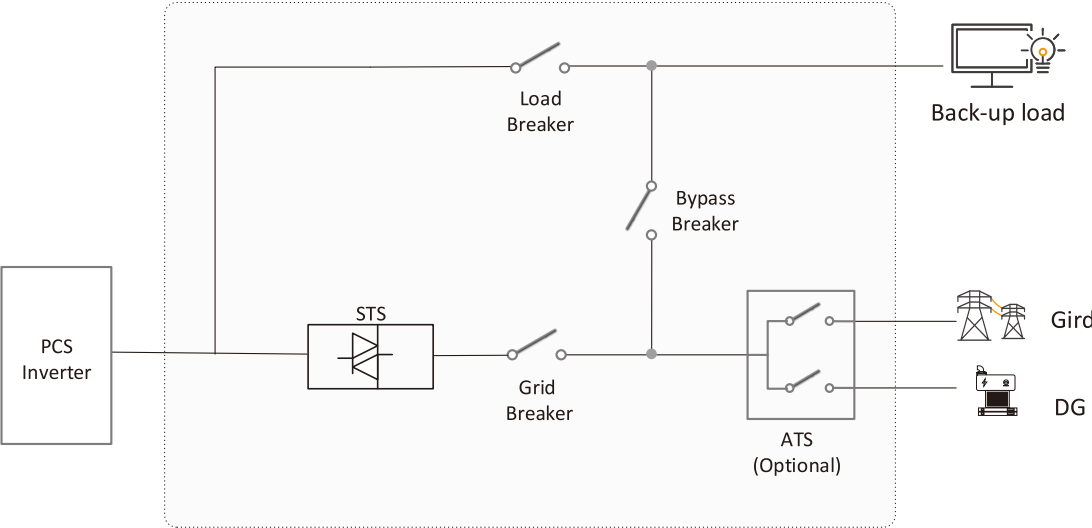
Neptune-D375/D500/D750/D1000

STS/ATS cabinet is designed to be used together with PCS cabinet to realize seamless transfer between on-grid and off-grid modes automatically, it can also achieve automatic switching between diesel generator and the power grid.



Features

- Seamless on/off grid transfer within 10ms
- ATS adopts TÜV certified switch
- Modular design for easy maintenance
- IP54 design



	Neptune-D375-S1	Neptune-D500-S1	Neptune-D750-S1	Neptune-D1000-S1
Electrical parameters				
Rated AC voltage	400V	400V	400V	400V
Rated AC current	546A	728A	1092A	1456A
Rated AC frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Rated apparent power	375kVA	500kVA	750kVA	1000kVA
Max. load output apparent power	375kVA	500kVA	750kVA	1000kVA
Max. load output current	546A	728A	1092A	1456A
Max. PCS apparent power	375kVA	500kVA	750kVA	1000kVA
Max. PCS current	546A	728A	1092A	1456A
System data				
Build-in STS	Yes			
Build-in ATS	Yes			
IP level	IP54			
Transfer between on/off grid with STS	<10ms			
Cooling method	Intelligent air cooling			
Operating temperature range	-40~60℃ (45~60℃ derating, derating factor 5%/℃)			
Storage temperature range	-40~70℃ (no condensation)			
Relative humidity	0~95% (no condensation)			
Noise	<75dB @1m			
Maximum operating altitude	4000m (derating above 3000m,derating factor 1%/100m)			
AC lightning protection	Type II			
Communication	RS485			
Dimensions(W*D*H)	950*900*2100mm	950*900*2100mm	1500*1000*2100mm	1500*1000*2100mm
Weight	580kg	580kg	850kg	850kg
Certificate				
IEC 61439-1、IEC 61439-2				
Expand models				
Expand models	Neptune-D375-SA1	Neptune-D500-S1	Neptune-D750-SA1	Neptune-D1000-S1
	Neptune-D375-A1	Neptune-D500-A1 Neptune-D500	Neptune-D750-A1	Neptune-D1000-A1 Neptune-D1000

Microgrid Hybrid Inverter

Neptune-H125T

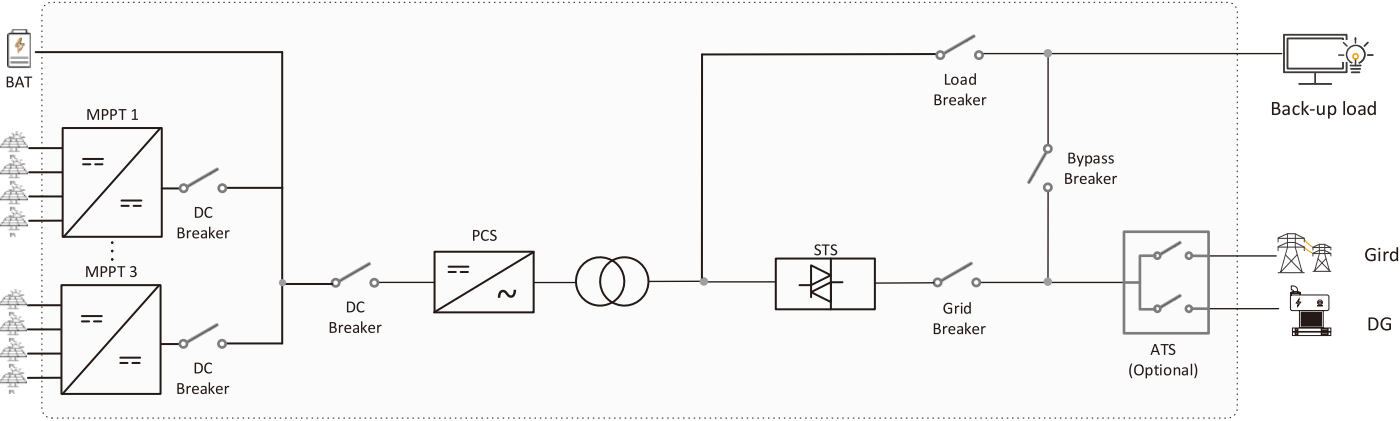
The all-in-one Hybrid inverter is customized for small C&I microgrid hybrid scenarios, which features a built-in isolation transformer , PCS, MPPT module and STS , to realize the on/off grid application.

Features

- Multiple power integration All-in-one
- Seamless on/off grid transfer within 10ms
- DC-coupled with PV and battery
- Built-in isolation transformer
- Modular design for easy maintenance
- IP54 design

Microgrid Hybrid Inverter

Neptune-H125T-S2	
DC(PV Input)	
PV voltage range	150V-Vbat(min), maximum 1000V
Max. PV Power	180kW(60kW*3)
Num. of MPPT's per module	4
Rated current per MPPT	45A
Rated power per MPPT	15kW
DC(BAT Input)	
Battery voltage Range	600-1000V(Min.680V for off-grid)
Max charge/discharge current	216A
Max charge/discharge power	125kW
AC(on-grid)	
Rated output apparent power	125kVA
Rated output current	182A
Max. input apparent power	250kVA
Max. input current	364A
Rated voltage	400V
Rated frequency	50/60Hz
PF	>0.99 (-0.8~0.8)
THDi	<3%(@rated power)
AC connection	3W+N+PE
AC(off-grid)	
Rated output power	125kW(@resistive load)
Rated output voltage	400V
Rated output current	182A
Rated frequency	50/60Hz
THDu	<3%(@linear load)
Overload capability	120%-1min
System data	
Build-in transformer	Transformer & STS
IP level	IP54
Transfer between on/off grid with STS	<10ms
Cooling method	Intelligent air cooling
Operating temperature range	-40~60℃ (45~60℃ derating, derating factor 5%/℃)
Relative humidity	0~95% (no condensation)
Maximum operating altitude	4000m (derating above 3000m,derating factor 1%/100m)
Lightning protection	Type II for AC&PV
Communication	RS485/CAN for BMS, RS485 for meter
Remote communication	WLAN/4G/Ethernet
Display	LED+LCD+APP
Dimensions(W*D*H)	1200*1100*2100mm
Weight	1350kg
Certificate	
IEC 62109-1、IEC 62477-1、IEC 61000-6-2、IEC 61000-6-4、NRS 097-2-1	
Expand models	
Expand models	Neptune-H125T-SA2 Neptune-H125T-A2 Neptune-H125T



Microgrid Hybrid Solution - 250kW/375kW/500kW

To meet various C&I application scenarios, we have designed standardized cabinets with different power levels and types, including PCS inverter,MPPT cabinet and STS/ATS cabinet. These cabinets can support to assemble the microgrid hybrid system up to 1MW.

Hybrid Power 250kW



MPPT Cabinet



PCS Cabinet

Hybrid Power 375/500kW



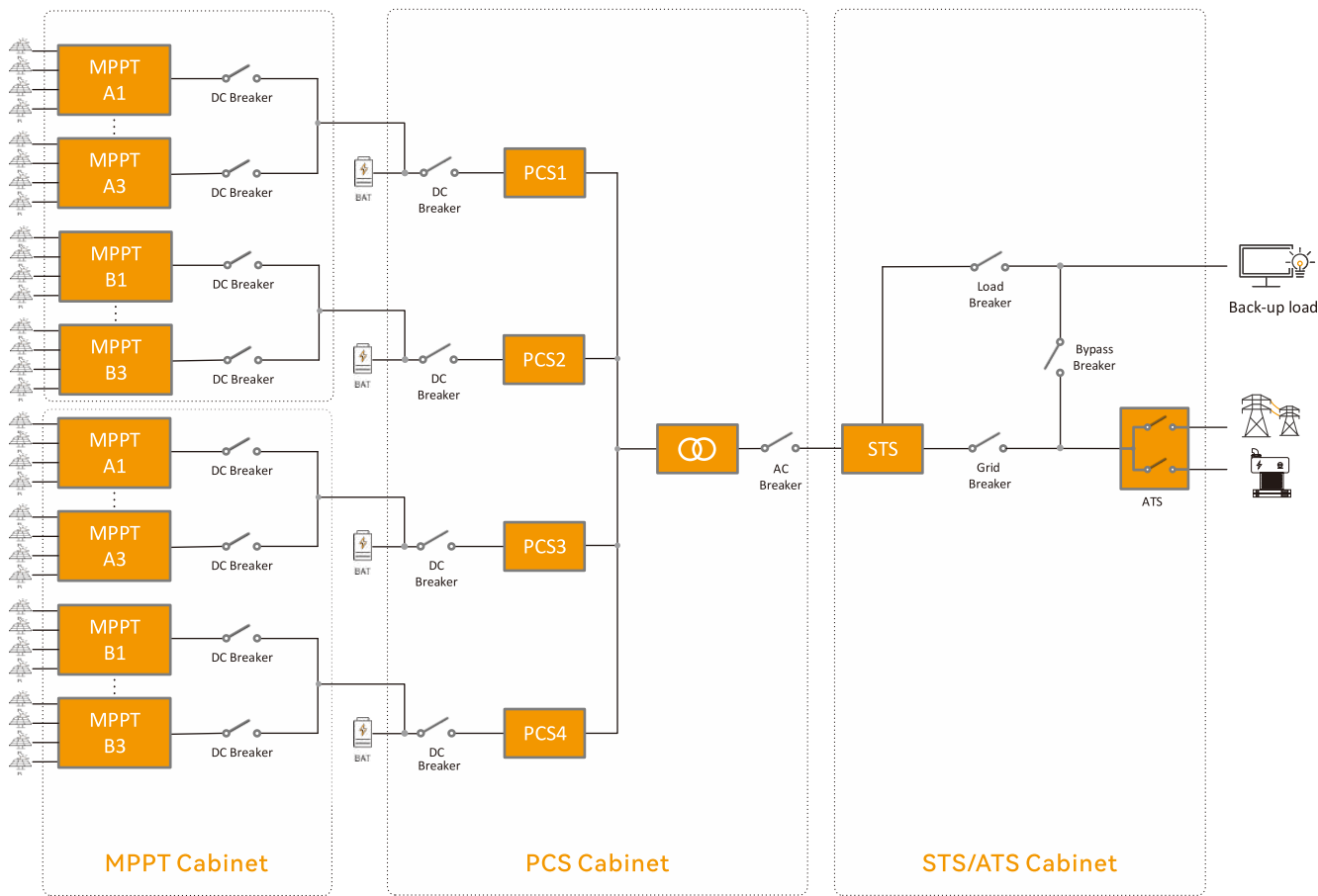
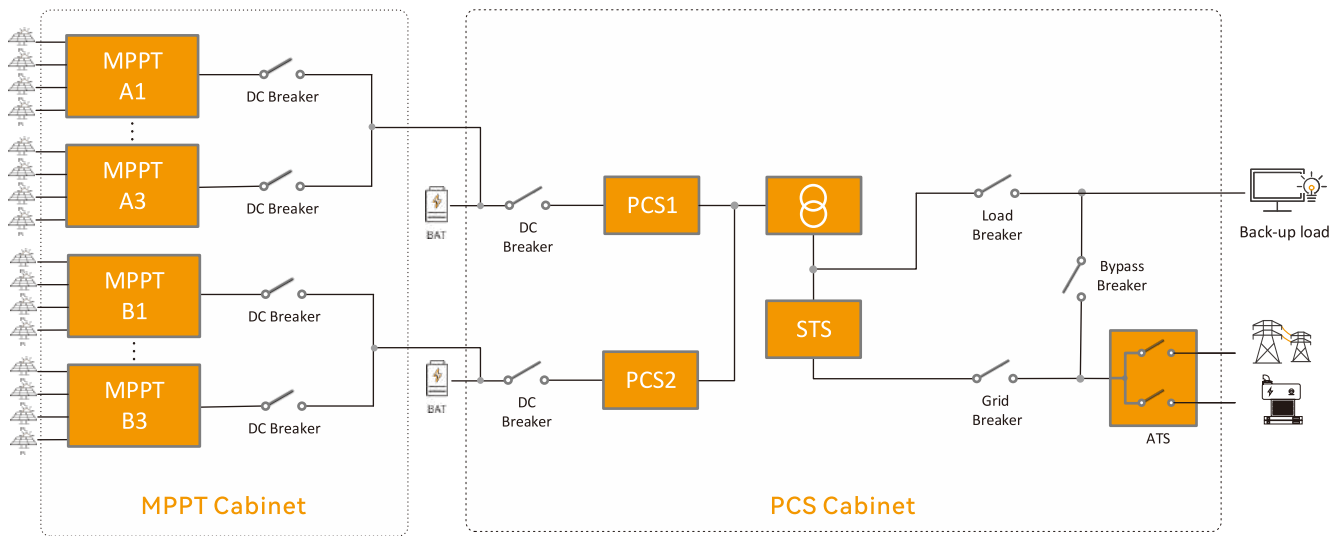
MPPT Cabinet



PCS Cabinet



STS/ATS Cabinet



EMS Controller

EMS innovatively integrates distributed cluster data from regional energy storage sites and establishes corresponding databases. Through reliable real-time monitoring, it gains insights into system operation status, efficiently addresses system conditions through intelligent operation and maintenance methods.

Features

- Remote management and maintenance of equipment, reduces maintenance costs
- Big data collection and analysis to achieve automatic control and timely optimization of connected power stations
- Flexible operation of the site, improve economic benefits
- Data visualization, useful for understand the operation of equipment

EMS Controller

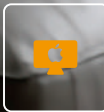
Hardware Parameter	
Power adapter	Input: DC12V~48V
Power Consumption	Average 10W ,Full loaded <15W
Application Parameter	
Max communication distance with PCS	100m
Communication with inverter	MODBUS or CAN
Communication with server	TCP
Support network	4G & Ethernet & Wifi
Data transfer interval	1min
General Information	
Dimension (W*H*D)	210mm * 165mm*53mm
Weight	2kg
Language	Chinese, English
Mounting	Wall-mounted
Operation temperature	-20℃~60℃
Degree of protection	IP20
Warranty	1
Certificate	CE、 ROHS 2.0

EMMS CLOUD

Compatible with the following devices



Window



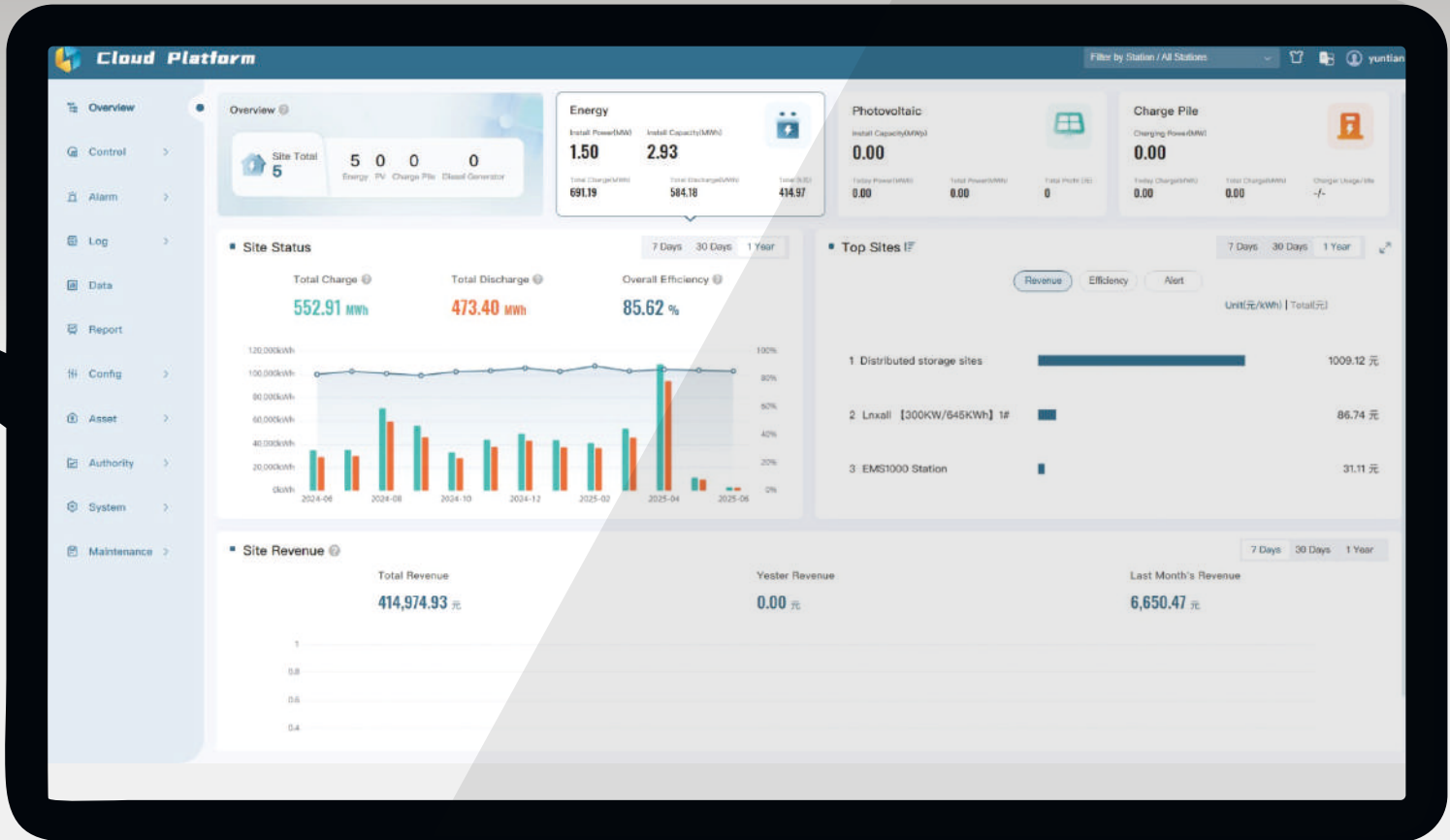
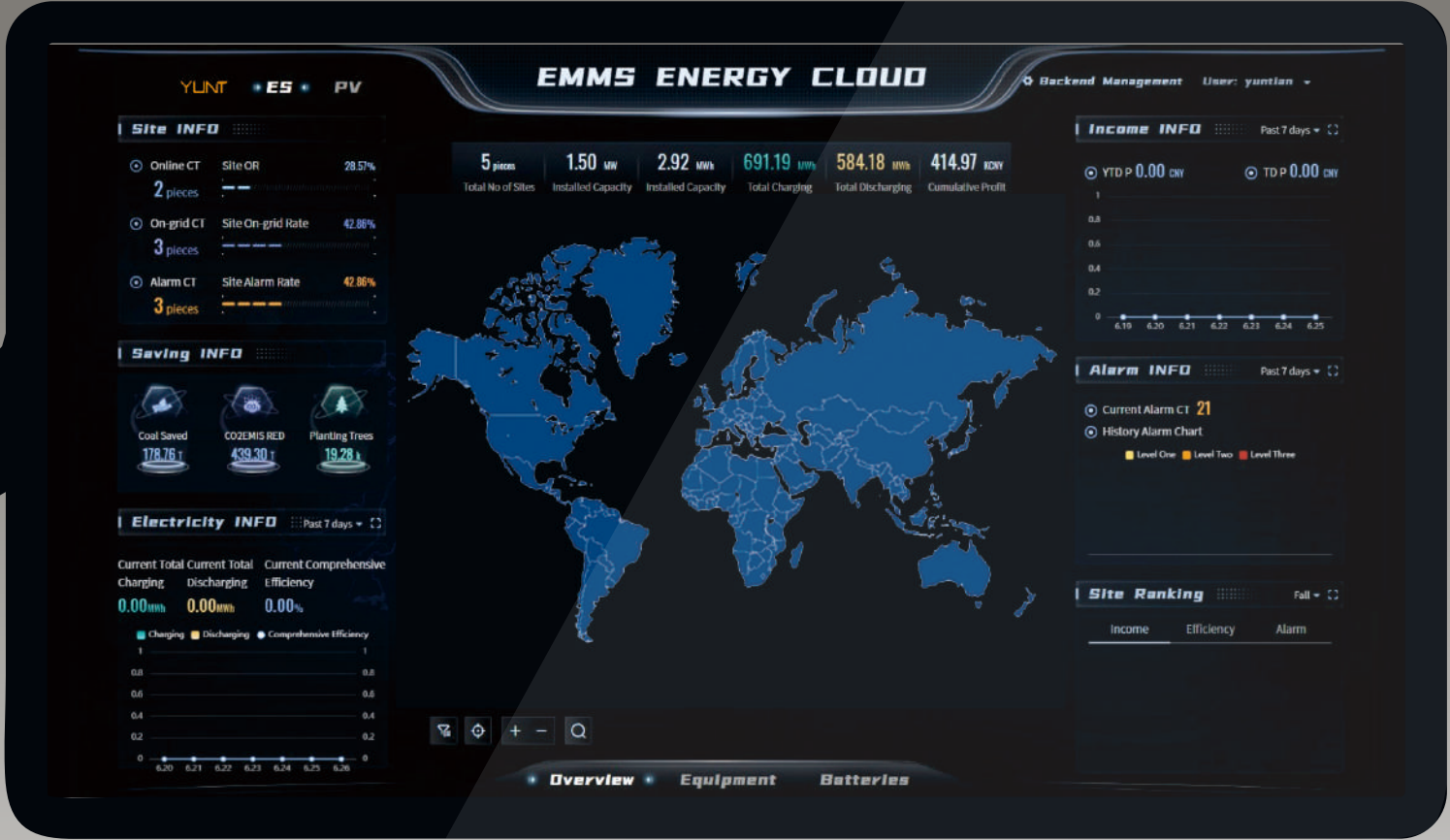
Mac PC



IOS Mobile



Android Mobile

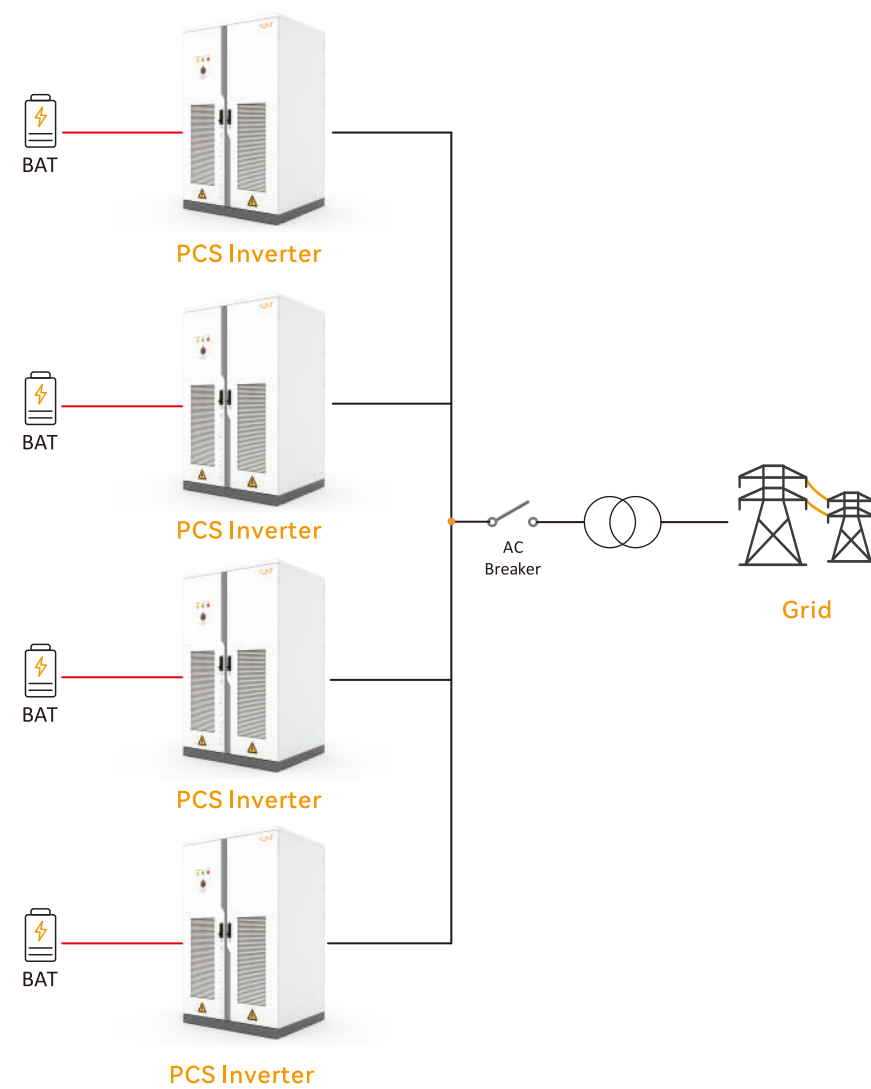


C&I Energy Microgrid Hybrid Application

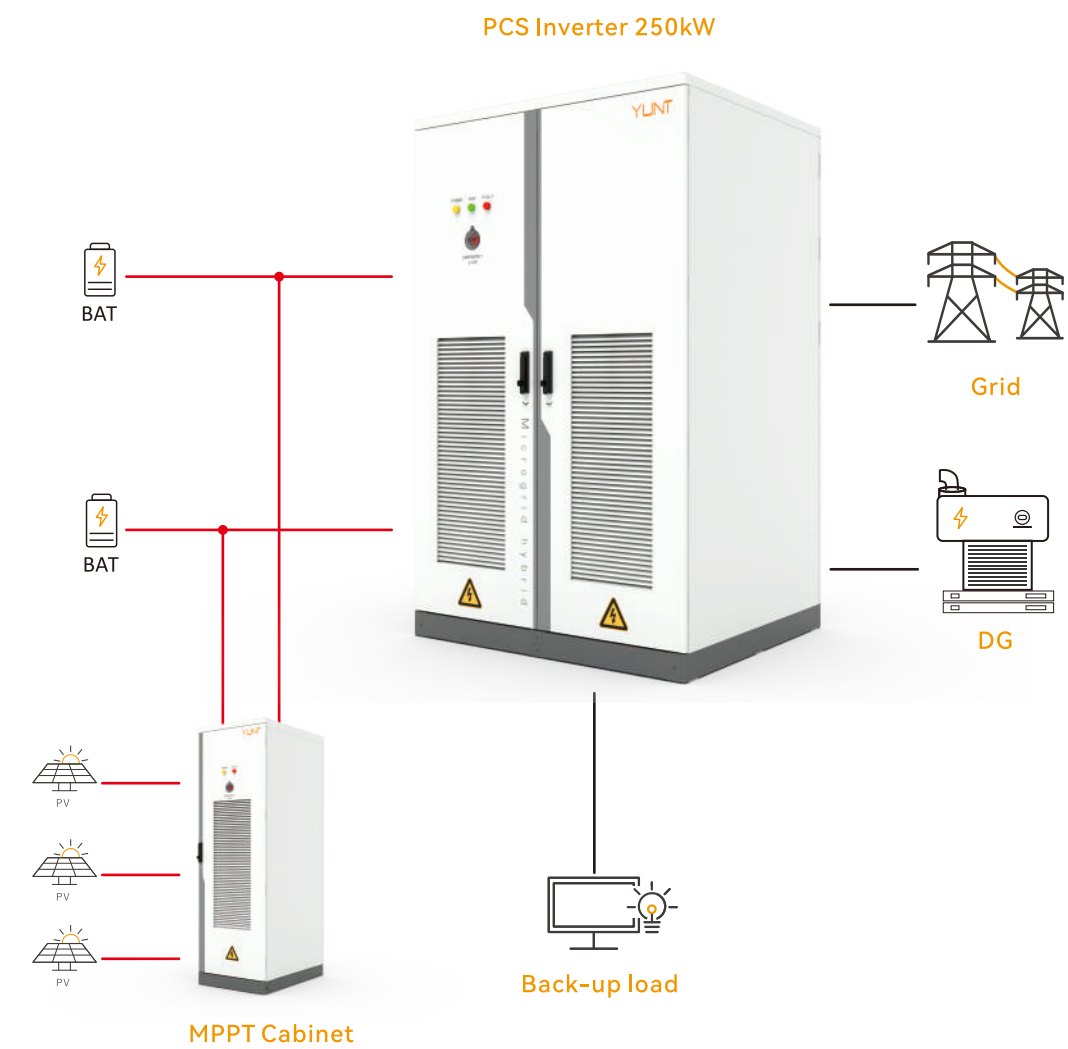




On-grid/Grid-forming Application

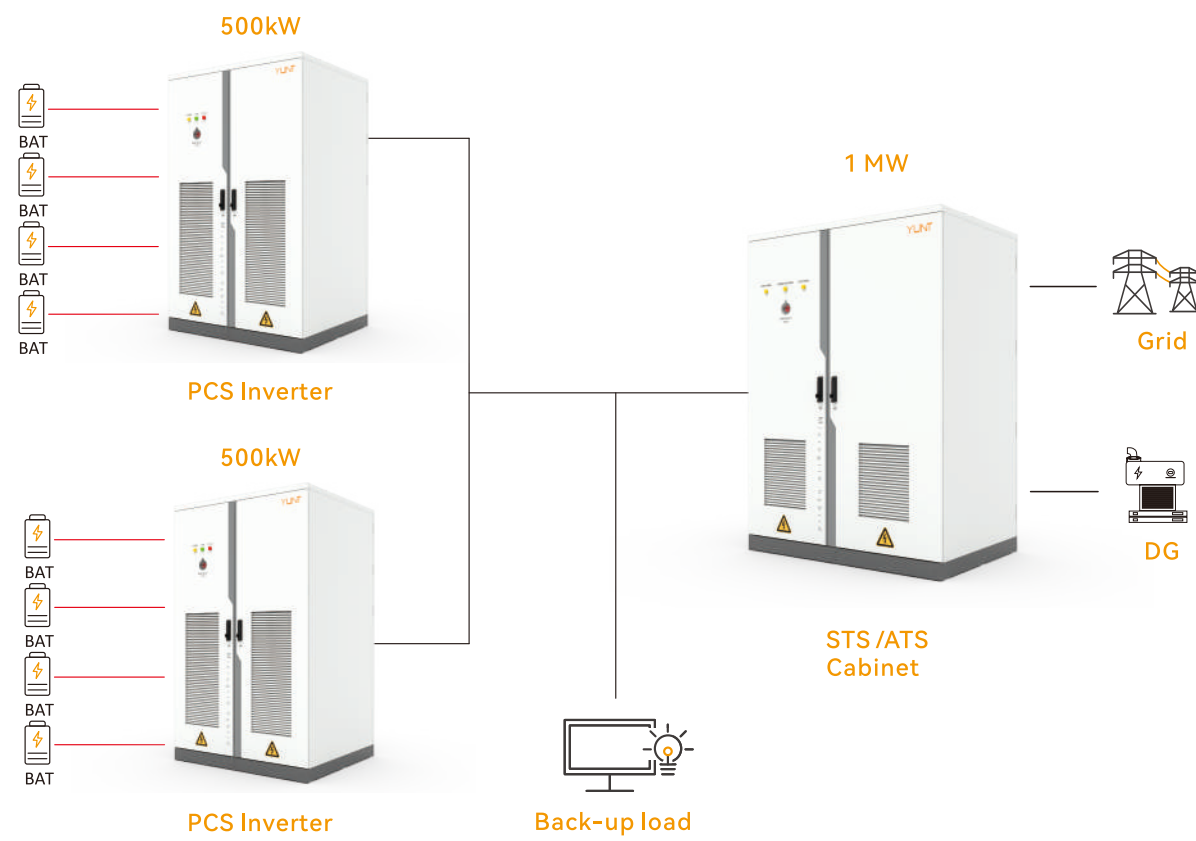


Hybrid inverter application





Parallel Solution



Online UPS Solution

