

Product
Profile

Portable Power Station

Product Profile

Pallas System Co., Ltd.



Pallas System Co., Ltd which is located in Hangzhou, China, is a leading mix-field energy solution supplier. Its business covers portable power station and distribution PV storage system, which are widely applied to in residential, industrial and commercial scenarios.

Its storage systems are widely applied in all-round scenarios, such as outdoor entertainment, emergency, home storage, industrial and commercial storage. The company aims to offer diverse energy storage solutions covering from home to industry. Combined with AI technology and new energy innovation technology, it upgrades the storage from a single function to an intelligent system, which greatly utilizes the value of storage system. In the future, it will realize super fast charging without the limit of time and space, based on the innovation of technology and structure, which will bring ultimate experience.

Our Advantages

Pallas

Technology Advantage

01

Full-range product line
High efficiency
High stability

R&D Advantage

03

Developer accounts for over 60%+
R&D experience over 20 years
R&D investment 10%+ per year
Deep academic cooperation with famous universities
Self-owned EMC and safety compliance engineer
Full series of self-owned laboratories

Management Advantage

02

Leading by former global top 500 management team
Advanced and innovation management concept
Reasonable top management talent structure
10+ experience of TMT averagely

Product Advantage

04

Self-owned intelligent factory & QC promising
Optimal cost
EMC & safety compliance global guarantee
Fast charging (0-100%:1hour)
Support power parallel operation of multiple devices & battery expansion
Simultaneous charging in multiple modes
Usb-A interface Upgradeable

Product map

Pallas



800W
1000W
1500W
2000W
2200W
3000W

Sparrow Series
Eagle Series



SS-1000N 120V|230V
EU/US/JP/KR/CN
*customer Product appearance



SS-2200 120V|230V
EU/US/JP/KR/CN
*customer product appearance

2019/10

2021/12

2022/7

2023/1

2023/5

2023/8

Research on bidirectional fast
charging inverter module

1st 1KW PPS on sale

2nd PPS on sale

2nd 2.2KW PPS on sale

2nd 3.6KW PPS on sale

1st PPS 1KW whole solution

High power series product line -1000W

Pallas



SS-1000
US|EU|JP
(delisted)

Model	SS-1000
Cell Chemistry	LiFePO ₄
Capacity	1008Wh
Lifecycle	2000+ times DOD≥80% (@25°C, 1C discharging)
Output	AC(*2): 1000W total (2000W max, peak power: 3000W), AC 110V/120V@60Hz or 230V@50Hz
	Cigarette lighter(*1): DC 13.5V,10A DC output(*1): DC 13.5V,10A
	USB-A(*1): DC 5V, 2.5A;12.5W
	Type-C(*2): DC 5V/9V/12V/20V, 5A; 100W single
	QC 3.0(*2): DC 5V/9V/12V, 2.4A; 28W single
Input	AC charging: Supports up to 800W max
	Vehicle charging: 120W, 12V/10A (max)
	Solar charging: Maximum support for 200W input power, 10A/20V
Dimensions(W*H*D)	340*272*198mm
Weight	10.8kg
Operating Temperature	0~45°C(charging),-20~60°C(discharging)
Operating Humidity	RH 0~85%, no condensation

High power series product line -1000W

Pallas



SS-1000N

120V|230V

US|EU|JP|CN|KR

Listed, Customer-owned Appearance

Model	SS-1000
Cell Chemistry	LiFePO ₄
Capacity	1008Wh
Lifecycle	2000+ times DOD≥80% (@25°C, 1C discharging)
Output	AC(*2): 1000W total (2000W max, peak power: 3000W), AC 110V/120V@60Hz or 230V@50Hz
	Cigarette lighter(*1): DC 13.5V,10A DC output(*1): DC 13.5V,10A
	USB-A(*1): DC 5V, 2.5A;12.5W
	Type-C(*2): 100W; 20W
	QC 3.0(*2): DC 5V/9V/12V, 2.4A; 28W single
Input	AC charging: Supports up to 900W max
	Vehicle charging: 120W, 12V/10A (max)
	Solar charging: Maximum support for 300W input power, 10A/30V
Dimensions(W*H*D)	340*272*198mm
Weight	10.8kg
Operating Temperature	0~45°C(charging),-20~60°C(discharging)
Operating Humidity	RH 0~85%, no condensation

High power series product line-2200W

Pallas



SS-2200

120V|230V

US|EU|JP|CN|KR

To be listed on May, 2023 ,
Customer-owned Appearance

Model	SS-2200
Cell Chemistry	LiFePO ₄
Capacity	1536Wh
Lifecycle	2000+ times DOD≥80% (@25°C , 1C discharging)
Output	AC(*6): 2200W total (peak power: 3300W) Cigarette lighter(*1): DC 13.5V,10A DC output(*1): DC 13.5V,10A Type-C(*2): 100W; 100W USB(*4): DC 5V/2.4A*2, 18W*2
Input	AC charging: Supports up to 1600W max; AC 110V/120V@60Hz or 230V@50Hz Vehicle charging: 120W, 12V/10A (max) Solar charging: Maximum support for 300W input power, 10A/30V
Dimensions(W*H*D)	386*275*306mm
Weight	22kg
Operating Temperature	0~45°C(charging),-20~60°C(discharging)
Operating Humidity	RH 0~85%, no condensation

PPS Solution- Sparrow Series

Pallas

No.	Model	Power	Power Parallel	EMC	List-time
1	SS-500	500W	/	/	Delisted
2	SS-650	650W	/	/	Delisted
3	SS-800	800W 230V	/	Class B	2022-10
4	SS-1000	1000W 110V 220V	/	/	Delisted
5	SS-1000N	1000W 230V	/	Class B	2023-01
6	SS-1000N	1000W 120V	/	Class B	2023-04
7	SS-1200	1200W 120V	/	Class B	2023-06

24V platform (compatible with 6S lithium ternary and 7S iron lithium), with output of 120Vac/60Hz and 230Vac/50Hz, and frequency can be adjusted according to customer requirements.

Based on a 24V (compatible with 6S lithium ternary and 7S iron lithium) platform design, it includes a 12V/24V vehicle charging/photovoltaic MPPT charging/adapter charging management circuit, two 12.5V/5A DC port outputs, one 12.5V/10A cigarette lighter output, and MCU host control circuit.



PPS Solution- Eagle Series

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No.	Model	Rated Power	Peak Power	Power Parallel	Power series connection	Battery expansion	EMC	List-time
1	SE-1500	1500W	3000W	Yes		/	Class B	2023-04
2	SE-2200 230V	2200W	3300W	Yes	/	/	Class B	2023-05
3	SE-2200 110V	2200W	3300W	Yes	/	Yes	Class B	2023-07
4	SE-3000 110V	3000W	6000W	/	/	/	Class B	2023-06
5	SE-3600 110V	3600W	7200W	Yes	Yes	Yes	Class B	2023-08
6	SE-3600 230V	3600W	7200W	Yes	Yes	Yes	Class B	2023-10

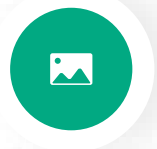


Input voltage is 24V or 48 platforms (compatible with 12-16 series iron lithium), and the output is available in two models, 120Vac/60Hz and 230Vac/50Hz.

Battery voltage range is 20~28.8V and 40~59V.

Super Fast Charging

Full charge in 1.5 hours¹



Joint Power

Support joint power of devices with different power and capacity;
No quantity limited²



UPS

Support by-pass; Efficient battery protection;
Power switch in less 10ms



Global EMC&Safety Guarantee

The entire series of products can ensure Class B and safety compliance in mass production



Note 1: 1.5 hours is the real data from laboratory

Note 2: The joint quantity of devices is not limited theoretically, but may be limited due to the power consumption in practical.

Product Usb-A interface Upgradeable supported

Operation interface

Pallas



EMC (Class B) & safety compliance global guaranteed & local upgradable

The SS/SE series comply with standard of EMC Class B and safety certificates for mass production.

The products support interface A upgrade, which can be upgraded to the latest software program locally. It can greatly improve the experience for users and the speed of after-sale service.



Bidirectional fast charging

SS-1000N

Built-in inverter, AC rated charging power: 900W.

0-80%: 45 minutes, 0-100%: 1.2 hours

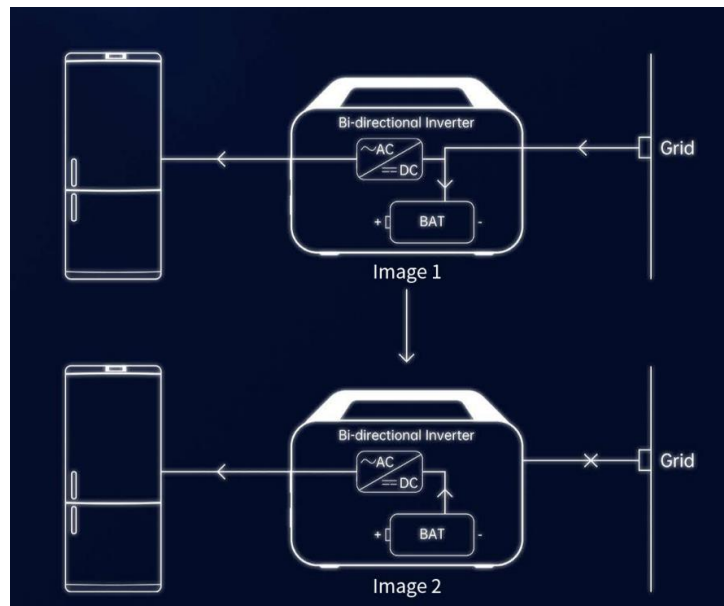
SS-2200

SS-2200 AC rated charging power: 1600W, 0-100%: 1.5 hours.

Advantage 3

UPS function

SS/SE series products can serve as a bridge between electrical and commercial power. When the electric supply is normal, the appliance will be powered directly through the bypass circuit, and also charges the equipment's own battery (when the battery is fully charged, the charging will automatically be terminated).



Switching time less than 10 millisecond

When the electric supply is disconnected (power off), the battery output will be automatically launched and continue supplying power to the appliance. The switching time is less than 10 millisecond. The products act as an uninterrupted UPS power to ensure uninterrupted power supply to electrical equipment and avoid the shutdown of electrical appliances due to power failure.

SmartDrive Technology

The SS-1000N supports up to 1600W overload adaptability. When the load power is greater than the rated output power, the SmartDrive mode will be activated. SS-1000N will automatically adjust its output characteristics. When SS-1000N recognizes that the power required is greater than 1000W, it will supply the load with an output power of 1000W continuously.

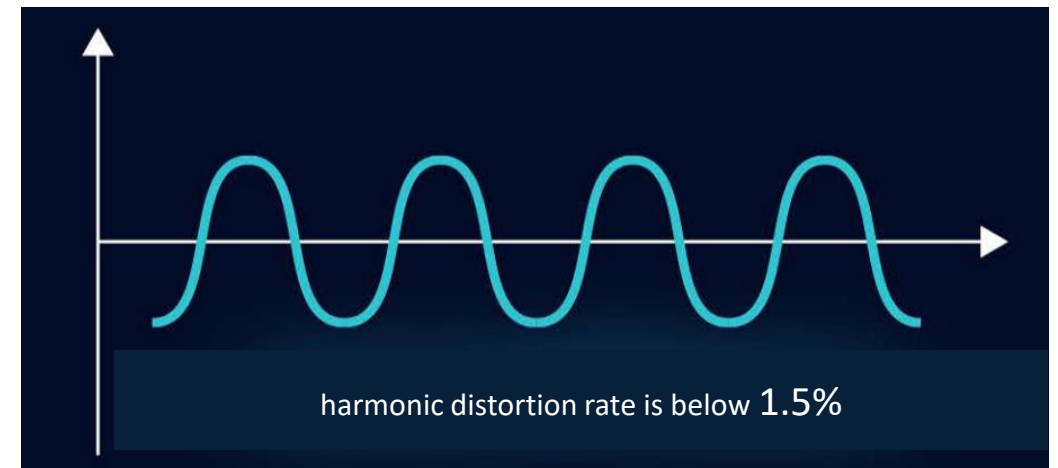
The SS-1000N supports up to 3000W instantaneous peak power.

Ultra Low Power Design

The product will automatically switches to the sleep mode when the idle time exceeds 10 minutes and the power consumption is only 5mA.

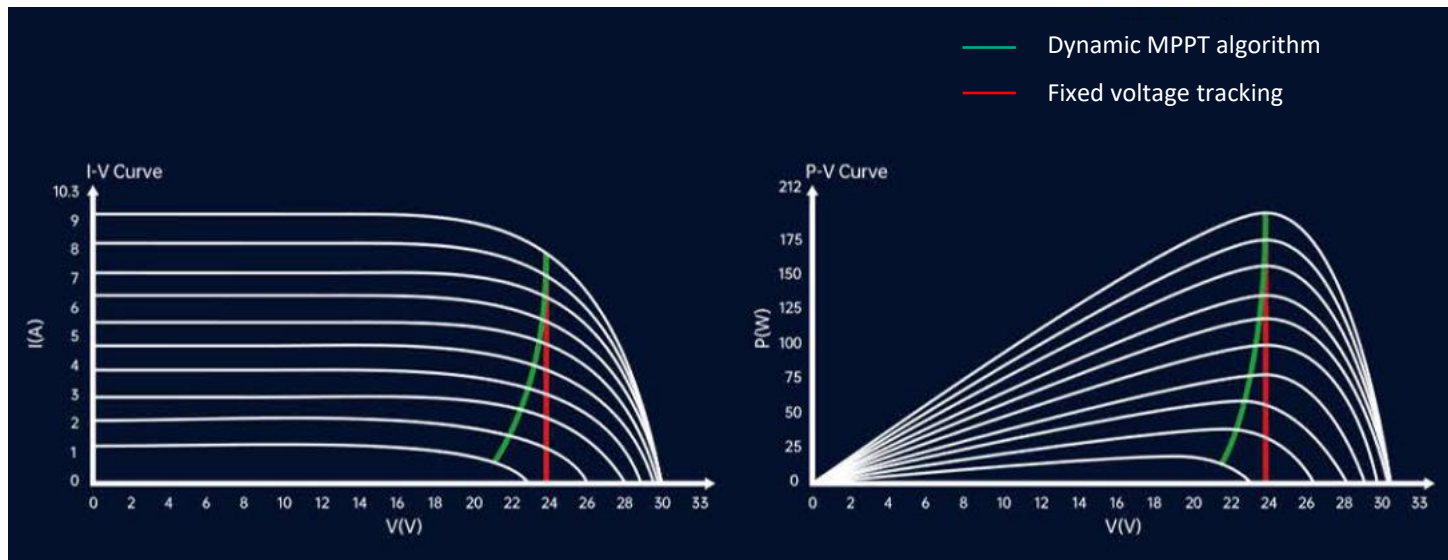
Pure sine wave AC output

Thanks to advanced inverter technology, the harmonic distortion rate is controlled below 1.5%, while the average of other similar products is around 5%. The AC output is closer to a pure sine wave. The interference caused to the equipment will be small if the harmonic distortion rate is lower.



MPPT efficiency $\geq 99.99\%$, dynamic MPPT algorithm

The MPPT efficiency is higher than 99.99% based on advanced dynamic MPPT algorithm. Compared to fixed voltage tracking, dynamic voltage tracking can always ensure photovoltaic chargers operating at true maximum power.



Multiple security protection

Class A

large capacity cylindrical LiFePO₄
car grade battery cell,
2000+ cycles(80%+)

1. Two-stage overvoltage protection
2. Two-stage undervoltage protection
3. High and low temperature protection for charging and discharging
4. Three-level overcurrent protection
5. Short circuit protection



3 charging methods

Pallas

SS-1000N



Built-in inverter, AC rated charging power: 900W.
0-80%: 45 minutes, 0-100%: 1.2 hours



DC charging: Support DC 12-24V vehicle charging, full
charge: 8.5 hours



Solar charging, maximum support for 300W input, fully
charged for about 3-5 hours

SS-2200

AC rated charging power: 1600W.
0-100%: 1.5 hours

DC charging: Support DC 12-24V vehicle charging, full
charge: 12 hours

Solar charging, maximum support for 300W input, fully
charged time: about 3-5 hours

Estimation of usage time/frequency of various electrical appliances

SS-1000N



Smart Phone 12Wh:
75 Charges



Tablet 30Wh:
30 Charges



Laptop 50Wh:
18 Charges



Portable Fridge 65 W:
14 -20 hours



Projector 100W:
9 hours



Microwave 1300W:
0.8-2hours



DSLR Camera 18Wh:
50 Charges



Coffe Maker 600W:
30-36 Cups



Drone 78Wh:
11 Charges



Hair Dryer 1600W:
1-3hours



Electric Skillet 1500W:
1-3hours



Oven 1650W:
0.9 hour

Estimation of usage time/frequency of various electrical appliances

SS-2200



车载冰箱 (60W)
约30小时

Car fridge (60W)
Supply power for about 30 hours



笔记本 (65Wh)
约29次

Laptop (65Wh)
Charging about 29 times



单反相机 (14Wh)
约130次

DSLR (14Wh)
Charging about 130 times



智能手机 (4000mAh)
约130次

Mobile phone (4000mAh)
Charging about 130 times



无人机 (50Wh)
约38小时

UAV (50Wh)
Supply power for about 38 hours

Our ability-manufacture

Pallas

18000+ m²

industry pack
area

10000+ m²

Manufacture
area

6

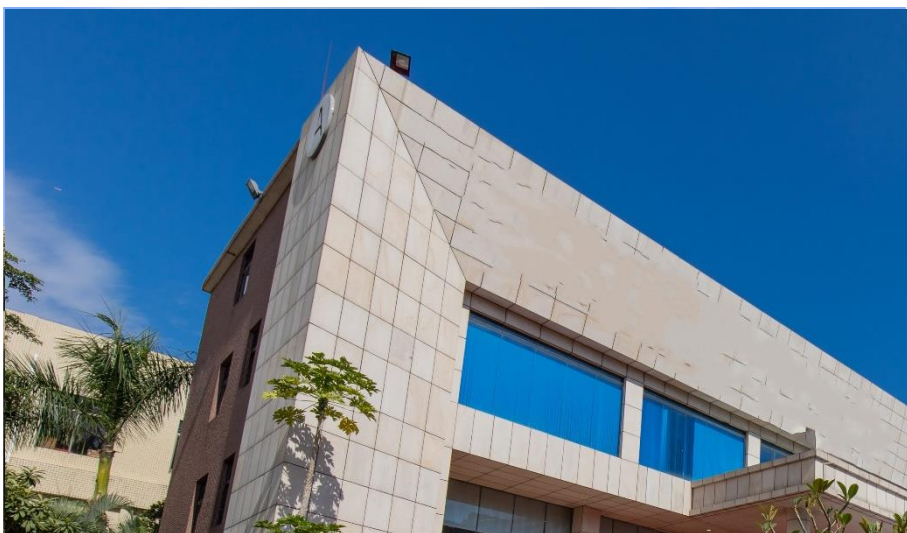
SMT

5

assemble
lines

2000+

max daily
capacity



Our ability-manufacture

Pallas



Automated Optical
Inspection



SMT X-Ray
non-destructive testing



250m² aging area



Automatic ATE
equipment

Our ability-certificates

Pallas

Global Certificates



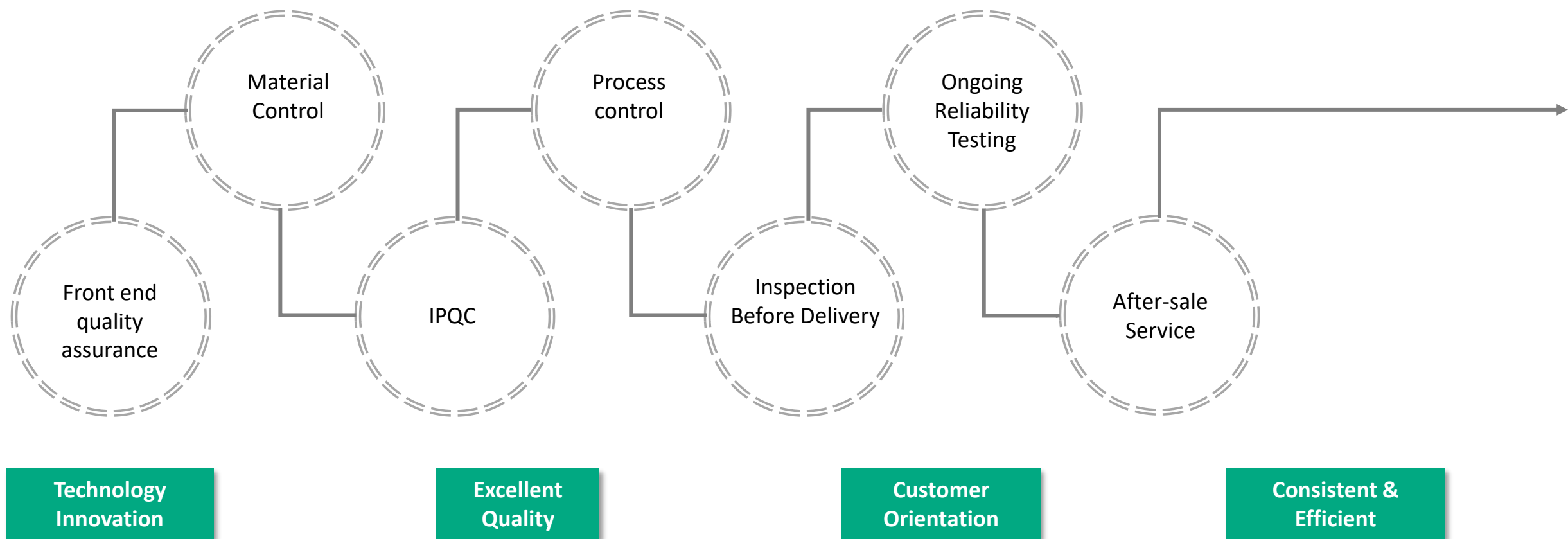
ISO9001



ISO14001

Our ability-quality control

The company carries out Total Quality Management system(TQM), and focus on product quality. We keep mining problems, improving continuously, to guarantee the consistency of product quality.



Quality As Stone

Pallas System Co., Ltd.

THANKS